Limited License Application for Use of Artificially Recharged Water

Madison Ranches

October 16, 2025

Submitted to
Oregon Water Resources Department

Prepared by:
GSI Water Solutions, Inc.
650 NE Holladay Street, Suite 900, Portland, OR 97232

Contents

Figures

Limited License Application for
Use of Artificially Recharged Water

OREGON WATER RESOURCES DEPARTMENT

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem Oregon 97301-1271
(503) 986-0900
www.wrd.state.or.us

Application for Limited Water Use License

License No.:_____

Applicant Information

NAME			PHONE (HM)
Jake Madison, Madison Ranches, Inc.			
PHONE (WK) (541) 376-8107	CELL (541) 571-0569		FAX
ADDRESS 29299 Madison Road			
CITY Echo	STATE OR	ZIP 97826	E-MAIL * Jake@MadisonRanches.com

Agent Information

NAME			PHONE	FAX
Robyn Cook, GSI Water Solutions, Inc.			(971) 200-8532	
ADDRESS 650 NE Holladay Street, Suite 900				CELL
CITY Portland	STATE OR	ZIP 97232	E-MAIL * rcook@gsiws.com	

I (We) make application for a Limited License to use the following described surface waters or groundwater – not otherwise exempt, or to use stored water for a use of a short-term or fixed-duration:

1. **SOURCE(S) OF WATER:** Artificial Groundwater Recharge a tributary of_____
2. **AMOUNT OF WATER** to be diverted;
   Maximum and instantaneous rate (cubic feet or gallons per minute): see below
   Total volume annually (gallons or acre-feet): see below. If water is to be used from more than one source, give the quantity from each:_____
3. **INTENDED USE(S) OF WATER:** (check all that apply)
   - ☐ Road construction or maintenance
   - ☐ General construction
   - ☐ Forestland and rangeland management; or
   - ☒ Other: Supplemental Irrigation, ASR source water
4. **IF THE INTENDED USE OF WATER IS FOR IRRIGATION, ONE OF THE FOLLOWING MUST APPLY:** (check one of the following)

   ☐ Irrigation if the sole purpose of the use is to provide water necessary **to establish a crop** for which no further irrigation will be required after the crop is established. ORS 537.143 (6)(a).

   ☒ Irrigation if the use of water under the limited license is for the **use of stored water** consistent with the purposes for which the stored water is authorized and the use of water is authorized by a contract between the user and a local, state or federal government. ORS 537.143 (9).
5. **DESCRIPTION OF PROPOSED PROJECT:** Include a description of the place of use as shown on the accompanying site map, the method of water diversion, the type of equipment to be used (including pump horsepower, if applicable), length and dimensions of supply ditches and pipelines:

   The attached supplemental report and map describe the project infrastructure and place of use. Water will be recovered at an existing alluvial collector well that is an authorized point of appropriation for several water rights with a cumulative permitted pumping rate of 925 gpm. Recovery rates of 925 gpm or less will be authorized by these water rights, and any rate over 925 gpm will be considered recovery of artificially recharged water. Recovery will cease when 85% of the recharge volume is reached during the water year, and the balance of recharge volume not recovered will be relinquished.

6. **PROJECT SCHEDULE:** (List day, month, and year)

Date water use will begin: Upon issuance of limited license, and expiration of LL-1989 (2/23/2026)
Date water use will be completed: 1 year after issuance of limited license
Months of the year water would be diverted and used: November through August
If for other than irrigation from stored water, how and where will water be discharged after use:

Applicant Signature | Jake Madison Print Name *and title if applicable* | 9-8-2025 Date

PLEASE READ CAREFULLY

NOTE: A completed water availability statement from the local watermaster, Land Use Information Form completed by the local Planning Department, fees and site map meeting the requirements of OAR 690-340-030 must accompany this request. The fee for this request is **$280** for the first point of diversion plus **$30** for each additional point of diversion. Please review the Department's fee schedule to view fees required to request a limited license for Aquifer Storage and Recovery testing purposes or for Artificial Groundwater Recharge testing purposes.

Failure to provide any of the required information will result in return of your application. The license, if granted, will not be issued or replaced by a new license for a period of more than five consecutive years. The license, if granted, will be subordinate to all other authorized uses that rely upon the same source, or water affected by the source, and may be revoked at any time it is determined the use causes injury to any other water right or minimum perennial streamflow.

If water source is well, well logs or adequate information for the Department to determine aquifer, well depth, well seal and open interval, etc. are required. The licensee shall indicate the intended aquifer. If for multiple wells, each map location shall be clearly tired to a well log.

If a limited license is approved, the licensee shall give notice to the Department (Watermaster) at least 15 days in advance of using the water under the Limited License and shall maintain a record of use. The record of use shall include, but need not be limited to, an estimate of the amount of water used, the period of use and the categories of beneficial use to which the water is applied. During the period of the Limited License, the record of use shall be available for review by the Department upon request.

Mapping Requirements (OAR 690-340-0030):

(1) A request for a limited license shall be submitted on a form provided by the Water Resources Department, and shall be accompanied by the following:

a. A site map of reproducible quality, drawn to a standard, even scale of not less than 2 inches = 1 mile, showing:

i. The locations of all proposed points of diversion referenced by coordinates or by bearing and distance to the nearest established or projected public land survey corner;

ii. The general course of the source for the proposed use, if applicable;

iii. Other topographical features such as roads, streams, railroads, etc., which may be helpful in locating the diversion points in the field.

This page to be completed by the local Watermaster.
Reviewed application submitted 10/2/2025 by Robyn Cook via email.

WATER AVAILABILITY STATEMENT

Name of Applicant: Jake Madison, Madison Ranches Limited License Number: _____

1. To your knowledge, has the stream or basin that is the source for this application ever been regulated for prior rights?

☒ Yes ☐ No

If yes, please explain:

Butter Creek is regulated annually.
Basalt aquifer is within Butter Creek Critical GWA.

2. Based on your observations, would there be water available in the quantity and at the times needed to supply the use proposed by this application?

☒ Yes ☐ No

1) Diversion is limited to water available under limited license #1926 which is the source water.
2) Defer to GW review.

