Environmental Assessment & Public Notice for Public Comment

- Environmental Assessment & supporting documents
- Public Notice for Public Comment package
  - Notice Area List
  - Notice Area Map
  - Form Checklist
  - PN- Letter to applicant
  - PN- Letter to editor
  - PN- Certificate of service
  - PN- Invoice & tear sheet
  - PN- Return mail
  - Public Comment files

Environmental Assessment & Public Notice for Public Comment

NOTICE AREA – PUBLIC COMMENT

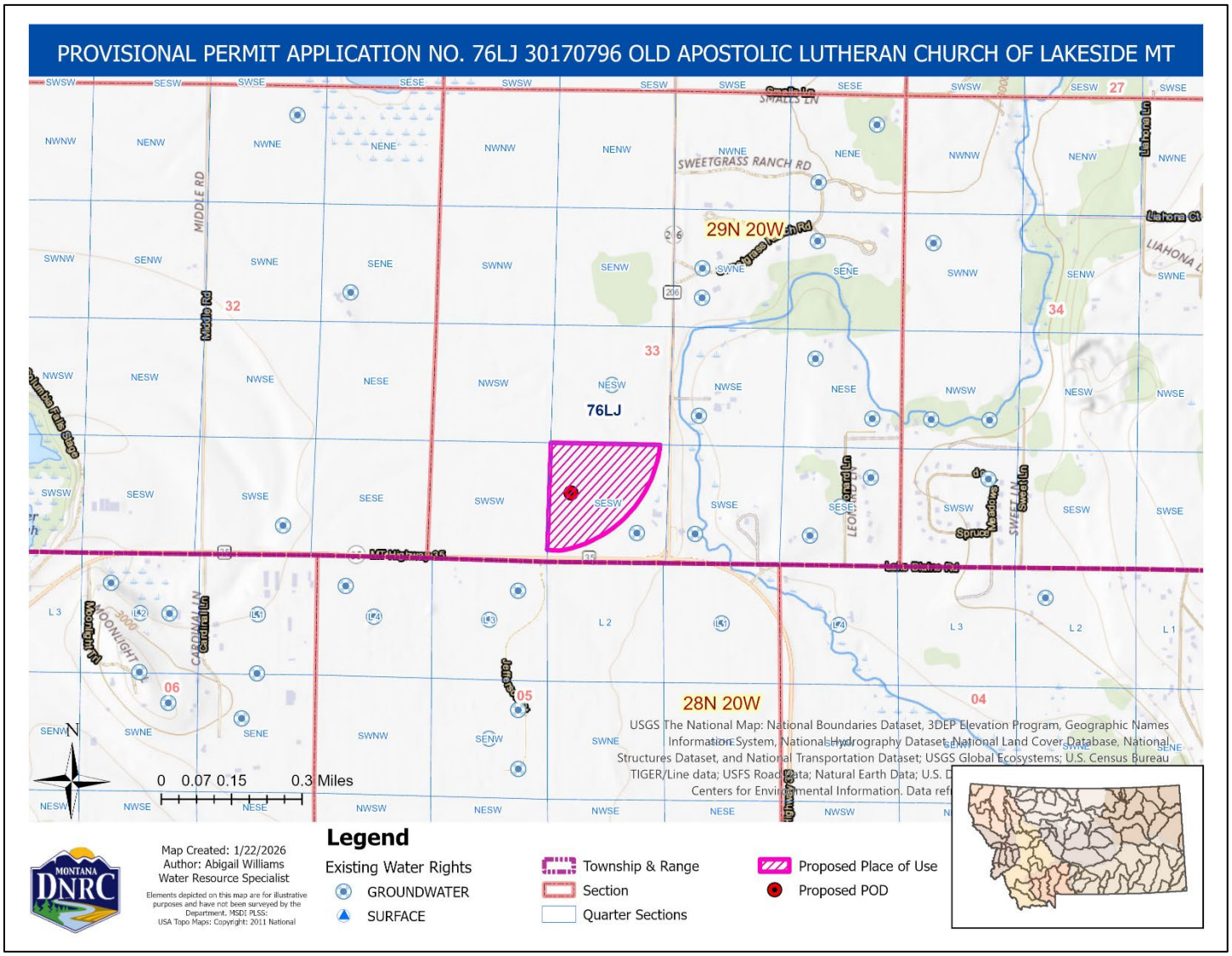
Application No. 76LJ 30170796 Regional Office # 08

Applicant's Name Old Apostolic Lutheran Church of Lakeside Montana

Indian Reservation [ ] Yes [X] No If yes, Reservation

Irrigation District [ ] Yes [X] No If yes, District

Specialist Abigail Williams Date 01/26/2026



Water Right Owner(s)*	Water Right No. (Basin ID, and Number)
Applicant: Old Apostolic Lutheran Church of Lakeside Montana	76LJ 30170796
Consultant: Water and Environmental Technologies	
1CFC	KRO STANDARD NOTICE CONTACTS
1FWS	
1FWP	
1WQB	
1PPL	
1WWP	
1DSL	
2FWP	
2BIA	
8KAL	
1BRW	
WARDEN HUTTERIAN BRETHREN	76LJ 66627 00
JOHN O HAINES	76LJ 30010550
JOHN O HAINES	76LJ 73086 00
DUNCAN FAMILY TRUST	76LJ 30030981
R4 BROTHERS HOLDINGS LLC	76LJ 30133068
JUNE M COLEMAN	76LJ 5103 00
CHARLES WEIS	76LJ 52606 00
KEVIN F SHEA	76LJ 30005780
GAYLENE G BIRKY; LAWRENCE R BIRKY	76LJ 30041877
LINDA ROWLETTE	76LJ 30052471
HARRIET C SELFF; SEAN B SELFF	76LJ 30155167
HYRUM CATTANEO; MARISSA CATTANEO	76LJ 4476 00
WARDEN HUTTERIAN BRETHREN	76LJ 40231 00
WARDEN HUTTERIAN BRETHREN	76LJ 30008171
MICHAEL DOOTSON; SANDRA J HAWK	76LJ 26052 00
JUDITH A JANNUSCH; WILLIAM R JANNUSCH	76LJ 109446 00
LANCE ELAM; PATRICIA ELAM; CHARLOTTE D SMITH	76LJ 111107 00
R4 BROTHERS HOLDINGS LLC	76LJ 30118342
LEANN M PRINCE	76LJ 78643 00
JOSEPH BAKKER; ABRAHAM MALLEY	76LJ 75407 00
DOYLE A CISLO; MERCEE J CISLO	76LJ 73030 00
ERIK BRANDIN; RITA BRANDIN	76LJ 30003544
GAJDA FAMILY TRUST	76LJ 30159921
PHILLIP KLEVMOEN	76LJ 70996 00
JOSEPH N CLOUGH; KELLY M CLOUGH	76LJ 19599 00
CYNTHIA COUNTRYMAN; THOMAS R COUNTRYMAN	76LJ 30161381
DAVID M MEADOWS	76LJ 109509 00
CHRIS WEAKS; JOY WEAKS	76LJ 30159920
CYNTHIA COUNTRYMAN; THOMAS R COUNTRYMAN	76LJ 30048426
DOUGLAS E SIDERIUS	76LJ 95837 00
JAKE JAMES; KINSEY JAMES	76LJ 78169 00
ELLIOTT FAMILY TRUST	76LJ 14296 00
ERIK BRANDIN; RITA BRANDIN	76LJ 104101 00
HEATHER M MASSEY; MICHAEL K MASSEY	76LJ 30023625
MAGGIE R ARMSTRONG; PAYDEN J ARMSTRONG	76LJ 24007 00
MAGGIE R ARMSTRONG; PAYDEN J ARMSTRONG	76LJ 14736 00
ELLIOTT FAMILY TRUST	76LJ 88557 00
BENJAMIN L LASTER; RACHELLE LASTER	76LJ 42511 00

KENNETH E TRANSTRUM; LUANN K TRANSTRUM	76LJ 30063043
DIANE M FERRON; KENNETH G FERRON	76LJ 20102 00
MAHILOM SEPARATE PROPERTY TRUST	76LJ 103952 00
MELIA ODEGARD; TREVOR ODEGARD	76LJ 30159922
JEFFERY S BENGTSON; MORGAN C BENGTSON; BURBACK REVOCABLE LIVING TRUST; CAPA FAMILY LIVING TRUST; COUNTRYSIDE BUSINESS PROPERTIES LLC; CHAD R DENGAL; JESSICA GODDERZ; PETER GODDERZ; GARY HOCKLEY; TONI HOCKLEY; JOHN K HONNOLD; SALLY P HONNOLD; DANELLE HORACEK; JAMES HYDE; KIRSTEN O HYDE; JODILYNN W KROEKER; STEPHEN T KROEKER; BRANDON KURTH; KRISTA KURTH; CLINT E LEUNING; LILA L LEUNING; CORY MILAND; JUDALINE MILAND; MEGAN J MOORE; MEGAN J MOORE; SHERRY ODEGARD; ZANE ODEGARD; SCHARA, GARY H & GEORGIA K REVOCABLE LIVING TRUST; SWAN MOUNTAIN PROPERTIES LLC; WESTERN TRADE WINDS LLC; FRANCIS C WILLIAMS; TAMARA F WILLIAMS; JAMES W ZIEGLER; KYLE L ZIEGLER	76LJ 30117748
JOHN C LORENTZEN; LORENTZEN FAMILY TRUST; ARDYS E SWEET	76LJ 79330 00
DOUGLAS E SIDERIUS	76LJ 88565 00
GEBHARDT FAMILY LLC; LINDA KILTZ; JILL M STREICH; STEVEN P STREICH; WARDEN HUTTERIAN BRETHREN; DON ZIMMERMAN	76LJ 66522 00
WARDEN HUTTERIAN BRETHREN	76LJ 101151 00
MONTANA SWEETGRASS RANCH HOMEOWNERS ASSN INC	76LJ 30124706
JILL M STREICH; STEVE P STREICH	76LJ 30010121
CRESTON COUNTRYSIDE ESTATES PHASE II LLC	76LJ 30152342
CRESTON COUNTRYSIDE ESTATES PHASE II LLC; JV VALLEY HOLDINGS LLC	76LJ 111219 00
SPRUCE MEADOWS HOMEOWNERS ASSOCIATION INC	76LJ 30103012
ERIK BRANDIN; RITA BRANDIN	76LJ 99921 00
ERIK BRANDIN; RITA BRANDIN	76LJ 30008717
JOE L CLARK; MOLLY M CLARK	76LJ 34201 00
PUBLISHED: Daily Inter Lake General legal land description of notice area: Sections 4, 5, and 6 of Township 28N, Range 20W and Sections 32, 33, and 34 of Township 29N, Range 20W, Flathead County**	

**If owner listed twice, only one notice sent.*

***Notice area: Notice sent to all active and severed groundwater rights within 1 mile of the proposed point of diversion.*

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:

KURTIS HAFFERMAN AND KATHY MINER
PO BOX 1690
LIBBY MT 59923-5001

2. TYPE OF ACTION:

Surface Water Application for Beneficial Water Use Permit No. 76D 30170983

3. WATER SOURCE NAME:

Kootenai River

4. LOCATION AFFECTED BY PROJECT:

SWSESE Section 25, Township 31N, Range 31W, Lincoln County and the NWNENE of Section 36, Government lot 1, Township 31N, Range 31W, Lincoln County, Montana.

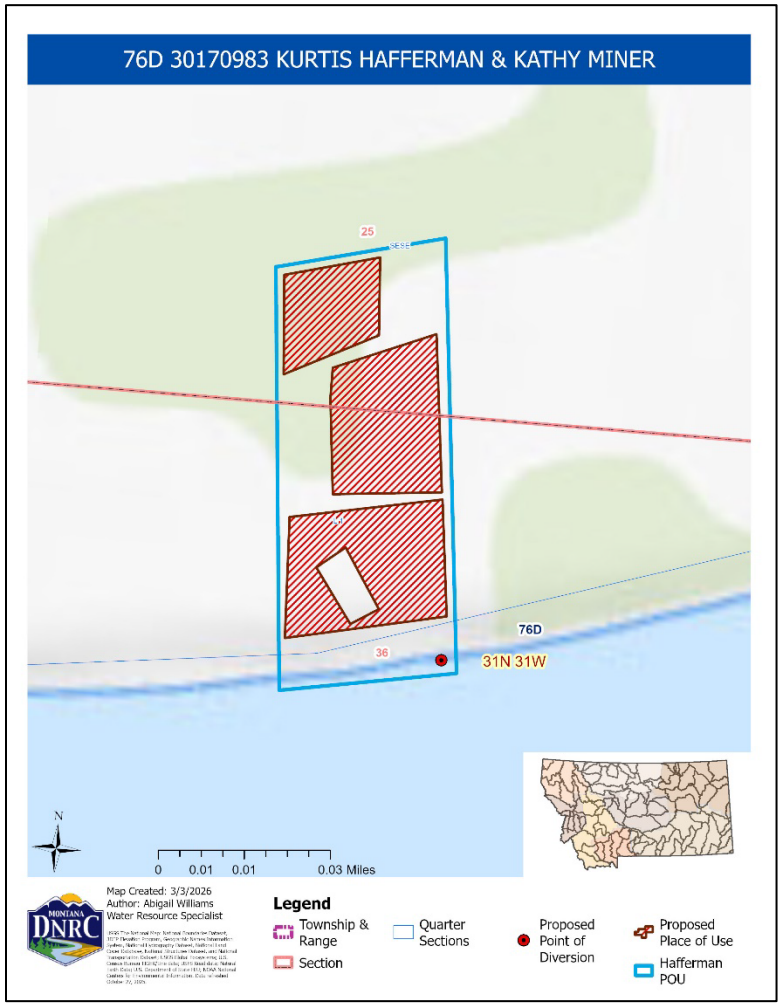


Figure 1. Map of the proposed place of use and points of diversion.

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

The Applicant proposes to divert water from the Kootenai River by means of an electric pump at a rate of 18.0 gallons per minute up to 0.92 acre-feet from April 15th to October 15th to irrigate 0.76 acres of lawn and garden.

The proposed point of diversion is located in NWNENE Section 36, Township 31N, Range 31W, Lincoln County Montana (Figure 1). The proposed place of use is located in the SWSESE Section 25, Township 31N, Range 31W, Lincoln County and the NWNENE of Section 36, Township 31N, Range 31W, Lincoln County, Montana (Figure 1).

The project is 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 85-20-401 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 Applicant proposes to divert water from the Kootenai River which is identified by DFWP as a chronically dewatered stream from the Libby Dam to the Montana-Idaho Border. The Kootenai River is listed as chronically dewatered due to the dam regulating flows. The Department calculated that the physically available water ranges from 250,000 AF to 860,000 AF at the proposed point of diversion during the period of diversion. The Department expects minimal effects as a result of the proposed project.

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.*

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

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

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;

iii. The Kootenai River is assessed as "Fully Supporting" of Agriculture, Drinking water, and Primary Contact Recreation. It is assessed that the Kootenai River is "Not Fully Supporting" of Aquatic Life due to the Temperature of the water and the Flow Regime Modification. A TLMD has not been completed for this impairment.

The proposed diversion of water to irrigate lawn and garden is not expected to significantly affect the water quality on the source.

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.*

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

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.*

Applicant proposes to divert water from the Kootenai River at a rate of 18.0 GPM up to 0.92 AF/year to irrigate 0.76 acres of lawn and garden from April 15th to October 15th via a Grundfos 22 SQ10-160 pump and motor. The pump will be suspended in an 8-inch well casing buried into the bank above the ordinary high water mark with 12-ft of 4-inch PVC pipe connecting to the bottom of the 8-inch well casing buried approximately 6-ft below the ordinary high-water mark to allow intake from the Kootenai River by the pump. The pump outlet connects into a 1-1/2-inch galvanized pipe set into a standard Boshart's 1-1/2-inch P-150-SS stainless steel pitless adapter that is connected to a 1-½-inch HDPE distribution line. The 1-½-inch HDPE distribution line runs north from the river along the east side of the property where it tees off into 1-inch HDPE later lines for each zone before connecting to the sprinklers via ¾-inch HDPE connection.

The Applicant calculated a maximum TDH for Zone 1 of 175 ft based on an elevation of 20 ft, a length of 565 ft of 1 ½-inch HDPE pipe, and an outlet pressure of 60 PSI. The Applicant provided a pump performance curve for Grundfos 22 SQ10-160. This performance curve demonstrates that the pump can produce 18.0 GPM at a TDH of 175 ft.

The installation of the well casing, pump, and intake pipe is not anticipated to have lasting effects on the riparian area and the channel. The installation will not create any barriers or dams on the Kootenai River. The Applicant must have approval from all relevant agencies before disturbing the stream bank and bed along with the riparian areas for installation of the diversion. The Applicants have stated they will apply for a 310-permit from Lincoln Conservation District, a 404 Permit from USACE, and an MDEQ 318-Permit for this proposed diversion.

Determination: Minimal Impact; additional permits are likely required and are the Applicants responsibility to research and obtain.

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. Seventeen animal species (Table 1) were identified within the project area. Of these species, the Grizzly Bear (*Ursus arctos*) and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. This area is already developed. It is not anticipated that any species of concern will be impacted by the proposed project. The Kootenai River has a sufficient amount of water to support and maintain existing populations of Bull Trout, if they should exist there currently and the proposed diversion will not dramatically reduce flows in a way that could affect Bull Trout. This lot is in a planned subdivision where the lots have begun being developed, and the project will not create any barriers to the migration of fish or wildlife.

Table 1. Species of Concern

Species Group	Common Name	Scientific Name
Mammals	Fisher	*Pekania pennanti*
Mammals	Fringed Myotis	*Myotis thysanodes*
Mammals	Grizzly Bear*	*Ursus arctos*
Mammals	Little Brown Myotis	*Myotis lucifugus*
Mammals	Northern Hoary Bat	*Lasiurus cinereus*
Mammals	Silver-haired Bat	*Lasionycteris noctivagans*
Mammals	Townsend's Big-eared Bat	*Corynorhinus townsendii*
Mammals	Yuma Myotis	*Myotis yumanensis*
Birds	Cassin's Finch	*Haemorhous cassinii*
Birds	Evening Grosbeak	*Coccothraustes vespertinus*
Birds	Lewis's Woodpecker	*Melanerpes lewis*
Birds	Pileated Woodpecker	*Dryocopus pileatus*
Amphibians	Coeur d'Alene Salamander	*Plethodon idahoensis*
Fish	Bull Trout*	*Salvelinus confluentus*
Fish	Torrent Sculpin	*Cottus rhotheus*
Fish	Westslope Cutthroat Trout	*Oncorhynchus lewisi*
Invertebrates	Hooked Snowfly	*Isocapnia crinita*

**Listed as "Threatened" by the USFWS.*

Determination: No significant impact.

Wetlands & Ponds - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted. For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

The point of diversion is located on the bank of the Kootenai River where a 1.10 acre Freshwater Forested/Shrub Wetland is located. The proposed diversion will likely temporally affect this area as the proposed plan includes burying the well casing in the bank. The Applicant must obtain all required permits from all relevant agencies prior to disturbing any wetland areas required to complete their project

Determination: Potential Impact; additional permits are likely required and are the Applicant's responsibility to research and obtain.

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 irrigation of lawn and garden will not negatively impact the soil quality, stability, or moisture content in the project area. The soil type in the project area is, "Andic Dystrochrepts, alluvial terraces" which came from mixed sandy and gravelly alluvium parent material. This soil has a moderately high to high capacity to transmit water. Soils in this area are not typically saline and are therefore 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.*

It is not anticipated that this project will impact the existing vegetative cover beyond what has been cleared for construction in the project area. 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 surface water from the Kootenai River.

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 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 85-20-401 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: Abigail Williams

Title: Water Resource Specialist

Date: 03/10/2026

Assessment Record Summary

Reporting Cycle: 2020 **Assessment Record:** MT76D001_010 **Status:** Unassigned

WATER INFORMATION — Status: Unassigned

Reporting Cycle: 2020

Assessment Unit: MT76D001_010

Name: Kootenai River

Location Description: KOOTENAI RIVER, Libby Dam to Yaak River

Water Type:	Size (Miles/Acres)	Use Class:
RIVER	44.64 MILES	B-1

Trophic Status:

Trophic Trend:

1 - Hydrologic Unit Code: 17010101

2 - HUC Name: Middle Kootenai

3 - Watershed: Kootenai

4 - Basin: Columbia

5 - TMDL Planning Area: Kootenai

6 - Ecoregion: Northern Rockies

7 - County: Lincoln County

8 - LAT/LONG AU Upstream: Start: 48.410513 / -115.314244

9 - LAT/LONG AU Downstream: End: 48.560619 / -115.977976

Water Quality Category: 5 - Waters where 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.

Assessment Record Summary

Reporting Cycle: 2020 **Assessment Record:** MT76D001_010 **Status:** Unassigned

Beneficial Use Support Information

Use Name	Fully Supporting	Not Fully Supporting	Threatened	Insufficient Information	Not Assessed
Aquatic Life		X			
Agricultural	X				
Drinking Water	X				
Primary Contact Recreation	X				

Assessment Information

Use Name	Assessment Type	Assessment Confidence
NA		

Use Name	Assessment Methods
NA	

Impairment Information

Use Name	Probable Causes	Probable Sources	TMDL Completed
Aquatic Life	Temperature	Impacts from Hydrostructure Flow Regulation/modification	N
		Dam or Impoundment	
	Flow Regime Modification	Impacts from Hydrostructure Flow Regulation/modification	N
		Dam or Impoundment	

Assessment Record Summary

Reporting Cycle: 2020 **Assessment Record:** MT76D001_010 **Status:** Unassigned

Use Name	Observed Effects
NA	

Delisting / Category Changes

Cause	Reason for Change	Change Date	Comments
NA			

MONTANA STATE LIBRARY
NATURAL HERITAGE PROGRAM

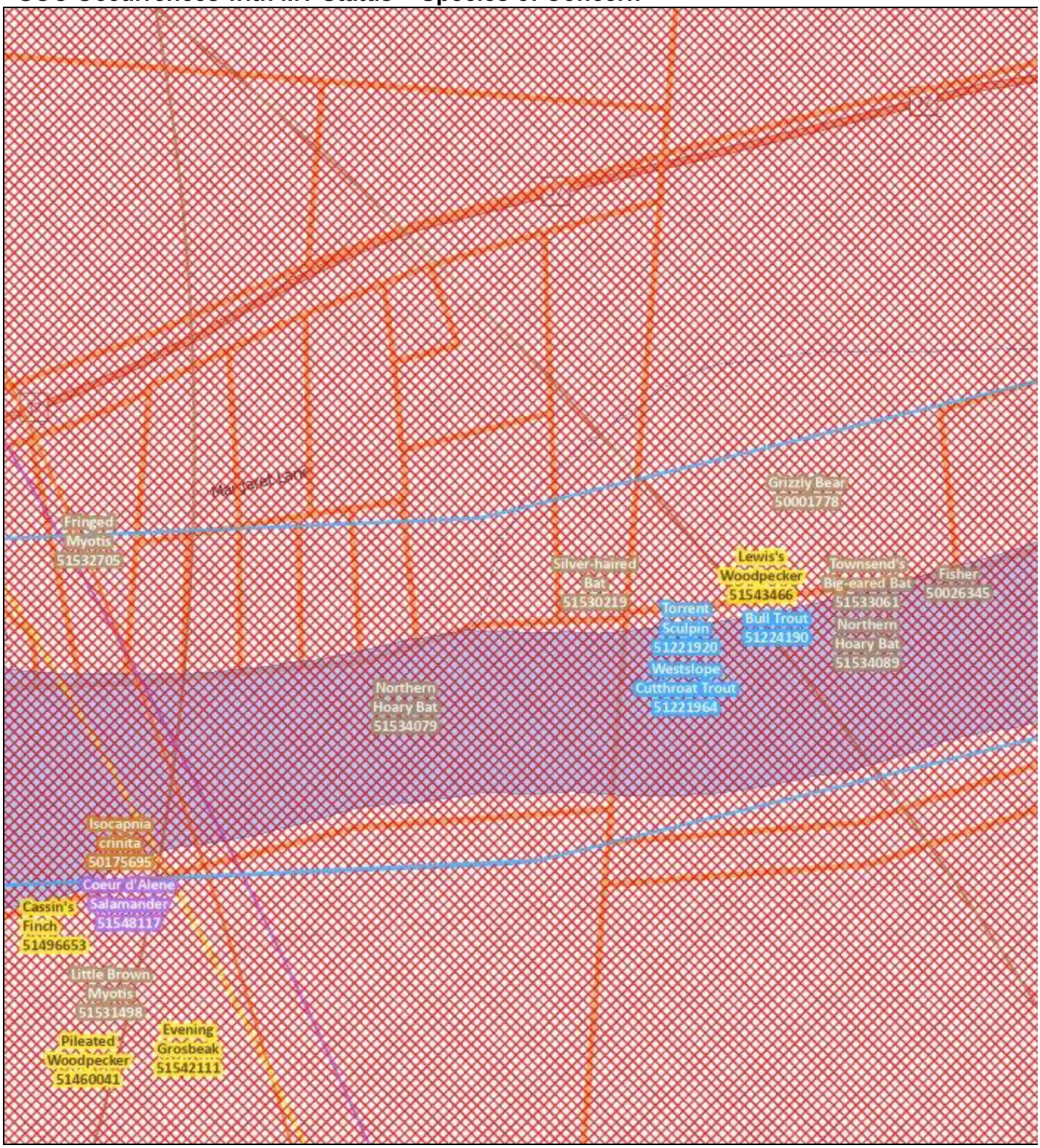
A program of the **Montana State Library's Natural Resource Information System**.

Latitude	Longitude
48.40618	-115.47482
48.42114	-115.51049

Montana SOC Occurrences Report

SOC Occurrences with MT Status = Species of Concern

Report generated 2/10/2026 9:29:19 AM



⊞ **Mammals - Fisher** *(Pekania pennanti)*

SO Count: 1 **Obs Count**: 91 **Earliest Obs**: 1965 **Recent Obs**: 2022

⊞ **Mammals - Fringed Myotis** *(Myotis thysanodes)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 2024 **Recent Obs**: 2024

⊞ **Mammals - Grizzly Bear** *(Ursus arctos)*

SO Count: 1 **Obs Count**: 461 **Earliest Obs**: 1912 **Recent Obs**: 2023

⊞ **Mammals - Little Brown Myotis** *(Myotis lucifugus)*

SO Count: 2 **Obs Count**: 2 **Earliest Obs**: 1967 **Recent Obs**: 2024

⊞ **Mammals - Northern Hoary Bat** *(Lasiurus cinereus)*

SO Count: 3 **Obs Count**: 3 **Earliest Obs**: 1995 **Recent Obs**: 2024

⊞ **Mammals - Silver-haired Bat** *(Lasionycteris noctivagans)*

SO Count: 2 **Obs Count**: 2 **Earliest Obs**: 1995 **Recent Obs**: 1995

⊞ **Mammals - Townsend's Big-eared Bat** *(Corynorhinus townsendii)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 2024 **Recent Obs**: 2024

⊞ **Mammals - Yuma Myotis** *(Myotis yumanensis)*

SO Count: 1 **Obs Count**: 2 **Earliest Obs**: 2011 **Recent Obs**: 2011

⊞ **Birds - Cassin's Finch** *(Haemorhous cassinii)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 1995 **Recent Obs**: 1995

⊞ **Birds - Evening Grosbeak** *(Coccothraustes vespertinus)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 1995 **Recent Obs**: 1995

⊞ **Birds - Lewis's Woodpecker** *(Melanerpes lewis)*

SO Count: 2 **Obs Count**: 3 **Earliest Obs**: 2020 **Recent Obs**: 2022

⊞ **Birds - Pileated Woodpecker** *(Dryocopus pileatus)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 1991 **Recent Obs**: 1991

⊞ **Amphibians - Coeur d'Alene Salamander** *(Plethodon idahoensis)*

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 1969 **Recent Obs**: 1969

⊞ **Fish - Bull Trout** *(Salvelinus confluentus)*

SO Count: 1 **Obs Count**: 485 **Earliest Obs**: 1959 **Recent Obs**: 2022

⊞ **Fish - Torrent Sculpin** *(Cottus rhotheus)*

SO Count: 1 **Obs Count**: 29 **Earliest Obs**: 1950 **Recent Obs**: 2020

⊞ **Fish - Westslope Cutthroat Trout** *(Oncorhynchus lewisi)*

SO Count: 1 **Obs Count**: 324 **Earliest Obs**: 1969 **Recent Obs**: 2021

⊞ **Invertebrates - *Isocapnia crinita*** (Hooked Snowfly)

SO Count: 1 **Obs Count**: 1 **Earliest Obs**: 1988 **Recent Obs**: 1988

Citation for this report:
Montana SOC Occurrences Report
SOC Occurrences with MT Status = Species of Concern
Within Lat/Long: (48.40618,-115.47482) to (48.42114,-115.51049)
Natural Heritage Map Viewer. Montana Natural Heritage Program.
Retrieved on February 10, 2026, from https://mtnhp.org/MapViewer/SOReport.aspx

Soil Map—Kootenai National Forest Area, Montana-Idaho
(76D 30170983)

Map Scale: 1:881 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 10 20 40 60

Feet
0 40 80 160 240

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Kootenai National Forest Area, Montana-Idaho
Survey Area Data: Version 25, Aug 30, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 14, 2023—Aug 13, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
103	Andic Dystrochrepts, alluvial terraces	2.9	98.0%
W	Water	0.1	2.0%
Totals for Area of Interest		**3.0**	**100.0%**

Kootenai National Forest Area, Montana-Idaho

103—Andic Dystrochrepts, alluvial terraces

Map Unit Setting

National map unit symbol: nvcq
Elevation: 2,000 to 3,500 feet
Mean annual precipitation: 30 to 50 inches
Mean annual air temperature: 43 to 46 degrees F
Frost-free period: 90 to 110 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Andic dystrochrepts and similar soils: 90 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Andic Dystrochrepts

Setting

Landform: Stream terraces
Parent material: Mixed sandy and gravelly alluvium

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Bs - 1 to 8 inches: gravelly silt loam
2A - 8 to 21 inches: very gravelly fine sandy loam
2Bw - 21 to 42 inches: very gravelly fine sandy loam
2Cd - 42 to 62 inches: very cobbly loamy sand

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F043AP910MT - Upland Cool Moist Woodland Group
Other vegetative classification: western redcedar/queencup beadlily (PK530), western hemlock/queencup beadlily (PK570)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Kootenai National Forest Area, Montana-Idaho
Survey Area Data: Version 25, Aug 30, 2025

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetlands

February 25, 2026

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Draft Preliminary Determinations

- Draft PD
- Draft PD cover letter
- Updated Draft PD
- Updated Draft PD cover letter
- Any correspondence with the applicant regarding the draft PDs

Draft Preliminary Determinations

Water Resources Division – Kalispell Regional Office
655 Timberwolf Pkwy, Ste. 4
Kalispell, MT 59901-1215
(406) 752-2288
DNRCKalispellWater@mt.gov

March 11, 2026

KURTIS M HAFFERMAN and KATHY M MINER
PO BOX 1690
LIBBY MT 59923-5001

Subject: Draft Preliminary Determination to Grant Beneficial Water Use Permit Application No. 76D 30170983

Dear Applicants,

The Department of Natural Resources and Conservation (Department) has completed a preliminary review of your application. This review consists of an evaluation of the criteria for issuance of a permit found in §85-2-311, MCA. The Department has preliminarily determined that the criteria are met, and this application should be granted in modified form. A copy of the Draft Preliminary Determination to Grant in Modified Form for your application is attached.

You have the opportunity to request an extension of time to submit additional information for the Department to consider in the decision within 15 business days of the date of this letter. If no response is received by April 1, 2026, the Department will prepare a notice of opportunity to provide public comment per §85-2-307(4), MCA.

Please note that if you request and are granted an extension of time to submit additional information to the Department, additional information may be considered an amendment to your application, which may reset application timelines pursuant to ARM 36.12.1401.

Please contact me at (406) 752-2735 or Abigail.Williams@mt.gov if you have any questions.

