Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. APPLICANT/CONTACT NAME AND ADDRESS:

MEADOW LAKE COUNTY WATER AND SEWER DISTRICT
PO BOX 2366
COLUMBIA FALLS MT 59912-2366

2. TYPE OF ACTION:

Groundwater Application for Beneficial Water Use Permit 76LJ 30159069

3. WATER SOURCE NAME:

Groundwater

4. LOCATION AFFECTED BY PROJECT:

The three points of diversion (PODs) are in the SESESW (ML #1), the NENESW (ML #2), and the SESWSE (ML #3) of Section 6, Township 30N, Range 20W, Flathead County, Montana (Figure 1). The multiple domestic, commercial, and lawn and garden purposes requested in this permit application are distributed across several subdivisions (collectively referred to as the Meadow Lakes) within the Meadow Lake County Water and Sewer District (District) boundary. The Meadow Lakes are served by the District's Public Water Supply (PWS) system. The place of use of these proposed purposes in the Meadow Lakes are in Flathead County, Montana, within the following legally described locations (Figure 1):

- W2E2 Section 6, Township 30N, Range 20W
- E2W2 Section 6, Township 30N, Range 20W
- E2W2NW Section 6, Township 30N, Range 20W
- N2NWSW Section 6, Township 30N, Range 20W
- E2SWNWSW Section 6, Township 30N, Range 20W
- W2SWNESE Section 6, Township 30N, Range 20W
- W2NWSESE Section 6, Township 30N, Range 20W