3. Do you observe this stream system during regular fieldwork?

☒ Yes ☐ No

If yes, what are your observations for the stream?

This is a limited water system. Dry during summer months
No water available on OWRD WARS at 80% exceedance.

4. If the source is a well and if WRD were to determine that there is the potential for substantial interference with nearby surface water sources, would there still be ground water and surface water available during the time requested and in the amount requested without injury to existing water rights?

☐ Yes ☒ No ☐ N/A

What would you recommend for conditions on a limited license that may be issued approving this application?

- GW Review must entail actual storage in alluvial well. Continued withdrawl if static water level is below starting point of season is not allowed.
- Madison ASR program is currently being audited for deficiencies in LL reporting requirements.

5. Any other recommendations you would like to make?

Do not issue this LL beyond source water availability - see LL #1926

Signature _____ WM District #: 5 Date: 10/15/2025

Land Use Information Form

OREGON WATER RESOURCES DEPARTMENT
Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

NOTE TO APPLICANTS

In order for your application to be processed by the Oregon Water Resources Department (OWRD), this Land Use Information Form must be completed by a local government planning official in the jurisdiction(s) where your water right will be diverted, conveyed, used, and developed. The planning official may choose to complete the form while you wait or return the "Receipt Acknowledging Request for Land Use Information" to you. Applications received by OWRD without the Land Use Information Form, or the signed receipt, will be returned to you. **IMPORTANT:** Please note that while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for OWRD's acceptance of all other applications. Please be aware that your application cannot be approved without land use approval.

This form is NOT required if:

1) Water is to be diverted, conveyed, and used on federal lands only; **OR**

2) The application is for a water right transfer, allocation of conserved water, exchange, permit amendment, or ground water registration modification, and **all** of the following apply:
   a. The existing and proposed water use is located entirely within lands zoned for exclusive farm-use or within an irrigation district;
   b. The application involves a change in place of use only;
   c. The change does not involve the placement or modification of structures, including but not limited to water diversion, impoundment, distribution facilities, water wells and well houses; **and**
   d. The application involves irrigation water uses only.

NOTE TO LOCAL GOVERNMENTS

The person presenting the attached Land Use Information Form is applying for a new water right or modifying an existing water right. The Oregon Water Resources Department (OWRD) requires applicants to obtain land use information to ensure the water right does not result in land uses that are incompatible with your comprehensive plan. Please complete the form and return it to the applicant for inclusion in their application. **NOTE:** For new water right applications only, if you are unable to complete this form while the applicant waits, you may complete the "Receipt Acknowledging Request for Land Use Information" and return it to the applicant.

You will receive notice via OWRD's weekly Public Notice once the applicant formally submits their request to OWRD. The notice will give more information about OWRD's water right process and provide additional comment opportunities. If you previously only completed the receipt for an application for a new permit to use or store water, you will have 30 days from the Public Notice date to complete the Land Use Information Form and return it to OWRD. Your attention to this request for information is greatly appreciated. If you have questions concerning this form, please contact OWRD's Customer Service Group at 503-986-0900 or WRD_DL_customerservice@water.oregon.gov.

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Land Use Information Form

OREGON WATER RESOURCES DEPARTMENT

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.oregon.gov/OWRD

NAME			PHONE
Madison Ranches, Inc.			541-376-8107
MAILING ADDRESS 29299 Madison Road			
CITY Echo	STATE OR	ZIP 97826	EMAIL Jake@MadisonRanches.com

A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts, may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:	Proposed Land Use:
3N & 2N	27E & 28E	See attached table	See attached table	See attached table	EFU	☒ Diverted ☒ Conveyed ☒ Used	Supplemental Irrigation
						☐ Diverted ☐ Conveyed ☐ Used	
						☐ Diverted ☐ Conveyed ☐ Used	
						☐ Diverted ☐ Conveyed ☐ Used	

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Umatilla County

NOTE: A separate Land Use Information Form must be completed and submitted for each county and city, as applicable.

B. Description of Proposed Use

Type of application to be filed with the Oregon Water Resources Department:

☐ Permit to Use or Store Water ☐ Water Right Transfer ☐ Permit Amendment or Ground Water Registration Modification
☒ Limited Water Use License ☐ Exchange of Water ☐ Allocation of Conserved Water

Source of water: ☒ Reservoir/Pond ☐ Ground Water ☐ Surface Water (name) _____

Estimated quantity of water needed: see below ☐ cubic feet per second ☐ gallons per minute ☐ acre-feet

Intended use of water: ☒ Irrigation ☐ Commercial ☐ Industrial ☐ Domestic for _____ household(s)
☐ Municipal ☐ Quasi-Municipal ☐ Instream ☐ Other _____

Briefly describe:

The limited license application proposes to recover up to 85% of the artificially recharged water authorized by limited license #1926.

Note to applicant: For new water right applications only, if the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt on the bottom of page 4 and include it with the application filed with the Oregon Water Resources Department.

See Page 4 ➔

For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land use plan. Do not include approval for activities such as building or grading permits.

Please check the appropriate box below and provide the requested information

☑ Land uses to be served by the proposed water use(s), including proposed construction, are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): UCDC 152.056 (A)

☐ Land uses to be served by the proposed water use(s), including proposed construction, involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being Pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:
		☐ Obtained ☐ Being Pursued ☐ Denied ☐ Not Being Pursued
		☐ Obtained ☐ Being Pursued ☐ Denied ☐ Not Being Pursued
		☐ Obtained ☐ Being Pursued ☐ Denied ☐ Not Being Pursued
		☐ Obtained ☐ Being Pursued ☐ Denied ☐ Not Being Pursued

Received JAN 15 2026 OWRD

Local governments are invited to express special land use concerns or make recommendations to the Oregon Water Resources Department regarding this proposed use of water in the box below or on a separate sheet.