Sincerely,

Abigail Williams
Water Resource Specialist
Kalispell Regional Office

Encl.: Draft Preliminary Determination to Grant Water Right Permit Application No. 76D 30170983

BEFORE THE DEPARTMENT OF
NATURAL RESOURCES AND CONSERVATION
OF THE STATE OF MONTANA

*** * * * * * ***

APPLICATION FOR BENEFICIAL WATER USE	)	**DRAFT PRELIMINARY**
PERMIT NO. 76D 30170983 BY KURTIS	)	**DETERMINATION TO GRANT**
HAFFERMAN AND KATHY MINER	)	**IN MODIFIED FORM**

*** * * * * * ***

Kurtis Hafferman and Kathy Miner (Applicants) submitted Application for Beneficial Water Use Permit No. 76D 30170983 to the Kalispell Water Resources Regional Office of the Department of Natural Resources and Conservation on December 19, 2025. The Applicants propose to divert water from the Kootenai River at a rate of 18.0 gallons per minute up to 0.94 acre-feet to irrigate 0.86 acres of lawn and garden from April 1st to October 15th annually. The Department published receipt of the application on its website on December 22, 2025. A preapplication meeting was held between the Department and the Applicants on May 22, 2025, in which the Applicants designated that the technical analyses for this application would be completed by the Department. The Applicants returned the completed Preapplication Meeting Form on May 29, 2025. The Department delivered the Department Completed Technical Analyses on July 2, 2025. The application was determined to be correct and complete as of January 13, 2026. An Environmental Assessment for this application was completed on March 10, 2026.

INFORMATION

The Department considered the following information submitted by the Applicants, which is contained in the administrative record.

Application as filed:

- Application for Beneficial Water Use Permit, Form 600
- Maps and Figures:
    - Climatic Area Map
    - Point of Diversion Design
    - Place of Use Map
    - Legal Locations POD and POU, Dated May 10, 2025
    - Lot Layout of the MBMI Development, Inc. Subdivision, Dated April 29, 2009

- Attachments
    - General Abstract 76D 30164146, Dated May 20, 2025
    - Possessory Interest, Dated March 3, 2021
    - Pump Operation and System Curve, Dated December 31, 2023
    - System Specifications and Cost
    - Conveyance System Specifications
- Department completed technical analyses based on information provided in the Preapplication Meeting Form, dated July 2, 2025

Information within the Department's Possession/Knowledge

- Mean monthly stream flow data from United States Geological Survey (USGS) Gaging Station No. 12301933, Kootenai River below Libby Dam near Libby, MT. Period of record: October 1971 – January 2025.
- List of existing water rights on the Kootenai River from USGS Gaging Station No. 12301933 downstream to the Montana-Idaho border. This list is further divided into two reaches:
    - From USGS Gaging Station No. 12301933 downstream to the Applicants' proposed POD.
    - From the Applicants' proposed POD downstream to the Montana-Idaho border.

The Department has fully reviewed and considered the evidence and argument submitted in this application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, MCA).

For the purposes of this document:

Department or **DNRC** means the Department of Natural Resources and Conservation	
NRCS means the Natural Resource Conservation Service	
AF means acre-feet	**AOPI** means Area of Potential Impact
ARM means Administrative Rules of Montana	**MCA** means Montana Code Annotated
FOF means finding(s) of fact	**CFS** means cubic feet per second
GPM means gallons per minute	**USDA** United States Department of Agriculture
PSI means pounds per square inch	**POD** means point of diversion
TDH means total dynamic head	

PROPOSED APPROPRIATION

FINDINGS OF FACT

1. The Applicants propose to divert water from Kootenai River by means of an electric pump from April 1st to October 15th annually at a rate of 18.0 GPM up to 0.94 AF to irrigate 0.86 acres annually. The proposed point of diversion is located in NWNENE Section 36, Township 31N, Range 31W, Lincoln County Montana. The proposed place of use is located in the SWSESE Section 25, Township 31N, Range 31W, Lincoln County, MT and in the NWNENE of Section 36, Township 31N, Range 31W, Lincoln County, Montana. The POD is in Water Right Basin 76D (Kootenai River) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

2. Groundwater Certificate 76D 30164146 is currently being used to irrigate 0.86 acres on the property. The well will continue to provide water for lawn and garden until the provisional permit is approved. At that time the irrigation of lawn and garden from the well will cease on the majority of the 0.86 acres and will be utilized for only the lawn around the home (~0.1 acres) The remaining 0.76 acres will be irrigated via water from the Kootenai River once permitted. The water rights are overlapping as they will have an adjoining place of use but different points of diversion and different means of conveyance. The two systems will not be manifold. The rights will not be supplemental; the well will only be used if the surface water system is unavailable.

3. The application will be subject to the following condition to satisify the beneficial use requirement: 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 JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

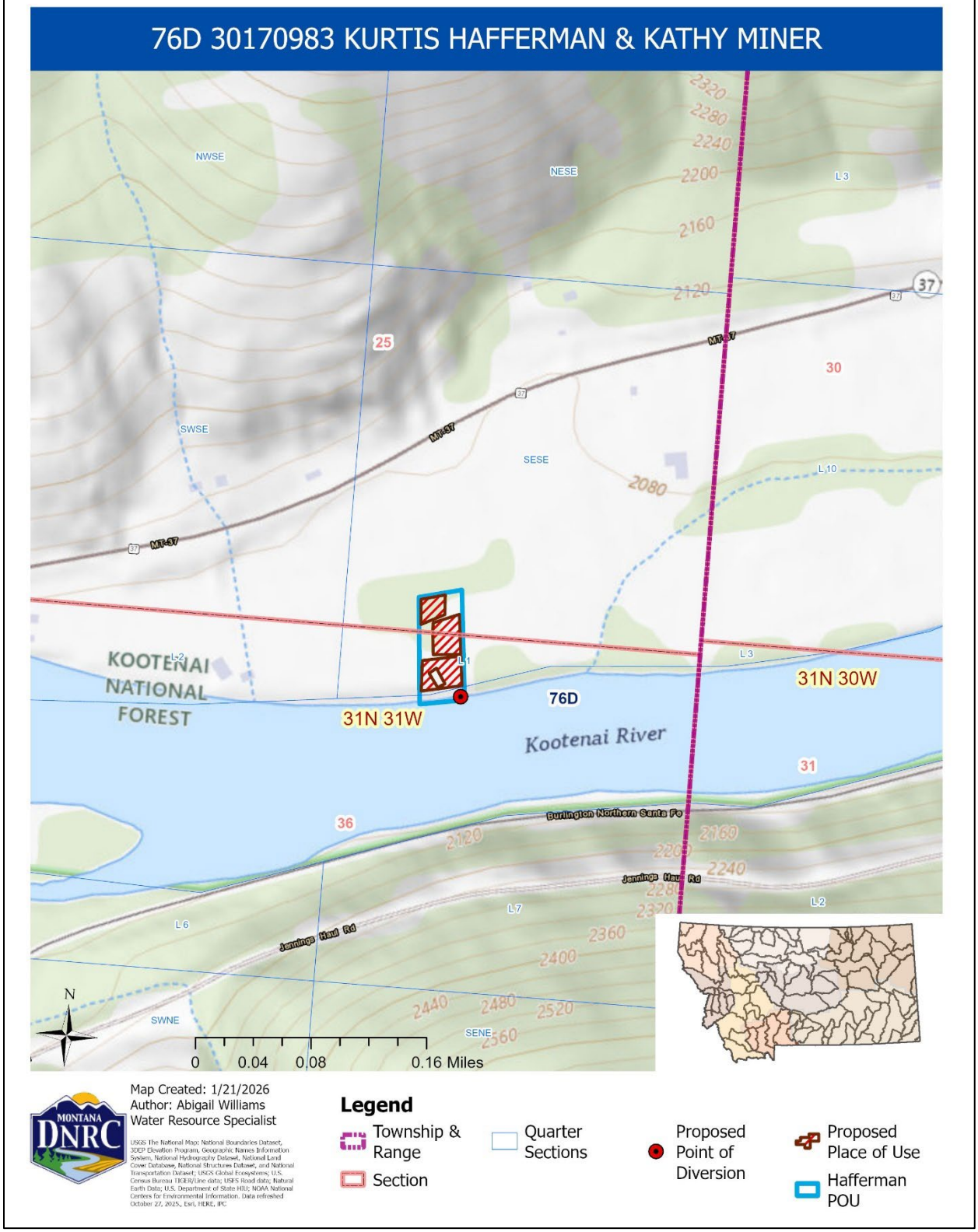


Figure 1: Map of the Applicants' proposed point of diversion and place of use

§ 85-2-311, MCA, BENEFICIAL WATER USE PERMIT CRITERIA

GENERAL CONCLUSIONS OF LAW

4. The Montana Constitution expressly recognizes in relevant part that:

> (1) All existing rights to the use of any waters for any useful or beneficial purpose are hereby recognized and confirmed.
> (2) The use of all water that is now or may hereafter be appropriated for sale, rent, distribution, or other beneficial use . . . shall be held to be a public use.
> (3) All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided by law.

Mont. Const. Art. IX, § 3. While the Montana Constitution recognizes the need to protect senior appropriators, it also recognizes a policy to promote the development and use of the waters of the state by the public. This policy is further expressly recognized in the water policy adopted by the Legislature codified at § 85-2-102, MCA, which states in relevant part:

> (1) Pursuant to Article IX of the Montana constitution, the legislature declares that any use of water is a public use and that the waters within the state are the property of the state for the use of its people and are subject to appropriation for beneficial uses as provided in this chapter. . . .
> (3) It is the policy of this state and a purpose of this chapter to encourage the wise use of the state's water resources by making them available for appropriation consistent with this chapter and to provide for the wise utilization, development, and conservation of the waters of the state for the maximum benefit of its people with the least possible degradation of the natural aquatic ecosystems. In pursuit of this policy, the state encourages the development of facilities that store and conserve waters for beneficial use, for the maximization of the use of those waters in Montana . . .

5. Pursuant to § 85-2-302(1), MCA, except as provided in §§ 85-2-306 and 85-2-369, MCA, a person may not appropriate water or commence construction of diversion, impoundment, withdrawal, or related distribution works except by applying for and receiving a permit from the Department. *See* § 85-2-102(1), MCA. An Applicant in a beneficial water use permit proceeding must affirmatively prove all of the applicable criteria in § 85-2-311, MCA. Section § 85-2-311(1) states in relevant part:

> … the department shall issue a permit if the Applicant proves by a preponderance of evidence that the following criteria are met:
> (a) (I) there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate; and
> (ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:

(A) identification of physical water availability;

(B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and

(C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

(b) the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. In this subsection (1)(b), adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied;

(c) the proposed means of diversion, construction, and operation of the appropriation works are adequate;

(d) the proposed use of water is a beneficial use;

(e) the Applicant has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit;

(f) the water quality of a prior appropriator will not be adversely affected;

(g) the proposed use will be substantially in accordance with the classification of water set for the source of supply pursuant to 75-5-301(1); and

(h) the ability of a discharge permit holder to satisfy effluent limitations of a permit issued in accordance with Title 75, chapter 5, part 4, will not be adversely affected.

(2) The Applicant is required to prove that the criteria in subsections (1)(f) through (1)(h) have been met only if a valid objection is filed. A valid objection must contain substantial credible information establishing to the satisfaction of the department that the criteria in subsection (1)(f), (1)(g), or (1)(h), as applicable, may not be met. For the criteria set forth in subsection (1)(g), only the department of environmental quality or a local water quality district established under Title 7, chapter 13, part 45, may file a valid objection.

To meet the preponderance of evidence standard, "the Applicant, in addition to other evidence demonstrating that the criteria of subsection (1) have been met, shall submit hydrologic or other evidence, including but not limited to water supply data, field reports, and other information developed by the Applicant, the department, the U.S. geological survey, or the U.S. natural resources conservation service and other specific field studies." Section 85-2-311(5), MCA (emphasis added). The determination of whether an application has satisfied the § 85-2-311, MCA criteria is committed to the discretion of the Department. *Bostwick Properties, Inc. v. Montana Dept. of Natural Resources and Conservation*, 2009 MT 181, ¶ 21. The Department is required grant a permit only if the § 85-2-311, MCA, criteria are proven by

the Applicant by a preponderance of the evidence. Id. A preponderance of evidence is "more probably than not." *Hohenlohe v. DNRC*, 2010 MT 203, ¶¶ 33, 35, 357 Mont. 438, 240 P.3d 628.

6. Pursuant to § 85-2-312, MCA, the Department may condition permits as it deems necessary to meet the statutory criteria:

> (1) (a) The department may issue a permit for less than the amount of water requested, but may not issue a permit for more water than is requested or than can be beneficially used without waste for the purpose stated in the application. The department may require modification of plans and specifications for the appropriation or related diversion or construction. The department may issue a permit subject to terms, conditions, restrictions, and limitations it considers necessary to satisfy the criteria listed in 85-2-311 and subject to subsection (1)(b), and it may issue temporary or seasonal permits. A permit must be issued subject to existing rights and any final determination of those rights made under this chapter.

E.g., Montana Power Co. v. Carey (1984), 211 Mont. 91, 96, 685 P.2d 336, 339 (requirement to grant applications as applied for, would result in, "uncontrolled development of a valuable natural resource" which "contradicts the spirit and purpose underlying the Water Use Act."); *see also*, *In the Matter of Application for Beneficial Water Use Permit No. 65779-76M by Barbara L. Sowers* (DNRC Final Order 1988)(conditions in stipulations may be included if it further compliance with statutory criteria); *In the Matter of Application for Beneficial Water Use Permit No. 42M-80600 and Application for Change of Appropriation Water Right No. 42M-036242 by Donald H. Wyrick* (DNRC Final Order 1994); Admin. R. Mont. (ARM) 36.12.207.

7. The Montana Supreme Court further recognized in *Matter of Beneficial Water Use Permit Numbers 66459-76L, Ciotti: 64988-G76L, Starner*, 278 Mont. 50, 60-61, 923 P.2d 1073, 1079, 1080 (1996), *superseded by legislation on another issue*:

> Nothing in that section [85-2-313], however, relieves an Applicant of his burden to meet the statutory requirements of § 85-2-311, MCA, before DNRC may issue that provisional permit. Instead of resolving doubts in favor of appropriation, the Montana Water Use Act requires an Applicant to make explicit statutory showings that there are unappropriated waters in the source of supply, that the water rights of a prior appropriator will not be adversely affected, and that the proposed use will not unreasonably interfere with a planned use for which water has been reserved.

See also, Wesmont Developers v. DNRC, CDV-2009-823, First Judicial District Court, *Memorandum and Order* (2011). The Supreme Court likewise explained that:

> .... unambiguous language of the legislature promotes the understanding that the Water Use Act was designed to protect senior water rights holders from encroachment by junior appropriators adversely affecting those senior rights.

Montana Power Co., 211 Mont. at 97-98, 685 P.2d at 340; *see also* Mont. Const. art. IX §3(1).

8. An appropriation, diversion, impoundment, use, restraint, or attempted appropriation, diversion, impoundment, use, or restraint contrary to the provisions of § 85-2-311, MCA is invalid. An officer, agent, agency, or employee of the state may not knowingly permit, aid, or assist in any manner an unauthorized appropriation, diversion, impoundment, use, or other restraint. A person or corporation may not, directly or indirectly, personally or through an agent, officer, or employee, attempt to appropriate, divert, impound, use, or otherwise restrain or control waters within the boundaries of this state except in accordance with this § 85-2-311, MCA. Section 85-2-311(6), MCA.

9. The Department may take notice of judicially cognizable facts and generally recognized technical or scientific facts within the Department's specialized knowledge, as specifically identified in this document. ARM 36.12.221(4).

PHYSICAL AVAILABILITY

FINDINGS OF FACT

10. The Applicants propose to divert water from the Kootenai River at a rate of 18.0 GPM up to 0.94 AF/year to irrigate 0.86 acres of lawn and garden from April 1st to October 15th.

11. Physical availability was calculated using data from USGS Gaging Station No. 12301933 on the Kootenai River below Libby Dam near Libby, MT. This gage was selected as it is the nearest gage to the proposed POD and is located approximately 15.8 miles upstream of the proposed POD. The other USGS Gaging Station on the Kootenai River is USGS Gaging Station No. 12305000 Kootenai River at Leonia, ID, which is approximately 46 miles downstream of the proposed POD. The entire period of record for USGS Gaging Station No. 12301933 was used for this analysis, the date range is from October 1971 to January 2025. The Department calculated the physical availability using the following method:

a. The Department calculated median of the mean monthly flow rates in CFS for the Kootenai River using USGS Gaging Station No. 12301933 records for each month of the proposed period of diversion (Table 2, column B). Those flow rates were converted to monthly volumes in AF (Table 2, column C) using the following equation found in the DNRC Water Calculation Guide: median of the mean monthly flow in (CFS) × 1.98 (AF/day/1 CFS) × days per month = AF/month

b. The Department calculated the monthly flow rates appropriated by existing users between USGS Gaging Station No. 12301933 and the proposed POD (Table 2, column D) by:
   I. Generating a list of existing water rights from USGS Gaging Station No. 12301933 down to the proposed POD (Table 1);
   II. Designating uses as occurring during their recorded period of diversion; and,
   III. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

c. Since the gage used is upstream of the proposed POD, the Department subtracted out the flow rates of the existing rights between USGS Gaging Station No. 12301933 and the proposed POD (Table 2, column D) from the median of the mean monthly gage values (Table 2, column B) to determine physically available flows and volumes at the POD (Table 2, columns E-F).

Table 1: Existing Legal Demand between the POD and USGS Gaging station No. 12301933

Water Right Number	Water Right Type	Purpose	Flow Rate (CFS)
76D 31188 00	PROVISIONAL PERMIT	IRRIGATION	0.02
76D 99744 00	PROVISIONAL PERMIT	IRRIGATION	1.33
76D 304 00	STATEMENT OF CLAIM	INDUSTRIAL	6.68
76D 42395 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.02
76D 33744 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.12
76D 33287 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.06
76D 216044 00	STATEMENT OF CLAIM	IRRIGATION	0.23
76D 30023375	PROVISIONAL PERMIT	IRRIGATION	0.12

Table 2: Physical Availability of the Kootenai River at the Point of Diversion					
A	**B**	**C**	**D**	**E**	**F**
Month	**Median of the Mean Monthly Flow at USGS Gaging Station 12301933 (CFS)**	**Median of the Mean Monthly Volume at USGS Gaging Station 12301933 (AF)**	**Existing legal demands between USGS Gaging Station 12301933 and the POD (CFS)**	**Physically Available Water at POD (CFS)**	**Physically Available Water at POD (AF)**
April	4,254.00	252,687.60	8.56	4,245.44	252,179.14
May	9,169.00	562,793.22	8.58	9,160.42	562,266.58
June	14,600.00	867,240.00	8.58	14,591.42	866,730.35
July	10,900.00	669,042.00	8.58	10,891.42	668,515.36
August	9,524.00	584,583.12	8.58	9,515.42	584,056.48
September	8,504.00	505,137.60	8.58	8,495.42	504,627.95
October	6,785.50	416,493.99	7.11	6,778.39	416,057.58

12. Based on the physical availability analysis of the Kootenai River at the Applicants' proposed POD, the Department finds that the requested flow rate of 18.0 GPM (0.04 CFS) up to 0.94 AF of volume anually is physically available in the Kootenai River during the proposed period of diversion spanning from April 1st to October 15th.

LEGAL AVAILABILITY

FINDINGS OF FACT

13. The Applicants propose to divert up to 0.94 AF of surface water from the Kootenai River at a flow rate of 18.0 GPM to irrigate 0.86 acres of lawn and garden from April 1st to October 15th annually. The Department determined the AOPI for this application to be the Kootenai River from the proposed POD to the Montana-Idaho border. The AOPI is appropriate as diversion of water at the proposed POD would reduce flow and volume of the river within this reach of the Kootenai River. The Department found 25 water rights within the AOPI to evaluate for legal availability (Table 3).

Table 3: Kootenai River existing water rights between the POD and the Montana Idaho Border			
Water Right Number	**Water Right Type**	**Purpose**	**Flow Rate (CFS)**
76D 141356 00	STATEMENT OF CLAIM	INDUSTRIAL	1.11
76D 143762 00	STATEMENT OF CLAIM	IRRIGATION	0.11
76D 141302 00	STATEMENT OF CLAIM	IRRIGATION	0.15
76D 29844 00	PROVISIONAL PERMIT	IRRIGATION	0.01
76D 100384 00	STATEMENT OF CLAIM	IRRIGATION	0.44
76D 216064 00	STATEMENT OF CLAIM	IRRIGATION	0.16
76D 5948 00	STATEMENT OF CLAIM	IRRIGATION	0.11
76D 140178 00	STATEMENT OF CLAIM	IRRIGATION	0.36
76D 31798 00	PROVISIONAL PERMIT	IRRIGATION	0.13
76D 43355 00	PROVISIONAL PERMIT	IRRIGATION	0.06
76D 140846 00	STATEMENT OF CLAIM	IRRIGATION	0.16
76D 22286 00	PROVISIONAL PERMIT	IRRIGATION	0.05
76D 43067 00	PROVISIONAL PERMIT	IRRIGATION	0.04
76D 141359 00	STATEMENT OF CLAIM	IRRIGATION	0.35
76D 29845 00	PROVISIONAL PERMIT	IRRIGATION	0.02
76D 100385 00	STATEMENT OF CLAIM	IRRIGATION	0.06
76D 2715 00	STATEMENT OF CLAIM	IRRIGATION	2
76D 109346 00	PROVISIONAL PERMIT	IRRIGATION	0.08
76D 30051149	PROVISIONAL PERMIT	LAWN AND GARDEN	0.02
76D 114086 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.02
76D 56444 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.06
76D 92427 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.03
76D 30158132	PROVISIONAL PERMIT	LAWN AND GARDEN	0.22
76D 115793 00	PROVISIONAL PERMIT	LAWN AND GARDEN	0.03
76D 100383 00	STATEMENT OF CLAIM	STOCK	0.04

14. The Department calculated physically available flows and volumes at the proposed point of diversion (Table 4, Columns B-C). The DNRC used the method below to quantify legal demand in the depleted reach during the period of diversion:

a. The Department calculated the mean monthly flow rates in CFS for Kootenai River using USGS Gagin station No. 12301933 records for each month of the proposed period of diversion (Table 4, Column B). Those rates were then converted into monthly volumes (Table 4, Colum C) using the following equation: median of the mean monthly flow (CFS) * 1.98 (AF/day/CFS) * # days per month = AF/month

b. The Department calculated the monthly flows appropriated by existing users (Table 4, Column D) between the proposed point of diversion and the Montana Idaho border by:

I. Generating a list of existing water rights from the proposed POD to the Montana/Idaho Border (this list is included in the application file and is available upon request);

II. Designating the uses as occurring during their periods of diversion;

III. Assigning a single combined flow rate of 0.08 CFS to all livestock direct from source rights without a designated flow rate per Department adjudication standards (quantification of said water rights is not a re-adjudication or historical use analysis); and,

IV. Assuming the flow rate of each existing water right is continuously diverted throughout each month of the period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this Is an appropriate measure of assessing existing water rights as it protects existing water users.

15. The Department subtracted the flow rates of the existing legal demands (Table 4, Column D) within the AOPI from the physically available water (Table 4, Column B) to get the legally available flow rates at the POD (Table 4, Column E). Legally available monthly flow rates were then converted into monthly volumes (Table 4, Column F).

Table 4: Legal Availability of the Kootenai River from the point of diversion to the Idaho-Montana Border

A	B	C	D	E	F
Month	**Physically Available Water at POD (CFS)**	**Physically Available Water at POD (AF)**	**Existing Legal Demands on the Kootenai River below the POD (CFS)**	**Legally Available Flow (CFS)**	**Legally Available Flow (AF)**
April	4,245.44	252,179.14	2.15	4,243.29	252,051.43
May	9,160.42	562,266.58	5.43	9,155	543,806.41
June	14,591.42	866,730.35	5.82	14,585.6	866,384.64
July	10,891.42	668,515.36	5.82	10,885.6	646,604.64
August	9,515.42	584,056.48	5.82	9,509.6	564,870.24
September	8,495.42	504,627.95	5.67	8,489.75	504,291.15
October	6,778.39	416,057.58	4.39	6,774	402,375.6

16. Based on the evaluation of legally available water, the Department finds that the requested flow rate of 18.0 GPM (0.04 CFS) up to 0.94 AF of volume is legally available in the Kootenai River at the proposed POD during the period of diversion from April 1st to October 15th.

ADVERSE EFFECT

FINDINGS OF FACT

17. The Applicants propose to divert water from the Kootenai River at a rate of 18.0 GPM up to 0.94 AF to irrigate 0.86 acres for lawn and garden from April 1st to October 15th. The Applicants provided a plan showing they can regulate their water during times of shortage to ensure senior appropriators' water rights are met. The Applicants' plan is as follows:

a. The Applicants will monitor the flow of the Kootenai River at the USGS Gaging Station 12301933 to assure there is adequate water to satisfy all existing water rights before using water.
b. In the event of a water shortage the power to the pump can be shut off and diversion of water will stop.

18. The Applicants have shown that they can regulate their water usage and that a plan is in place to protect existing water users. The Department finds that water is both physically and legally available during the proposed period of diversion (FOF 12 and 16). The Department finds that the proposed water use will not adversely affect senior water users.

ADEQUATE MEANS OF DIVERSION

FINDINGS OF FACT

19. The Applicants propose to divert water from the Kootenai River at a rate of 18.0 GPM up to 0.94 AF/year to irrigate 0.86 acres of lawn and garden by means of a Grundfos 22 SQ10-160 pump and motor suspended in an 8-inch well casing that is buried into the bank of the river. A 6 ft length of 4-inch PVC pipe with fifty ¼-inch slots buried approximately 6 feet below the ordinary high-water mark connects to the bottom of the 8-inch well casing to allow intake of Kootenai River water by the pump. The pump outlet is connected to a 1-1/2-inch galvanized pipe set into a standard Boshart's 1-1/2-inch P-150-SS stainless steel pitless adapter that is connected to a 1-½-inch HDPE distribution line. The pump is powered by a 220V 60 Hz 50-amp power supply from the existing pump house.

20. The system is comprised of three irrigation zones and is designed so that only one irrigation zone will operate at a time. The water will be conveyed from the Kootenai River to the north section of the

property along the east side of the property through the 1-½-inch HDPE mainline. The mainline tees off into zones via 1-inch HDPE lateral lines before connecting to the sprinklers with a ¾-inch HDPE connection. The Applicant will control the irrigation in the zones via a Rainbird controller. Each of the three zones will operate with a mixture of 2.0 GPM lawn rotors and 1.0 GPM shrub rotors for the lawn and shrub irrigation with each zone having 6 rotors set to operate at 60 PSI.

21. The Applicants provided pump specifications and a TDH analysis for irrigation Zone 1 (the furthest zone). Comparing the THD to the pump specifications demonstrates that the pump can divert and convey water to each zone at a rate of 18.0 GPM.

22. The Department finds that the system can convey the proposed 18.0 GPM up to 0.94 AF annually based on the system design and specifications.

BENEFICIAL USE

FINDINGS OF FACT

23. The Applicants request to divert water from the Kootenai River at a rate of 18.0 GPM up to 0.94 AF to irrigate 0.86 acres of lawn and garden from April 1st to October 15th.

24. The Applicant requested 0.86 acres of lawn and garden; the irrigation plan submitted with the application shows that only 0.76 acres of the requested 0.86 will be irrigated by the provisional permit upon issuance. The remaining 0.1 acres will be irrigated solely with the existing ground water certificate 76D 30164146 via a separate irrigation system designed to irrigate only around the home. The irrigation planned with this permit will irrigate mainly grass and some small shrubs on the main part of the property. The two irrigation systems will be operated separately and not manifold. The place of use for the groundwater certificate and the provisional permit will not be supplemental. The rights will not be supplemental as the well will only be used if the surface water system is unavailable. The Department finds the requested irrigated lawn and garden area will be 0.76 acres.

25. The Applicants' property is located within USDA NRCS Climatic Area III. The Applicants requested a period of diversion and a period of use from April 1st to October 15th, which differs from the USDA NRCS Climatic Area III standard of April 15th to October 15th as set forth in ARM 36.12.112 (1)(c)(iii). Since the Applicants did not provide any reasoning or justification for their non-standard period of diversion and period of use requests, the Department finds that the period of diversion and period of use will be modified to be from April 15th to October 15th (184 days) annually to conform to the DNRC standard for USDA NRCS Climatic Area III.

26. The Applicants requested a volume of 0.94 AF which they determined based on their planned system operation time rather than basing their request on DNRC standards or crop requirements. The Applicants' irrigation plan consists of irrigating each of their three zones for 30 minutes each, for 90 minutes per day total. The total amount of water needed to irrigate lawn and garden per day based off the applicants' calculations is 1,620 gallons (90 minutes x 18.0 GPM = 1,620 gallons). Over the 184-day period of diversion, the Applicants will require a volume of 0.92 AF (1,620 gallons/day x 184 days = 298,080 gallons; 298,080 gallons ÷ 325,851 gallons per AF = 0.92 AF). The Applicants calculated their requested volume 0.94 AF based on a 190-day irrigation period from April 1st to October 15th and assuming they will irrigate every day during the period of diversion (1,620 gallons/day x 190 days = 307,800 gallons; 307,800 gallons ÷ 325,851 gallons/AF = 0.94 AF).

Further, the Applicants cited DNRC sprinkler irrigation standards for USDA NRCS Climatic Area III found in ARM 36.12.115(2)(e) when comparing their requested volume to DNRC standard volumes. The standard referenced by the Applicants was incorrect for the lawn and garden purpose. The Department finds that the requested volume will be modified to 0.92 AF to conform to the modified period of use.

27. If diverted continuously throughout entire modified 184-day period of diversion, the requested flow rate of 18.0 GPM would result in a total diversion of 14.64 AF (18.0 GPM x 1,440 minutes/day x 184 days ÷ 325,851 gallons/AF = 14.64 AF/year). This proves the proposed flow rate is adequate to divert the modified annual volume of 0.92 AF.

28. Due to the Applicants' deviation from DNRC standards in their volume request, the proposed permit will be subject to the following measurement reporting condition to ensure the Applicant does not divert more volume than authorized:

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 JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

29. The Department finds that diverting water from the Kootenai River at a flow rate of 18.0 GPM up to the modified annual volume of 0.92 AF to irrigate the modified 0.76 acres of lawn and garden within the modified period of diversion and period of use of April 15th to October 15th, coupled with a monthly measurement reporting requirement, is a beneficial use and the requested flow rate and volume are reasonable to satisfy that use.

POSSESSORY INTEREST

FINDINGS OF FACT

30. The Applicants signed the application form affirming that the Applicants have possessory interest or the written consent of the person with possessory interest, in the property where the water is to be put to beneficial use.

CONCLUSIONS OF LAW

PHYSICAL AVAILABILITY

31. Pursuant to § 85-2-311(1)(a)(i), MCA, an Applicant must prove by a preponderance of the evidence that "there is water physically available at the proposed point of diversion in the amount that the Applicant seeks to appropriate."

32. It is the Applicant's burden to produce the required evidence. *In the Matter of Application for Beneficial Water Use Permit No. 27665-41I by Anson* (DNRC Final Order 1987) (Applicant produced no flow measurements or any other information to show the availability of water; permit denied); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.,* (DNRC Final Order 2005).

33. An Applicant must prove that at least in some years there is water physically available at the point of diversion in the amount the Applicant seeks to appropriate. *In the Matter of Application for Beneficial Water Use Permit No. 72662s76G by John Fee and Don Carlson* (DNRC Final Order 1990); *In the Matter of Application for Beneficial Water Use Permit No. 85184s76F by Wills Cattle Co. and Ed McLean* (DNRC Final Order 1994).

34. The Applicants have proven that water is physically available at the proposed point of diversion in the amount granted by the DNRC. Section 85-2-311(1)(a)(i), MCA. (FOF 10-12)

LEGAL AVAILABILITY

35. Pursuant to § 85-2-311(1)(a), MCA, an Applicant must prove by a preponderance of the evidence that:

> (ii) water can reasonably be considered legally available during the period in which the Applicant seeks to appropriate, in the amount requested, based on the records of the department and other evidence provided to the department. Legal availability is determined using an analysis involving the following factors:
> (A) identification of physical water availability;
> (B) identification of existing legal demands on the source of supply throughout the area of potential impact by the proposed use; and
> (C) analysis of the evidence on physical water availability and the existing legal demands, including but not limited to a comparison of the physical water supply at the proposed point of diversion with the existing legal demands on the supply of water.

E.g., ARM 36.12.101 and 36.12.120; *Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (Permit granted to include only early irrigation season because no water legally available in late irrigation season); *In the Matter of Application for Beneficial Water Use Permit No. 81705-g76F by Hanson* (DNRC Final Order 1992).