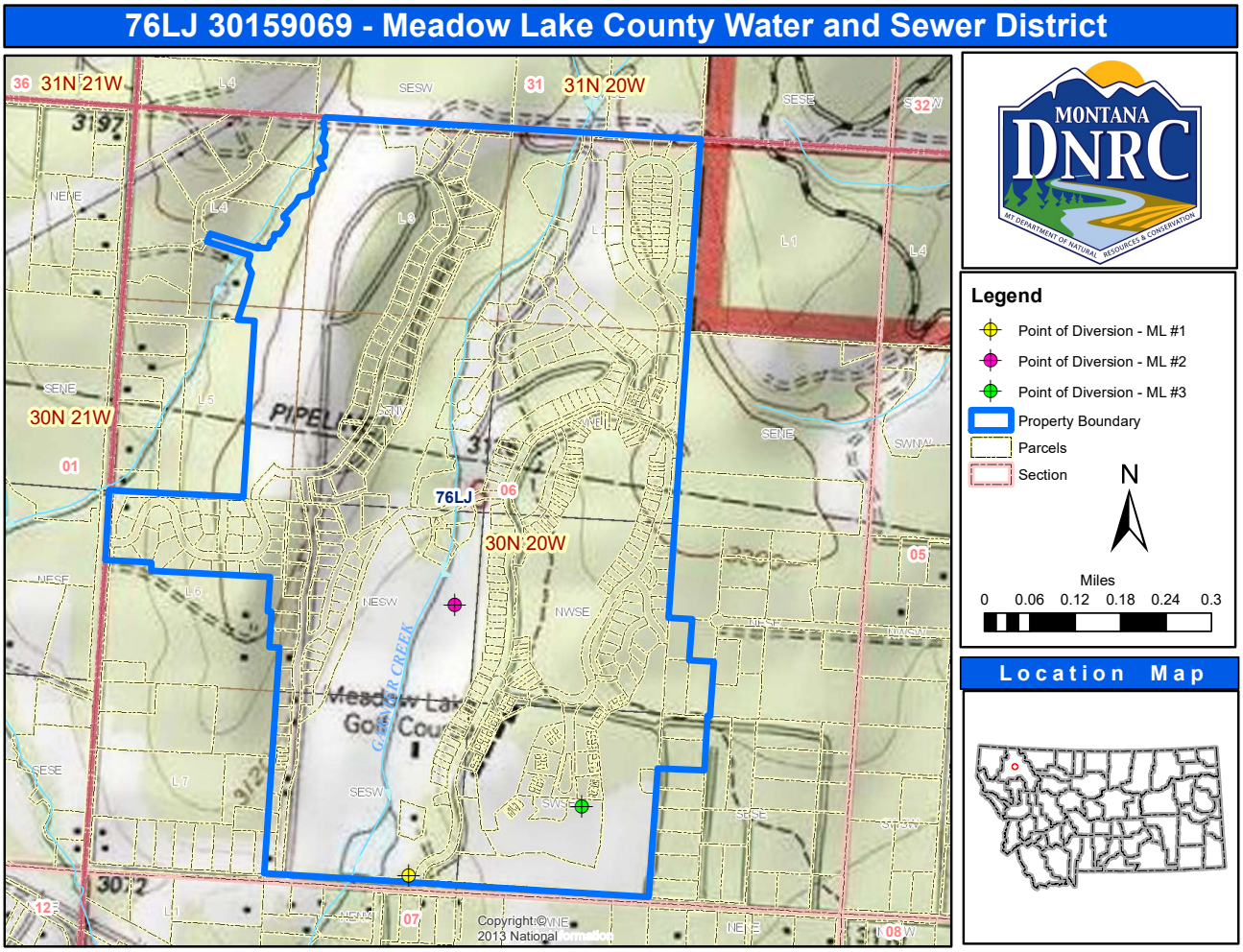

Figure 1. Map of the proposed place of use and points of diversion.

5. NARRATIVE SUMMARY OF THE PROPSED PROJECT, PURPOSE, ACTION TO BE TAKEN, AND BENEFITS:

The Applicant proposes to divert groundwater at 475.0 GPM up to 66.24 AF annually by means of three production wells, ML #1 (GWIC ID: 85280), ML #2 (GWIC ID: 125958), and ML #3 (GWIC ID: 319658) from January 1 – December 31 for multiple domestic and commercial uses and from April 20 – October 10 for lawn and garden irrigation. The maximum proposed flow rates of ML #1, ML #2, and ML #3 will be 181.0 GPM, 169.0 GPM, and 125.0 GPM, respectively. The Applicant proposes to use a volume of 50.13 AF to supply the multiple domestic needs for 179 households, and 16.11 AF to irrigate 8.95 acres of lawn and garden. No volume is requested with this application for commercial uses, only flow rate from the new well ML #3. The volume needed for the existing and planned commercial uses in this development is provided by existing Provisional Permit 76LJ 28809-00 and pending Provisional Permit Application 76LJ 30158802.

The Applicant currently serves this PWS system using the two existing PWS wells (ML #1 and ML #2) under Provisional Permit 76LJ 28809-00. An additional permit application, 76LJ 30158802, has been submitted and is currently pending. Between the existing provisional permit (76LJ 28809-00) and pending application (76LJ 30158802), the District either has or has applied for water rights with sufficient flow rate and volume to serve the 481 living units, lawn and garden irrigation, and commercial uses that the District is currently obligated to serve.

This Application seeks to permit additional flow rate from a new well (ML #3) for all uses served by the PWS system and sufficient volume from all three wells (ML #1, #2, and #3) to accommodate the planned development of the largest remaining tracts within the District. In total, 179 additional living units with associated lawn and garden irrigation are anticipated (103 single family dwellings and 76 multi-family units). This addition will bring the District's total to 660 living units.

The points of diversion are in the Kootenai River Basin (76D) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-311 MCA are met.

6. AGENCIES CONSULTED DURING PREPARATION OF THE ENVIRONMENTAL ASSESSMENT:

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (DFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MDEQ): Clean Water Act Information Center
- U.S. Natural Resource Conservation Service (NRCS): Web Soil Survey
- U.S. National Park Service (NPS) Water Rights Branch

Part II. Environmental Review

1. ENVIRONMENTAL IMPACT CHECKLIST:

PHYSICAL ENVIRONMENT

1.1 WATER QUANTITY, QUALITY AND DISTRIBUTION

Water Quantity - *Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

The Flathead River between Columbia Falls and Flathead Lake, and the lake itself, are identified in DNRC Technical Memorandum: Legal Availability of Groundwater in the Flathead Deep Aquifer (2019) as hydraulically connected to the Deep Aquifer. Net surface water depletion caused by pumping from the Deep Aquifer will primarily occur through propagation of drawdown through the overlying confining layer to the Flathead River downstream of Columbia Falls (including Flathead Lake). The depth of the wells and the propagation of drawdown through the overlying confining layer will cause depletion effects to be dampened resulting in a constant year-round depletion of 8.5 GPM (equivalent to the total consumed volume of 13.79 AF) even though consumption from the requested appropriation is concentrated in the summer months. The Flathead River (including Flathead Lake) is not on the MTDFWP list of chronically or periodically dewatered streams.