Name: Charlet Hotchkiss Title: Planner I

Signature: Charlet Hotchkiss Date: 9/8/25

Governmental Entity: Umatilla County Phone: 541-278-6283

Receipt Acknowledging Request for Land Use Information

Note to Local Government Representative:
Please complete this form and return it to the applicant. **For new water right applications only**, if you are unable to complete this form while the applicant waits, you may complete this receipt and return it to the applicant. If you sign the receipt, you will have 30 days from the date of OWRD's Public Notice of the application to submit the completed Land Use Information Form to Oregon Water Resources Department. Please note while OWRD can accept a signed receipt as part of intake for an application for a new permit to use or store water, a completed Land Use Information Form is required for all other applications.

Applicant Name: _____

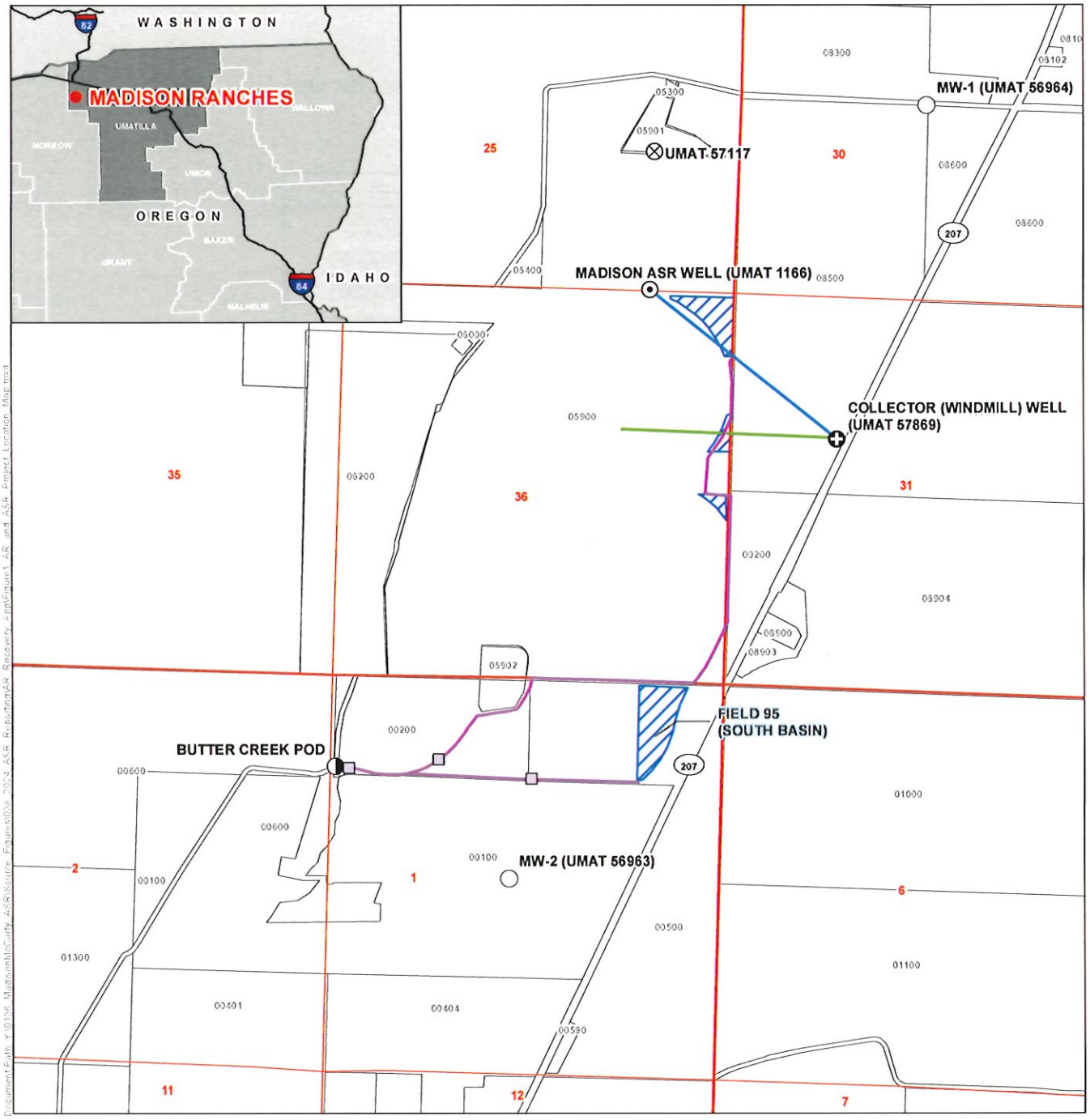
Staff Name: _____ Title: _____

Staff Signature: _____ Date: _____

Governmental Entity: _____ Phone: _____

Tax Lots involved in Limited License Application for Artificial Recharge Recovery
Madison Farms

	Township		Range		Section	Tax Lot #	Map ID
1	2	N	27	E	1	200	2N27000000200
2	3	N	27	E	36	6200	3N27000006200
3	3	N	27	E	36	5902	3N27000005902
4	3	N	27	E	36	5900	3N27000005900
5	3	N	28	E	31	200	3N28000000200
6	3	N	28	E	31	8500	3N28000008500
7	3	N	27	E	25	5200	3N27000005200
8	3	N	27	E	25	5900	3N27000005900
9	3	N	27	E	25	5901	3N27000005901
10	3	N	28	E	30	8300	3N28000008300
11	3	N	28	E	30	8600	3N28000008600
12	3	N	28	E	30	3600	3N28000006300
13	3	N	28	E	30	8500	3N28000008500
14	3	N	27	E	24	4701	3N27000004701
15	3	N	27	E	24	5200	3N27000005200
16	3	N	28	E	19	6300	3N28000006300
17	3	N	28	E	19	6500	3N28000006500
18	3	N	28	E	19	6200	3N28000006200
19	3	N	28	E	19	6100	3N28000006100



LEGEND

- Monitoring Well
- Collector Well Sump
- ASR Well
- Butter Creek POD
- Observation Well
- Location of Flume
- Recharge Basin Cells
- Collector Well Perforated Pipeline
- Madison AR Conveyance
- ASR Source Water Conveyance
- Tax Lot

FIGURE 1
Limited License Application for Artificial Recharge

Umatilla County
Township 2 & 3 North, Range 27 & 28 East (W.M.)