36. It is the Applicant's burden to present evidence to prove water can be reasonably considered legally available. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7 (the legislature set out the criteria (§ 85-2-311, MCA) and placed the burden of proof squarely on the Applicant. The Supreme Court has instructed that those burdens are exacting.); *see also Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston* (1991), 249 Mont. 425, 816 P.2d 1054 (burden of proof on Applicant in a change proceeding to prove required criteria); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005))(it is the Applicant's burden to produce the required evidence.); *In the Matter of Application for Beneficial Water Use Permit No. 41H 30023457 by Utility Solutions, LLC* (DNRC Final Order 2007) (permit denied for failure to prove legal availability); *see also* ARM 36.12.1705.

37. The Applicants have proven by a preponderance of the evidence that water can reasonably be considered legally available during the period in which the DNRC authorized, in the amount authorized, based on the records of the Department and other evidence provided to the Department. Section 85-2-311(1)(a)(ii), MCA. (FOF 13-16)

ADVERSE EFFECT

38. Pursuant to § 85-2-311(1)(b), MCA, the Applicant bears the affirmative burden of proving by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right,

a certificate, a permit, or a state water reservation will not be adversely affected. Analysis of adverse effect must be determined based on a consideration of an Applicant's plan for the exercise of the permit that demonstrates that the Applicant's use of the water will be controlled so the water right of a prior appropriator will be satisfied. *See Montana Power Co.*, 211 Mont. 91, 685 P.2d 336 (1984) (purpose of the Water Use Act is to protect senior appropriators from encroachment by junior users); *Bostwick Properties, Inc.*, ¶ 21.

39. An Applicant must analyze the full area of potential impact under the § 85-2-311, MCA criteria. *In the Matter of Beneficial Water Use Permit No. 76N-30010429 by Thompson River Lumber Company* (DNRC Final Order 2006). While § 85-2-361, MCA, limits the boundaries expressly required for compliance with the hydrogeologic assessment requirement, an Applicant is required to analyze the full area of potential impact for adverse effect in addition to the requirement of a hydrogeologic assessment. *Id.* ARM 36.12.120(5).

40. Applicant must prove that no prior appropriator will be adversely affected, not just the objectors. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 4 (2011).

41. In analyzing adverse effect to other appropriators, an Applicant may use the water rights claims of potentially affected appropriators as evidence of their "historic beneficial use." *See Matter of Application for Change of Appropriation Water Rights Nos. 101960-41S and 101967-41S by Royston*, 249 Mont. 425, 816 P.2d 1054 (1991).

42. It is the Applicant's burden to produce the required evidence. *E.g., Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 7 (2011) (legislature has placed the burden of proof squarely on the Applicant); *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005). The Department is required to grant a permit only if the § 85-2-311, MCA, criteria are proven by the Applicant by a preponderance of the evidence. *Bostwick Properties, Inc.*, ¶ 21.

43. Section 85-2-311 (1)(b) of the Water Use Act does not contemplate a de minimis level of adverse effect on prior appropriators. *Wesmont Developers v. DNRC*, CDV-2009-823, First Judicial District Court, *Memorandum and Order*, 8 (2011).

44. The Applicants have proven by a preponderance of the evidence that the water rights of a prior appropriator under an existing water right, a certificate, a permit, or a state water reservation will not be adversely affected. Section 85-2-311(1)(b), MCA. (FOF 17-18)

ADEQUATE DIVERSION

45. Pursuant to § 85-2-311(1)(c), MCA, an Applicant must demonstrate that the proposed means of diversion, construction, and operation of the appropriation works are adequate.

46. The adequate means of diversion statutory test merely codifies and encapsulates the case law notion of appropriation to the effect that the means of diversion must be reasonably effective, i.e., must not result in a waste of the resource. *In the Matter of Application for Beneficial Water Use Permit No. 33983s41Q by Hoyt* (DNRC Final Order 1981); § 85-2-312(1)(a), MCA.

47. The Applicants have proven by a preponderance of the evidence that the proposed means of diversion, construction, and operation of the appropriation works are adequate for the proposed beneficial use. Section 85-2-311(1)(c), MCA (FOF 19-22)

BENEFICIAL USE

48. Under § 85-2-311(1)(d), MCA, an Applicant must prove by a preponderance of the evidence the proposed use is a beneficial use.

49. An appropriator may appropriate water only for a beneficial use. See also, § 85-2-301 MCA. It is a fundamental premise of Montana water law that beneficial use is the basis, measure, and limit of the use. *E.g.*, *McDonald*; *Toohey v. Campbell* (1900), 24 Mont. 13, 60 P. 396. The amount of water under a water right is limited to the amount of water necessary to sustain the beneficial use. *E.g.*, *Bitterroot River Protective Association v. Siebel, Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court, Lewis and Clark County (2003), *affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518; *In The Matter Of Application For Beneficial Water Use Permit No. 43C 30007297 by Dee Deaterly* (DNRC Final Order), *affirmed other grounds*, *Dee Deaterly v. DNRC* , Cause No. 2007-186, Montana First Judicial District, *Order Nunc Pro Tunc on Petition for Judicial Review* (2009); *Worden v. Alexander* (1939), 108 Mont. 208, 90 P.2d 160; *Allen v. Petrick* (1924), 69 Mont. 373, 222 P. 451; *In the Matter of Application for Beneficial Water Use Permit No. 41S-105823 by French* (DNRC Final Order 2000).

50. Amount of water to be diverted must be shown precisely. *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, 3 (2011) (citing *BRPA v. Siebel*, 2005 MT 60, and rejecting Applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet).

51. It is the Applicant's burden to produce the required evidence. *Bostwick Properties, Inc. v. DNRC*, 2013 MT 48, ¶ 22, 369 Mont. 150, 296 P.3d 1154 ("issuance of the water permit itself does not become a

clear, legal duty until [the applicant] proves, by a preponderance of the evidence, that the required criteria have been satisfied"); *Sitz Ranch v. DNRC*, DV-10-13390, Fifth Judicial District Court, *Order Affirming DNRC Decision*, (2011) Pg. 7; *In the Matter of Application to Change Water Right No. 41H 1223599 by MGRR #1, LLC.*, (DNRC Final Order 2005); *see also Royston; Ciotti*.

52. The Applicants propose to use water for lawn and garden irrigation which is a recognized beneficial use. Section 85-2-102(5), MCA. The Applicants have proven by a preponderance of the evidence that lawn and garden irrigation is a beneficial use and that 0.92 AF of diverted volume and 18.0 GPM is the amount needed to sustain the beneficial use. Section 85-2-311(1)(d), MCA. (FOF 23-29)

POSSESSORY INTEREST

53. Pursuant to § 85-2-311(1)(e), MCA, an Applicant must prove by a preponderance of the evidence that it has a possessory interest or the written consent of the person with the possessory interest in the property where the water is to be put to beneficial use, or if the proposed use has a point of diversion, conveyance, or place of use on national forest system lands, the Applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water under the permit.

54. Pursuant to ARM 36.12.1802:

> (1) An Applicant or a representative shall sign the application affidavit to affirm the following:
> (a) the statements on the application and all information submitted with the application are true and correct and
> (b) except in cases of an instream flow application, or where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use, the Applicant has possessory interest in the property where the water is to be put to beneficial use or has the written consent of the person having the possessory interest.
> (2) If a representative of the Applicant signs the application form affidavit, the representative shall state the relationship of the representative to the Applicant on the form, such as president of the corporation, and provide documentation that establishes the authority of the representative to sign the application, such as a copy of a power of attorney.
> (3) The department may require a copy of the written consent of the person having the possessory interest.

55. The Applicants have proven by a preponderance of the evidence that they have a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use. Section 85-2-311(1)(e), MCA. (FOF 30)

PRELIMINARY DETERMINATION

Subject to the terms, analysis, and conditions in this Order, the Department preliminarily determines that this Application for Beneficial Water Use Permit No. 76D 30170983 should be GRANTED IN MODIFIED FORM.

The Department determines the Applicants may divert water from the Kootenai River, by means of a pump, from April 15th to October 15th at 18.0 GPM up to 0.92 AF, from a point in the NWNENE Section 36, Township 31N, Range 31W, Lincoln County Montana, for lawn and garden use from April 15th to October 15th. The Applicant may irrigate lawn and garden on 0.76 acres. The place of use is located in the SWSESE Section 25, Township 31N, Range 31W, Lincoln County, MT and in the NWNENE of Section 36, Township 31N, Range 31W, Lincoln County, Montana.

The application will be subject to the following condition:

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 JANUARY 31 OF EACH YEAR AND UPON REQUEST AT OTHER TIMES DURING THE YEAR UNTIL A FORM 617 PROJECT COMPLETION NOTICE IS SUBMITTED. FAILURE TO SUBMIT RECORDS MAY BE CAUSE FOR REVOCATION OF THE PERMIT. THE RECORDS MUST BE SENT TO THE KALISPELL REGIONAL WATER RESOURCES OFFICE. THE APPROPRIATOR SHALL MAINTAIN THE MEASURING DEVICE SO IT ALWAYS OPERATES PROPERLY AND MEASURES FLOW RATE AND VOLUME ACCURATELY.

NOTICE

The Department will provide a notice of opportunity for public comment on this application and the Department's Draft Preliminary Determination to Grant in Modified Form pursuant to § 85-2-307, MCA. The Department will set a deadline for public comments to this application pursuant to §§ 85-2-307, and -308, MCA. If this application receives public comment pursuant to § 85-2-307(4), the Department shall consider the public comments, respond to the public comments, and issue a preliminary determination to grant the application, grant the application in modified form, or deny the application. If no public comments are received pursuant to § 85-2-307(4), MCA, the Department's preliminary determination will be adopted as the final determination.

DATED this day 11 of March, 2026.

James Ferch, Manager
Kalispell Regional Office
Montana Department of Natural Resources and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the DRAFT PRELIMINARY DETERMINATION TO GRANT IN MODIFIED FORM was served upon all parties listed below on this 11 day of March, 2026, by first class United States mail.

KURTIS M HAFFERMAN and KATHY M MINER
PO BOX 1690
LIBBY MT 59923-5001

ABIGAIL WILLIAMS

KALISPELL Regional Office, (406) 752-2288

Processing Materials

- Work copies of applicant-submitted information
- Deficiency letter
- Deficiency response
- Correct & complete determination
- Any correspondence with the applicant after application receipt and prior to sending the Draft PD

Processing Materials

Water Resources Division – Kalispell Regional Office
655 Timberwolf Pkwy, Ste. 4
Kalispell, MT 59901-1215
(406) 752-2288
DNRCKalispellWater@mt.gov

1/13/2025

KURTIS HAFFERMAN & KATHY MINER
PO BOX 1690
LIBBY MT 59923-5001

Subject: Correct and Complete Application for Beneficial Water Use Permit No. 76D 30170983

Dear Applicant,

The Department of Natural Resources and Conservation (Department) has determined that your application is correct and complete pursuant to ARM 36.12.1601. Please remember that correct and complete **does not mean that your application will be granted.** The purpose of this letter is to indicate that the Department has enough information to analyze your water right application.

The Department will issue a Draft Preliminary Determination within 60 days of the date of this letter per §85-2-307(2)(b), MCA.

Following issuance of the Draft Preliminary Determination, you (Applicant) will have 15 business days to request an extension of time to submit additional information, if desired pursuant to §85-2-307(3)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to grant your application or grant your application in modified form, the Department will prepare a notice of opportunity to provide public comment, per §85-2-307(4)(a), MCA.

If no extension of time is requested and the Draft Preliminary Determination decision is to deny your application, the Department will adopt the Draft Preliminary Determination as the final determination per §85-2-307(3)(d)(ii), MCA.

If you have any questions or concerns about the application process, please contact me.
Best,

Abigail Williams
Water Resource Specialist
Kalispell Regional Office
Abigail.Williams@mt.gov

POINT(S) OF DIVERSION

20. Describe the proposed location of the point(s) diversion to the nearest ¼ ¼ ¼ Section. Label each POD with the POD ID number used for the project map (question 17).

POD #	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
1	NW	NE	NE	36	31	31	Lincoln	8			MBMI Development Inc.	

PLACE OF USE

WORK COPY

21. What are the geocodes of the place of use?

56-4283-25-4-01-19-0000	

22. Describe the legal land description for the proposed place of use and, if applying for an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov. Lot	Block	¼	¼	¼	Sec.	Twp.	Rge.	County
0.29			SW	SE	SE	25	31	31	Lincoln
0.57			NW	NW ✓ NE	NE	36	31	31	Lincoln

PURPOSE AND DIVERSION INFORMATION

WORK COPY

14. ☐ **Y** ☑ **N** Is the proposed use temporary?

14.a. If yes, when will the appropriation cease? _____

15. Is the proposed source surface water or groundwater? Surface water

16. What is the source name? Kootenai River

17. ☑ **S** Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

18. Fill out the table below. Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others.

Purpose	**Means of Diversion**	**Acres Irrigated** (if appl.)	**Period of Diversion** *(Month/Day - Month/Day)*	**Period of Use** *(Month/Day - Month/Day)*	**Flow Rate** ☑ *GPM* ☐ *CFS*	**Volume** *(Acre-Feet)*
~~Irrigation~~ Lawn & Garden	Pump	0.86	04/01-010/15	04/01-10/15	18	0.94
				Total Flow Rate and Volume Required	18	0.94

19. ☐ **Y** ☐ **N** Does the proposed use include on or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable.

Purpose	**Requested Information**	**Response**
Domestic or multiple domestic	Number of dwellings	
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	Sprinkler,underground to sprinkler locations
Irrigation (flood only)	Design slope	

Application Materials

- Application
- Any information submitted with Application including maps

Application Materials

APPLICATION FOR BENEFICIAL WATER USE PERMIT

§ 85-2-302, MCA

Form No. 600 *(02/2025)*

For Department Use Only
RECEIVED
DNRC Water Resources
DEC 19 2025
Kalispell Unit

Application # 30170983 Basin 76D
Priority Date 12/19/25 Time 3:22 AM/PM
Rec'd By AW
Fee Rec'd $ 700.00 Check # 29201
Deposit Receipt # KLJ2611655
Payor
Refund $ Date

FILING FEE

$2900/$1600 – Inside a Basin Closure Area, Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

$2500/$1200 – Outside a Basin Closure Area; Controlled Groundwater Area or Compact Closure; without/with filing fee reduction.

INFORMATION

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)). If application is eligible for a filing fee reduction, $500 paid for Form 600P-B will be credited toward filing fees shown above.

Applicant Information: *Add more as necessary.*

Applicant Name Kurtis Hafferman and Kathy Miner
Mailing Address P.O. Box 1690 City Libby State MT Zip 59923
Phone Numbers: Home Work Cell 406-212-0404
Email Address kurt@haffermanengineering.com kathyminer@me.com

Applicant Name
Mailing Address City State Zip
Phone Numbers: Home Work Cell
Email Address

Applicant Name
Mailing Address City State Zip
Phone Numbers: Home Work Cell
Email Address

Contact/Representative Information: *Add more as necessary.*

Contact/Representative is: ☑ Applicant ☑ Consultant ☐ Attorney ☐ Other
Contact/Representative Name
Mailing Address City State Zip
Phone Numbers: Home Work Cell
Email Address

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary (ARM 36.12.122(2)). If a contact person is identified as a consultant, employee, or lessee, the individual filing the water right form or objection form will receive all correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).*

Answer every question and applicable follow-up questions. Use the checkboxes to denote yes ("Y"), no ("N"), or not applicable ("NA"). Questions that require items to be submitted to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Application. Label all submitted items with the question number for which they were submitted. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, specify "see attachment" on this form, and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and "see attachment" must be entered as a response to the relevant question. Clearly label all units in tables and narrative responses.

PREAPPLICATION AND TECHNICAL ANALYSES INFORMATION

1. ☑ **Y** ☐ **N** Do you elect for Department technical analyses to be used for criteria assessment?

2. ☑ **Y** ☐ **N** Did you have a preapplication meeting AND complete a Permit Preapplication Meeting Form Part A and Part B (Form 600P-A and 600P-B)?

IF QUESTION 2 IS NO, answer 2.a and 2.b:

2.a. ☑ **S** Submit the Technical Analyses Addendum (Form 600-TAA).

2.b. ☐ **S** ☐ **NA** Submit the technical analyses, if you elected in question 1 for Applicant technical analyses to be used for criteria assessment. Select "NA" if you elected for Departmental technical analyses.

IF QUESTION 2 IS YES, answer 2.c, 2.d, and 2.e:

2.c. ☐ **Y** ☑ **N** Has any element of the project described in this application changed from the mandatory elements of the project described in the completed form 600P? **If yes:**
2.c.i. Please explain.

_____
_____
_____
_____
_____
_____

2.c.ii. ☐ **S** Submit the Technical Analyses Addendum (Form 600-TAA).

2.d. ☑ **Y** ☐ **N** Are the technical analyses to be used for criteria assessment exactly the same as those completed during the preapplication process? **If no:**
2.d.i. Please explain.

_____
_____
_____
_____
_____

2.d.ii. ☐ **S** Submit the Technical Analyses Addendum (Form 600-TAA).

2.e. ☑ **Y** ☐ **N** Did you elect in Question 1 for Department technical analyses to be used for criteria assessment? **If no:**
2.e.i. ☑ **S** Submit the technical analyses.

APPLICATION ADDENDA AND REVIEW

3. ☐ **S** ☑ **NA** If your application is for groundwater, not surface water, and one or more of your points of diversion are in a Basin Closure Area, then submit the Basin Closure Area Addendum (Form 600-BCA).

4. ☐ **S** ☑ **NA** If your application is for groundwater and one or more points of diversion are in a Basin Closure Area, then your project must have a Hydrogeologic Report that conforms with MCA 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements. Please mark the box below that best applies, then select "S" if submitting a Hydrogeologic Report or "NA" if one is not required. This question does not apply to surface water points of diversion in a Basin Closure Area.

- ☐ If you elected to conduct Technical Analyses, you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
- ☐ If you elected for DNRC to conduct Technical Analyses but did not have a preapplication meeting AND complete a Form 600P Permit Preapplication Meeting Form (or changes have occurred since the completed Form 600P), you must submit the Hydrogeologic Report Addendum (Form 600-HRA).
- ☐ If you elected for DNRC to conduct Technical Analyses, had a preapplication meeting, completed a Form 600P, and the Technical Analyses remain unchanged since the preapplication meeting, you do not need to submit Form 600-HRA because the Department's Technical Analyses meet the report requirements of § 85-2-360 and § 85-2-361, MCA.

5. ☐ **S** ☑ **NA** If the project is for one or more groundwater points of diversion located in a Controlled Groundwater Area, then submit the Controlled Groundwater Area Addendum (Form 600-CGWA).

6. ☐ **S** ☑ **NA** If the project involves an appropriation that is greater than 5.5 CFS and 4,000 acre-feet, then submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AC-FT (Form 600-B).

7. ☐ **S** ☑ **NA** If the project involves out-of-state water use, then submit the Out-of-State Use Addendum (Form 600/606-OSA).

8. ☐ **S** ☑ **NA** If you require mitigation water to meet the criteria of issuance, then submit a Mitigation Purpose Addendum (Form 600/606-MIT).

9. ☐ **S** ☑ **NA** If the proposed purposes include marketing or selling water, (not marketing for mitigation/ aquifer recharge), then submit the Marketing Purpose Addendum (Form 600/606-WMA).

10. ☐ **S** ☑ **NA** If the project involves one or more places of storage, then submit a Permit Storage Addendum (Form 600-SA). This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)).

11. ☐ **S** ☑ **NA** If the project is in designated sage grouse habitat, then submit a review letter from the Montana Sage Grouse Habitat Conservation Program.

12. ☐ **S** ☑ **NA** If the project includes a point of diversion and/or place of use on State of Montana Trust Land, submit documentation of consent from the DNRC Trust Lands Management Division.

13. ☐ **S** ☑ **NA** You must provide a written notice of the application to each owner of an appropriation right sharing a point of diversion or means of conveyance (e.g., canal, ditch, flume, pipeline, or constructed waterway) pursuant to §85-2-302(4)(c), MCA. Submit a copy of this notice and the recipient list.

PURPOSE AND DIVERSION INFORMATION

14. ☐ **Y** ☑ **N** Is the proposed use temporary?

14.a. If yes, when will the appropriation cease? _____

15. Is the proposed source surface water or groundwater? Surface water

16. What is the source name? Kootenai River

17. ☑ **S** Attach a map utilizing an aerial photograph or topographic map that shows the following: section corners; township and range; north arrow; scale bar; all proposed points of diversion labeled with a unique Point of Diversion (POD) ID number and, if applicable, GWIC number; all proposed places of use; all proposed conveyance facilities and or routes; all proposed places of storage labeled with a unique Storage ID number; and places of use (POU) for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.

18. Fill out the table below. Means of diversion for surface water includes headgate, pump, dam, and others. Means of diversion for groundwater includes well, developed spring, pit pond, and others.

Purpose	**Means of Diversion**	**Acres Irrigated** (if appl.)	**Period of Diversion** *(Month/Day - Month/Day)*	**Period of Use** *(Month/Day - Month/Day)*	**Flow Rate** ☑ *GPM* ☐ *CFS*	**Volume** *(Acre-Feet)*
Irrigation	Pump	0.86	04/01-010/15	04/01-10/15	18	0.94
				Total Flow Rate and Volume Required	18	0.94

19. ☐ **Y** ☐ **N** Does the proposed use include on or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable.

Purpose	**Requested Information**	**Response**
Domestic or multiple domestic	Number of dwellings	
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	Sprinkler,underground to sprinkler locations
Irrigation (flood only)	Design slope	

POINT(S) OF DIVERSION

20. Describe the proposed location of the point(s) diversion to the nearest ¼ ¼ ¼ Section. Label each POD with the POD ID number used for the project map (question 17).

POD #	¼	¼	¼	Sec.	Twp.	Rge.	County	Lot	Block	Tract	Subdivision	Gov. Lot
1	NW	NE	NE	36	31	31	Lincoln	8			MBMI Development Inc.	

PLACE OF USE

21. What are the geocodes of the place of use?

56-4283-25-4-01-19-0000	

22. Describe the legal land description for the proposed place of use and, if applying for an irrigation or lawn and garden purpose, list the number of irrigated acres.

Acres	Gov. Lot	Block	¼	¼	¼	Sec.	Twp.	Rge.	County
0.29			SW	SE	SE	25	31	31	Lincoln
0.57			NW	NW	NE	36	31	31	Lincoln

SUPPLEMENTAL AND OVERLAPPING WATER RIGHTS

23. ☑ **Y** ☐ **N** Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?

23.a. If yes, summarize how the supplemental and proposed water rights will be operated as a whole to serve the purpose(s).

See attached Form 600: 23-Supplemental Water Rights

24. For each supplemental or overlapping water right, please list the water right number, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed to the shared place of use.

Water Right #	Average Period of Diversion	Average Period of Use	Flow Rate	Volume Contributed
76D 30164146	4/1 to 10/31	4/1 to 10/31	15 gpm	0.5 AF

25. ☐ **Y** ☑ **N** Will this application supplement contract water from a Federal Project, ditch company, or other source?

25.a. If yes, explain.

ADVERSE EFFECT

26. Explain how you can control your diversion in response to a call being made.

See attached Form 600: 26-Adverse Effect

27. Describe any plans you have for ensuring existing water rights will be satisfied during times of water shortage.

As stated in attached Form 600: 26-Adverse Effect, the applicant will moinitor the flow of the Kootenai River at the USGS Station 12301933 Kootenai River below Libby Dam to assure there is adequate water to satisfy all existing water rights before using water.

28. ☐ Y ☑ N Are you aware of any calls that have been made on the source of supply or, if groundwater, on nearby surface water sources?

28.a. If yes, explain.

29. ☐ Y ☑ N Does a water commissioner distribute water or oversee water distribution on your proposed source?

29.a. If yes, list the source(s).

30. ☐ Y ☑ N Do other water rights share any of the proposed points of diversion?

30.a. If yes, describe how the proposed project will not adversely affect these water rights.

31. ☐ Y ☑ N Do other water rights share any conveyance infrastructure associated with the proposed project?

31.a. If yes, describe how the proposed project will not adversely affect these water rights.

ADEQUATE MEANS OF DIVERSION AND OPERATION

32. ☑ **S** Submit a diagram of how you will operate your system from all proposed points of diversion to all proposed places of use.

33. Describe specific information about the capacity of all proposed diversionary structures. This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.

See attached Form 600 33. Adequate Means of Diversion and Operation: Means of Diversion

34. Describe the size, materials, capacity, and configuration of infrastructure to convey water from all proposed points of diversion to all proposed places of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods.

See attached Form 600 34. Adequate Means of Diversion and Operation: Conveyance System

35. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion.

See attached Form 600 35. Adequate Means of Diversion and Operation: Adequaticy of Diverison

36. Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot.

See attached Form 600 36. Adequate Means of Diversion and Operation: Beneifical Use Operations

37. ☐ **Y** ☑ **N** Does the proposed conveyance require easements?

37.a. If yes, explain.

38. ☑ **Y** ☐ **N** Do you own the land where all proposed points of diversion are located?

38.a. ☐ **S** If no, submit documentation to show you have the right to use all points of diversion located on each property you do not own. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.

39. ☐ **Y** ☑ **N** Will your system be designed to discharge water from the project?

IF YES,

39.a. Explain the wastewater disposal method.

39.b. ☐ **Y** ☐ **N** ☑ **NA** Have the necessary permits been obtained to comply with §§ 75-5-410 and 85-2-364, MCA?

40. ☐ **Y** ☑ **N** Do you have any plans to measure your diversion and use?

40.a. If yes, describe the plan and the type of measurements you will take.

41. ☐ **Y** ☑ **N** Is the means of diversion for any proposed point of diversion a well?

IF YES,

41.a. ☐ **Y** ☐ **N** Have all wells been drilled?

41.b. For all wells that have been drilled, what is the name of the well driller and, if available, what is their license number?

_____

41.c. ☐ **Y** ☐ **N** For all wells yet to be drilled, will a licensed well driller construct the wells?

41.d. ☐ **S** ☐ **NA** Submit any well logs not yet submitted to the Department.

BENEFICIAL USE

42. ☑ **Y** ☐ **N** Does the Department have a volume, period of diversion, or period of use standard for the purposes for which water is proposed? Department standards can be found in the DNRC Water Calculation Guide, ARM 36.12.112, and ARM 36.12.115.

42.a. ☑ **Y** ☐ **N** If yes, do all proposed beneficial uses fall within Department standards?

42.b. If no Department standard exists, or if any proposed beneficial use falls outside of Department standards, explain how the requested flow rate and volume are reasonable for the purpose.

_____
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_____
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_____

43. ☐ **Y** ☑ **N** Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?

44. ☐ **Y** ☑ **N** Are you proposing to use surface water for in-house domestic use?

44.a. ☐ **Y** ☐ **N** If yes, does a COSA exist for the proposed place of use?

44.a.i. ☐ **S** ☐ **NA** If yes, please submit the COSA.

44.a.ii. ☐ **Y** ☐ **N** If no, have you researched or consulted with DEQ regarding their requirements?

POSSESSORY INTEREST

45. ☐ **Y** ☑ **N** Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use.

45.a. If yes, explain.

46. ☑ **Y** ☐ **N** ☐ **NA** Do you own all proposed places of use? Mark "NA" if you meet one of the exceptions to the possessory interest requirement.

IF NO,

46.a. ☐ **S** Explain and submit documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use.

46.b. ☑ **Y** ☐ **N** Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403, MCA.

46.b.i. If no, explain.

PROPOSED COMPLETION PERIOD

47. How much time will be needed to complete this project and to submit to the DNRC a Project Completion Notice (Form 617)? 3 years after permit is issued

48. Please describe why this amount of time is needed to complete this project.
Spring 2027 after permit is iisued (assumed to be issued late 2026) install point of diversion and means of distribution. Spring 2028-2029 plant any additional landscaping and lawn to be irrigated after water from well stops and start irrigation from river. File NOC December 2030

AFFIDAVIT & CERTIFICATION

Read carefully before you sign and review with legal counsel if you have any questions. All owners (or trustees) must sign the form. ***If the owner is a business or trust, include the title of the representative(s) signing the form (i.e., president, trustee, managing partner, etc.) and provide documentation that establishes the authority of the representative to sign the application.*

I affirm the information provided for this application is to the best of my knowledge true and correct. If a preapplication meeting form was submitted, I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if upon submittal of the application to the Department, I changed any element of the proposed application from the preapplication meeting form and follow-up materials (ARM 36.12.1302(6)(a)).

I affirm I have possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use, unless this application meets an exception to the possessory interest requirements in ARM 36.12.1802(1)(b).

I understand that making a false statement under oath or affirmation in this application and official proceedings throughout the examination of my application may subject me to prosecution under § 45-7-202, MCA, a misdemeanor punishable by a jail term not to exceed 6 months or a fine not to exceed $500, or both. I have read this Affidavit and understand the terms and conditions.

I declare under penalty of perjury and under the laws of the state of Montana that the foregoing is true and correct.

Printed Name Kathy M. Miner

Applicant Signature Kathy M. Miner Date: 12/15/2025

Printed Name Kurtis M. Hafferman

Applicant Signature [signature] Date: 12/19/2025

Printed Name _____

Applicant Signature _____ Date: _____

SURFACE WATER APPLICATION FOR BENEFICIAL WATER USE PERMIT: KOOTENAI RIVER
HAFFERMAN AND MINOR
149 Margaret Lane Libby, Montana
Geocode 56-4283-25-4-01-19-0000 Section 25 and Section 36, Township 31 North Range 31 West

DNRC Form 600: 23- SUPPLEMENTAL WATER RIGHTS

There is a groundwater well that has been completed on the property. The notice of completion of groundwater development has been filed before this application and has been granted by the DNRC as water right 76D 30116146. The groundwater well has been used for domestic use and for irrigation use on the 0.86 acres of lawn irrigation. The well will continue to be used for irrigation until the water use permit from the Kootenai River is granted (Assumed 3 years). When the water right from the Kootenai River is granted, the water used from the groundwater well will be reduced to lawn and landscaping around the house (~0.1 ac.) and the surface water irrigation will be used for the remaining lawn and landscaping (0.76 ac.).

These water rights will be supplemental because they have an adjoining place of use but have different points of diversion and different means of diversion and they will not share the same pipeline and distribution system.

DNRC Form 600: 26-ADVERSE EFFECT

The applicant will monitor the flow of the Kootenai River at the USGS Station 12301933 Kootenai River below Libby Dam to assure there is adequate water to satisfy all existing rights before using water.

The point of diversion for the irrigation system uses an electric pump. Electricity for the pump is supplied from a 50 amp breaker in a 200 amp service panel with power from Flathead Electric Cooperative. In the event of a water shortage the power to the pump can be shut off and diversion of water will stop.

DNRC Form 600: ADEQUATE MEANS OF DIVERSION AND OPERATION

DNRC Form 600 - 33.-Means of Diversion: The point of diversion is shown in the attached Point of Diversion sketch. The Point of Diversion sketch pump system will consist of a standard 8-inch well casing buried in the stream bank of the Kootenai River above the ordinary high water mark[1]. Hafferman and Miner will apply for a Lincoln Conservation District 310 permit, a USACOE 410 permit for placement of fill in the water body of the U.S., a MDEQ 318 permit to allow short term turbidity during excavation and a DNRC TLD Land Use license for placement of the point of diversion below the ordinary high water in a navigable stream in Montana.

There will be a 4-inch schedule 80 PVC pipe that exits the well casing approximately 6-ft. below the ordinary high water elevation and is placed into the bed of the Kootenai River. The pipe will be placed approximately 12 ft. from the edge of the ordinary high water and buried with river gravel to avoid interference with navigation. The end of the pipe will be capped and approximately 6 ft. of the end of the pipe will be slotted with 50-¼-inch slots to allow water into the pipe.

A Grundfos 22 SQ10-160 pump and motor will be suspended in the 8-inch well casing using 1-1/2" galvanized pipe set into a standard Boshart's 1-1/2" P-150-SS stainless steel pitless adapter that will allow for easy removal of the pump for service and connection to the 1-1/2" HDPE distribution system

[1] MCA 23-2-301 (9)

piping outside the casing. The pump will be powered by a 220 V 60 Hz 50 amp power supply from the existing pump house.