Determination: No significant impact.

Water Quality - *Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

Flathead River: MDEQ Clean Water Act Information Center's 2020 Water Quality Information report lists the Flathead River as:

i. Water Quality Category 3: Waters for which there is insufficient data to assess the use support of any applicable beneficial use, so no use support determinations have been made;

ii. Use Class B-1: Waters classified as suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply.

Flathead Lake: MDEQ Clean Water Act Information Center's 2020 Water Quality Information report lists Flathead Lake as:

i. Water Quality Category 5: Waters here one or more applicable beneficial uses have been assessed as being impaired or threatened, and a TMDL is required to address the factors causing the impairment or threat;

ii. Use Class A-1: Waters classified as suitable for drinking, culinary and food processing purposes after conventional treatment for removal of naturally present impurities;

iii. "Fully supporting" for: primary contact recreation, agriculture, and drinking water; and,

iv. "Not fully supporting," for: aquatic life with probable causes for these designations being Mercury, Polychlorinated Biphenyls, Total Nitrogen, and Total Phosphorus.

The potential surface water depletions that may result from the proposed project are not anticipated to significantly affect water quality in these sources.

Determination: No significant impact.

Groundwater - *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

The three proposed PWS wells, ML #1, ML #2, and ML #3 are completed to 734-, 743-, and 655-feet below ground surface (bgs), respectively, in the Flathead Deep Aquifer.

A Department analysis of Applicant supplied data from a 72-hour aquifer test performed at 181.5 GPM on well ML #3 (GWIC ID: 319658) concluded that there is a sufficient supply of groundwater in the source aquifer to satisfy the proposed appropriation.

A physical and legal availability analysis of the hydraulically connected surface water sources (Flathead River and Flathead Lake) concluded that there is a sufficient supply of water in those sources to satisfy existing legal demands and the anticipated depletions from groundwater pumping.

Determination: No significant impact.

1.2 DIVERSION WORKS - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

The Applicant supplied data from a 72-hour aquifer test performed at 125.1 GPM on well ML #3 (GWIC ID: 319658), a 72-hour aquifer test performed at 181.5 GPM on well ML #1 (GWIC ID: 85280), and an 8-hour yield and drawdown test performed at 169.2 GPM on well ML #2 (GWIC: 125958).

The Meadow Lake County Water and Sewer District's PWS system consists of:

i. Well ML #1 (GWIC ID: 85280; completed with an open-hole bottom to a depth of 734.0 feet below ground surface (BGS) by Liberty Drilling and Pump Co. (WWC-52) on July 22, 1983 in the Deep Aquifer. The well was perforated between 714.0 and 734.0 feet BGS in 2018);

   a. Equipped with a 50-HP Goulds submersible pump that was installed by MWC Viking Pump Company in 2018. This pump is controlled by an ABB variable frequency drive (VFD) which responds to changing water levels in the PWS system's 250,000-gallon storage tank.

ii. Well ML #2 (GWIC ID: 125958; completed to a total depth of 743.0 feet BGS (with perforations between 570.0 and 719.0 feet BGS) by Liberty Drilling and Pump Co. (WWC-52) on March 8, 1991 in the Deep Aquifer);

   a. Equipped with a 40-HP submersible pump that was installed when the well was originally brought online in 1991. The exact make and model of the pump is not currently known. This pump is regulated by changing water levels in the PWS system's 250,000-gallon storage tank.