LOCATION DESCRIPTION

Butter Creek POD
Located 80 feet North and 100 feet West from the NW corner of the SW NW, Section 1, Township 2 North, Range 27 East (W.M.)

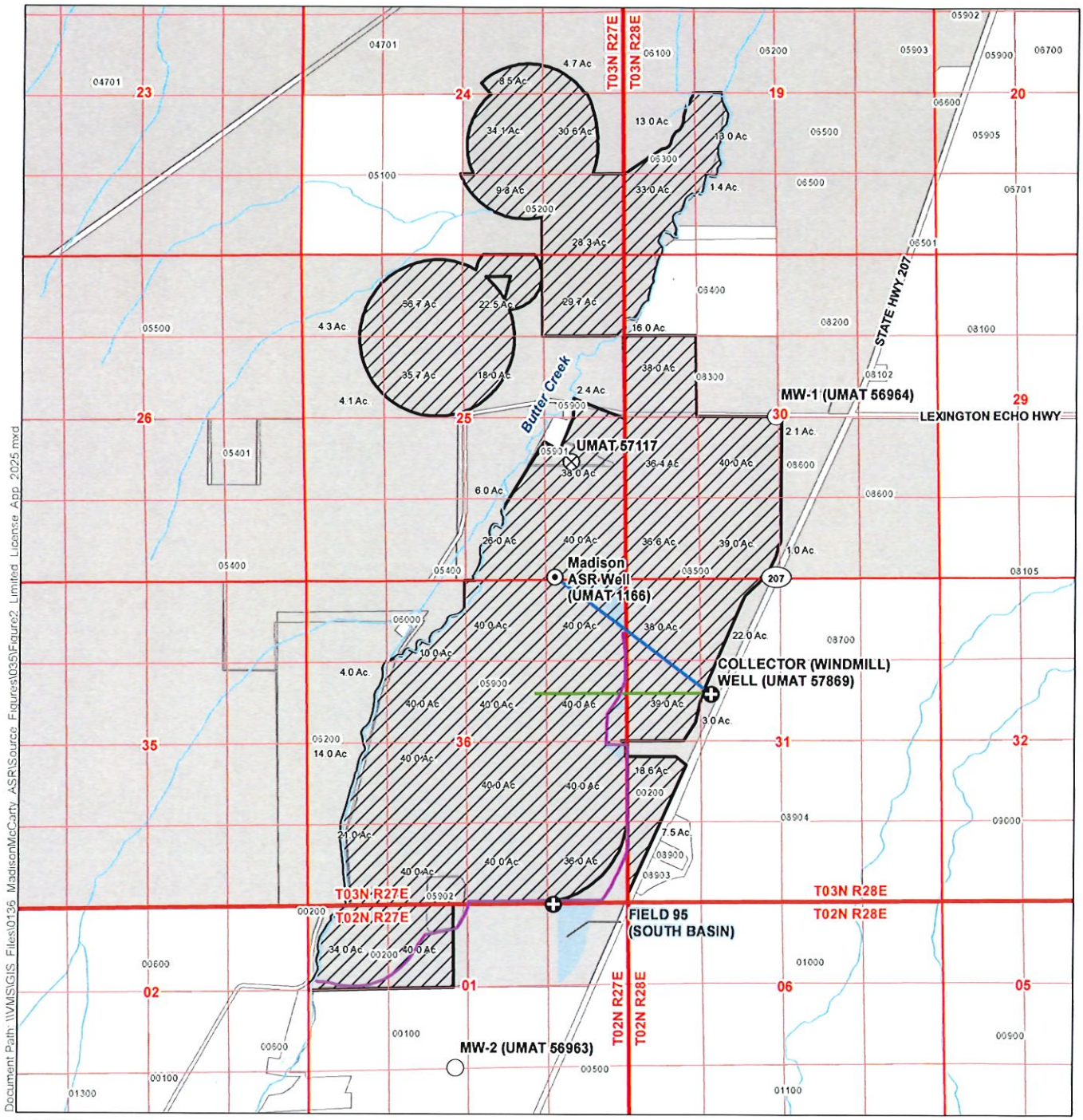
Collector (Windmill) Well
Located 1620 feet South and 1060 feet West from the North 1/4 corner of Section 31, Township 3 North, Range 28 East (W.M.)

DISCLAIMER
This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.

Date: August 28, 2024
Data Sources: BLM, ESRI, OWRD, USGS, Umatilla Co.

N
0 1,000 2,000
1 inch = 2,000 feet

GSI Water Solutions, Inc.



LEGEND

- Monitoring Well
- Collector Well Sump
- Point of Appropriation (POA)
- ASR Well
- Observation Well
- ASR Source Water Conveyance
- Madison AR Conveyance
- Collector Well Perforated Pipeline
- Supplemental Place of Use (POU), 1,336 acres
- Recharge Basin Cells
- Property Owned by Applicant
- Watercourses
- Tax Lot

FIGURE 2
Artificial Recharge Recovery Limited License Application Map

Umatilla County
Township 2 & 3 North, Range 27 & 28 East (W.M.)

DISCLAIMER
This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.

Date: September 8, 2025
Data Sources: BLM, ESRI, OWRD, USGS, Umatilla Co.

N
0 1,200 2,400
1 inch = 2400 feet

GSI Water Solutions, Inc.

Limited License Supplemental Information

GSI Water Solutions, Inc.

TECHNICAL MEMORANDUM

Artificial Recharge Recovery Limited License Application Supplemental Information - Madison Ranches

To: Jake Madison – Madison Ranches

From: Robyn Cook, RG, CWRE – GSI Water Solutions, Inc.
Casey McGuire – GSI Water Solutions, Inc.
Josh Sayre, GIT – GSI Water Solutions, Inc.