DNRC Form 600 - 34.-Conveyance System: Water will be pumped to three separate zones as shown on the attached place of use map. Only one zone will operate at a time. Water will be distributed to the zones on the property through a 1-1/12" main line from the river to the north end of the property along the east side property line and then distributed to the sprinklers in the individual zones with 1" HDPE and ¾" HDPE will tee from the 1" HDPE to the individual sprinklers.

The zones will be controlled by a Rainbird sprinkler system. The details of the system are attached in the Rainbird list of materials. The zone controller will be a Rainbird ARC8 App Based Residential Controller - 8 Zone. Sprinklers will be the Rainbird 42SA+ - Heavy Duty Simple Adjustable Professional ¾" Inlet Gear Drive Rotor Sprinkler and 1gpm 5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve. Zone 1 will irrigate pasture grass with 6-2 gpm 42SA Sprinkler and 4- trees will be irrigated with 1gpm 5000S+PCSR - 5000 Series Shrub Rotor sprinkler equivalent to a maximum of 18 gpm. Zone 2 will use the 6-2 gpm 42SA sprinklers for pasture grass and 4- trees will be irrigated with 1gpm 5000S+PCSR sprinklers up to a maximum of 18 gpm. Zone 3 will irrigate pasture grass and lawn near the new house (to be constructed in 2023-2024) with 5-2 gpm 42SA+ sprinklers and 8-trees will be irrigated with 1 gpm 5000S+PCSR - 5000 Series Shrub sprinklers.

DNRC Form 600 - 35.-Adequacy of Diversion: A system curve was analyzed for Zone 1 which has the furthest distance from the pump. The Zone 1 system has been analyzed, assuming 20 ft. of vertical lift, 60 psi outlet pressure, 565 ft. of 1-1/2-inch HDPE pipe with approximately 37 ft. of minor equivalent pipe. The system curve was plotted on the Grundfos 22 SQ10-160 pump curve and the operation point was found to be a minimum 1.4 HP pump operating at 18 gpm at 62% efficiency allowing for 10 ft. of net positive suction head (NPSH). It is assumed that a standard 1.5 HP pump motor will be used with the 220 V power supply. The configuration of submersible pump in an 8-inch casing will require less than 10 ft. of NPSH. The pump-curve and system-curve graphs showing the most probable operation point at 18 gpm is attached.

DNRC Form 600- 36. Adequate Means of Diversion and Operation: Beneficial Use Operations

Using 18 gpm for flow rate will allow for efficient distribution of water to each zone and will allow for each zone to run the minimum amount of time each day of use. The source for the water is the Kootenai River which has an average daily flow rate of 16,100 cfs, and the average low recorded flow after the construction of Libby Dam is near 4,000 cfs. The requested flow rate is 0.00024% of the average flow rate and 0.001% of the low flow rate showing the flow capacity is readily available without adverse effects to stream flows. Using a high flow rate per acre will minimize pump runtime, sprinkler system use, have lower power costs and lengthen the system life.

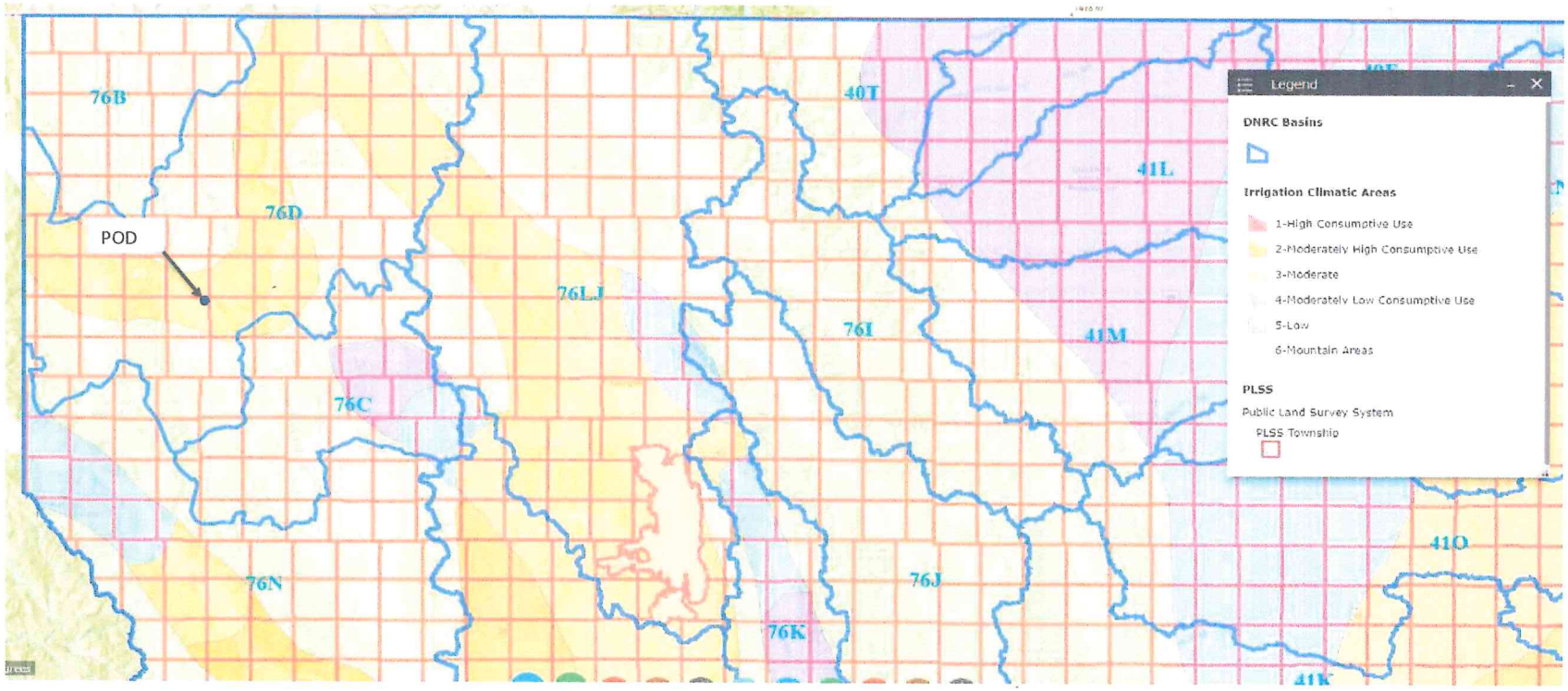
The volume is based on a climatic area map from the DNRC WRD, which shows this property is in a moderately high consumptive use area. The climatic area map is attached with the POU shown as a dot on the map. ARM 36.12.112 Period of Diversion and Period of Use Standards shows for this area the period of use could be from April 1 to October 15 in any year. The maximum volume of water in this climatic area is defined in ARM 36.12.115 Water Use Standards to be between

2.08 to 2.41 AF/ac./year. For the 0.86 ac proposed to be irrigated on the property that would be a maximum useable volume between 1.85 and 2.14 AF/year.

Water is planned to be used for ½ -hour each irrigated day which would have a maximum use of 1,620 gallons per day of use. The average amount of water used in a dry year is planned to be with irrigation every day throughout a 190 day irrigation period. This rate would divert a maximum of 0.94 AF/year for this property.

Therefore, the requested maximum flow rate of 18 gpm up to 0.94 AF per year from April 1 to October 15 each year is a reasonable flow rate and volume and is a beneficial use of water.

DNRC Form 600: Climatic Area Map


76B
40T
41L
76D
POD
76LJ
76I
41M
76C
41O
76N
76J
76K
41K
Legend
DNRC Basins
Irrigation Climatic Areas
1-High Consumptive Use
2-Moderately High Consumptive Use
3-Moderate
4-Moderately Low Consumptive Use
5-Low
6-Mountain Areas
PLSS
Public Land Survey System
PLSS Township

SURFACE WATER APPLICATION FOR BENEFICIAL WATER USE PERMIT: KOOTENAI RIVER
HAFFERMAN AND MINOR
149 Margaret Lane Libby, Montana
Geocode 56-4283-25-4-01-19-0000 Section 25 and Section 36, Township 31 North Range 31 West

DNRC Form 600: Supplemental Water Rights

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: 76D 30164146 GROUND WATER CERTIFICATE

Version: 1 – ORIGINAL RIGHT

Version Status: ACTIVE

Owners: KURTIS M HAFFERMAN
PO BOX 1690
LIBBY, MT 59923-5001

KATHY M MINER
PO BOX 1690
LIBBY, MT 59923-1690

Priority Date: JULY 22, 2024 at 01:00 P.M.

Enforceable Priority Date: JULY 22, 2024 at 01:00 P.M.

Purpose (Use): DOMESTIC

LAWN AND GARDEN

LAWN AND GARDEN

Maximum Flow Rate: 15.00 GPM

Maximum Volume: 3.16 AC-FT

Maximum Acres: 0.86

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSESE	25	31N	31W	LINCOLN

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT: 8

Purpose (Use): DOMESTIC

Households: 1

Volume: 1.00 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NWNENE	36	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Purpose (Use): LAWN AND GARDEN

Volume: 0.73 AC-FT

Period of Use: APRIL 1 to OCTOBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	0.29		SWSESE	25	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Total: 0.29

Purpose (Use): LAWN AND GARDEN

Volume: 1.43 AC-FT

Period of Use: APRIL 1 to OCTOBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	0.57		NWNENE	36	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Total: 0.57

Geocodes/Valid: 56-4283-25-4-01-19-0000 - Y

SURFACE WATER APPLICATION FOR BENEFICIAL WATER USE PERMIT: KOOTENAI RIVER
HAFFERMAN AND MINOR
149 Margaret Lane Libby, Montana
Geocode 56-4283-25-4-01-19-0000 Section 25 and Section 36, Township 31 North Range 31 West

DNRC Form 600: Possessory Interest Deed

291611 RECORDS BOOK:388 Page: 246 Pages: 2
STATE OF MONTANA, LINCOLN COUNTY
RECORDED:03/05/2021 08:23 AM KOI: DEED:17
Robin A. Benson CLERK AND RECORDER
FEE: $14.00 BY: Clyde E Ron Deputy
TO:First American Title - Libby 120 W 6th Street Ste 5, Libby, Montana 59923

AND WHEN RECORDED MAIL TO:
Kurtis Hafferman and Kathy Miner
3610 MT Hwy 37
Libby, MT 59923

Filed for Record at Request of:
First American Title Company

Space Above This Line for Recorder's Use Only

Order No.: 958062-FT
Parcel No.: 0050473

WARRANTY DEED
(Joint Tenancy)

FOR VALUE RECEIVED,

MBMI Development, Inc., a closely-held corporation

hereinafter called Grantor(s), do(es) hereby grant, bargain, sell and convey unto

Kurtis Hafferman and Kathy Miner

whose address is: **Lot #8 Margaret Ln., Libby, MT 59923**

hereinafter called Grantees, as joint tenants (and not as tenants in common) and to the survivor of said named joint tenants, and to the heirs and assigns of such survivor, the following described premises, in **Lincoln** County, **Montana**, to-wit:

Lot 8 of MBMI Development Inc., according to the map or plat thereof on file in the office of the Clerk and Recorder, Lincoln County, Montana. Plat 7152

SUBJECT TO Covenants, Conditions, Restrictions, Provisions, Easements and encumbrances apparent or of record.

TO HAVE AND TO HOLD, the said premises, with its appurtenances unto the said Grantees, as joint tenants with the right of survivorship (and not as tenants in common) and to the heirs and assigns of the survivor of said named tenants forever. And the said Grantor(s) do(es) hereby covenant to and with Grantees, he(she or they) is/are the owner(s) in fee simple of said premises; that they are free from all encumbrances except for taxes and assessments for current and subsequent years and he (she or they) will warrant and defend same from all lawful claims whatsoever.

Dated: March 03, 2021

MBMI Development, Inc., a closely-held corporation

By: _____
Name: Walter Rucinski
Title: President

STATE OF Montana)
SS.
COUNTY OF Flathead)

On March 4, 2021, before me a Notary Public, personally appeared **Walter Rucinski**, known to me to be the President of MBMI Development, Inc..

_____
Signature of Notarial Officer

Notary Public for the State of Montana
Residing at:
Commission Expires:

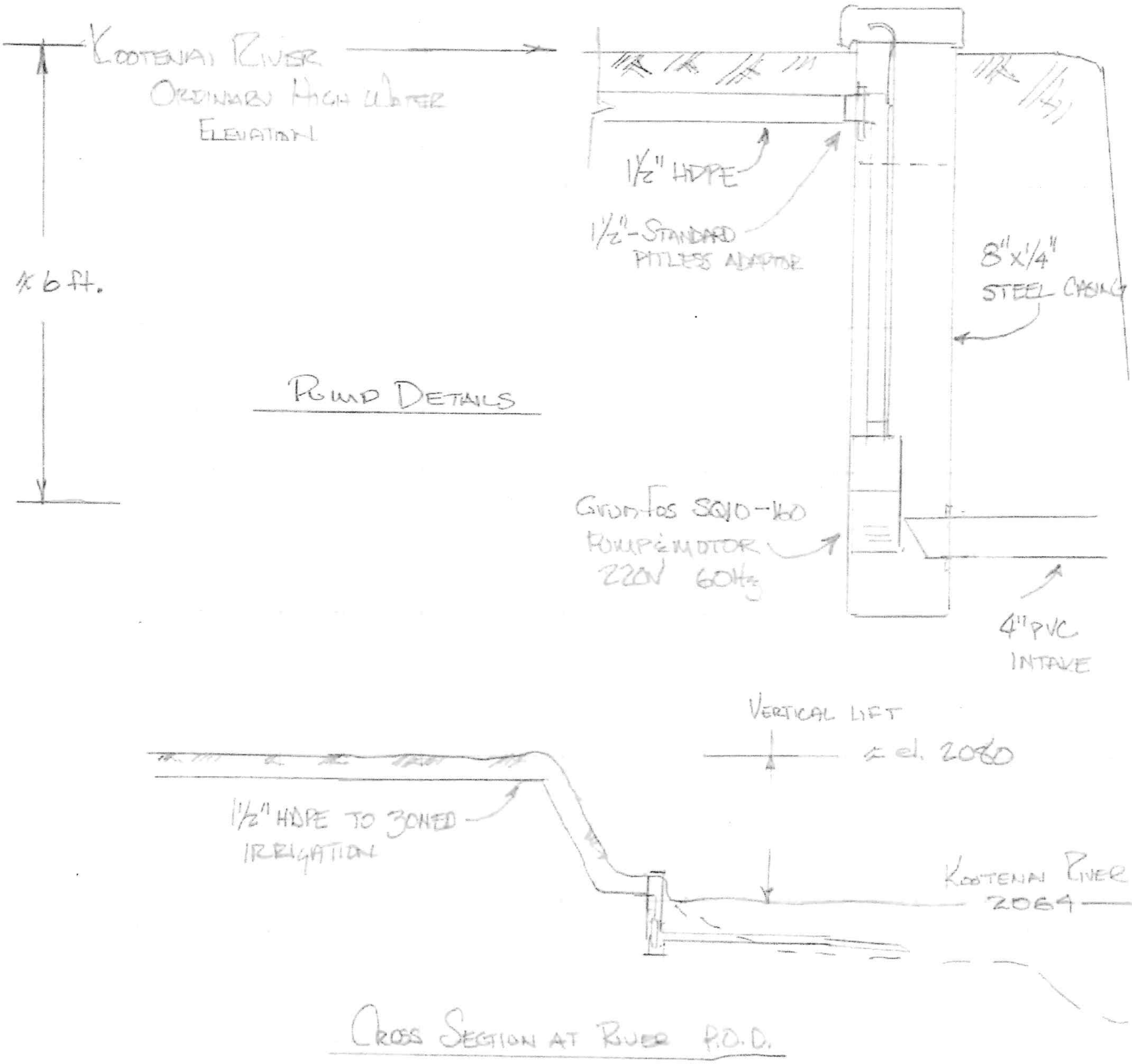
DARLA BROWN
NOTARY PUBLIC for the
State of Montana
Residing at Whitefish, Montana
My Commission Expires
September 12, 2023

SURFACE WATER APPLICATION FOR BENEFICIAL WATER USE PERMIT: KOOTENAI RIVER
HAFFERMAN AND MINOR
149 Margaret Lane Libby, Montana
Geocode 56-4283-25-4-01-19-0000 Section 25 and Section 36, Township 31 North Range 31 West

DNRC Form 600 Adequate Means of Diversion Attachments

DNRC Form 600 Adequate Means of Diversion: POD Design

Property Sketch — POINT OF DIVERSION



Mark:

- ☐ Water Meter or Pump Location
- ◯ Timer (Where you want it to be placed)
- X Valve Manifold Locations (Where you want them)
- ⇧ North

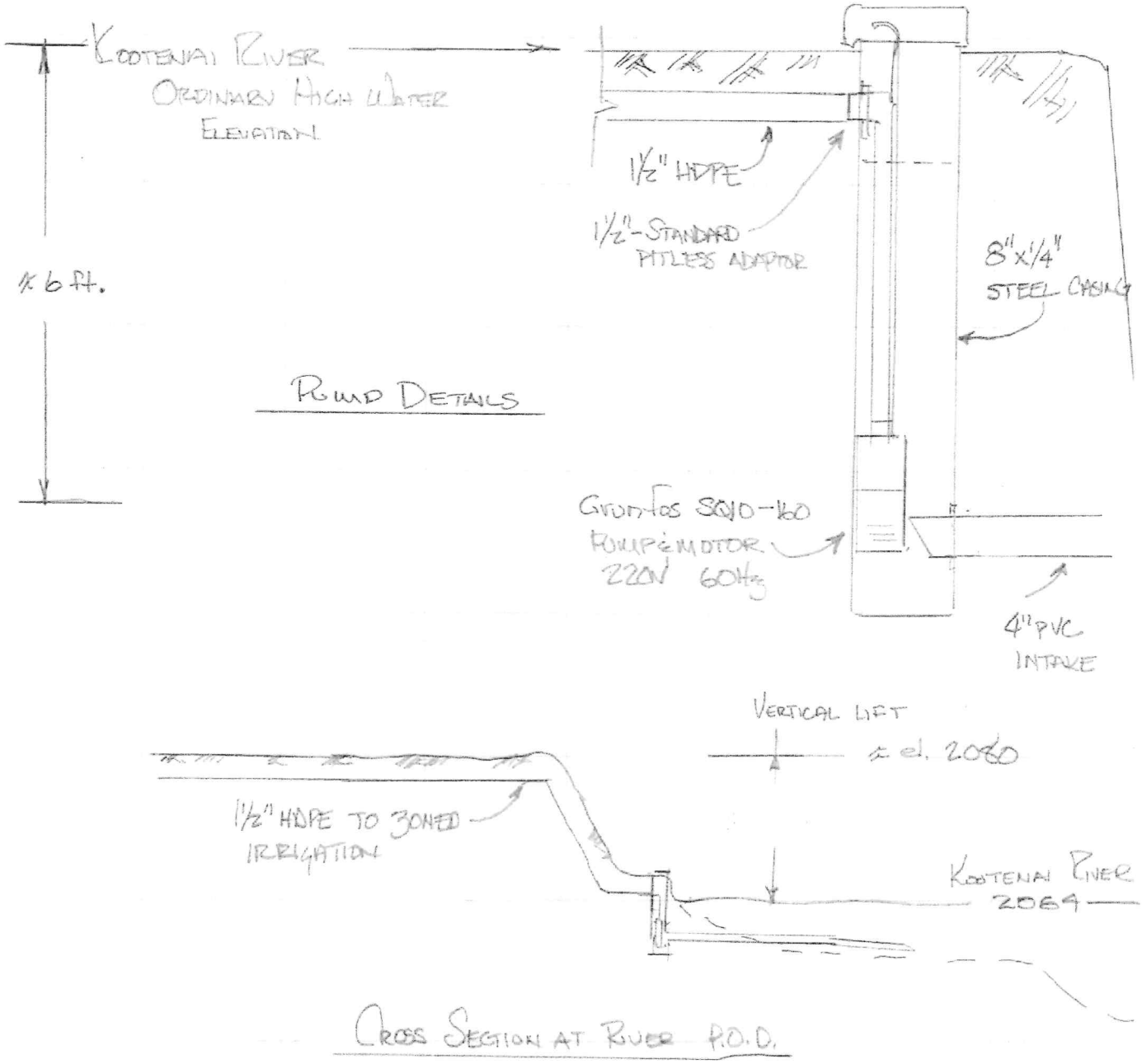
Accuracy is important. Mark the scale of your drawing:
(If the scale used is not one of the options below, please identify the scale used)

- ☐ 1 in. = 10 ft. For lots less than 80 ft. x 100 ft.
- ☐ 1 in. = 20 ft. For lots less than 160 ft. x 200 ft.
- ☐ 1 in. = 30 ft. For lots less than 240 ft. x 300 ft.

Name: HAFFERMAN Property: 149 MARGARET LANE, LIBBY, MONTANA Lot Dimensions: 140 x 350

Maximum yard size for a Rain Bird computerized design is 240' x 300'.

Property Sketch — Point of Diversion



Mark:

- ☐ Water Meter or Pump Location
- ○ Timer (Where you want it to be placed)
- X Valve Manifold Locations (Where you want them)
- ⇧ North

Accuracy is important. Mark the scale of your drawing:
(If the scale used is not one of the options below, please identify the scale used)

- ☐ 1 in. = 10 ft. For lots less than 80 ft. x 100 ft.
- ☐ 1 in. = 20 ft. For lots less than 160 ft. x 200 ft.
- ☐ 1 in. = 30 ft. For lots less than 240 ft. x 300 ft.

Rain Bird respects your privacy. This form is to gather information in order to do business with you. We do not sell, rent, loan or transfer any personal information. We may disclose this information if we believe that we are required to do so by law, such as in response to a government or court order, subpoena or other legal process. If you wish to correct information, you would like more information regarding privacy policies or do not wish to receive further communication from us, you can send an email to rbwebmaster@rainbird.com.

Name: Hafferman Property: 149 Margaret Lane, Libby, Montana Lot Dimensions: 140' x 350'

Maximum yard size for a Rain Bird computerized design is 240' x 300'.

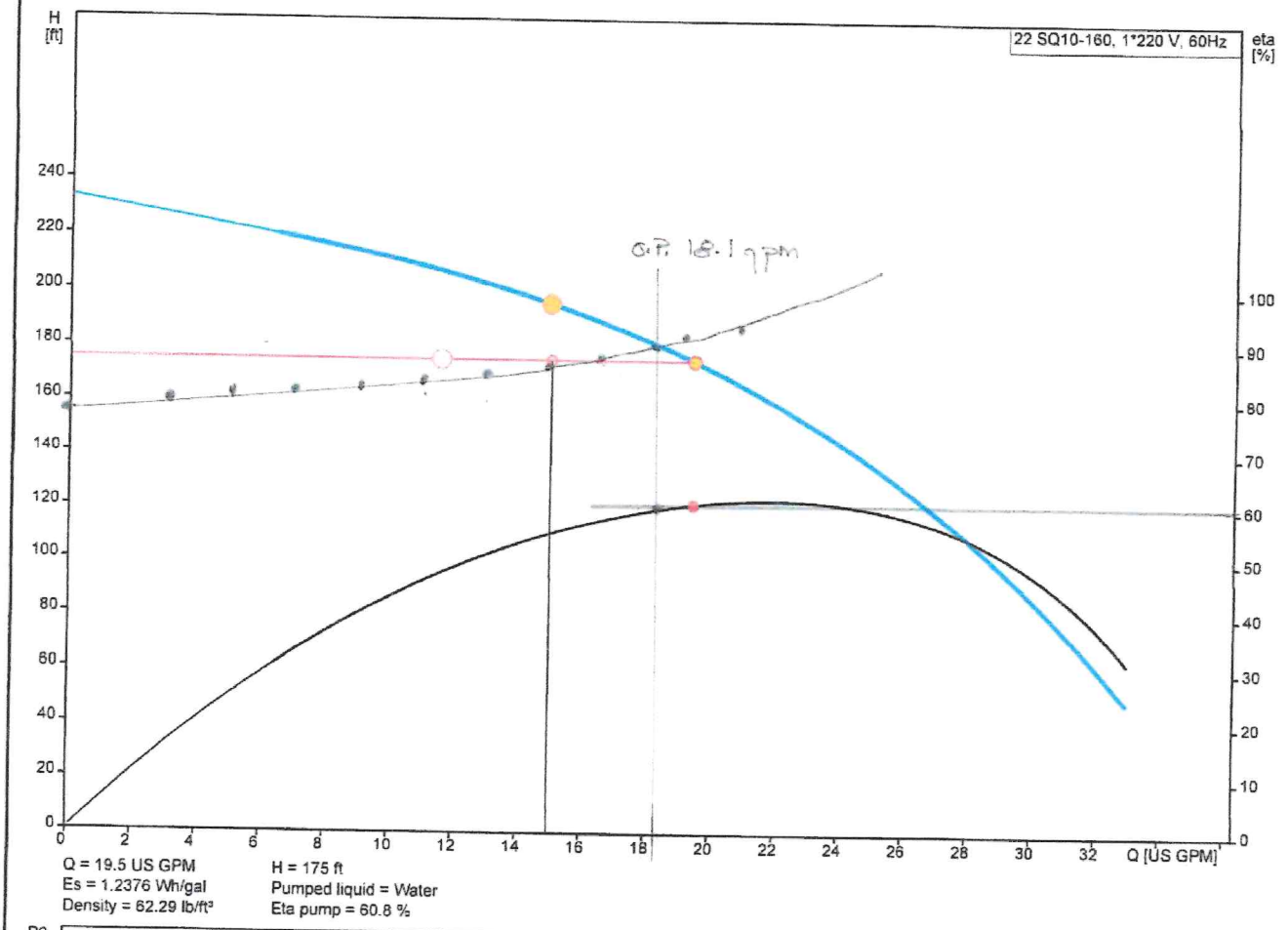
DNRC Form 600 Adequate Means of Diversion: POD Design Pump Operation and System Curve

GRUNDFOS

Company name:
Created by:
Phone:

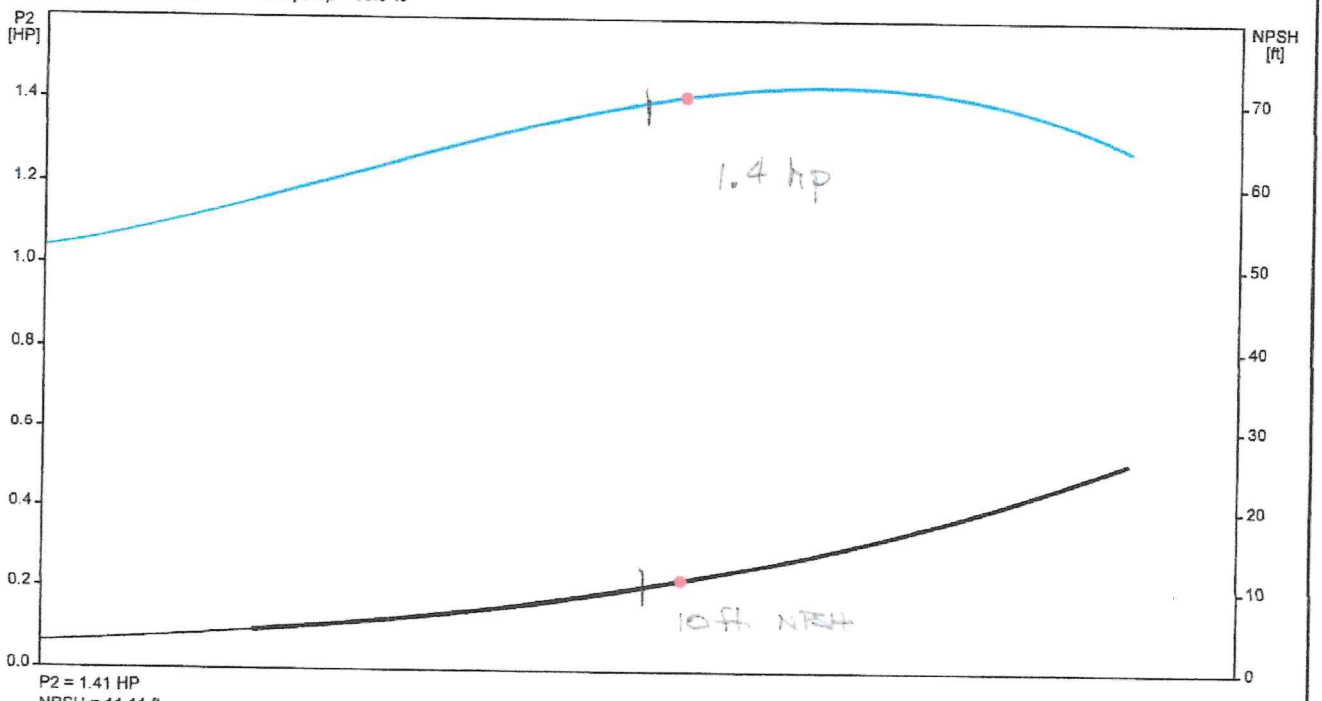
Date: 30/12/2023

96160156 22 SQ10-160 60 Hz



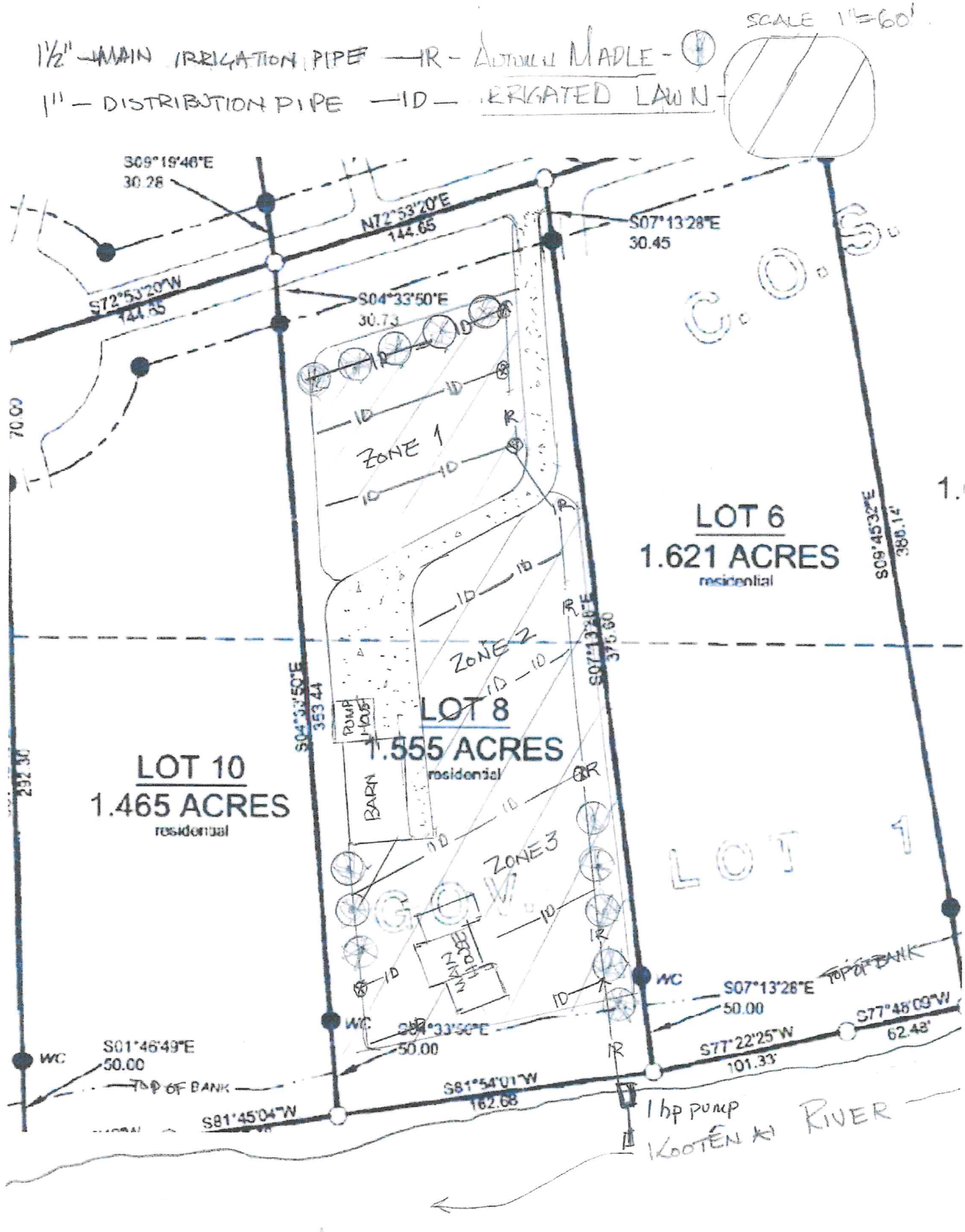
Q = 19.5 US GPM
Es = 1.2376 Wh/gal
Density = 62.29 lb/ft³

H = 175 ft
Pumped liquid = Water
Eta pump = 60.8 %



P2 = 1.41 HP
NPSH = 11.11 ft

DNRC Form 600 Adequate Means of Diversion: Irrigated Acres



PLACE OF USE MAP

SURFACE WATER APPLICATION FOR BENEFICIAL WATER USE PERMIT: KOOTENAI RIVER
HAFFERMAN AND MINOR
149 Margaret Lane Libby, Montana
Geocode 56-4283-25-4-01-19-0000 Section 25 and Section 36, Township 31 North Range 31 West

DNRC Form 600 Adequate Means of Diversion: System Specifications and Cost

Hafferman-Miner Irrigation System Demand and Rainbird Comonenets and cost

gallons per minute	18	gpm
(minutes per day/zone)*3	90	min.
gallons per day	1620	cfs
days per irrigation season	95	days
cubic feet per second	0.040	cfs
time per day (90 minutes/1440 minutes per day)	0.0625	days
acre feet per year=(gallons per day*95 days)/325851 gallons/AF	0.94	AF/year

0.0002490005
0.0010022272

Detail	Unit Cost	#Units	Subtotal		Comments
Zone Valve	$ 344.75	3	$ 1,034.25	Zone Valve	Rainbird; 200PESB - 2 in. Inlet Inline Plastic Industrial Irrigation Valve
Controller	$ 179.99	1	$ 179.99	Controller	Rainbird: ARC8 App Based Residential Controller - 8 Zone
42SA Sprinklers	$ 14.99	18	$ 269.82	42SA Sprinklers	42SA+ - Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler
Shrub Rotor on Riser	$ 30.00	15	$ 450.00	Shrub Rotor on Riser	5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve
1-1/2" Poly Pipe/100 ft	$ 207.00	4	$ 828.00	2" Poly Pipe/100 ft.	1-1/2 in. x 100 ft. IPS 100 psi NSF Poly Pipe: Home Depot
1" Poly Pipe/100 ft.	$ 176.00	3	$ 528.00	1" Poly Pipe/100 ft.	1 in. x 100 ft. IPS 100 psi NSF Poly Pipe: Home Depot
90 degree	$ 1.49	12	$ 17.88	90 degree	1-1/2 in. Barb Insert Blue Twister Polypropylene 90-Degree Elbow
Pipe to Pipe coupling	$ 0.94	11	$ 10.34	Pipe to Pipe coupling	1-1/2 in. Barb Insert Blue Twister Polypropylene Coupling Fitting
Barb to 2" thread	$ 1.00	13	$ 13.00	Barb to 2" thread	1-1/2 in. Barb Insert Blue Twister Polypropylene x MPT Adapter
3-barb tee 1-1/2"-1"	$ 1.76	25	$ 44.00	3-barb tee	1-1/2" to 1" reducer from mainline to zonesBlue Twister Polypropylene Tee Fitting
3-barb tee 1"-3/4"	$ 1.12	20	$ 22.40	3-barb tee	1"-3/4" reducer from zones to sprinkler Blue Twister Polypropylene Tee Fitting
Trench Length total	$ 2.00	565	$ 2,030.00	Trench excavation	Cost of excavation and backfill labor, materials and excavator rental.
Subtotal Materials and Excavtion and burial			$ 5,427.68		
10% contingency			$ 542.77		
Total Estimated irrigation system cost			$ 5,970		

DNRC Form 600 Adequate Means of Diversion: Conveyance System Specifications

RAIN BIRD

42SA+ – Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler

★★★★★ 7 Reviews Ask a question

$14.99

~~List Price $29.73~~

IN STOC
SKU#: W420

Qty < 1 > Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- Improve coverage consistency and reduce cycle times with this rotor's Rain Curtain nozzle technology that distributes water more evenly throughout the pattern
- More effective close-in coverage solves problems with dry spots around the heads of your rotor zone
- Water lubricated, gear driven design is quiet and trouble-free
- Self-flushing at pop-down to clear debris and maintain spray efficiency
- Easy to adjust spray distance from 26 to 38 ft
- 3/4 in. female inlet threads
- Additional o-rings and seals for extra protection in "gritty" water
- Easy to adjust arc from 40 to 360 degrees for part or full operation
- Heavy-duty stainless steel retract spring assures positive pop-down
- 4 in. pop up height to clear tall grass

42SA Adjustment
How to change Rotor Nozzles
Rotor Selection Guide
Rotor Performance Chart

Save
49%

Details

This professional grade Rain Bird 42SA+ rotor sprinkler features superior durability plus exceptional watering uniformity of patented Rain Curtain nozzle technology, resulting in a greener and more even lawn with reduced watering time.