iii. Well ML #3 (GWIC ID: 319658; drilled to a total depth of 765.0 feet BGS and completed to 655.0 feet BGS (screened from 638.0 to 655.0 feet BGS) by O'Keefe Drilling Co. (WWD-718 on March 30, 2022 in the Deep Aquifer);

   a. To be equipped with a 30-HP Goulds model 120L submersible pump (or approved equivalent) with a variable frequency drive (VFD) to ensure the source capacity of 125.0 GPM is not exceeded. This pump will be regulated by changing water levels in the PWS system's 250,000-gallon storage tank.

iv. A 250,000-gallon steel storage tank with pressure transducer;

v. A 199,000-gallon steel storage tank (installed but not yet online);

vi. A booster pump station associated with the 199,000-gallon storage tank;

   a. Two 7.5-HP and one 20.0-HP centrifugal booster pumps with Wessels pressure tank regulated by VFDs and controlled by a Pacoflo 500 pump control panel.

vii. Three pump houses (one for each well, containing pump controls and volumetric flow meters); and,

viii. Assorted PVC distribution piping ranging from 3.0-10.0-inch diameter;

This proposed water right permit will require connecting ML #3 to the existing PWS system and extending water mains to service the new developments within the District. Modifications to the water system are being designed by Tom Cowan of Carver Engineering, a licensed Professional Engineer in the state of Montana.

The District's water system is operated based on the demands of the water users. The well pumps are controlled by the water level in the 250,000-gallon storage tank located at the far north end of the water system. The well pumps operate on an alternating lead-lag schedule. When the water level in the tank (or pressure in the system) reaches a set level, the pressure transducer in the tank will trigger one of the wells to pump until the water level is replenished. If the demand in the system continues to draw the water level down in the tank, a second well starts pumping, followed by a third if the level in the tank requires. All three wells can pump simultaneously at the combined maximum diversion rate of 475.0 GPM (ML #1 at 181.0 GPM, ML #2 at 169.0 GPM, and ML #3 at 125.0 GPM) to replenish the tank. The flow rates of 181.0 GPM, 169.0 GPM, and 125.0 GPM for wells ML #1, ML #2, and ML #3, respectively, are the maximum flow rates that these wells will divert in service of all existing and pending water rights supplied by these wells.

Water from the wells is pumped directly into the distribution system and the tank is back-fed water, meaning water can be provided to the end user from the wells in addition to being gravity fed from the 250,000-gallon storage tank. The 199,000-gallon storage tank and associated booster pump station will help supply fire flows and peak demand and will maintain water pressure in the upper portions of the water system.

Discharge from the system occurs as lawn and garden irrigation water infiltrating back to shallow groundwater and as wastewater from the multiple domestic and commercial uses entering the Flathead River via the City of Columbia Falls wastewater treatment plant outfall.

The water system is a registered Montana Public Water Supply under the regulation of the Montana Department of Environmental Quality (DEQ). All changes and updates to the existing permitted system must be designed by a licensed professional engineer and approved by the Montana DEQ PWS Section, as is required for public water supply systems in Montana.

Based on the results of the 72-hour constant-rate aquifer tests on ML #1 and ML #3, the 8-hour yield and drawdown test on ML #2, and the PWS system specifications, the Department finds that the diversion and conveyance system is adequate to supply the requested flow rate and volume.

This project diverts from groundwater. It will not create any channel impacts, barriers, dams, or riparian impacts to surface waters. Any surface water depletions are physically and legally available or will be fully mitigated. Existing wells in the source aquifer will still have sufficient water column from which to draw water.

Determination: No significant impact.

1.3 UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and Threatened Species - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any "species of special concern" in the project area that could be impacted by the proposed project. Eight animal and 10 plant species of concern (Table 1) were identified

within the project area. Of these species, the Grizzly Bear (Ursus arctos) and the Spalding's Catchfly (Silene spaldingii) are listed as threatened by the USFWS. This area is already developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Table 1. Species of Concern