CC: Jen Woody, RG – Oregon Water Resources Department

Attachments: Figure 1. AR Recharge Project General Location Map
Figure 2. Artificial Recharge Recovery, Limited License Application Map
Figure 3. Groundwater Levels and Daily Net Recharge Rates – Water Year 2024

Date: September 15, 2025

1. Introduction

Madison Ranches (Madison) operates an artificial groundwater recharge (AR) program authorized for diversion and recharge testing by Limited License (LL) 1926 and for recovery of artificially recharged water in 2025 to 2026 by LL 1989. This memorandum provides supplemental information required to apply for a new limited license for recovery of artificially recharged water in 2026-2027, as described in Oregon Administrative Rule (OAR) 690-350-0130. Specifically, project infrastructure and planned recovery operations are described, and hydrogeologic information is presented to demonstrate that the recovered water comes from the artificially recharged reservoir (aquifer). Madison has artificially recharged water each year since 2002, authorized by the following limited licenses:

- LL 764 from 2002 to 2006,
- LL 952 from 2006 to 2009,
- LL 1193 from 2009 to 2012,
- LL 1442 from 2013 to 2016,
- LL 1628 from 2016 to 2021, and
- LL 1926 from 2023-2028.

Artificially recharged water has been recovered at Madison each year since 2012, authorized by the following limited licenses:

- LL 1424 in 2012,
- LL 1452 in 2013,
- LL 1510 in 2014,

- LL 1553 in 2015,
- LL 1615 in 2016,
- LL 1684 in 2017,
- LL 1717 in 2018,
- LL 1772 in 2019,
- LL 1927 in 2023,
- LL 1963 in 2024, and
- LL 1989 in 2025.

This limited license application is intended to continue AR recovery testing similar to the testing conducted under the previous limited licenses.

2. Project Description and System Design

The Madison AR program involves diverting winter/spring stream flows from Butter Creek to a series of recharge basins on Madison property (Figure 1). The following sections describe the AR system design and operation.

2.1 Diversion and Recharge

The locations of the project diversion structure, conveyance, and recharge basins are shown on Figure 1. A 42-inch Palmer-Bowlus automatically operated diversion structure and flume are installed at the Butter Creek point of diversion. The flume (manufactured by Plasti-Fab) can measure flow between approximately 0.48 cubic feet per second (cfs) and 58 cfs. A second 30-inch flume is installed at the entrance to the recharge basins. This system was installed and utilized for testing under Madison's previous AR LLs. Diversion of water from Butter Creek is limited to periods when there is adequate flow in Butter Creek to satisfy all existing water rights and is further limited to times when streamflows are either less than 50 cfs or in excess of 175 cfs. Figure 1 shows diversion, conveyance, and recharge elements of the Madison AR project.

The Madison current AR facility is approximately 15 acres in size (Figures 1 and 2). The recharge basins are surrounded by a 1- to 2-foot-high earthen berms to maintain water inside the recharge area. Each basin contains a series of cells separated by 20-foot-wide, 1-foot-high berms. Cell sizes range from 0.5 to 3.3 acres. The cells have been designed so that water entering from the diversion structure fills the first southern-most cell and then the water flows north over the berm into the next cell and so on. The berms are generally covered with grass. The flow entering the recharge basin is manually adjusted so that the height of water in the last cell is maintained below the top of the berm.

Artificial recharge flow rates and volumes are monitored at flume-type monitoring stations located at the Butter Creek diversion and at the entrance to the recharge basins. Recharge rates and volumes are recorded at the flumes using ultrasonic flow meters and data loggers which are also connected to Madison's telemetry system, allowing for real-time monitoring and data archiving.

2.2 Recovery

The Madison existing AR Program collector well (also referred to as the Windmill Well) develops shallow groundwater in the vicinity of the recharge basins and is intended to be used for recovery under this LL. The collector well is a horizontal well that is approximately 0.5 miles long and up to 25 feet deep. A 100-horsepower (hp) end suction centrifugal pump and 60-hp booster pump, capable of producing 2,500 gallons per minute (gpm), are located within a vertical pump chamber on the east end of the collector well. The well

captures alluvial groundwater, moving generally downgradient and parallel to Butter Creek, and recharged water from the AR basins.

In most years, there is a sufficient amount of groundwater in the alluvium during the months of April through June to allow pumping from the collector well. Madison has water right certificates (75107, 83692, 83693, and T-11414) to withdraw up to 2.06 cfs (925 gpm) of native groundwater from the existing Windmill collector well for irrigation purposes. The Windmill collector well is also used to pump groundwater from the alluvial aquifer for injection into the deep basalt aquifer as part of Madison's aquifer storage and recovery (ASR) project currently authorized by LL 020, issued by OWRD in 2013 (ASR testing has been conducted since 2006).

Water levels and flow rates are continuously monitored at the Windmill Well, and data are logged hourly by Madison's telemetry system.

3. Source Proof

OAR 690-350-0130(2)© requires submittal of proof that recovered water under a secondary groundwater permit, and in this case a limited license for AR recovery, is water that has been artificially recharged. This proof may include water level similarities to the recharged aquifer, geologic and geographic similarities, hydraulic information, and other data. This section provides information intended to meet the source proof requirement.

Geologic information from nearby well logs indicates continuity between the recharge basin and the alluvial collector well. Water well driller's logs in the vicinity of the project describe sediments ranging from silty sand to coarse gravel and cobbles to depths of up to 45 feet and do not indicate confining units are present that would reduce or impede infiltration of recharged water at the surface or prevent recovery by the collector well. Since the Windmill Well's horizontal lateral is located directly under the artificial recharge basin, it is highly likely that water recharged in the basin is available for recovery from the collector well.

This geologic observation associated with the historic AR Program configuration is supported by water level and water quality changes observed during AR testing completed to date. Figure 3 shows water levels at the Windmill Well and net flow rate from October 2023 through September 2024. This figure shows water level changes in the Windmill Well that are correlated to initiation of recharge, as well as changes in the net flow rate, demonstrating a hydraulic connection between the Windmill Well and the artificially recharged aquifer.

Nitrate concentrations in artificially recharged water from Butter Creek are significantly lower than the nitrate concentrations in alluvial groundwater (GSI, 2009), resulting in lower nitrate concentrations at the collector well during the recharge period. After the end of the artificial recharge period, nitrate concentrations appear to increase at the Windmill Well.