The rotor distributes larger water droplets that cover evenly throughout the pattern, also reducing wind-blown overspray.

Nozzle micro ramps direct a portion of the spray near the head, adding gentle close-in coverage with reduced watering velocity that won't wash out new seed.

Simple top adjustments for arc and distance help you keep water on the grass, not spraying on the house, sidewalk or driveway.

The rotor also features a rugged dual-action, positive stop wiper seal that protects internals from debris and, together with a heavy duty stainless steel spring, assures positive retraction for leak-free performance.

It installs on a standard 3/4 in. riser for simple replacement of older rotors.

Rain Bird 42SA Rotor Sprinklers

Warranty

If a purchaser of any new Rain Bird consumer product becomes dissatisfied with it for any reason, he may return it to the retailer where it was purchased within a reasonable time for a full refund. Rain Bird's obligation is limited to this refund for any product that does not meet a purchaser's expectations. Other than its satisfaction policy, there are no warranties on Rain Bird consumer products, express or implied, nor will Rain Bird be responsible for any economic or consequential damages.

More Information

Frequently Bought Together

This item: 42SA+ – Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler $14.99 ~~List Price $29.73~~
- [x] 42SA+/4PKS – Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler – 4 Pack $51.99 ~~List Price $67.47~~
- [x] 4252NZLPK – Rotor Nozzle Tree for 42SA+, 52SA & 5000+ Rotors $2.99 ~~List Price $3.71~~
- [x] 32SA/4PK – 32SA Simple Adjust Series Closed-Case ½" Inlet Gear Drive Rotor Sprinkler – 4 Pack $53.99 ~~List Price $66.71~~
- [x] 32SANZLPK – 32SA Rotor Nozzle Tree $2.82
- [x] SST400in – 4-Station Indoor SST "Simple to Set" Irrigation Timer $69.99 ~~List Price $122.83~~

Add All to Cart Total price $196.77

Chat with Us

RAIN BIRD

5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve

★★★★★ 1 Review Ask a question

$30.00

~~List Price $37.50~~

IN STOC
SKU#: Y6555

Qty < 1 > Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- 5000 Series Shrub Rotor with SAM Check Valve, ideal for watering shrubs and hillsides
- **NOTE: Shrub rotors do not pop up -- mount above ground on a 3/4" fixed threaded riser**
- Includes locking screw to fasten shrub rotor to the riser and Secure Ribs™ to assist in staking.
- Heavy-duty cover assembly for extra durability
- Top-adjust arc adjustment requiring only a flat-blade screwdriver
- 40 - 360° arc rotation and reversing full circle rotation in one
- Radius adjustment screw allows up to 25% radius reduction without changing nozzles
- Rain Curtain™ Nozzles
- Faster maintenance with a new self-cleaning arc adjustment screw
- Slip clutch mechanism for quick adjustment on installation
- Additional O-rings and seals for extra protection in "gritty" water
- Seal-A-Matic (SAM) check valve holds up to 7 feet (2.1m) of elevation change to prevent puddling and erosion caused by low head drainage
- Pressure Regulating Stem (PRS) which regulates pressure at the head, assuring optimum performance

Save
20%

Details

Relax with the knowledge your landscape is being watered by reliable 5000 Series Rotors and industry-leading Rain Curtain Nozzle Technology. Rain Bird® 5000 Series Shrub Rotors are ideal for medium to large-size shrub areas and hillside and evenly distribute water from 25 to 50 feet.

Outstanding Results

Superior Distribution Uniformity. 5000 Series Rotors with Rain Curtain Technology are engineered to deliver a uniform spray pattern, giving you a consistently green lawn throughout.

Superior Wind Resistance

The larger water droplets produced by Rain Curtain technology prevent misting and airborne evaporation so the right amount of water is delivered to the right place, saving you water and money.

Superior Close-in Watering

Gentle close-in watering eliminates dry spots around the rotor, prevents seed washout and allows plants to grow healthy with no matting or bending.

More Information

RAIN BIRD

200PESB – 2 in. Inlet Inline Plastic Industrial Irrigation Valve

☆☆☆☆☆ Write a review 1 Questions \ 1 Answers

$344.75

IN STOCK
SKU#: 03527

Qty < 1 > Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- 2 in. (50/60) plastic industrial irrigation valve
- Durable glass-filled nylon construction with fabric-reinforced rubber diaphragm for long life and reliable performance
- Globe configuration
- Normally closed, forward flow design
- Slow closing to prevent water hammer and subsequent system damage
- Low flow capability for a wide range of applications
- One-piece solenoid design with captured plunger and spring for easy servicing; prevents loss of parts during field service
- Flow control handle adjusts water flows as needed
- * Solenoid handle is not included *

Details

More Information

Model	200PESB
Valve Size	2 in
Valve Type	Inline
Material	Plastic
Valve Inlet/Outlet Configuration	NPT Female x NPT Female Threaded
Valve Options	Dirty Water
Valve Series	PES/PESB
Operating Temperature	Up to 150° F (66° C)
Dimensions	6 1/2" x 4" x 4" (16,5 cm) x (10,2 cm) x (10,2 cm)
Electrical Specifications	24 VAC 50/60 Hz (cycles per second) solenoid Inrush current: 0.41A (9.9VA) Holding current: 0.14A (3.43VA) Coil resistance: 30-39 Ohms
Flow Range	Flow without PRS-D option: 0,25 to 200 GPM (0,06 to 45 m3/h; 0,02 to 12,60 l/s) Flow with PRS-D option: 5 to 200 GPM (1,14 to 45 m3/h; 0,32 to 12,60 l/s)
Operating Pressure	20 to 200 psi (1,4 to 13,8 bar)

Frequently Bought Together

This item: 200PESB – 2 in. Inlet Inline Plastic Industrial Irrigation Valve $344.75

- ☑ SOLASSY04 – Solenoid Repair Kit for PEB, PGA, EFB-CP, BPE/BPES and GB Valves $37.50 List Price $50.50
- ☑ 200PESBDBO – 200 PESB Valve Replacement Diaphragm Assembly and Bonnet Assembly $122.85 List Price $139.45
- ☑ F4PC – Falcon 8504 Rotor Pop-Up Sprinkler – Part-Circle Pattern Nozzle $70.00
- ☑ AG-5 – Maxi-Paw Pop-up 16" or ¾" Inlet Impact Rotor Sprinkler with Blue Nozzle #8 $21.99 List Price $45.50
- ☑ ET/IPK – Emitter Installation Tool $8.99 List Price $12.00

Add All to Cart Total price $604.39

RAIN BIRD

ENGLISH EN ES FR

WiFi Smart Controller User Manual

Feature	Description
Maximum zones	8
Automatic programs	3
Start times per program	4
Custom run days	Yes
Master valve control	Yes
Rain delay	Yes
Rain/freeze sensor control	Yes
Seasonal adjust	Yes
Manual zone run	Yes
Manual program run	Yes
Manual test all zones	Yes
Zone advance	Yes
Built-in WiFi	Yes
AP Hotspot	Yes

Installation

If You're Replacing an Existing Controller

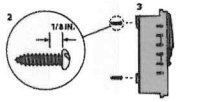
1. Take a photo of the wiring details, which will be useful to reference when installing the new controller.
2. Unplug the power cord from the AC power outlet and disconnect wires from the controller.

Mount New Controller

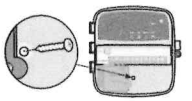
1. Unless installing with custom wiring, choose a mounting location on a wall within six feet of an AC power outlet and at least 15 feet away from major appliances or air conditioners.

⚠ WARNING
Install the controller with the power supply cord exit side pointing downwards to avoid ingress of water.

2. Drive a mounting screw into the wall, leaving an 1/8-inch gap between the screw head and the wall surface (use supplied wall anchors if necessary).
3. Locate the keyhole slot on back of the controller and hang it securely on the mounting screw.



4. Remove the wire bay cover on the lower part of the controller and drive a second screw through the open hole and into the wall (use supplied wall anchors if necessary).



Connect Valve Wiring

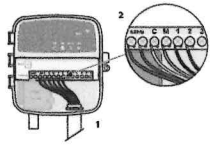
1. With the wire bay cover removed, route all field wires through the opening at the bottom of the controller.

⚠ WARNING
DO NOT route valve wires through the same opening as power wires.

2. Connect one wire from each valve to one of the numbered zone terminals (1–8) on the controller.

NOTICE
DO NOT connect more than one valve to the same zone terminal (1–8).

3. Connect a field common wire to the common terminal (C) on the controller.
4. For connection of optional accessories (rain or rain/freeze sensor, master valve, pump start relay), refer to the appropriate section within this manual.



639485-01 Rev. 10/22

Connect Custom Wiring (optional)

⚠ WARNING
- Ensure that AC power is disconnected before replacing wiring.
- The strain-relief bar must be resecured for safe and proper function.
- When using fixed wiring to main supply, the installation must incorporate a disconnection device.
- DO NOT apply power until you have completed and checked all wiring connections.
- DO NOT attempt to link two or more controllers together using a single transformer.

1. If desired, the provided power cord can be removed and replaced with custom wiring.
2. Remove the wire bay cover on the lower part of the controller.
3. Locate the transformer box in the left-hand corner of the wire bay and unscrew the wiring compartment cover.
4. Unscrew the wire nuts connecting the AC power cord and the transformer wires. Remove the power cord wires from the transformer box.
5. Remove the factory installed power cord by loosening the two screws securing the metal strain-relief bar.
6. Route the three wires from an external power source into the wiring compartment.
7. Connect the external power supply wires using the wire nuts and resecure the metal strain relief bar by tightening the two screws.

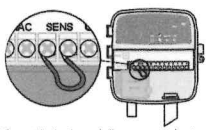
Power Wiring Connections 120 VAC

- Black supply wire (live) to the black transformer wire
- White supply wire (neutral) to white transformer wire
- Green supply wire (ground) to the green transformer wire

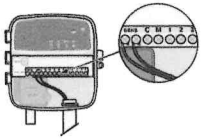
Connect Rain/Freeze Sensor (optional)

NOTICE
- DO NOT remove the jumper wire unless connecting a rain or rain/freeze sensor. The controller will not function if the jumper wire is removed and a rain or rain/freeze sensor is not connected.
- Rain Bird controllers are only compatible with normally closed rain or rain/freeze sensors.
- Check local and/or state regulations to determine if a rain or rain/freeze sensor is required.

1. Remove the yellow jumper wire from the SENS terminals on the controller.



2. Connect both rain or rain/freeze sensor wires to the SENS terminals.



3. For detailed installation and operation of rain or rain/freeze sensor, refer to sensor manufacturer's installation instructions.

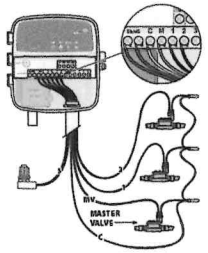
Connect Master Valve (optional)

⚠ WARNING
DO NOT route the master valve wires through the same opening as the power wires.

1. Using a direct burial cable, connect one of the wires from the master valve to the master valve terminal (M).

NOTICE
DO NOT connect more than one valve to the master valve terminal (M).

2. Connect the remaining wire from the master valve to the common terminal (C).

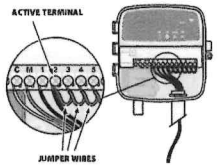


Connect Pump Start Relay (optional)

⚠ WARNING
DO NOT route the pump start relay wires through the same opening as the power wires.

NOTICE
- A pump start relay connects to the controller in the same way as a master valve, but connects differently at the water source.
- This controller DOES NOT provide power for a pump. A relay must be wired according to pump manufacturer's installation instructions.

1. Using a direct burial cable, connect one of the wires from the pump start relay to the master valve terminal (M).
2. Connect the remaining wire from the pump start relay to the common terminal (C).
3. To avoid possible pump damage in the event run times are assigned to unused zones, connect a short jumper wire from all unused zone terminals to the nearest zone terminal in use.



4. For detailed installation and operation of pump start relay, refer to pump manufacturer's installation instructions.

Connect Power

- The controller comes with a standard 20-foot power cord set can be installed indoors or outdoors (if plugged into a weatherproof external outlet).
- The controller can be wired directly into a power supply by removing the power cord. It has an internal transformer that reduces supply voltage from 120 VAC to 24 VAC. You will need to connect power supply wires to the transformer's three wires (live, neutral, ground). Refer to "Connect Custom Wiring" section for installation details.

⚠ WARNING
- Electric shock can cause severe injury or death. Ensure power supply is turned OFF before connecting power wires.
- DO NOT plug in or apply power to the controller until you have completed and checked all wiring connections.
- Disconnect or turn off the external power source before connecting or disconnecting wires to the controller.

Programming

Add a New Controller to the Rain Bird App

1. Before mounting new controller, check the WiFi signal at controller.
   - Verify minimum signal strength of two bars at controller.
   - Mount controller closer to router or add signal booster if needed.
2. Download and launch the Rain Bird App.

Download on the App Store | GET IT ON Google Play

3. Select "Add Controller" to begin the set-up wizard.

Set Date and Time

- When the controller is connected to WiFi, it will automatically set the date and time according to the local WiFi network settings. In the event of a power outage, the date and time will default to the local WiFi network settings.
- If a local WiFi network is not available at setup and the controller is connected to the Rain Bird App in AP Hotspot mode, the controller will default to the date and time in the mobile device settings. In the event of a power outage, the date and time will need to be manually reset by reconnecting the controller to your mobile device through AP Hotspot mode.

Create a Watering Schedule

1. **ADD PROGRAM(S):** This controller is scheduled using up to three programs (A, B and C). Basic programs include instructions on watering days, start times and durations.
   In the Rain Bird App, add a new program by selecting + PGM and an available program.

NOTICE
- The first time you connect to the controller, the Rain Bird App will reflect the default program assigned to the controller. You can choose to retain, change, or set up a new program.
- Programming is stored in non-volatile memory and will remain in the controller in the event of a power outage.

2. **SET PROGRAM START TIME(S):** This controller is scheduled using up to four independent start times per program. The start time(s) is the time of day at which the program will begin. Each start time will run every zone for its scheduled duration within that program.
   - In the Rain Bird App, add a program start time by selecting the ⊕ icon.
   - Set the zone(s) and watering duration(s) associated with the start time by selecting the ⊕ icon.

NOTICE
Start times apply to the entire program, not individual zones. Depending on landscaping needs, multiple start times may be assigned for that program. Once the start time is set, the controller begins the watering cycle with the first zone; the other zones in the program follow in sequence.

3. **SET PROGRAM RUN DAYS:** Run days are the specific days of the week in which watering occurs.
   In the Rain Bird App, set the watering frequency by selecting Odd (days of the week), Even (days of the week), Custom or Cyclic (specific intervals).

NOTICE
Watering days apply to the entire program, not the individual zones.

4. **SEASONAL ADJUST** changes the watering duration (as a percent) for all zones associated with run times in an individual program. This may be manually adjusted in the Rain Bird App using the slider in the program settings.

NOTICE
- The controller must be connected to WiFi to make automatic adjustments.
- An adjustment value of 100% is representative of irrigation during the average hottest time of year, so even if you're experiencing warm weather on a summer day, you may not see an adjustment above 100%.

5. **RAIN DELAY:** In the Rain Bird App, manually turn off automatic watering for a fixed number of days when it rains even without a rain sensor.
   - Suspend watering for up to 14 days by selecting the ☔ icon in the controller settings.
   - Slide the bar to the desired number of days to delay automatic watering.
   - Select "Save" to store the setting.

NOTICE
The maximum numbers of days to delay watering is 14. After the days expire, automatic irrigation will begin again according to the programmed schedule.

Manual Watering

ON THE CONTROLLER
- To start manual watering, press the ▷ button.
- As a default, each zone will run for 10 minutes; you can choose to retain or change the watering duration in the Rain Bird App.
- The blinking LED will give indication for which zone is active.
- To advance to the next zone, press the ⏭ button.
- To stop manual watering on the controller, press the ⏻ button.

IN RAIN BIRD APP
- To start manual watering, select the ◊ icon and select manual watering preferences.
- To advance to the next zone, select the ⏭ icon.
- To stop manual watering in the Rain Bird App, select the ■ icon.

Automatic Watering

ON THE CONTROLLER

NOTICE
When operating in automatic mode, each program will run according to the start times, run days, and run times for each zone in sequence until all scheduled watering has been run.

- Press ⏻ to start automatic watering according to scheduled program(s).
- The blinking LED will give indication for which zone is active.
- To advance to the next zone, press the ⏭ button.
- To stop automatic watering on the controller, press the ⏻ button.

IN RAIN BIRD APP
The Rain Bird App offers a toggle to switch between automatic watering and off status.

Technical Support

For help setting up or operating the Rain Bird WiFi Smart Controller, please call Rain Bird toll-free Technical Support at: 1-800-RAIN BIRD (800-724-6247) or visit www.rainbird.com.

For more information, including troubleshooting, scan the QR code

READ AND SAVE THESE INSTRUCTIONS
LEA Y GUARDE ESTAS INSTRUCCIONES
LIRE ET CONSERVER CES INSTRUCTIONS

1. **CONTROLLER DOOR:** Removable door for protection against inclement weather
   PUERTA DEL CONTROLADOR: Puerta removible para protección contra el clima inclemente
   PORTE DU PROGRAMMATEUR : Porte amovible pour la protection contre les intempéries
2. **AUTOMATIC WATERING:** Watering occurs automatically according to programmed schedules
   RIEGO AUTOMÁTICO: El riego ocurre automáticamente de acuerdo con los horarios programados
   ARROSAGE AUTOMATIQUE : L'arrosage se produit automatiquement selon les horaires programmés
3. **OFF:** Cancel all active watering immediately and disable automatic irrigation
   APAGADO: Cancela todo el riego activo de inmediato y deshabilita el riego automático
   DÉSACTIVÉ : Annule immédiatement tous les arrosages actifs et désactive l'arrosage automatique
4. **MANUAL WATERING:** Start watering immediately for all zones in sequence
   RIEGO MANUAL: Comienza el riego de inmediato en todas las zonas en secuencia
   ARROSAGE MANUEL : Commence à arroser immédiatement pour toutes les zones en séquence
5. **ADVANCE TO NEXT ZONE:** Advance to the next zone in sequence
   AVANZAR A LA SIGUIENTE ZONA: Avanza hasta la siguiente zona en secuencia
   PASSER À LA ZONE SUIVANTE : Passe à la zone suivante dans l'ordre
6. **PAIRING MODES:** Toggles between AP Hotspot and WiFi pairing modes
   MODOS DE EMPAREJAMIENTO: Alterna entre modos de emparejamiento de punto de acceso inalámbrico y WiFi
   MODES D'APPARIEMENT : Bascule entre les modes d'appariement Point d'accès AP et WiFi
7. **WIRING BAY:** Contains the AC power transformer and terminal block to connect valve zone wires and optional accessories
   PUERTO DE CABLEADO: Contiene el transformador de alimentación de corriente y el bloque de terminal para conectar los cables de la zona de válvula y accesorios opcionales
   BAIE DE CÂBLAGE : Contient le transformateur d'alimentation CA et le bornier pour raccorder les fils de zone de la vanne et les accessoires en option
8. **POWER CORD:** 120 VAC transformer with six-foot AC power cord
   CABLE DE CORRIENTE: Transformador de 120 VCA con 1.8 m de cable de alimentación de corriente
   CORDON D'ALIMENTATION : Transformateur 120 VCA avec cordon d'alimentation CA de 1,8 m

LED Status on Controller

LED	ACTION
STATUS flashing blue	Quick Pair broadcast mode
STATUS alternating red and green	AP Hotspot broadcast mode
STATUS solid green	WiFi broadcast mode
STATUS flashing red	Not connected
AUTO solid green	Automatic watering active
OFF solid red	Controller off
MANUAL flashing green	Manual watering active

Safety Information

⚠ WARNING
This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capacity, or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.

Special precautions must be taken when valve wires are located adjacent to, or share a conduit with other wires, such as those used for landscape lighting or other electrical systems.

Separate and insulate all conductors carefully, taking care not to damage wire insulation during installation. An electrical "short" (contact) between the valve wires and another power source can damage the controller and create a fire hazard.

⚠ CAUTION
This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTICE
Changes or modifications not expressly approved by Rain Bird could void the user's authority to operate the equipment.

Use only Rain Bird approved accessory devices. Unapproved devices may damage the controller and void warranty.

All electrical connections and wiring runs must comply with local building codes. Some local codes require that only a licensed or certified electrician can install power. Only professional personnel should install the controller. Check your local building codes for guidance.

ISED NOTICE
This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

SUPPLIER'S DECLARATION OF CONFORMITY

47 CFR § 2.1077 Compliance Information

Unique identifier: RC2, ARC8

Responsible Party – Rain Bird Corporation, 9491 Ridgehaven Court, Suite C, San Diego, CA 92123, USA, www.rainbird.com

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Estado del LED en el controlador

LED	ACCIÓN
ESTADO azul intermitente	Modo de transmisión de emparejado rápido
ESTADO alternando rojo y verde	Modo de transmisión a punto de acceso inalámbrico
ESTADO verde continuo	Modo de transmisión WiFi
ESTADO rojo intermitente	No conectado
AUTOMÁTICO verde continuo	Riego automático activo
APAGADO rojo continuo	Controlador apagado
MANUAL verde intermitente	Riego manual activo

Información de seguridad

⚠ ADVERTENCIA
Este electrodoméstico no está diseñado para que lo usen personas (incluidos los niños) con capacidad física, sensorial o mental reducida, o falta de experiencia y conocimiento, a menos que una persona responsable de su seguridad los supervise o les dé instrucciones sobre el uso del electrodoméstico. Los niños deben ser supervisados para asegurarse de que no jueguen con el aparato.

Si el cable de alimentación está dañado, debe ser reemplazado por el fabricante, su agente de servicio o personas calificadas de manera similar para evitar un peligro.

Se deben tomar precauciones especiales cuando los cables de las válvulas están ubicados junto a, o comparten un conducto con otros cables, como los que se usan para la iluminación de jardines, u otros sistemas eléctricos.

Separe y aísle todos los conductores con cuidado, teniendo cuidado de no dañar el aislamiento de los cables durante la instalación. Un "corto" (contacto) eléctrico entre los cables de la válvula y otra fuente de alimentación puede dañar el controlador y crear un riesgo de incendio.

⚠ ATENCIÓN
Este dispositivo debe ser instalado manteniendo una distancia de separación de por lo menos 20 cm de toda persona, y no debe ser co-ubicado o operar en conjunto con cualquier otra antena o transmisor.

AVISO
Los cambios o modificaciones no aprobados expresamente por Rain Bird podrían anular la autoridad del usuario para operar el equipo.

Utilice únicamente dispositivos accesorios aprobados por Rain Bird. Los dispositivos no aprobados pueden dañar el controlador y anular la garantía.

Todas las conexiones eléctricas y los tendidos de cableado deben cumplir con los códigos de construcción locales. Algunos códigos locales requieren que solo un electricista autorizado o certificado pueda instalar energía. Solo personal profesional debe instalar el controlador. Consulte los códigos de construcción locales para obtener orientación.

AVIS ISDE
La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Importado en México por: RAIN BIRD MEXICO S DE RL DE CV
Lázaro Cárdenas 3141, Col. Chapalita, Guadalajara, Jal. C.P. 44500, México. R.F.C.RBM021213590
CONTROLADOR ELECTRÓNICO PARA IRRIGACIÓN
Marca: Rain Bird Modelos: RC2
ESPECIFICACIONES ELÉCTRICAS:
Entrada 120 Vca 60 Hz 0.23 A
Salida 24 Vca 60 Hz 0.68 A
Hecho en México, Véase Instructivo Anexo

État de la LED sur le contrôleur

LED	ACTION
ÉTAT bleu clignotant	Mode de diffusion Quick Pair (appairage rapide)
ÉTAT rouge et vert en alternance	Mode de diffusion Point d'accès AP
ÉTAT vert continu	Mode de diffusion WiFi
ÉTAT rouge clignotant	Non connecté
AUTO vert continu	Arrosage automatique actif
DÉSACTIVÉ rouge continu	Programmateur désactivé
MANUEL vert clignotant	Arrosage manuel activé

Information de sécurité

⚠ AVERTISSEMENT
Cet appareil n'est pas destiné à être utilisé par des personnes (y compris des enfants) ayant des capacités physiques, sensorielles ou mentales réduites, ou un manque d'expérience et de connaissances, à moins qu'elles n'aient reçu une supervision ou des instructions concernant l'utilisation de l'appareil par une personne responsable de leur sécurité. Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil.

Si le cordon d'alimentation est endommagé, il doit être remplacé par le fabricant, son agent de service ou des personnes de qualification similaire afin d'éviter tout danger.

Des précautions particulières doivent être prises lorsque les fils de vannes sont situés à côté ou partagent un conduit avec d'autres fils, tels que ceux utilisés pour l'éclairage paysager ou d'autres systèmes électriques.

Séparez et isolez soigneusement tous les conducteurs, en prenant soin de ne pas endommager l'isolation des fils lors de l'installation. Un «court» (contact) électrique entre les fils de la vanne et une autre source d'alimentation peut endommager le contrôleur et créer un risque d'incendie.

⚠ ATTENTION
Cet appareil doit être installé pour fournir une distance de séparation d'au moins 20 cm de toutes les personnes, et ne doit pas être colocalisé ou fonctionner en conjonction avec une autre antenne ou émetteur.

AVIS
Les changements ou modifications non expressément approuvés par Rain Bird peuvent annuler le droit de l'utilisateur à faire fonctionner l'équipement.

Utilisez uniquement des appareils accessoires approuvés par Rain Bird. Les appareils non approuvés peuvent endommager le contrôleur et annuler la garantie.

Toutes les connexions électriques et les chemins de câblage doivent être conformes aux codes du bâtiment locaux. Certains codes locaux exigent que seul un électricien agréé ou certifié puisse installer l'alimentation. Seul le personnel professionnel doit installer le contrôleur. Vérifiez vos codes du bâtiment locaux pour obtenir des conseils.

AVIS ISDE
L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Rain Bird Corporation
6991 East Southpoint Road
Tucson, AZ 85756
www.rainbird.com

ESPAÑOL EN ES FR

Manual del Usuario del Controlador Inteligente WiFi

Característica	Descripción
Máximo de zonas	8
Programas automáticos	3
Horarios de inicio por programa	4
Días de operación personalizados	SÍ
Control de válvula maestra	SÍ
Retardador por lluvia	SÍ
Control de sensor de lluvia/congelamiento	SÍ
Ajuste estacional	SÍ
Operación manual de zona	SÍ
Operación manual de programa	SÍ
Prueba manual de todas las zonas	SÍ
Avance de zona	SÍ
WiFi incorporado	SÍ
Punto de acceso inalámbrico	SÍ

Instalación

Si está reemplazando un controlador existente

1. Tome una fotografía de los detalles del cableado, la cual será útil para usar como referencia cuando instale el controlador nuevo.
2. Desenchufe el cable de alimentación del tomacorriente de CA y desconecte los cables del controlador.

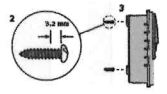
Coloque el controlador nuevo

1. A menos que la instalación sea con cableado a la medida, elija colocarlo en un lugar de la pared dentro de los 1.8 m de distancia del enchufe y por lo menos a 4.5 m de distancia de electrodomésticos o equipos de aire acondicionado grandes.

⚠ ADVERTENCIA

Instale el controlador con la salida del cable eléctrico apuntando hacia abajo, a fin de evitar el ingreso de agua.

2. Coloque un tornillo de montura en la pared, dejando un espacio de 3.2 mm entre la cabeza del tornillo y la superficie de la pared (de ser necesario, use los anclajes de pared provistos).
3. Ubique la ranura de montaje en la parte trasera del controlador y cuélguelo de manera segura sobre el tornillo de montura.