Species Group	Common Name	Scientific Name
Mammals	Grizzly Bear	*Ursus arctos*
Mammals	Little Brown Myotis	*Myotis lucifugus*
Mammals	Townsend's Big-eared Bat	*Corynorhinus townsendii*
Birds	Evening Grosbeak	*Coccothraustes vespertinus*
Birds	Pileated Woodpecker	*Dryocopus pileatus*
Birds	Veery	*Catharus fuscescens*
Birds	Bobolink	*Dolichonyx oryzivorus*
Birds	Varied Thrush	*Ixoreus naevius*
Vascular Plants	Meadow Horsetail	*Equisetum pratense*
Vascular Plants	Latah Tule Pea	*Lathyrus bijugatus*
Vascular Plants	Kalm's Lobelia	*Lobelia kalmii*
Vascular Plants	Slender Cottongrass	*Eriophorum gracile*
Vascular Plants	Sparrow's-egg Lady's-slipper	*Cypripedium passerinum*
Vascular Plants	Northern Buttercup	*Ranunculus pedatifidus*
Vascular Plants	Spalding's Catchfly	*Silene spaldingii*
Bryophytes	Britton's Dry Rock Moss	*Grimmia brittoniae*
Bryophytes	Short-beaked Aloe Moss	*Aloina brevirostris*
Bryophytes	Meesia Moss	*Meesia uliginosa*

Determination: No significant impact.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: N/A, project does not involve wetlands.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: N/A, project does not involve ponds.

1.4 GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

The proposed multiple domestic, commercial, and lawn and garden uses will not negatively impact the soil quality, stability, or moisture content. The soil types in the project area are:

i. Typic Eutroboralfs, silty till substratum, hilly. Moderately low to moderately high capacity to transmit water. Soils in this area are not likely susceptible to saline seep.

ii. Typic Eutroboralfs, silty till substratum, rolling. Moderately low to moderately high capacity to transmit water. Soils in this area are not likely susceptible to saline seep.

Determination: No significant impact.

1.5 VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

This area is already highly developed (roads, dwellings, commercial uses including a golf course), and any existing native vegetation has likely already been disturbed. It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

Determination: No significant impact.

1.6 AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of groundwater.

Determination: No significant impact.

1.7 HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: N/A, project not located on State or Federal Lands.

1.8 DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water, and energy not already addressed.*

All impacts to land, water, and energy have been identified and no further impacts are anticipated.

Determination: No significant impact.

HUMAN ENVIRONMENT

1.9 LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

The project is consistent with planned land uses.

Determination: No significant impact.

1.10 ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

The proposed project will not inhibit, alter, or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No significant impact.

1.11 HUMAN HEALTH - *Assess whether the proposed project impacts human health.*

This proposed use will not adversely impact human health.

Determination: No significant impact.

1.12 PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights. If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

No government regulatory impacts on private property rights.

Determination: No impact.

1.13 OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* None identified.

(*b)* *Local and state tax base and tax revenues?* None identified.

(c) *Existing land uses?* None identified.

(*d)* *Quantity and distribution of employment?* None identified.

(e) *Distribution and density of population and housing?* None identified.

(f) *Demands for government services?* None identified.

(g) *Industrial and commercial activity?* None identified.

(h) *Utilities?* None identified.

(i) *Transportation?* None identified.

(j) *Safety?* None identified.

(k) *Other appropriate social and economic circumstances?* None identified.

2. SECONDARY AND CUMULATIVE IMPACTS ON THE PHYSICAL ENVIRONMENT AND HUMAN POPULATION:

Secondary Impacts: None identified.

Cumulative Impacts: None identified.

3. DESCRIBE ANY MITIGATION/STIPULATION MEASURES:

None.

4. DESCRIPTION AND ANALYSIS OF REASONABLE ALTERNATIVES TO THE PROPOSED ACTION, INCLUDING THE NO ACTION ALTERNATIVE, IF AN ALTERNATIVE IS REASONABLY AVAILABLE AND PRUDENT TO CONSIDER:

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of groundwater at this location.

Part III. Conclusion

1. PREFFERED ALTERNATIVE:

Issue a water use permit if the Applicant proves the criteria in 85-2-311 MCA are met.

2. COMMENTS AND RESPONSES:

None.

3. FINDING:

Based on the significance criteria evaluated in this EA, is an EIS required? **___Yes _X_No**

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action:

No significant impacts related to the proposed project have been identified.

4. NAME OF PERSON(S) RESPONSIBLE FOR PREPARATION OF EA:

Name: Travis Wilson
Title: Water Resource Specialist
Date: February 9, 2024