In our opinion, the geologic, water level, and water quality observations presented above, and as previously presented in past reports and applications, demonstrate that water recovered from the collector well represents water that has been artificially recharged and fulfills the requirement for source proof.

4. AR Recovery Operations

The Madison telemetry system allows continuous tracking of flow rates and volumes at the following locations: the diversion on Butter Creek, recharge into the recharge basin, and the recovery from the Windmill Well. This system is used to track instantaneous rates and cumulative volume during artificial recharge and recovery, and provides a summary report of project information on a daily basis. Specifically, the telemetry system produces a daily report which displays 24 hours of recharge and recovery rates, minimum/maximum/average rates for the 24-hour period, cumulative AR storage volume, cumulative AR

recovery volume, and net AR storage available for recovery. These reports are currently provided to OWRD on a daily basis via email.

As previously described, the Windmill Well to be used for AR recovery is an authorized point of appropriation for several water rights with a cumulative permitted pumping rate of 925 gpm. During recovery operations, collector well pumping rates of 925 gpm or less would be authorized by these water rights, and any pumping rate over 925 gpm would be considered recovery of artificially recharged water. For the AR recovery system, AR recovery will cease when 85% of the recharge volume is reached in a given water year, as required by OAR 690-350-0130(3). Any balance of AR storage volume not recovered in a given water year will be relinquished and will not be available for recovery in the following year. The location of the place of use (for supplemental irrigation) is shown on Figure 2.

The AR recovery testing operations in 2026-2027 are anticipated to be similar to the testing conducted under the previous limited licenses.

5. References and Sources Consulted

GSI. 2009. Hydrogeologic Feasibility Assessment and Project Description Report Artificial Recharge Limited License Application - Madison Farms. Prepared by GSI Water Solutions. July 17, 2009.

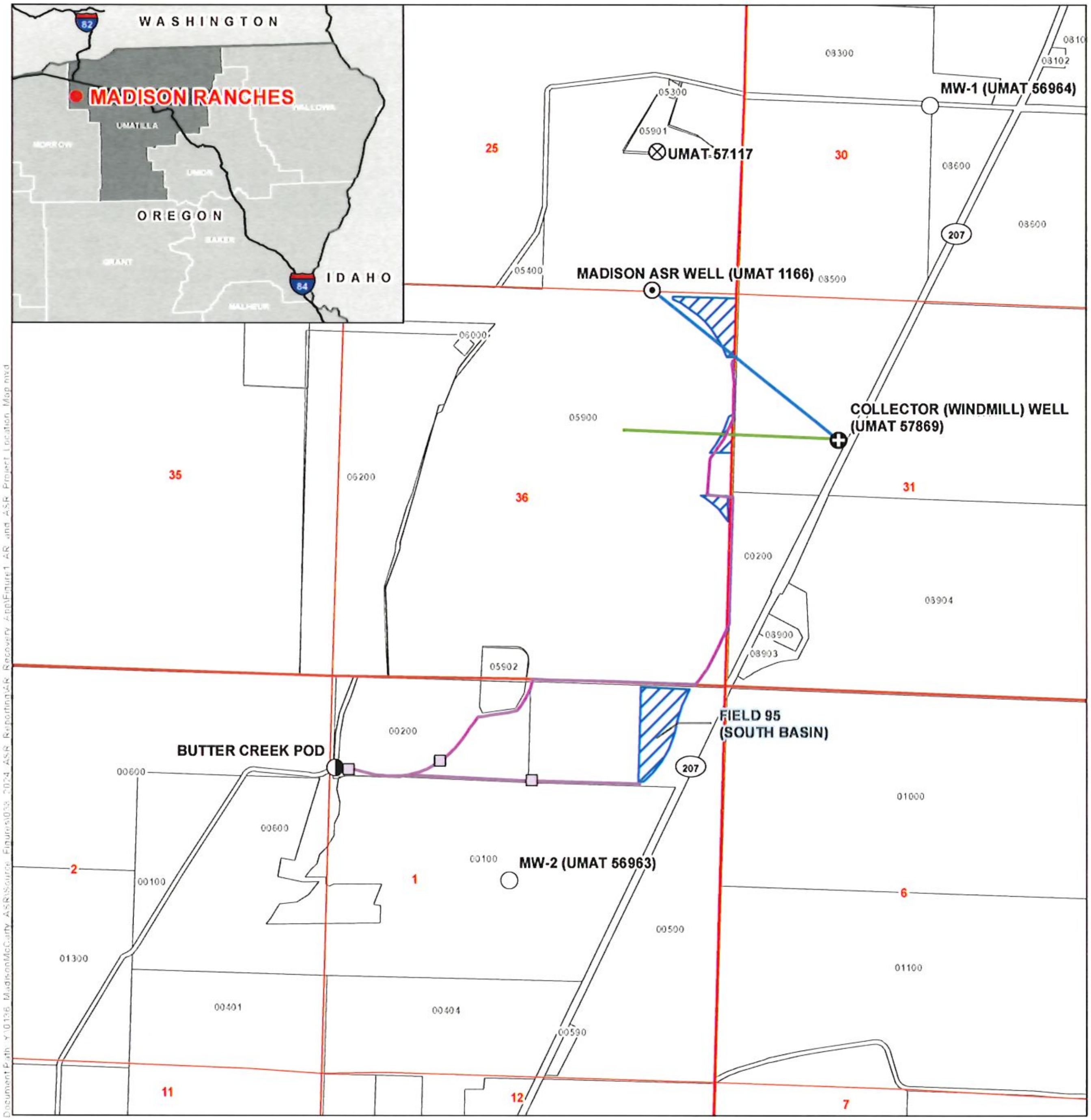
GSI. 2016. Madison Ranches Limited License Application for Artificial Groundwater Recharge. Prepared by GSI Water Solutions. January 29, 2016.

GSI. 2016. Madison Ranches Limited License Application for Artificial Groundwater Recharge – Addendum to revise water quality monitoring plan. Prepared by GSI Water Solutions. March 29, 2016.

OWRD. 2016. Artificial Recharge Limited License 1628. Oregon Water Resources Department. April 15, 2016.