4. Retire la cubierta del puerto del cableado en la parte inferior del controlador y coloque un segundo tornillo en la pared, a través del agujero (de ser necesario, use los anclajes de pared provistos).

Conecte el cableado de la válvula

1. Después de retirar el puerto del cableado, pase todos los cables de campo por la abertura en la parte inferior del controlador.

⚠ ADVERTENCIA

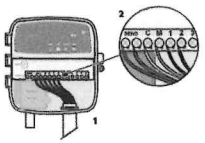
NO pase los cables de la válvula por la misma abertura que los cables de energía.

2. Conecte un cable de cada válvula en cada uno de los terminales de zona numerados (1–8) en el controlador.

AVISO

NO conecte más de una válvula en el mismo terminal de zona (1–8).

3. Conecte un cable común de campo al terminal común (C) en el controlador.
4. Para conectar accesorios opcionales (sensor de lluvia o lluvia/congelamiento, válvula maestra, relé de inicio de bomba), consulte la sección apropiada dentro de este manual.



Conecte cableado a la medida (opcional)

⚠ ADVERTENCIA

- Asegúrese de que la alimentación de corriente está desconectada antes de reemplazar el cableado.
- El alivador de tensión debe volver a asegurarse para un funcionamiento seguro y adecuado.
- Cuando se use una conexión directa a la alimentación eléctrica, la instalación debe incorporar un dispositivo de desconexión.
- NO energice hasta que haya completado y verificado todas las conexiones del cableado.
- NO intente vincular dos o más controladores usando un solo transformador.

1. Si lo desea, puede retirar el cable de el cable de alimentación provisto y reemplazarlo con un cable a medida.
2. Retire la cubierta del puerto del cableado en la parte inferior del controlador.
3. Coloque la caja del transformador en la esquina izquierda del puerto del cableado y desatornille la cubierta del compartimiento del cableado.
4. Desatornille las tuercas de cable que conectan el cable de alimentación de corriente y los cables del transformador. Retire los cables de corriente de la caja del transformador.
5. Retire el cable de alimentación instalado de fábrica aflojando los dos tornillos que fijan el alivador de tensión de metal.
6. Pase los tres cables de una fuente de corriente externa hasta el compartimiento del cableado.
7. Conecte los cables del suministro de corriente externa usando las tuercas de cable y luego, vuelva a asegurar el alivador de tensión de metal ajustando los dos tornillos.

Conexiones de cableado de corriente 120 V~

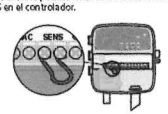
- Cable de suministro negro (fase) para el cable de transformador negro
- Cable de suministro blanco (neutro) para el cable de transformador blanco
- Cable de suministro verde (tierra) para el cable de transformador verde

Conecte el sensor de lluvia/congelamiento (opcional)

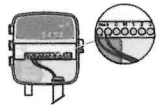
AVISO

- No retire el cable puente a menos que conecte un sensor de lluvia o lluvia/congelamiento. El controlador no funcionará si se retira el cable para corriente y no hay un sensor conectado.
- Los controladores Rain Bird solo son compatibles con sensores de lluvia normalmente cerrado.
- Revise las disposiciones locales y/o estatales para determinar si se requiere un sensor de lluvia o lluvia/congelamiento.

1. Retire el cable puente amarillo de los terminales SENS en el controlador.



2. Conecte ambos cables del sensor de lluvia o lluvia/congelamiento a los terminales SENS.



3. Para una instalación y operación detallada del sensor de lluvia o lluvia/congelamiento, consulte las instrucciones de instalación del fabricante del sensor.

Conecte la válvula maestra (opcional)

⚠ ADVERTENCIA

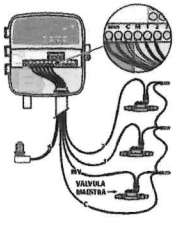
NO pase los cables de la válvula maestra por la misma abertura que los cables de energía.

1. Con un cable de enterramiento directo, conecte uno de los cables de la válvula maestra al terminal de la válvula maestra (M).

AVISO

NO conecte más de una válvula en el terminal de la zona maestra (M).

2. Conecte el cable restante de la válvula maestra en el terminal común (C).



Conecte el relé de arranque de bomba (opcional)

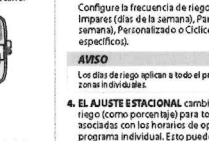
⚠ ADVERTENCIA

NO pase los cables del relé de arranque de bomba por las mismas aberturas de los cables de corriente.

AVISO

- Un relé de arranque de bomba se conecta al controlador de la misma forma que una válvula maestra, para se conecta distinto en la fuente de agua.
- Este controlador NO proporciona corriente para una bomba. Debe cablearse un relé de acuerdo con las instrucciones de instalación del fabricante de la bomba.

1. Con un cable de enterramiento directo, conecte uno de los cables de la válvula maestra al terminal de la válvula maestra (M).
2. Conecte el cable restante del relé de arranque de bomba en el terminal común (C).
3. Para evitar posible daño en la bomba, en el caso de que se asignen horarios de operación en zonas no utilizadas, conecte un cable puente corto desde todos los terminales de zona no utilizados hasta el terminal de zona en uso más cercano.



4. Para una instalación y operación detallada del relé de arranque de bomba, consulte las instrucciones de instalación del fabricante de la bomba.

Conecte la corriente

- El controlador viene con un cable de corriente estándar de 1.8 m, por lo que puede instalarse en interiores o exteriores (si se conecta en un enchufe externo impermeable).
- El controlador puede cablearse directamente al suministro eléctrico retirando el cable de corriente. Éste tiene un transformador interno que reduce el voltaje del suministro de 120– 60Hz a 24– 60Hz. Necesitará conectar los cables de suministro de corriente a los tres cables del transformador (fase, neutro, tierra). Consulte la sección "Conecte el cableado a la medida" para encontrar los detalles de instalación.

⚠ ADVERTENCIA

- La descarga eléctrica puede causar lesiones graves y hasta la muerte. Asegúrese de que el suministro de corriente esté APAGADO antes de conectar los cables de corriente.
- NO enchufe ni energice el controlador hasta que haya completado y verificado todas las conexiones del cableado.
- Desconecte o apague la fuente de corriente externa antes de conectar o desconectar los cables en el controlador.

Programación

Agregue un nuevo controlador a la aplicación Rain Bird

1. Antes de instalar el controlador nuevo, verifique la señal de WiFi en la ubicación del controlador.
   - Verifique que el controlador tenga una potencia de señal mínima de dos barras.
   - Monte el controlador más cerca del enrutador o si es necesario, coloque un intensificador de señal.
2. Descargue y abra la aplicación Rain Bird.

Consíguelo en el App Store | DISPONIBLE EN Google Play

3. Seleccione "Agregar controlador" para iniciar el asistente de instalación.

Configure fecha y hora

- Cuando el controlador está conectado a WiFi automáticamente configurará la fecha y la hora de acuerdo con la configuración de red de WiFi local. En el caso de un corte de corriente, la fecha y hora se configurará por defecto a la configuración de red de WiFi local.
- Si no hay una red de WiFi local disponible al momento de la configuración y el controlador está conectado a la aplicación Rain Bird en modo de punto de acceso inalámbrico, el controlador se configurará por defecto con la fecha y hora en la configuración del dispositivo móvil.

Cómo crear un programa de riego

1. **AGREGAR PROGRAMAS:** Este controlador está programado para usar hasta tres programas (A, B y C). Los programas básicos incluyen instrucciones para los días de riego, horas de inicio, y duraciones.

   En la aplicación Rain Bird, agregue un nuevo programa seleccionando + PGM y un programa disponible.

AVISO

- La primera vez que se conecte al controlador, la aplicación móvil Rain Bird reflejará el programa asignado por defecto al controlador. Usted puede conservar, cambiar o configurar un nuevo programa en ese momento.
- La programación se almacena en una memoria no volátil y permanecerá en el controlador en el caso de un corte de corriente.

2. **CONFIGURE LOS HORARIOS DE INICIO DEL PROGRAMA:** Este controlador está programado para utilizar hasta cuatro horarios de inicio independientes por programa. Los horarios de inicio es la hora del día en el que comenzará el programa. Cada horario de inicio operará todas las zonas por su duración programada dentro de ese programa.
   - En la aplicación Rain Bird, agregue un horario de inicio del programa seleccionando el ícono ⊕.
   - Configure las zonas y duraciones de riego asociadas con el horario de inicio seleccionando el ícono ⊕.

AVISO

Los horarios de inicio aplican al programa completo, no a zonas individuales. Dependiendo de las necesidades del paisajismo, pueden asignarse varios horarios de inicio para ese programa. Una vez que se configura el horario de inicio, el controlador comienza el ciclo.

3. **CONFIGURE LOS DÍAS DE OPERACIÓN DEL PROGRAMA:** Los días de operación son los días específicos de la semana en que ocurre el riego.

   Configure la frecuencia de riego al seleccionar Impares (días de la semana), Pares (días de la semana), Personalizado o Cíclico (intervalos específicos).

AVISO

Los días de riego aplican a todo el programa, no a las zonas individuales.

4. **EL AJUSTE ESTACIONAL** cambia la duración de riego (como porcentaje) para todas las zonas asociadas con los horarios de operación en un programa individual. Esto puede ajustarse manualmente en la aplicación Rain Bird usando el deslizador en la configuración del programa.

AVISO

- El controlador debe estar conectado a WiFi para hacer ajustes automáticos.
- Un valor de ajuste del 100 % representa la irrigación durante el tiempo promedio más caluroso del año, así que si está experimentando un clima cálido en un día de verano puede nover un ajuste por encima del 100 %.

5. **RETARDO POR LLUVIA:** En la aplicación Rain Bird, apague manualmente el riego automático durante una cantidad fija de días cuando llueva, incluso sin un sensor de lluvia.
   - Suspenda el riego por hasta 14 días seleccionando el ícono ☔ en la configuración del controlador.
   - Deslice la barra hasta la cantidad de días deseados para retardar el riego automático.
   - Seleccione "Grabar" para guardar la configuración.

AVISO

La cantidad máxima de días para retardar el riego es 14. Después de la expiración de los días, se reanudará la irrigación automática de acuerdo con el horario programado.

Riego manual

EN EL CONTROLADOR

- Oprima el botón ▷ para iniciar el riego manual.
- Por defecto, cada zona operará durante 10 minutos; usted puede elegir mantener o cambiar la duración del riego en la aplicación Rain Bird.
- La luz LED parpadeante dará la indicación de la zona que está activa.
- Oprima el botón ⏭ para avanzar a la siguiente zona.
- Oprima el botón ⏻ para detener el riego manual en el controlador.

EN LA APLICACIÓN RAIN BIRD

- Seleccione el ícono ⏻ y seleccione preferencias de riego manuales para iniciar el riego manual.
- Oprima el botón ⏭ para avanzar a la siguiente zona.
- Oprima el botón ■ para detener el riego manual en el controlador.

Riego automático

EN EL CONTROLADOR

AVISO

Cuando opere en modo automático, cada programa operará de acuerdo con los horarios de inicio, así como los días y horarios de operación de cada zona en secuencia, hasta que se haya realizado todo el riego programado.

- Oprima ⏲ para iniciar el riego automático de acuerdo con los programas asignados.
- La luz LED parpadeante dará la indicación de la zona que está activa.
- Oprima el botón ⏭ para avanzar zonas.
- Oprima el botón ⏻ para detener el riego automático en el controlador.

EN LA APLICACIÓN RAIN BIRD

La aplicación Rain Bird ofrece un alternador para cambiar entre riego automático y apagado.

Soporte Técnico

Para obtener ayuda con la configuración u operación del Controlador Inteligente WiFi Rain Bird, por favor llame al número gratuito de Soporte Técnico de Rain Bird al: 1-800-RAIN BIRD (800-724-6247) o visite www.rainbird.com.

Para obtener más información, incluido el diagnóstico de problemas, escanee el código QR:

FRANÇAIS EN ES FR

Manuel d'utilisation du programmateur intelligent WiFi

Caractéristique	Description
Zones maximales	8
Programmes automatiques	3
Heures de début par programme	4
Jours d'arrosage sur-mesure	Oui
Contrôle de la vanne principale	Oui
Délai de pluie	Oui
Contrôle du capteur de pluie/gel	Oui
Ajustement saisonnier	Oui
Arrosage manuelle de zone	Oui
Programme d'arrosage manuel	Oui
Test manuel de toutes les zones	Oui
Avance de zone	Oui
WiFi intégré	Oui
Point d'accès AP	Oui

Installation

Si vous remplacez un programmateur existant

1. Prenez une photo des détails de câblage, qui seront utiles pour référence lors de l'installation du nouveau programmateur.
2. Débranchez le cordon d'alimentation de la prise secteur et déconnectez les fils du programmateur.

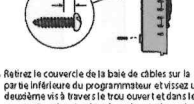
Monter le nouveau programmateur

1. À moins d'installer avec un câblage personnalisé, choisissez un emplacement de montage sur un mur à moins de 1,8 m d'une prise de courant alternatif et à au moins 4,5 m à l'écart de gros appareils électroménagers ou des climatiseurs.

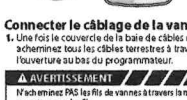
⚠ AVERTISSEMENT

Installez le programmateur avec la sortie de cordon d'alimentation vers le bas pour éviter l'infiltration d'eau.

2. Serrez une vis de montage dans le mur en laissant un espace de 3,2 mm entre la tête de la vis et la surface du mur (utilisez les chevilles fournies si nécessaire).
3. Localisez la fente en trou de serrure à l'arrière du programmateur et accrochez-la solidement sur la vis de montage.



4. Retirez le couvercle de la baie de câbles sur la partie inférieure du programmateur et vissez une deuxième vis à travers le trou ouvert et dans le mur (utilisez les chevilles fournies si nécessaire).



Connecter le câblage de la vanne

1. Une fois le couvercle de la baie de câbles retiré, acheminez tous les câbles terrestres à travers l'ouverture au bas du programmateur.

⚠ AVERTISSEMENT

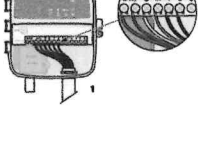
N'acheminez PAS les fils de vannes à travers la même ouverture que les fils.

2. Connectez un fil de chaque vanne à l'une des bornes de zone numérotées (1 à 8) sur le programmateur.

AVIS

NE connectez PAS plus d'une vanne à la même borne de zone (1 à 8).

3. Connectez un fil commun terrestre à la borne commune (C) du programmateur.
4. Pour le raccordement d'accessoires en option (capteur de pluie ou de pluie/gel, vanne principale, relais de démarrage de pompe), reportez-vous à la section appropriée de ce manuel.



Connecter le câblage personnalisé (en option)

⚠ AVERTISSEMENT

- Assurez-vous que l'alimentation CA est débranchée avant de remplacer le câblage.
- La barre anti-traction doit être refixée pour une utilisation sécuritaire et correcte.
- Lors de l'utilisation d'un câblage fixe à l'alimentation principale, l'installation doit intégrer un dispositif de déconnexion.
- NE mettez PAS sous tension tant que vous n'avez pas terminé et vérifié toutes les connexions de câblage.
- N'essayez PAS de relier deux programmateurs ou plus à l'aide d'un seul transformateur.

1. Si vous le souhaitez, le cordon d'alimentation fourni peut être retiré et remplacé par un câblage personnalisé.
2. Retirez le couvercle de la baie de câblage sur la partie inférieure du programmateur.
3. Repérez le boîtier du transformateur dans le coin gauche de la baie de câblage et dévissez le couvercle du compartiment de câblage.
4. Dévissez les serre-fils retirant le cordon d'alimentation CA et les fils du transformateur. Retirez les fils du cordon d'alimentation du boîtier du transformateur.
5. Retirez le cordon d'alimentation installé en usine en desserrant les deux vis fixant la barre métallique anti-traction.
6. Acheminez les trois fils d'une source d'alimentation externe dans le compartiment de câblage.
7. Connectez les câbles d'alimentation externe à l'aide des serre-fils, puis fixez à nouveau la barre anti-traction métallique en serrant les deux vis.

Connexions du câblage d'alimentation 120 VCA

- Fil d'alimentation noir (phase) au fil noir du transformateur
- Fil d'alimentation blanc (neutre) au fil blanc du transformateur
- Fil d'alimentation vert (terre) au fil vert du transformateur

Connecter le capteur de pluie/gel (en option)

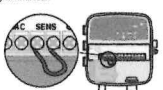
AVIS

- Ne laissez PAS le fil de raccordement à moins de connecter un capteur de pluie ou de pluie/gel. Le programmateur ne fonctionnera pas si le cavalier est retiré et qu'un capteur n'est pas connecté.
- Les programmateurs Rain Bird ne sont compatibles qu'avec les capteurs de pluie normalement fermés.
- Consultez les réglementations locales et/ou nationales pour déterminer si un capteur de pluie ou de pluie/gel est nécessaire.

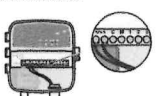
⚠ AVERTISSEMENT

- Un choc électrique peut entraîner des blessures graves ou la mort. Assurez-vous que l'alimentation est coupée avant de brancher les câbles d'alimentation.
- NE branchez PAS ou NE mettez PAS sous tension tant que vous n'avez pas terminé et vérifié toutes les connexions de câblage.
- Déconnectez ou coupez la source d'alimentation externe avant de brancher ou de débrancher les fils du programmateur.

1. Retirez le cavalier jaune des bornes SENS sur le programmateur.



2. Connectez les fils du capteur de pluie ou de pluie/gel aux bornes SENS.



3. Pour plus de détails sur l'installation et le fonctionnement du capteur de pluie ou de pluie/gel, reportez-vous aux instructions d'installation du fabricant du capteur.

Connecter la vanne principale (en option)

⚠ AVERTISSEMENT

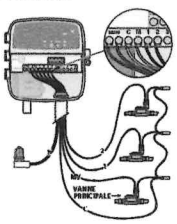
NE faites PAS passer les fils de la vanne principale par la même ouverture que les fils d'alimentation.

1. À l'aide d'un câble enterré direct, connectez l'un des fils de la vanne principale à la borne de la vanne principale (M).

AVIS

NE connectez PAS plus d'une vanne à la même borne de vanne principale (M).

2. Connectez le fil restant de la vanne principale à la borne commune (C).



Connecter le relais de démarrage de la pompe (en option)

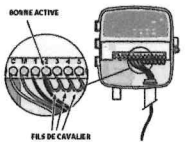
⚠ AVERTISSEMENT

N'acheminez PAS les fils du relais de démarrage de la pompe dans les mêmes ouvertures que les fils d'alimentation.

AVIS

- Un relais de démarrage de pompe se connecte au programmateur de la même manière qu'une vanne principale, mais se connecte différemment à la source d'eau.
- Ce programmateur NE fournit PAS d'alimentation pour une pompe. Un relais doit être câblé conformément aux instructions d'installation du fabricant de la pompe.

1. À l'aide d'un câble enterré direct, connectez l'un des fils de la vanne principale à la borne de la vanne principale (M).
2. Connectez l'autre fil du relais de démarrage de la pompe à la borne commune (C).
3. Pour éviter d'endommager la pompe dans le cas où des durées d'arrosage sont affectées à des zones inutilisées, connectez un fil de raccordement court de toutes les bornes de zone inutilisées à la borne de zone la plus proche en cours d'utilisation.



4. Pour plus de détails sur l'installation et le fonctionnement du relais de démarrage de la pompe, reportez-vous aux instructions d'installation du fabricant de la pompe.

Brancher l'alimentation

- Le programmateur est livré avec un cordon d'alimentation type à 1,8 m afin qu'il puisse être installé à l'intérieur ou à l'extérieur (s'il est branché sur une prise externe étanche).
- Le programmateur peut être branché directement à une source d'alimentation en retirant le cordon d'alimentation. Il possède un transformateur interne qui réduit la tension d'alimentation de 120 VCA à 24 VCA. Vous devrez raccorder les fils d'alimentation aux trois fils du transformateur (phase, neutre, terre). Reportez-vous à la section « Connexion du câblage personnalisé » pour les détails sur l'installation.

Programmation

Ajouter un nouveau programmateur à l'application Rain Bird

1. Avant de monter un nouveau programmateur, vérifiez le signal WiFi à l'emplacement du programmateur.
   - Vérifiez que la force minimale du signal est de deux barres au niveau du programmateur.
   - Montez le programmateur plus près du routeur ou ajoutez-y un amplificateur de signal si nécessaire.
2. Téléchargez et lancez l'application Rain Bird.

Télécharger sur l'App Store | DISPONIBLE SUR Google Play

3. Sélectionnez « Ajouter un programmateur » pour lancer l'assistant de configuration.

Régler le jour et l'heure

- Lorsque le programmateur est connecté au WiFi, il règle automatiquement la date et l'heure en fonction des paramètres du réseau WiFi local. En cas de panne de courant, la date et l'heure seront par défaut les paramètres du réseau WiFi local.
- Si un réseau WiFi local n'est pas disponible lors de la configuration et que le programmateur est connecté à l'application Rain Bird en mode Point d'accès AP, le programmateur utilisera par défaut la date et l'heure des paramètres de l'appareil mobile.

Créer un calendrier d'arrosage

1. **AJOUTER PROGRAMME(S) :** Ce programmateur est réglé en utilisant jusqu'à trois programmes (A, B et C). Les programmes de base comprennent des instructions sur les jours d'arrosage, les heures de début, les jours et les durées d'arrosage.

AVIS

- La première fois que vous vous connectez au programmateur, l'application Rain Bird indique le programme par défaut assigné au programmateur. Avec votre appareil mobile, modifiez le programme par défaut ou sélectionnez + PGM pour ajouter un ou plusieurs nouveaux programmes.
- La programmation est stockée dans une mémoire non volatile et restera dans le programmateur en cas de panne de courant.

2. **RÉGLER LA OU LES HEURES DE DÉMARRAGE DU PROGRAMME :** Ce programmateur est réglé sur quatre heures de démarrage indépendantes maximum par programme. L'heure de début est l'heure de la journée à laquelle le programme commencera. Chaque heure de démarrage s'appliquera à chaque zone pendant sa durée programmée dans ce programme.
   - Dans l'application Rain Bird, ajoutez une heure de début de programme en sélectionnant l'icône ⊕.
   - Réglez la ou les zones et la ou les durées d'arrosage associées à l'heure de début en sélectionnant l'icône ⊕.

AVIS

Les heures de début s'appliquent à l'ensemble du programme, et non sur zones individuelles. Selon les besoins en aménagement paysager, plusieurs heures de début peuvent être assignées à ce programme. Une fois l'heure de démarrage réglée, le programmateur commencera le cycle d'arrosage avec la première zone; les autres zones du programme suivent dans l'ordre.

3. **DÉFINIR LES JOURS D'ARROSAGE DU PROGRAMME :** les jours d'arrosage sont les jours spécifiques de la semaine où l'arrosage a lieu.

   Réglez la fréquence d'arrosage en sélectionnant Impair (jours de la semaine), Pair (jours de la semaine), Personnalisé ou Cyclique (intervalles spécifiques).

AVIS

Les jours d'arrosage s'appliquent à l'ensemble du programme, et non sur zones individuelles.

4. La fonction **AJUSTEMENT SAISONNIER** modifie la durée d'arrosage (en pourcentage) pour toutes les zones associées aux temps d'arrosage dans un programme individuel. Il est possible de l'ajuster manuellement dans l'application Rain Bird à l'aide du curseur dans les paramètres du programme.

AVIS

- Le programmateur doit être connecté au WiFi pour effectuer des ajustements automatiques.
- Une valeur d'ajustement de 100 % est représentative de l'irrigation pendant la période moyenne la plus chaude de l'année. Ainsi, même si vous connaissez un temps chaud un jour d'été, vous ne verrez peut-être pas un ajustement supérieur à 100 %.

5. **DÉLAI POUR PLUIE :** dans l'application Rain Bird, désactivez manuellement l'arrosage automatique pendant un nombre fixe de jours lorsqu'il pleut même sans capteur de pluie.
   - Suspendez l'arrosage jusqu'à 14 jours en sélectionnant l'icône ☔ dans les paramètres du programmateur.
   - Faites glisser la barre jusqu'au nombre de jours souhaité pour retarder l'arrosage automatique.
   - Sélectionnez « Enregistrer » pour mémoriser le réglage.

AVIS

Le nombre maximum de jours pour retarder l'arrosage est de 14. Une fois ces jours écoulés, l'arrosage automatique recommencera selon le calendrier programmé.

Arrosage manuel

SUR LE PROGRAMMATEUR

- Pour démarrer l'arrosage manuel, appuyez sur le bouton ▷.
- Par défaut, chaque zone fonctionnera pendant 10 minutes; vous pouvez choisir de conserver ou de modifier la durée d'arrosage dans l'application Rain Bird.
- La DEL clignotante indiquera quelle zone est active.
- Pour passer à la zone suivante, appuyez sur le bouton ⏭.
- Pour arrêter l'arrosage manuel sur le programmateur, appuyez sur le bouton ⏻.

DANS L'APPLICATION RAIN BIRD

- Pour démarrer l'arrosage manuel, sélectionnez l'icône ⏻ et sélectionnez les préférences d'arrosage manuel.
- Pour passer à la zone suivante, sélectionnez l'icône ⏭.
- Pour arrêter l'arrosage manuel dans l'application Rain Bird, sélectionnez l'icône ■.

Arrosage automatique

SUR LE PROGRAMMATEURR

AVIS

Lors du fonctionnement en mode automatique, chaque programme fonctionnera en fonction des heures de démarrage, des jours de fonctionnement et des heures de fonctionnement pour chaque zone dans l'ordre jusqu'à ce que tous les arrosages programmés aient eu lieu.

- Appuyez sur ⏲ pour démarrer l'arrosage automatique selon le ou les programme(s) établi(s).
- A DEL clignotante indiquera quelle zone est active.
- Pour passer à la zone suivante, appuyez sur le bouton ⏭.
- Pour arrêter l'arrosage automatique sur le programmateur, appuyez sur le bouton ⏻.

DANS L'APPLICATION RAIN BIRD

L'application Rain Bird offre une bascule pour basculer entre l'arrosage automatique et l'état d'arrêt.

Soutien technique

Pour obtenir de l'aide pour configurer ou utiliser le programmateur intelligent WiFi Rain Bird, veuillez appeler le soutien technique de Rain Bird au numéro de téléphone gratuit : 1-800-RAIN BIRD (800-724-6247) ou consulter le site www.rainbird.com.

Pour plus d'informations, y compris le dépannage, numériser le code QR :

DNRC Form 600 Site Map

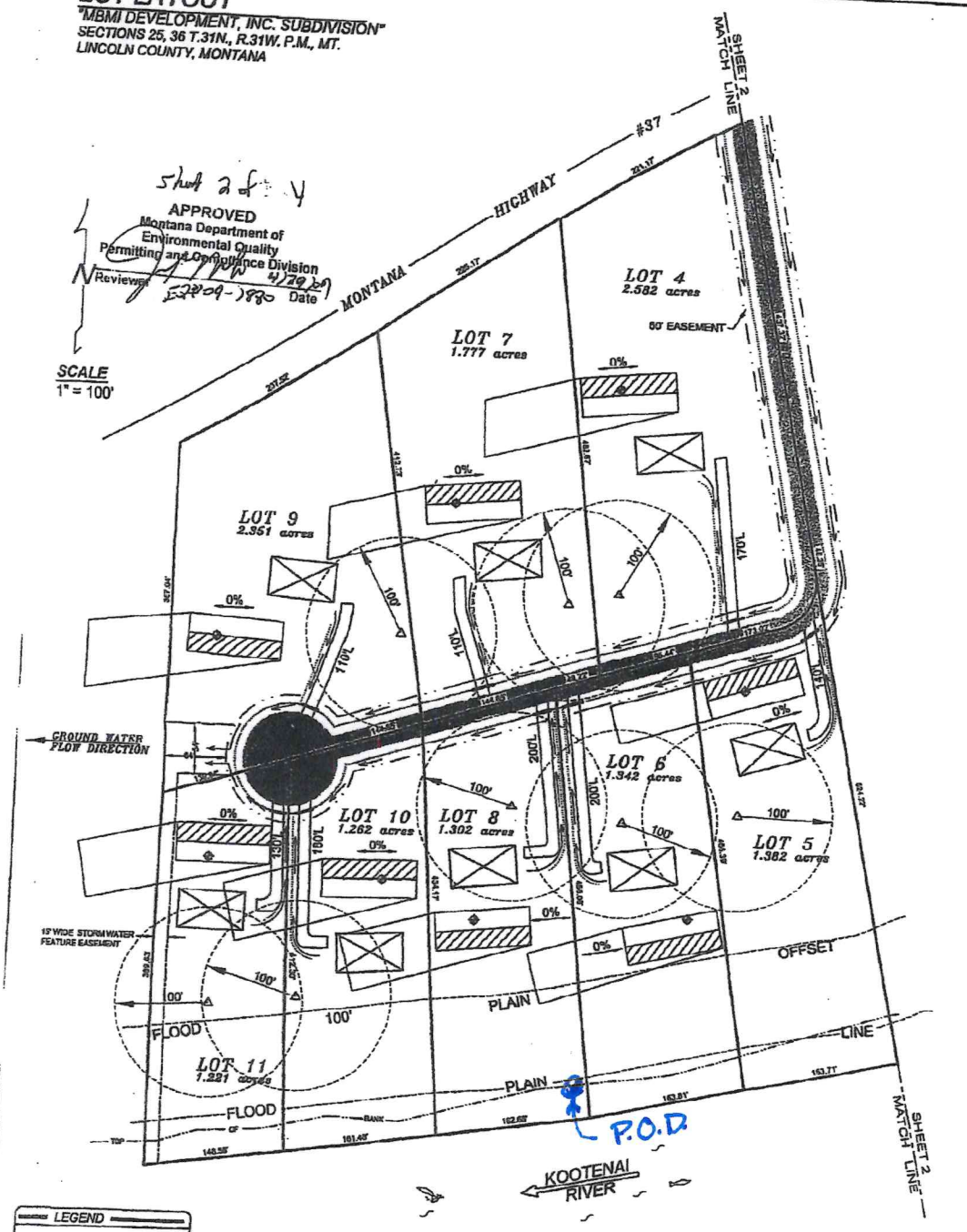
LOT LAYOUT

"MBMI DEVELOPMENT, INC. SUBDIVISION"
SECTIONS 25, 36 T.31N., R.31W. P.M., MT.
LINCOLN COUNTY, MONTANA

Sheet 2 of 4

APPROVED
Montana Department of
Environmental Quality
Permitting and Compliance Division
Reviewer [signature] 4/29/09
EQ#09-1880 Date

SCALE
1" = 100'



LEGEND

- PROPOSED WELL SITE
- SOIL TEST SITE
- 40' X 70' PROPOSED HOUSE SITE
- PROPOSED DRAINFIELD AND REPLACEMENT AREA
- PROPOSED DRIVEWAY
- DRAINAGE DITCH & STORMWATER FLOW
- PROPOSED CULVERT

NOTES

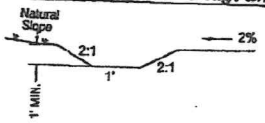
REFER TO APPROVED ENGINEERED ROAD DESIGN AND STORM WATER DRAINAGE PLAN BY 48° NORTH CIVIL ENGINEERING SERVICES FOR DESIGN DETAILS.

THERE ARE NO WELLS OR DRAINFIELDS WITHIN 100' OF PROPERTY BOUNDARY.

HOMEOWNERS ARE RESPONSIBLE FOR THE MAINTENANCE OF STORMWATER DRAINAGE FEATURES ON THEIR OWN LOTS.

THE HOMEOWNERS ASSOCIATION IS RESPONSIBLE FOR THE MAINTENANCE OF STORMWATER FEATURES SHARED BY THE HOMEOWNERS.