OWRD. 2023. Artificial Recharge Recovery Limited License 1927, Oregon Water Resources Department. February 14, 2017.

Figures



LEGEND

- Monitoring Well
- Collector Well Sump
- ASR Well
- Butter Creek POD
- Observation Well
- Location of Flume
- Recharge Basin Cells
- Collector Well Perforated Pipeline
- Madison AR Conveyance
- ASR Source Water Conveyance
- Tax Lot

FIGURE 1

Limited License Application for Artificial Recharge

Umatilla County

Township 2 & 3 North, Range 27 & 28 East (W.M.)

DISCLAIMER

This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.

Date: August 28, 2024

Data Sources: BLM, ESRI, OWRD, USGS, Umatilla Co.

N

0 1,000 2,000

1 inch = 2,000 feet

GSI Water Solutions, Inc.

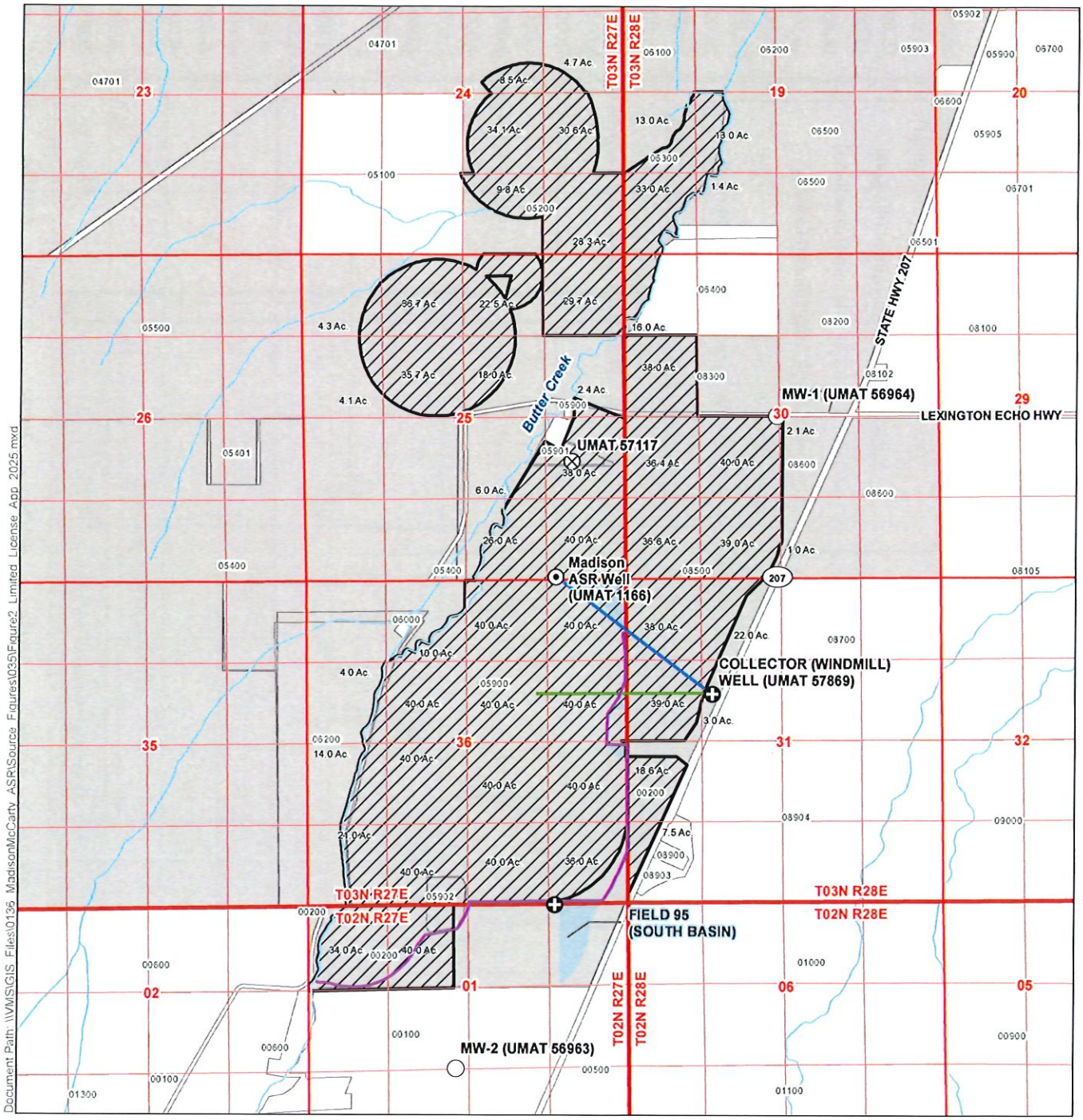
LOCATION DESCRIPTION

Butter Creek POD

Located 80 feet North and 100 feet West from the NW corner of the SW NW, Section 1, Township 2 North, Range 27 East (W.M.)

Collector (Windmill) Well

Located 1620 feet South and 1060 feet West from the North 1/4 corner of Section 31, Township 3 North, Range 28 East (W.M.)



LEGEND

- Monitoring Well
- Collector Well Sump
- Point of Appropriation (POA)
- ASR Well
- Observation Well
- ASR Source Water Conveyance
- Madison AR Conveyance
- Collector Well Perforated Pipeline
- Supplemental Place of Use (POU), 1,336 acres
- Recharge Basin Cells
- Property Owned by Applicant
- Watercourses
- Tax Lot

FIGURE 2
Artificial Recharge Recovery Limited License Application Map

Umatilla County
Township 2 & 3 North, Range 27 & 28 East (W.M.)

DISCLAIMER
This map was prepared for the purpose of identifying the location of a water right only and it is not intended to provide legal dimensions or location of property ownership lines.

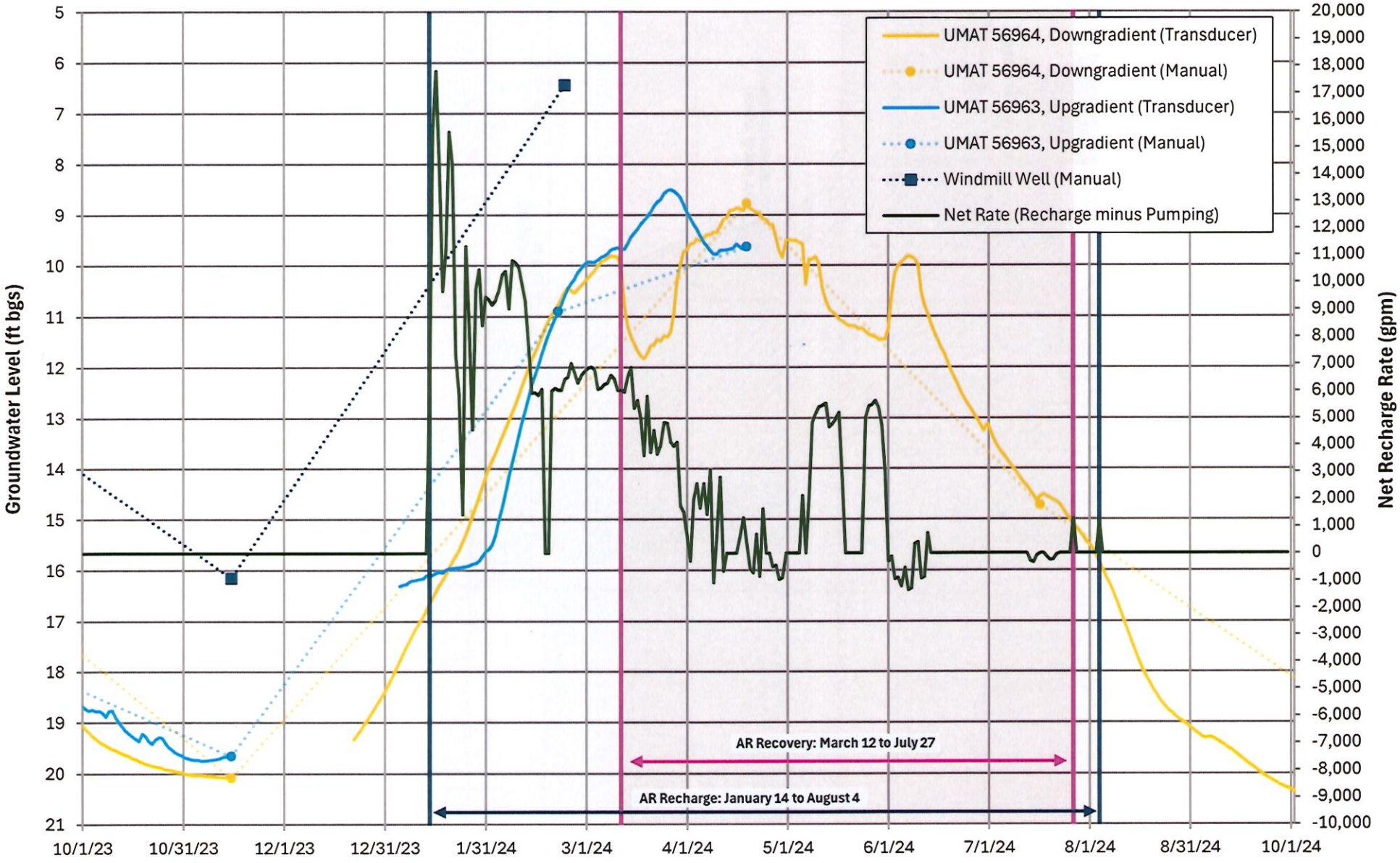
Date: September 8, 2025
Data Sources: BLM, ESRI, OWRD, USGS, Umatilla Co.

N
0 1,200 2,400
1 inch = 2400 feet

GSI Water Solutions, Inc.

Figure 3

Groundwater Levels and Daily Net AR Recharge Rates - Water Year 2024



Supplemental Irrigation under Artificial Recharge
Recovery Limited License - 2026

Township	Range	Section	QQ	Acreage
3N	27E	24	SWNE	8.5
3N	27E	24	SENE	4.7
3N	27E	24	NWSE	34.1
3N	27E	24	NESE	30.6
3N	27E	24	SWSE	9.8
3N	27E	24	SESE	28.3
3N	27E	25	NWNW	4.3
3N	27E	25	NENW	36.7
3N	27E	25	NWNE	22.5
3N	27E	25	NENE	29.7
3N	27E	25	SWNW	4.1
3N	27E	25	SENW	35.7
3N	27E	25	SWNE	18
3N	27E	25	SENE	2.4
3N	27E	25	NWSE	6
3N	27E	25	NESE	38
3N	27E	25	SWSE	26
3N	27E	25	SESE	40
3N	27E	36	NENW	10
3N	27E	36	NWNE	40
3N	27E	36	NENE	40
3N	27E	36	SWNW	4
3N	27E	36	SENW	40
3N	27E	36	SWNE	40
3N	27E	36	SENE	40
3N	27E	36	NWSW	14
3N	27E	36	NESW	40
3N	27E	36	NWSE	40
3N	27E	36	NESE	40
3N	27E	36	SWSW	21
3N	27E	36	SESW	40
3N	27E	36	SWSE	40
3N	27E	36	SESE	36
3N	28E	19	NWSW	13
3N	28E	19	NESW	13
3N	28E	19	SWSW	33
3N	28E	19	SESW	1.4
3N	28E	30	NWNW	16
3N	28E	30	SWNW	38
3N	28E	30	NWSW	36.4
3N	28E	30	NESW	40

Township	Range	Section	QQ	Acreage
3N	28E	30	NWSE	2.1
3N	28E	30	SWSW	36.6
3N	28E	30	SESW	39
3N	28E	30	SWSE	1
3N	28E	31	NWNW	38
3N	28E	31	NENW	22
3N	28E	31	SWNW	39
3N	28E	31	SENW	3
3N	28E	31	NWSW	18.6
3N	28E	31	SWSW	7.5
2N	27E	1	NWNW	34
2N	27E	1	NENW	40

Total 1336