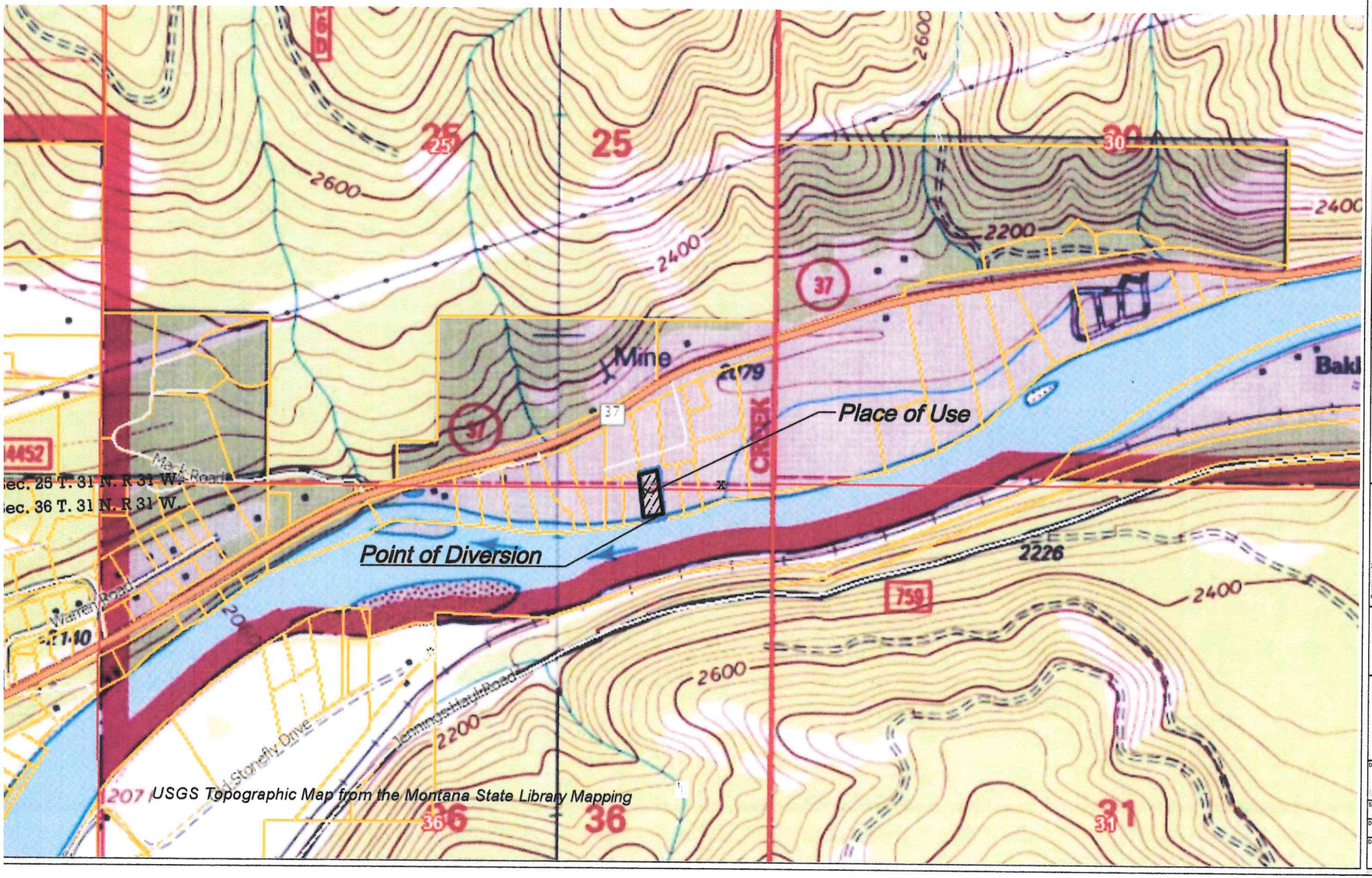
Driveway Ditch Diagram



KOOTENAI SURVEYORS, INC.

PREPARED BY: JODY V. PETERSON

Lot 8 MBMI Subdivision Irrigation POD and POU Legal Location
DNRC Permit Form 600 Hafferman and Miner



LOT 8 MBMI SUBDIVISION
IRRIGATION POD and POU
FOR
HAFFERMAN - MINER
SECTION 25 & 36 T31N, R31W, M., LINCOLN COUNTY, MONTANA

HAFFERMAN ENGINEERING, INC.
PO Box 1650
Libby, Montana 59923
PHONE: (406) 2120044
EMAIL: hei@haffermanengineering.com
ONLINE: http://www.haffermanengineering.com

DRAWING TITLE:
LEGAL LOCATIONS
POD and POD
USGS Topographic Map

SCALE:

DATE: PROJECT NO:

DRAWING NUMBER:
1 OF 1

DNRC Form 600: 2.e.i. Technical Analysis

Water Resources Division – Kalispell Regional Office
655 Timberwolf Pkwy, Ste. 4
Kalispell, MT 59901-1215
(406) 752-2288
DNRCKalispellWater@mt.gov

July 2, 2025

KURTIS HAFFERMAN AND KATHY MINER
PO BOX 1690
LIBBY MT 59923-5001

Subject: Completed Technical Analyses Report for Beneficial Water Use Permit Preapplication No. 76D 30170983

Dear Applicants,

As designated on the submitted Preapplication Meeting Form per §85-2-302(3)(b), MCA, the Department of Natural Resources and Conservation (Department) has completed the technical analyses for Beneficial Water Use Permit Preapplication No. 76D 30170983 based on the information provided in your Preapplication Meeting Form accepted by the Department on May 29, 2025. The technical analyses can be found in the attached report.

This Technical Analyses Report **IS**: A collection of facts that the DNRC has gathered, including content provided in the Preapplication Meeting Form materials. The Department will use these data to analyze the criteria in §85-2-311, MCA if you submit a Form 600 for the project described in the completed Preapplication Meeting Form.

This Technical Analyses Report **IS NOT**: An analysis or discussion of whether the Preapplication Meeting Form as filed meets the criteria in §85-2-311, MCA.

You have 180 days to submit the Beneficial Water Use Permit Application Form 600 considering the information provided in the technical analyses and Preapplication Meeting Form. If the Application Form is not submitted to the Kalispell Regional Office by December 29, 2025, a new preapplication meeting will be required to process the Application with expedited timelines (ARM 36.12.1302(6)(b)). If any details described in the submitted Application are changed from that of the submitted Preapplication Meeting Form, the discounted filing fee and expedited timelines will not apply (ARM 36.12.1302(6)(a)). Please note that the technical analyses will expire one year from the date of this letter (ARM 36.12.1302(8)).

Please contact me at (406) 752-2746 or Travis.Wilson@mt.gov if you have any questions about the application process.

Sincerely,

Travis Wilson
Water Resource Specialist
Kalispell Regional Office

Encl.: Surface Water Permit Technical Analyses Report for Beneficial Water Use Permit Preapplication No. 76D 30170983

Surface Water Permit Technical Analyses Report

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division
Travis Wilson, Water Resource Specialist, Kalispell Regional Office

Application No.	76D 30170983	**Proposed Point of Diversion**	NWNENE S36 T31N R31W LINCOLN
Applicant	HAFFERMAN, KURTIS M. & MINER, KATHY M.		

Overview

This report analyzes data submitted by the Applicant in support of Application No. 76D 30170983. This report provides technical analyses as required under the Administrative Rules of Montana (ARM) 36.12.1303 in support of the water rights criteria assessment as required in §85-2-311, Montana Code Annotated (MCA).

This Surface Water Permit Technical Analyses Report contains the following sections:

Variances

No variances were requested.

1.0 Application Details

The Applicant proposes to divert water from the Kootenai River at a point in the NWNENE of Section 36, Township 31N, Range 31W, Lincoln County, Montana. The requested period of diversion and period of use is from April 1 to October 15 at a rate of 18.0 gallons per minute (GPM) up to 0.94 acre-feet (AF) of volume for irrigation of 0.86 acres of lawn and garden. The place of use in the SWSESE of Section 25 (0.29 acres) and the NWNENE of Section 36 (0.57 acres) in Township 31N, Range 31W, Lincoln County, Montana, which is further described as Lot 8 of the MBMI Development, Inc. subdivision (Figure 1).

2.0 Surface Water Analysis

2.1 Source Description

Proposed Source of Water: Kootenai River

Proposed Source Type: Perennial

Proposed Point of Diversion (POD): NWNENE of Section 36, Township 31N, Range 31W, Lincoln County, Montana.

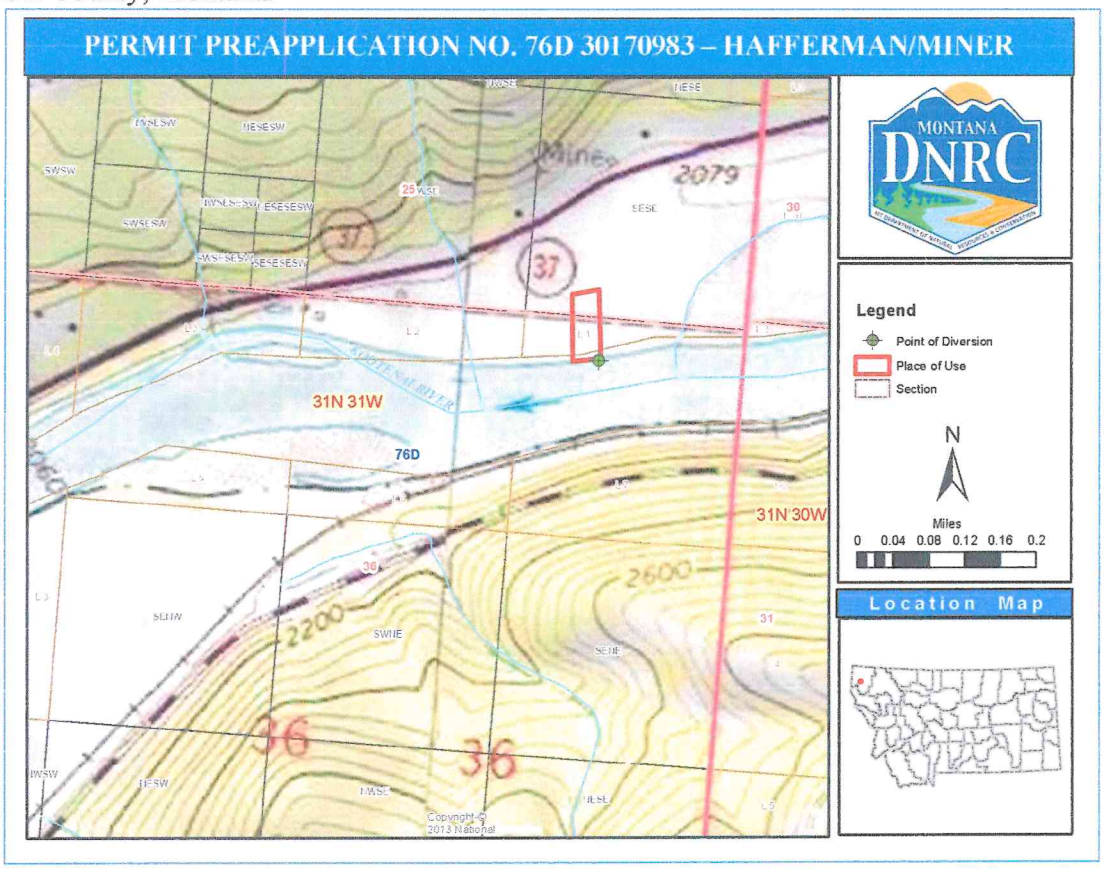


Figure 1: Map of the proposed POD on the source and proposed place of use.

2.2 Method of Estimation

The Kootenai River is a perennial stream with available measurement records.

USGS Gaging Station Name: Kootenai River below Libby Dam near Libby, MT

USGS Gaging Station Number: 12301933

Period of Record: October 1, 1971 to January 31, 2025

Why this gage is considered an appropriate data source: USGS Gaging Station No. 12301933 is located approximately 15.8 miles upstream of the proposed POD and approximately 0.7 miles downstream of Libby Dam, which largely controls the flow of this reach of the Kootenai River. The next closest gaging station on the Kootenai River is USGS Gaging Station No. 12305000 Kootenai River at Leonia, ID, which is approximately 46 miles downstream of the proposed POD.

2.3 Monthly Flow Rate and Volume

Methodology used to quantify monthly physical availability of Kootenai River water at the POD during the period of diversion and use (April 1 – October 15):

The Department calculated median of the mean monthly flow rates in cubic feet per second (CFS) for the Kootenai River using USGS Gaging Station No. 12301933 records for each month of the proposed period of diversion (Table 2, column B). Those flow rates were converted to monthly volumes in AF (Table 2, column C) using the following equation found in the DNRC Water Calculation Guide: median of the mean monthly flow in CFS × 1.98 AF/day/1.0-CFS × days per month = AF/month.

The Department calculated the monthly flow rates appropriated by existing users between USGS Gaging Station No. 12301933 and the proposed POD (Table 2, column D) by:

i. Generating a list of existing water rights from USGS Gaging Station No. 12301933 down to the proposed POD (Table 1);

ii. Designating uses as occurring during their recorded period of diversion; and,

iii. Assuming that the flow rate of each existing right is continuously diverted throughout each month of its period of diversion. This assumption is necessary due to the difficulty of differentiating the distribution of appropriated volume over the period of diversion. This leads to an overestimation of legal demands on the physical volume of water. The Department finds this an appropriate measure of assessing existing rights as it protects existing water users.

Since the gage used is upstream of the proposed POD, the Department subtracted out the flow rates of the existing rights between USGS Gaging Station No. 12301933 and the proposed POD (Table 2, column D) from the median of the mean monthly gage values (Table 2, column B) to determine physically available flows and volumes at the POD (Table 2, columns E-F).

Table 1: Existing Legal Demands between the POD and USGS Gaging Station No. 12301933		
Water Right Number	Purpose	Flow Rate (CFS)
76D 31188 00	IRRIGATION	0.02
76D 99744 00	IRRIGATION	1.33
76D 304 00	INDUSTRIAL	6.68
76D 42395 00	LAWN AND GARDEN	0.02
76D 33744 00	LAWN AND GARDEN	0.12
76D 33287 00	LAWN AND GARDEN	0.06
76D 216044 00	IRRIGATION	0.23
76D 30023375	IRRIGATION	0.12

Table 2: Physical Availability of the Kootenai River at the Point of Diversion					
A	B	C	D	E	F
Month	**Median of the Mean Monthly Flow at USGS Gaging Station 12301933 (CFS)**	**Median of the Mean Monthly Volume at USGS Gaging Station 12301933 (AF)**	**Existing legal demands between USGS Gaging Station 12301933 and the POD (CFS)**	**Physically Available Water at POD (CFS)**	**Physically Available Water at POD (AF)**
April	4,254.00	252,687.60	8.56	4,245.44	252,179.14
May	9,169.00	562,793.22	8.58	9,160.42	562,266.58
June	14,600.00	867,240.00	8.58	14,591.42	866,730.35
July	10,900.00	669,042.00	8.58	10,891.42	668,515.36
August	9,524.00	584,583.12	8.58	9,515.42	584,056.48
September	8,504.00	505,137.60	8.58	8,495.42	504,627.95
October	6,785.50	416,493.99	7.11	6,778.39	416,057.58

3.0 Area of Potential Impact (AOPI) Analysis

The Area of Potential Impact for this application is:
The Kootenai River from the proposed POD downstream to the Montana-Idaho border. There are 25 water rights within the AOPI (Appendix A).

Why this is an appropriate Area of Potential Impact:
Diversion of Kootenai River water at the proposed POD would reduce the flow and volume of water in the reach of the Kootenai River extending from the proposed POD downstream to the Montana-Idaho border.

Methodology:
The Department selected the entire reach of the Kootenai River within Montana downstream of the proposed POD as the AOPI.

Review

This document was reviewed by the Department on July 2, 2025.

References

Department Standard Practice for Determining Physical Availability of Surface Water.

- DNRC Technical Memorandum: Physical Availability of Surface Water with Gage Data (Elison, Mann, Dolan, Heffner, Brickl, November 1, 2019).

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Appendix A: Water Rights within the Area of Potential Impact

Appendix A: Water rights on the Kootenai River within the AOPI		
Water Right Number	Purpose	Flow Rate (CFS)
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76D 115793 00	LAWN AND GARDEN	0.03
76D 100384 00	IRRIGATION	0.44
76D 140178 00	IRRIGATION	0.36
76D 143762 00	IRRIGATION	0.11
76D 30158132	LAWN AND GARDEN	0.22
76D 109346 00	IRRIGATION	0.08
76D 141356 00	INDUSTRIAL	1.11
76D 31798 00	IRRIGATION	0.13
76D 140846 00	IRRIGATION	0.16
76D 5948 00	IRRIGATION	0.11
76D 92427 00	LAWN AND GARDEN	0.03
76D 216064 00	IRRIGATION	0.16
76D 141359 00	IRRIGATION	0.35
76D 29845 00	IRRIGATION	0.02
76D 100385 00	IRRIGATION	0.06
76D 100383 00	STOCK	0.04
76D 29844 00	IRRIGATION	0.01
76D 114086 00	LAWN AND GARDEN	0.02
76D 2715 00	IRRIGATION	2.00
76D 22286 00	IRRIGATION	0.05
76D 56444 00	LAWN AND GARDEN	0.06
76D 141302 00	IRRIGATION	0.15
76D 43067 00	IRRIGATION	0.04
76D 30051149	LAWN AND GARDEN	0.02
76D 30063810	INSTREAM FISHERY	38,573*

*This is the maximum flow rate. The enforceable levels of this water right are individual for each calendar day of the year and are identified in the technical documentation filed with water right 76D 30063810 (see scanned file in the DNRC water rights database). The ability to enforce this water right shall be suspended so long as the Libby Dam remains in existence and the Army Corps of Engineers' operation of that dam are conducted consistently with the 2008 Federal Columbia River Power System Biological Opinion, and the 2010 updated Biological Opinion.

Technical Analyses Report/ Scientific Credibility Review

- Departmental Technical Analyses Report/ Scientific Credibility Review
- Any correspondence relating to the Technical Analyses Report

Technical Analyses Report / Scientific Credibility Review

Water Resources Division – Kalispell Regional Office
655 Timberwolf Pkwy, Ste. 4
Kalispell, MT 59901-1215
(406) 752-2288
DNRCKalispellWater@mt.gov

July 2, 2025

KURTIS HAFFERMAN AND KATHY MINER
PO BOX 1690
LIBBY MT 59923-5001

Subject: Completed Technical Analyses Report for Beneficial Water Use Permit Preapplication No. 76D 30170983

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Travis Wilson
Water Resource Specialist
Kalispell Regional Office

Encl.: Surface Water Permit Technical Analyses Report for Beneficial Water Use Permit Preapplication No. 76D 30170983

Surface Water Permit Technical Analyses Report

Department of Natural Resources and Conservation (DNRC or Department)
Water Resources Division
Travis Wilson, Water Resource Specialist, Kalispell Regional Office

Application No.	76D 30170983	**Proposed Point of Diversion**	NWNENE S36 T31N R31W LINCOLN
Applicant	HAFFERMAN, KURTIS M. & MINER, KATHY M.		

Overview

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This Surface Water Permit Technical Analyses Report contains the following sections:

Variances

No variances were requested.

1.0 Application Details

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Proposed Source Type: Perennial

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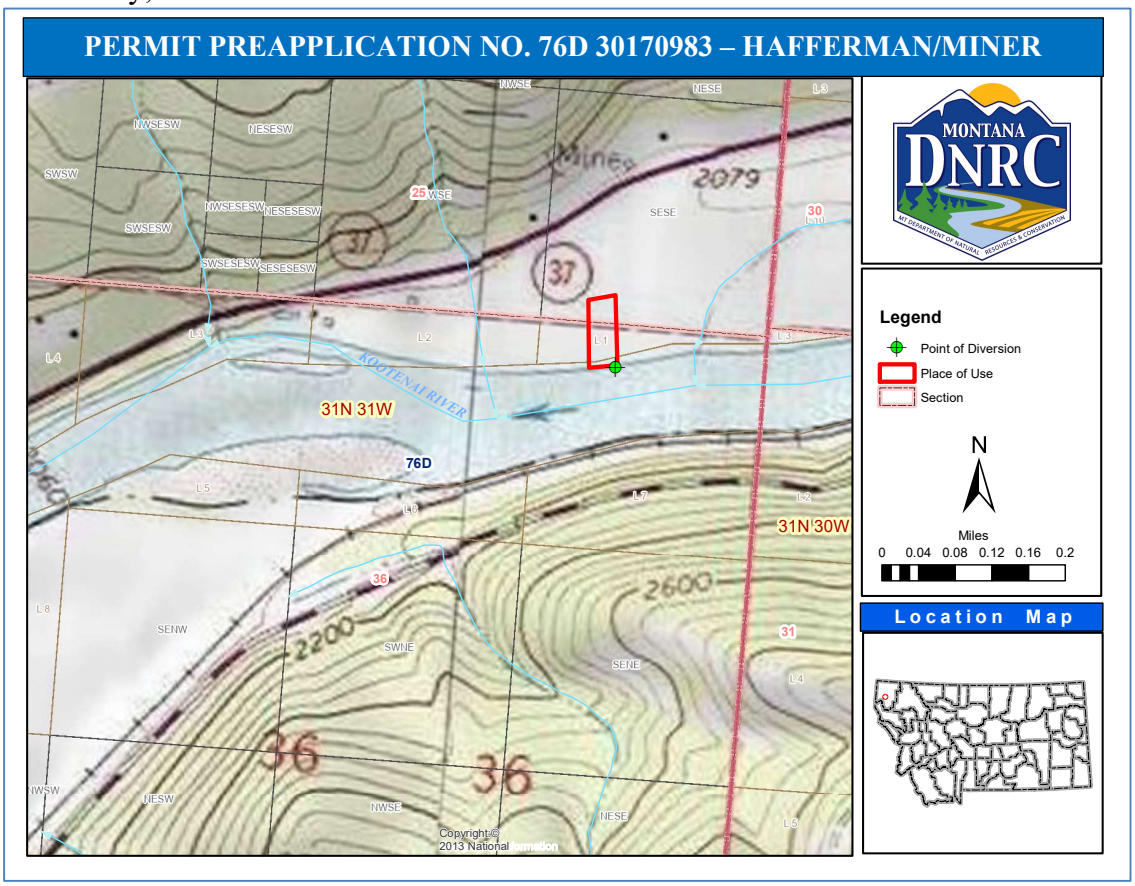

Figure 1: Map of the proposed POD on the source and proposed place of use.

2.2 Method of Estimation

The Kootenai River is a perennial stream with available measurement records.

USGS Gaging Station Name: Kootenai River below Libby Dam near Libby, MT

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Period of Record: October 1, 1971 to January 31, 2025

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A	**B**	**C**	**D**	**E**	**F**
Month	**Median of the Mean Monthly Flow at USGS Gaging Station 12301933 (CFS)**	**Median of the Mean Monthly Volume at USGS Gaging Station 12301933 (AF)**	**Existing legal demands between USGS Gaging Station 12301933 and the POD (CFS)**	**Physically Available Water at POD (CFS)**	**Physically Available Water at POD (AF)**
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3.0 Area of Potential Impact (AOPI) Analysis

The Area of Potential Impact for this application is:
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Why this is an appropriate Area of Potential Impact:
Diversion of Kootenai River water at the proposed POD would reduce the flow and volume of water in the reach of the Kootenai River extending from the proposed POD downstream to the Montana-Idaho border.

Methodology:
The Department selected the entire reach of the Kootenai River within Montana downstream of the proposed POD as the AOPI.

Review

This document was reviewed by the Department on July 2, 2025.

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Department Standard Practice for Determining Physical Availability of Surface Water.

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*This is the maximum flow rate. The enforceable levels of this water right are individual for each calendar day of the year and are identified in the technical documentation filed with water right 76D 30063810 (see scanned file in the DNRC water rights database). The ability to enforce this water right shall be suspended so long as the Libby Dam remains in existence and the Army Corps of Engineers' operation of that dam are conducted consistently with the 2008 Federal Columbia River Power System Biological Opinion, and the 2010 updated Biological Opinion.

Preapplication Materials

- Preapplication Meeting Request
- Preapplication Meeting Form
- All attachments
- All correspondence prior to application receipt

Preapplication Materials

Water Resources Division – Kalispell Regional Office
655 Timberwolf Pkwy, Ste. 4
Kalispell, MT 59901-1215
(406) 752-2288
DNRCKalispellWater@mt.gov

May 29, 2025

KURTIS HAFFERMAN & KATHY MINER
PO BOX 1690
LIBBY MT 59923-5001

Subject: Complete Preapplication Form for Beneficial Water Use Permit Application No. 76D 30170983

Dear Applicant,

The Kalispell Regional Office of the Department of Natural Resources and Conservation (DNRC or Department) received your Preapplication Meeting Form 600P-A/B and preapplication meeting fee on May 22, 2025, and the Department deems the submitted Preapplication Meeting Form to be successfully completed per ARM 36.12.1302 on May 29, 2025.

As designated on the submitted Preapplication Meeting Form per § 85-2-302(3)(b), MCA, the Department will produce the technical analyses based on the parameters included in the Preapplication Meeting Form (ARM 36.12.1302(4)) by July 13, 2025, which is 45 days from May 29, 2025.

If you have any questions, please contact me at (406) 752-2746 or Travis.Wilson@mt.gov.

Sincerely,

Travis Wilson
Water Resource Specialist
Kalispell Regional Office

PREAPPLICATION MEETING FORM: PART A

PERMIT

§ 85-2-302, MCA

Form No. 600P-A *(Revised 03/2025)*

For Department Use Only

Application # 30170983 Basin # 76D

Meeting Date 05/22/2025 Time 10:00

Variance Request Deadline 10/07/2025

Completed Form Deadline 11/18/2025

RECEIVED
05/22/2025
DNRC
KALISPELL WATER RESOURCES

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Department will fill out Permit Preapplication Meeting Form Part A (Form 600P-A) and will identify items for follow-up during the preapplication meeting. The Department and Applicant will sign the Preapplication Meeting Affidavit and Certification within 10 business days. Within 180 days of the preapplication meeting, the Applicant will complete Preapplication Meeting Form Part B (Form 600P-B), including identified follow-up, any amended responses, and Follow-up and Amended Responses Affidavit & Certification. Variance requests must be submitted on Form 653 to the Department on or before the Variance Request Deadline, which is day 138 of the 180 day-deadline for a completed preapplication meeting form. Form 653 may be submitted earlier than the Variance Request Deadline. The Department has 30 business days to process the Form 653.

Applicant Information: *Add more as necessary.*

Applicant Name Kurtis M. Hafferman and Kathy M. Miner
Mailing Address P.O. Box 1690 City Libby State MT Zip 59923
Phone Numbers: Home _____ Work _____ Cell 406-212-0404
Email Address kurt@haffermanengineering.com kathyminer@me.com

Applicant Name _____
Mailing Address _____ City _____ State _____ Zip _____
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

Contact/Representative Information: *Add more as necessary.*

Contact/Representative is: ☐ Applicant ☐ Consultant ☒ Attorney ☐ Other (describe) _____
Contact/Representative Name _____
Mailing Address _____ City _____ State _____ Zip _____
Phone Numbers: Home _____ Work _____ Cell _____
Email Address _____

NOTE: *If a contact person is identified as an attorney, all communication will be sent only to the attorney unless the attorney provides written instruction to the contrary (ARM 36.12.122(2)). If a contact person is identified as a consultant, employee, or lessee, the applicant will receive all correspondences, and a copy may be sent to the contact person (ARM 36.12.122(3)).*

Meeting Attendees: *Add more as necessary.*

Name	Role	Name	Role
Kurtis M. Hafferman	Owner		
Jim Ferch	KRO Manager		
Joseph Howerton	Water Resources Specialist		
Travis Wilson	Water Resources Specialist		

Table of Contents

APPLICATION DETAILS

The following questions are mandatory and must be filled out before the Preapplication Meeting Form is determined to be complete. Narrative responses that are larger than the space provided can be answered in an attachment. If an attachment is used, mark the see attachment ("A") checkbox on this form and label the attachment with the question number. Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Responses in the form of a table may be entered into the table provided on this form or in an attachment. If an attachment is used, the table must have the exact headings found on this form, and the see attachment ("A") checkbox must be marked. Label units in narrative responses and tables. Questions that require Applicant to submit items to the Department have a submitted ("S") checkbox, which is marked when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted. For all questions where follow-up is necessary, mark the "F" checkbox in the "Follow-Up" column and write the question number on the "Follow-Up Page".

S = Submitted. *Use when required item is included with form.*

A = See attachment. *Use when additional space is needed to answer a question.*

F = Follow-up. *Use when follow-up is necessary.*

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
1. Do you elect to have DNRC conduct Technical Analyses?	■ Y ☐ N	☐ F
2. Provide a map created on an aerial photograph or topographic map that shows the following: section corners, township and range, scale bar, north arrow, all proposed points of diversion labeled with a unique POD ID number (include GWIC ID, if available, for wells), all proposed places of use, all proposed conveyance structures (including ditches and pipelines), all proposed places of storage, and places of use for all overlapping water rights. More than one map may be submitted, if necessary to clearly convey all required information.	■ S	☐ F
3. Is the project located in a Controlled Groundwater Area or Basin Closure Area? If yes, immediately go to Mandatory Project-Specific questions 54 to 56 because Form 600 may be the incorrect form, or this project may not meet the requirements for the Department to accept a Form 600.	☐ Y ■ N	☐ F
4. Is the proposed use temporary?	☐ Y ■ N	☐ F
a. If yes, when will the appropriation cease? _____	☐ A	☐ F

5. Describe the proposed purpose information, including period of diversion (MM/DD-MM/DD), period of use (MM/DD-MM/DD), flow rate (GPM or CFS) and volume (AF). ☐ A ☐ F

Purpose	Period of Diversion	Period of Use	Flow Rate			Volume
	(MM/DD-MM/DD)	*(MM/DD-MM/DD)*	*Flow Rate*	*GPM*	*CFS*	*(AF)*
Irrigation	04/01-10/15	04/01-10/15	18.0	☑	☐	0.94
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	
		Total	18.0	☐	☐	0.94

6. Does the proposed use include one or more of the following purposes: domestic, multiple domestic, stock, or irrigation? If yes, fill out the following table, where applicable. ☐ Y ☐ N ☐ F

Purpose	Requested Information	Response
Domestic or multiple domestic	Number of dwellings	
Stock	Number of animal units	
Irrigation	Method of irrigation type (sprinkler or flood) and subtype (if flood: level border, graded border, furrow, contour ditch, or other; if sprinkler: center pivot, wheel line, or other)	Sprinkler; Underground to sprinkler locations
Irrigation (flood only)	Design slope	

7. Describe the proposed location of the point(s) diversion to the nearest 10 acres, if source is groundwater (GW) or surface water (SW), source name, and means of diversion (e.g., pump, headgate, well). Label each POD with the POD # used for the project map (question 2). ☐ A ☐ F

POD #	¼	¼	¼	Sec	Twp	Rge	County	Lot	Block	Tract	Subdivision	Gov Lot	SW or GW	Source Name	Means
1	NW	NE	NE	36	31	31	Lincoln	8			MBMI		SW	Kootenai River	Pump

8. What are the geocodes of the place of use?	☐ A	☐ F

56-4283-25-4-01-19-0000	

9. Describe the legal land description for the proposed place of use and, if an irrigation or lawn and garden purpose, list the number of irrigated acres.	☐ A	☐ F

Acres	Gov't Lot	Block	¼	¼	¼	Sec	Twp	Rge	County
0.29			SW	SE	SE	25	31	31	Lincoln
0.57			NW	NE	NE	36	31	31	Lincoln
0.86	***Total***								

10. Will other water rights supplement or overlap the place of use to contribute to the purpose(s)?	☒ Y ☐ N	☐ F
a. If yes, summarize how the water rights will be operated as a whole to serve the purpose(s). The groundwater well has been used for domestic use and for irrigation use on the 0.86 acres. The well will continue to be used for irrigation until the water use permit is granted (Assumed 3 years). When the Kootenai River is granted, the water used from the groundwater well will be reduced to lawn and landscaping around the house (~0.1 ac.) and the surface water irrigation will be used for the remaining lawn and landscaping (0.76 ac.).	☐ A	☐ F

11. For each supplemental or overlapping water right, please list the water right number, purpose, typical period of diversion and use (MM/DD-MM/DD), flow rate (GPM or CFS), and the volume of water (AF) contributed.	☐ A	☐ F

Water Right No.	**Avg. Period of Diversion**	**Avg. Period of Use**	**Flow Rate**			**Volume Contributed**
	MM/DD-MM/DD	*MM/DD-MM/DD*	*Flow Rate*	*GPM*	*CFS*	*AF*
76D 30164146	04/01-10/15	04/01-10/15	15	☑	☐	0.5
				☐	☐	
				☐	☐	
				☐	☐	
				☐	☐	

12. Will this application supplement contract water from a Federal Project, ditch company, or other source?	☐ Y ☒ N	☐ F
a. If yes, explain. _____ _____ _____	☐ A	☐ F
13. Does the project involve one or more places of storage? This does not include reservoirs, pits, pit-dams, or ponds with a capacity less than 0.1 AF; water tanks; or cisterns (ARM 36.12.113(6)). If yes, answer the following questions once for each place of storage. Use an "Additional Place of Storage (600P)" sheet if more than one. Additionally, you may choose to answer non-mandatory questions 76 to 80 for place of storage.	☐ Y ☒ N	☐ F
a. Is this application to enlarge an existing reservoir? If yes, list the water right numbers for the existing reservoir. _____	☐ Y ☒ N	☐ F
b. Is the place of storage located on-stream?	☐ Y ☐ N	☐ F
c. What is the capacity of the proposed place of storage or the existing place of storage after it is enlarged? Use bathymetry data, survey, or engineering plans for capacity. Submit the data source used with this form. In lieu of these data sources, use the following equation: *Surface Acres x Maximum Depth (FT) x 0.5 = Capacity (AF)* _____	☐ A	☐ F

d. What is the surface area of the place of storage? _____ _____	☐ A	☐ F
14. Will your system be designed to discharge water from the project?	☐ Y ■ N	☐ F
a. If yes, explain the wastewater disposal method. A discharge permit may be required to comply with §§ 75-5-410 and 85-2-364, MCA. _____ _____ _____	☐ A	☐ F
15. Does the project involve an appropriation that is greater than 5.5 CFS and 4,000 AF? If yes, you must submit a Criteria Addendum Application for Beneficial Water Use Permit for Appropriations Greater than 5.5 CFS and 4,000 AF (Form 600-B) with application submittal. The criteria are found in §85-2-311(3), MCA.	☐ Y ■ N	☐ F
16. Will you be transporting water for use outside of Montana? If yes, you must submit an Out-of-State Use Addendum (Form 600/606-OSA) with the application. The out-of-state use criteria are outlined in §85-2-402(6), MCA.	☐ Y ■ N	☐ F
17. Does the project include the water marketing purpose? If yes, you may choose to answer non-mandatory questions 81 to 85 for water marketing. A Water Marketing Purpose Addendum (Form 600/606-WMA) will be required with application submittal.	☐ Y ■ N	☐ F
18. Are you proposing a point of diversion and/or place of use on State of Montana Trust Land? If yes, documentation of consent from the DNRC Trust Lands Management Division will be required at application submittal.	☐ Y ■ N	☐ F
19. Is the project located in designated sage grouse habitat? If yes, a review letter from the Montana Sage Grouse Habitat Conservation Program will be required at application submittal.	☐ Y ■ N	☐ F

SURFACE WATER

☐ **Applicable**, move on to question 20. ☐ **Not Applicable**, skip to question 30.

The following questions are mandatory for surface water permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

Surface Water Analysis

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
20. What is the flow rate (GPM or CFS), volume (AF), period of diversion start date and end date (MM/DD-MM/DD), and source type (e.g., perennial, ephemeral) at each point of diversion? Use the same POD # as the project map (question 2) to label each point of diversion.	☐ A	☐ F

POD #	**Flow Rate**			**Volume**	**Period Start**	**Period End**
	Flow Rate	*GPM*	*CFS*	*AF*	*MM/DD*	*MM/DD*
1	18	☑	☐	0.94	04/01	10/15
		☐	☐			
		☐	☐			
		☐	☐			
		☐	☐			

21. Is the source type of the diversion perennial or intermittent, ephemeral, lake, or other? Perennial	☐ A	☐ F

Perennial or intermittent	Answer questions 22 to 25	**Ephemeral**	Answer question 26	**Lake**	Answer question 27	**Other**	Answer questions 28 to 29

Surface Water Analysis: Perennial or Intermittent

☐ **Applicable** ☐ **Not Applicable**

22. Are stream gage data available?	☒ Y ☐ N	☐ F
a. If yes, answer question 23.		
b. If no, answer question 24.		

23. Stream gage data are available.		
a. Is one stream gage located above the most upstream POD and one stream gage located below the most upstream POD?	■ Y ☐ N	☐ F
i. If no, is only one stream gage located near the most upstream POD?	☐ Y ☐ N	☐ F
1. If yes, is the stream gage located upstream or downstream? _____		☐ F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage is available. Gage 1: USGS 12301933 Gage 2: USGS 12303000 (inoperable as of 1991); 12305000 (Leonia ID; recommended)		☐ F
c. What is the distance between the gage(s) and the most upstream POD? Write "N/A" for Gage 2 if one gage is available. Gage 1: 8.7 mi. Gage 2: 5.1 mi. (this will change)		☐ F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the most upstream POD? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	■ Y ☐ N	☐ F
i. If yes, explain. Libby Dam is upstream	☐ A	☐ F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: 2007-10-01 2025-05-20 Gage 2: October 1, 1910 - September 29, 1991		☐ F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: USGS Gage 2: USGS		☐ F

g. Is each available stream gage operated and maintained by USGS or DNRC?	■ Y ☐ N	☐ F
i. If yes, skip to question 23.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		
1. How frequently are stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		☐ F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
4. Were requirements established and followed for maintaining a permanent gage datum and meeting specified accuracy limits?		
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F

h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	■ Y ☐ N	☐ F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. 2		☐ F
ii. If no, answer question 24.		
24. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion, is the source otherwise measured?	☐ Y ☐ N	☐ F
a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the requirements of ARM 36.12.1702 or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 25.		
b. If yes,		
i. Submit available measurements to the Department.	☐ S	☐ F
ii. Who collected the measurements?	☐ A	☐ F
iii. With what method were the data collected?	☐ A	☐ F
iv. What is the period of record?		☐ F
v. What is the frequency of measurement?		☐ F
vi. Are there gaps in the data?	☐ Y ☐ N	☐ F

1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____	☐ A	☐ F
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
1. If yes, explain. _____ _____ _____	☐ A	☐ F
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the proposed months of diversion?	☐ Y ☐ N	☐ F
1. If yes, this section is complete. Skip to question 54.		
2. If no, answer question 25.		
25. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for validation of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
a. If yes,		
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____ _____	☐ A	☐ F
ii. Describe the estimation technique. _____ _____ _____ _____ _____ _____	☐ A	☐ F
b. If no, but a Department-accepted estimation technique will be appropriate for the source:		

i. Will measurements be collected prior to submission of Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
1. If yes,		
a. With what method will the data be collected? _____ _____	☐ A	☐ F
b. What will be the interval of measurement? _____		☐ F
c. Describe the proposed estimation technique. _____ _____ _____ _____ _____	☐ A	☐ F
2. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(1)(b)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(1)(b) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F
c. If no, because no Department-accepted estimation technique will be appropriate for the source:		
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A	☐ F
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?	☐ Y ☐ N	☐ F

1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the proposed period of diversion?	☐ Y ☐ N	☐ F
a. If yes, with what method will the data be collected? _____ _____	☐ A	☐ F
b. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Surface Water Analysis: Ephemeral

☐ **Applicable** ☐ **Not Applicable**

26. Did you elect for the Department to conduct the Technical Analyses?	☐ Y ☐ N	☐ F
a. If yes, do you have climate or drainage area data you would like the Department to consider during Technical Analyses?	☐ Y ☐ N	☐ F
i. If yes, submit this information to the Department.	☐ S	☐ F
b. If no,		
i. Describe the estimation technique you propose to use to estimate physical availability at the point of diversion. _____ _____ _____	☐ A	☐ F
ii. What is the net annual precipitation? Include the source of this information. _____ _____	☐ A	☐ F

iii. What is the drainage area upstream of the point of diversion and how was this figure calculated? _____ _____ _____	☐ A	☐ F

Surface Water Analysis: Lakes

☐ **Applicable** ☐ **Not Applicable**

27. Has the lake volume been quantified by a qualified entity based on bathymetric data?	☐ Y ☐ N	☐ F
a. If yes, provide this information to DNRC.	☐ S	☐ F
b. If no, answer the following questions,		
i. When do you plan to collect this information? _____		☐ F
ii. What data collection method will you use? _____ _____	☐ A	☐ F

Surface Water Analysis: Other

☐ **Applicable** ☐ **Not Applicable**

28. Explain why the source type is “other”. _____ _____	☐ A	☐ F
29. Have you measured the source?	☐ Y ☐ N	☐ F
a. If yes, answer the following questions,		
i. With what method was the measurement data collected? _____ _____	☐ A	☐ F

ii. What is the measurement interval? _____		☐ F
1. Does the interval meet the Department's standard for monthly measurements throughout the proposed period of diversion pursuant to ARM 36.12.1702(4)?	☐ Y ☐ N	☐ F
a. If no, do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline.	☐ Y ☐ N	☐ F
b. If no,		
i. When do you plan to measure? _____		☐ F
ii. What data collection method will be used? _____ _____ _____	☐ A	☐ F
iii. Do you plan on requesting a variance from measurement requirements pursuant to ARM 36.12.1702(4)? If you plan to request a variance, you must submit Form 653 on or before the Variance Request Deadline. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1702(4) or, in combination with an approved variance request, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Area of Potential Impact Analysis

No additional information needed for Technical Analyses.

GROUNDWATER

☐ **Applicable**, move on to question 30. ☐ **Not Applicable**, skip to question 54.

The following questions are mandatory for groundwater permit applications and must be filled out before the Preapplication Meeting Form is determined to be complete.

Groundwater Analysis for Permits

Questions, Narrative Responses, and Tables	**Check-boxes**	**Follow-up**
30. What is the type of groundwater diversion? _____	☐ A	☐ F

Well/Pumping Pit	Answer questions 31 to 35	**Developed Spring**	Answer question 36	**Pond**	Answer questions 37 to 39

Groundwater Analysis for Permits: Well/Pumping Pit

☐ Applicable ☐ Not Applicable

31. Per ARM 36.12.121 a 24- or 72-hour aquifer test is required; do you propose not to conduct the test? An 8-hour test will be required, if no aquifer test is completed.	☐ Y ☐ N	☐ F
a. If yes, explain. The Department will let you know if the request is reasonable and identify additional data needs. _____ _____ _____ _____ _____	☐ A	☐ F

32. Submit Aquifer Test Data Form (Form 633). If a variance is requested, Form 633 must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 633 is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	☐ S	☐ F
33. Submit the Aquifer Testing Addendum (Form 600/606-ATA) and associated materials (e.g., well logs). If you request a variance, Form 600/606-ATA must be submitted on or before the Variance Request Deadline. If no variance is requested, Form 600/606-ATA is due by the time the preapplication meeting form is complete but may be submitted earlier. However, if the Department determines a variance is needed and the Variance Request Deadline has passed, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).	☐ S	☐ F
34. Are you requesting a variance from ARM 36.12.121? If you are unsure if a variance request will be needed, mark follow-up and answer this question once Form 600/606-ATA and Form 633 are complete. A variance must be requested by the Variance Request Deadline.	☐ Y ☐ N	☐ F
a. If yes, submit Form 653, Form 600/606-ATA, and Form 633 together on or before the Variance Request Deadline.	☐ S	☐ F
b. If no, you may choose to submit Form 600/606-ATA and Form 633 before the Variance Request Deadline, and the Department will review these two forms. However, if the Department determines a variance is needed after the Variance Request Deadline, to submit the Form 653 you must reschedule the preapplication meeting or submit the application without expedited fees and timelines (ARM 36.12.1302(6)).		
35. Have all proposed wells/pumping pits been constructed?	☐ Y ☐ N	☐ F
a. If no, answer the following questions:		
i. Submit a list of the POD IDs for all wells/pumping pits and mark whether they have or have not been constructed.	☐ S	☐ F
ii. When will all proposed wells/pumping pits be constructed? _____		☐ F
iii. Is the requested volume for each proposed well/pumping pit known?	☐ Y ☐ N	☐ F
1. If yes, list the flow rate and volume requested for each proposed well/pumping pit. Label with POD ID. _____ _____ _____	☐ A	☐ F

2. If no, what is the total requested volume (AF) and the number of proposed PODs? _____		☐ F

Groundwater Analysis for Permits: Developed Spring

☐ Applicable ☐ Not Applicable

36. Have you measured the source?	☐ Y ☐ N	☐ F
a. If yes, submit the measurements and answer the following questions,	☐ S	☐ F
i. Do you have flow rate (GPM or CFS) and volume measurements?	☐ Y ☐ N	☐ F
ii. With what method were measurements collected? _____ _____	☐ A	☐ F
iii. What is the interval of measurements? _____		☐ F
iv. Is the interval of measurements sufficient to comply with ARM 36.12.1703(1)?	☐ Y ☐ N	☐ F
b. If no, or if measurements do not comply with ARM 36.12.1703(1), answer the following questions. The Department cannot deem the preapplication meeting form adequately completed until the Department receives measurements that meet the requirements of ARM 36.12.1703(1). Variances from ARM 36.12.1703(1) are not allowed.		
i. When do you plan to measure? _____		☐ F
ii. With what method and at what interval will measurements be collected? _____ _____	☐ A	☐ F

Groundwater Analysis for Permits: Pond

☐ Applicable ☐ Not Applicable

37. Submit Form 653 to apply for a variance from ARM 36.12.121 for the Aquifer Test on or before the Variance Request Deadline.	☐ S	☐ F
38. Submit pond bathymetry data, survey, or engineering plans to the Department.	☐ S	☐ F
39. Is the pond fed or drained by surface water?	☐ Y ☐ N	☐ F
a. If yes,		
i. Explain. _____ _____ _____	☐ A	☐ F
ii. Submit measurements of the connected surface water source. These may include inflow and outflow measurements.	☐ S	☐ F

Surface Water Depletion Analysis

40. Is the type of groundwater diversion for your proposed project a developed spring? If yes, skip to question 45 because this section is complete. If no, move onto question 41.	☐ Y ☐ N	☐ F
41. Is the type of groundwater diversion for your proposed project a pond? If yes, answer question 41.a, then skip to question 45 because this section is complete. If no, move onto question 42.	☐ Y ☐ N	☐ F
a. Will any of the ponds have diversions for out-of-pond use that differ from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
i. If yes, provide a schedule of the diversions for out-of-pond use in the table below. Use the same POD # as the project map (question 2). Attach any additional schedules with POD # labeled.	☐ A	☐ F

POD #			
Month	**Diversions for Out-of-Pond Use Volume (AF)**	**Month**	**Diversions for Out-of-Pond Use Volume (AF)**
January		July	
February		August	
March		September	
April		October	
May		November	
June		December	

42. What is the flow rate (GPM or CFS), volume (AF), and period of diversion required (MM/DD-MM/DD) at each well/pumping pit? What is the well/pumping pit depth (FT), if available, or estimated well/pumping pit depth (FT). Please use the same POD # as the project map (question 2) to match this information with the location information.	☐ A	☐ F

POD #	Flow Rate			Volume	Period of Diversion	Depth	Measured or Estimated
	Flow Rate	*GPM*	*CFS*	*AF*	*MM/DD-MM/DD*	*FT*	
		☐	☐				
		☐	☐				
		☐	☐				
		☐	☐				
		☐	☐				

43. Will any of the *new* wells/pumping pits have a monthly pumping schedule that differs from, if year-round use, an allocation of diverted volume by the number of days in the month, or, if irrigation/lawn and garden use, the 80% dry year net irrigation requirement (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
a. If yes, provide the alternative pumping schedule(s) in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # labeled.	☐ A	☐ F

POD #				POD #			
Month	**Volume (AF)**	**Month**	**Volume (AF)**	**Month**	**Volume (AF)**	**Month**	**Volume (AF)**
January		July		January		July	
February		August		February		August	
March		September		March		September	
April		October		April		October	
May		November		May		November	
June		December		June		December	

44. Will one or more *existing* wells/pumping pits be used for the proposed project?	☐ Y ☐ N	☐ F
a. If yes, will any of the *existing* wells/pumping pits have a monthly pumping schedule, before or after the proposed project, that differs from an allocation of diverted volume by the number of days in the month (if year-round use) or the 80% dry year net irrigation requirement (if irrigation/lawn and garden use) (IWR, NRCS 2003)?	☐ Y ☐ N	☐ F
i. If yes, provide the pumping schedules before and after the proposed project in the table below. Use the same POD # as the project map (question 2). Attach any additional pumping schedules with POD # and before/after proposed project labeled.	☐ A	☐ F

Before proposed project: POD #				**After proposed project: POD #**			
Month	**Volume (AF)**	**Month**	**Volume (AF)**	**Month**	**Volume (AF)**	**Month**	**Volume (AF)**
January		July		January		July	
February		August		February		August	
March		September		March		September	
April		October		April		October	
May		November		May		November	
June		December		June		December	

Surface Water Analysis of Depleted Surface Water

45. Based on the preliminary net depletion data provided by the Department at this preapplication meeting, what are the hydraulically connected surface water source(s)? **Net depletion data provided by the Department at the preapplication meeting is preliminary and is subject to change during Technical Analyses. If the source or location of net depletion data changes during Technical Analyses, then surface water analysis of depleted surface water source(s) will reflect the Technical Analyses; this will not constitute a change of any element to the proposed application pursuant to ARM 36.12.1302(6)(a).* If the type of groundwater diversion for your proposed project is a developed spring, write "NA" and skip to question 51 because this section is complete. _____	☐ A	☐ F
46. Answer the questions in this section one time for each hydraulically connected source. Use the "Additional Hydraulically Connected Source (600P)" sheet, as necessary. For which hydraulically connected source are you answering questions 47 to 50? _____		☐ F
47. Are stream gage data available?	☐ Y ☐ N	☐ F
a. If yes, answer question 48.		
b. If no, answer question 49.		

48. Stream gage data are available		
a. Is one stream gage located above and one stream gage located below the start of the depleted reach?	☐ Y ☐ N	☐ F
i. If no, is only one stream gage located near the start of the depleted reach?	☐ Y ☐ N	☐ F
1. If yes, is the stream gage upstream or downstream? _____		☐ F
b. List the gage name(s). Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____		☐ F
c. What is the distance between the gage(s) and the start of the depleted reach? Write "N/A" for Gage 2 if one gage available. Gage 1: _____ Gage 2: _____		☐ F
d. Is there a limiting or controlling factor on the source between the stream gage(s) and the start of the depleted reach? This includes dams that control the flow and streams with large gaining and/or losing reaches. If you have questions about this, the Regional Office may provide assistance.	☐ Y ☐ N	☐ F
i. If yes, explain. _____ _____ _____	☐ A	☐ F
e. How long is the period of record? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F
f. Who operates and maintains the gage(s)? Write "N/A" for Gage 2 if one gage is available. Gage 1: _____ Gage 2: _____		☐ F
g. Is each available stream gage operated and maintained by USGS or DNRC?	☐ Y ☐ N	☐ F
i. If yes, skip to question 48.h.		
ii. If no, answer the following questions for each gage not operated and maintained by USGS or DNRC.		

1. How frequently is stage data recorded? Write "N/A" for Gage 2 if only one gage is not operated or maintained by USGS. Gage 1: _____ Gage 2: _____		☐ F
2. If data gaps were to occur, are they identified and left unfilled or estimated using interpolation, ice correction, or indirect discharge measurements methods?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
3. Was the rating curve established and maintained throughout the duration of the period of record using measurements taken near the reference gage and stage recorder according to USGS protocols?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
4. Were there requirements for maintaining a permanent gage datum and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
a. Gage 1._____	☐ Y ☐ N	☐ F
b. Gage 2. Write "N/A" on the line instead of answering yes or no, if only one gage is not operated or maintained by USGS or DNRC. _____	☐ Y ☐ N	☐ F
h. Do the data for one or more available stream gages meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	☐ Y ☐ N	☐ F
i. If yes, record how many meet the standard, then skip to question 54 because this section is complete. _____		
ii. If no, answer question 49.		
49. If no gage data are available or if available gage data do not meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions, is the source otherwise measured?	☐ Y ☐ N	☐ F

a. If no, measurements may be necessary. The Department cannot deem the preapplication meeting form adequately completed until the Department receives gage data and/or measurements that meet the Department's measurement standards or, in combination with an approved request to deviate from the Department's standards, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria. Skip to question 50.		
b. If yes,		
i. Submit measurements to the Department.	☐ S	☐ F
ii. Who collected the measurements? _____	☐ A	☐ F
iii. With what method was the data collected? _____ _____	☐ A	☐ F
iv. What is the period of record? _____		☐ F
v. What is the frequency of measurement? _____		☐ F
vi. Are there gaps in the data?	☐ Y ☐ N	☐ F
1. If yes, what is the nature of the gaps and how are gaps handled to ensure data quality? _____ _____ _____	☐ A	☐ F
vii. Is there a process for maintaining the data and meeting specified accuracy limits?	☐ Y ☐ N	☐ F
1. If yes, explain. _____ _____ _____	☐ A	☐ F
viii. Do available measurement data meet the Department's standard to be sufficient to calculate the median of the mean monthly flow rate and volume during the months with net depletions?	☐ Y ☐ N	☐ F
1. If yes, this section is complete. Skip to question 54.		
2. If no, answer question 50.		

50. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
a. If yes,		
i. Describe how the measurements are representative of high, moderate, and low flows. _____ _____ _____ _____	☐ A	☐ F
ii. Describe the estimation technique. _____ _____ _____ _____ _____ _____	☐ A	☐ F
b. If no, but a Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:		
i. Will measurements be collected prior to submission of a completed Form 600P-B that meet the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique?	☐ Y ☐ N	☐ F
1. If yes,		
a. With what method will the data be collected? _____ _____	☐ A	☐ F
b. What will be the interval of measurement? _____		☐ F

c. Describe the proposed estimation technique. _____ _____ _____ _____ _____	☐ A	☐ F
2. If no, do you plan on requesting to deviate from the Department's standard of including a minimum of high, moderate, and low flows to be sufficient to use for calibration of a Department-accepted estimation technique? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F
c. If no, because no Department-accepted estimation technique will be appropriate for the hydraulically connected surface water source:		
i. Describe why no Department-accepted estimation technique is appropriate for the source characteristics. _____ _____ _____	☐ A	☐ F
ii. Do the available measurement data, gage and/or otherwise measured, meet the Department's standard for monthly measurements throughout the months with net depletions?	☐ Y ☐ N	☐ F
1. If no, will measurements be collected prior to submission of a completed Form 600P that meet the Department's standard of monthly measurements throughout the months with net depletions?	☐ Y ☐ N	☐ F
a. If yes, with what method will the data be collected? _____ _____	☐ A	☐ F

b. If no, do you plan on requesting to deviate from the Department's standard for monthly measurements throughout the months with net depletions? The Department's technical analyses or scientific credibility review of your technical analyses cannot commence until the Department receives measurements that meet Department measurement standards, or in combination with a request to deviate, are sufficient to complete any necessary technical analyses or scientific credibility reviews and to evaluate the applicable criteria.	☐ Y ☐ N	☐ F

Area of Potential Impact Analysis of Depleted Surface Water

All information for area of potential impact of depleted surface water was collected in previous questions.

Hydrogeologic Report

51. Does your project include one or more wells, pumping pits, or ponds that are in a basin closure area? If yes, fill out questions 52 to 53. Your project must have a Hydrogeologic Report that conforms with § 85-2-361 to comply with the requirements of § 85-2-360, MCA. A Hydrogeologic Report Addendum (Form 600-HRA) or Department Technical Analyses may be used to meet these requirements.	☐ Y ☐ N	☐ F
52. Did you elect in question 1 for the Department to conduct the Technical Analyses?	☐ Y ☐ N	☐ F
a. If yes, the Basin Closure Area Addendum (Form 600-BCA), Form 600-HRA, and Hydrogeologic Report are not required at this time. The Department's Technical Analyses will meet requirements of §85-2-360, MCA for a Hydrogeologic Report and Form 600-HRA. Form 600-BCA will be required with application submittal.		
b. If no, submit the Basin Closure Area Addendum (Form 600-BCA) and Hydrogeologic Report Addendum (600-HRA) with your Technical Analyses.	☐ S	☐ F
53. If the Hydrogeologic Report indicates that the proposed groundwater use will impact a surface water source, identify and explain which of the following three options best describes your plan to mitigate depletions of hydraulically connected surface water and respond to the relevant questions below. ☐ Application to Change a Water Right to mitigate the adverse effects created ☐ Alternative mitigation plan ☐ Documentation to show a mitigation plan is not required		
a. Application to Change a Water Right to mitigate the adverse effects created: Submit a summary of your initial proposal. *A separate Preapplication Meeting will be required for each Application to Change a Water right to a mitigation or aquifer recharge purpose to qualify for expedited timelines and reduced filing fees for the project per ARM 36.12.1302(7)(a).*	☐ S	☐ F
b. Alternative mitigation plan: Submit a summary of your initial proposal.	☐ S	☐ F

i. Do you propose to use water with a marketing for mitigation/aquifer recharge purpose?	☐ Y ☐ N	☐ F
1. If yes,		
a. List the change authorization number(s) for all water rights proposed for use. _____	☐ A	☐ F
b. What is the area defined for marketing for all water rights proposed for use? _____	☐ A	☐ F
c. If Marketing for aquifer recharge, submit the analysis of the monthly accretions to hydraulically connected surface water(s); otherwise write "NA". _____	☐ S	☐ F
c. Documentation to show a mitigation plan is not required: Submit all documentation.	☐ S	☐ F

MANDATORY PROJECT-SPECIFIC QUESTIONS

The following questions are mandatory when applicable and must be filled out before the Preapplication Meeting Form is determined to be complete.

Project-Specific Questions: Controlled Groundwater Areas and Basin Closures

Questions, Narrative Responses, and Tables	Check-boxes	Follow-up
54. Does the project include one or more groundwater points of diversion located in the East Valley Controlled Groundwater Area (EVCGWA)?	☐ Y ☒ N	☐ F
a. If yes, is the use over 35 GPM or 10 AF/YR?	☐ Y ☐ N	☐ F
i. If no, this is the incorrect form. Use instead Form 600-EVCGWA: East Valley Controlled Groundwater Area Permit Application.		
ii. If yes, how does this project meet the specific requirements of the East Valley Controlled Groundwater Area? Include any relevant documentation. _____ _____ _____ _____	☐ A	☐ F
b. If no, skip to question 55.		
55. Does the project include one or more groundwater points of diversion located in the Yellowstone Controlled Groundwater Area?	☐ Y ☒ N	☐ F
a. If yes, is the proposed flow rate and volume over 35 GPM or 10 AF/YR?	☐ Y ☐ N	☐ F
i. If no, this is the incorrect form. Use instead Form 600-YCGA: Yellowstone Controlled Groundwater Area Permit Application.		
ii. If yes, answer the remaining parts of question 55 and submit *Form 600 YCGA: A Yellowstone Controlled Groundwater Area Addendum Over 35 gallons per minute* with the application.		
1. Does the proposed use require a point of diversion with water temperature of 60 degrees Fahrenheit or more?	☐ Y ☐ N	☐ F
2. If an application is in a basin tributary to a category 3 or 4 stream (generally in or upstream of Yellowstone National Park), submit with the application a report prepared by a qualified professional verifying that the appropriation is not hydrologically connected to surface flow that is tributary to the reserved portion of category 3 or 4 streams.		
b. If no, skip to question 56.		

56. Is the project for surface water or groundwater and subject to one or more of the Controlled Groundwater Areas; administrative, Department ordered, or legislative basin closures; or compact closures listed on the Department's website (https://dnrc.mt.gov/Water-Resources/Water-Rights/Basin-Closures-Stream-Depletion-Controlled-Ground-Water-Areas) not covered in questions 54 to 55?	☐ Y ☒ N	☐ F
a. If yes, identify each area and describe how the proposed project meets its requirements. An application must meet the specific requirements of the Controlled Groundwater Area or closure to be accepted by the Department. _____ _____ _____ _____ _____ _____ _____ _____ _____	☐ A	☐ F

NON-MANDATORY QUESTIONS FOR CRITERIA ANALYSIS

The following questions are not mandatory. They should be discussed in the Preapplication Meeting, but do not need to be filled out before the Preapplication Meeting Form is determined to be complete.

Adverse Effect

Questions, Narrative Responses, and Tables	Check-boxes
57. Describe your plan to ensure that existing water rights will be satisfied during times of water shortage. The applicant will monitor the flow of the Kootenai River at the USGS Station 12301933 Kootenai River below Libby Dam to assure there is adequate water to satisfy all existing rights before using water.	☐ A
58. Explain how you can control your diversion in response to call being made. The point of diversion for the irrigation system uses an electric pump. Electricity for the pump is supplied from a 50 amp breaker in a 200 amp service panel with power from Flathead Electric Cooperative. In the event of a water shortage the power to the pump can be shut off and diversion of water will stop.	☐ A
59. Are you aware of any calls that have been made on the source of supply or depleted surface water source?	☐ Y ☒ N
a. If yes, explain.	☐ A
60. Does a water commissioner distribute water or oversee water distribution on your proposed source or depleted surface water source?	☐ Y ☒ N

61. Will the point of diversion or conveyance infrastructure be shared with one or more existing water rights?	☐ Y ▬ N
a. If yes, explain how capacity of the shared point of diversion and/or conveyance infrastructure is sufficient for all water rights.	☐ A

Adequate Diversion Means and Operation

62. Submit a diagram of how you will operate your system from the point of diversion to the place of use.	▬ S
63. Describe specific information about the capacity of the diversionary structure(s). This may include, where applicable: pump curves and total dynamic head calculations, headgate design specifications, and dike or dam height and length.	▬ A

~~Attachment Adequate Means of Diversion: Adequacy of Diversion~~

64. Describe the size, materials, capacity, and configuration of infrastructure to convey water from point of diversion to place of use. This may include but is not limited to, pipelines and ditches. Include a description of any losses related to the proposed conveyance. Ditch conveyance losses may be estimated numerous ways, which include a ditch loss rate or Department standard methods. You may work with the Department to estimate ditch conveyance losses but will need to provide sufficient baseline information; which includes ditch slope, dimensions, length, lining material, soil type, and location. Conveyance System	☒ A
65. Describe how the proposed diversion and conveyance infrastructure can provide the required flow and volume, for the purposes plus any conveyance losses and storage, throughout the proposed period of diversion. Benefical Use	☒ A
66. Provide a plan of operations, which includes specific information about how water is delivered within the place of use. This may include, where applicable, the range of flow rates needed for a pivot. Benfical Use	☒ A

67. Does the proposed conveyance require easements?	☐ Y ■ N
a. If yes, explain. _____ _____ _____	☐ A
68. Do you own the land where all proposed points of diversion are located?	■ Y ☐ N
a. If no, documentation to show you have the right to use all points of diversion located on each property you do not own will be required upon application submittal. This may include, but is not limited to, a well agreement, an easement, or permission of the party that owns the property where the proposed point(s) of diversion are located.	
69. Describe any places of storage, including whether drainage devices will be installed, and provide preliminary designs, if available. Preliminary designs will be required at application submittal. _____ _____ _____ _____	☐ A
70. Do you have any plans to measure your diversion and use?	☐ Y ■ N
a. If yes, describe the plan and the type of measurements you will take. _____ _____ _____	☐ A

Beneficial Use

71. Does the Department have a standard for any of the purposes for which water is used? Department standards can be found in ARM 36.12.112 and ARM 36.12.115.	■ Y ☐ N
a. If yes, list the purposes for which the Department has a standard and note whether the proposed use falls within or outside the standard. _____ _____	

72. If no Departmental standard exists for any proposed purpose, or if any proposed purpose falls outside of Department standards, explain how the use is reasonable for that purpose. _____ _____ _____ _____ _____ _____ _____	☐ A
73. Will your proposed project be subject to DEQ requirements for a public water supply (PWS) system or Certificate of Subdivision Approval (COSA)?	☐ Y ■ N
a. If yes,	
i. Have you researched or consulted with DEQ regarding those requirements?	☐ Y ☐ N
74. Are you proposing to use surface water for in-house domestic use?	☐ Y ■ N
a. If yes, does a COSA exist for the proposed place of use?	☐ Y ☐ N
i. If yes, please submit the COSA.	☐ S
ii. If no, have you researched or consulted with DEQ regarding their requirements?	☐ Y ☐ N

Possessory Interest

75. Do you meet one of the exceptions to possessory interest requirements, pursuant to ARM 36.12.1802? Exceptions include cases where the application is for sale, rental, distribution, or is a municipal use, or in any other context in which water is being supplied to another and it is clear that the ultimate user will not accept the supply without consenting to the use of water on the user's place of use.	☐ Y ◉ N
a. If yes, explain. _____ _____ _____ _____	☐ A

b. If no,	
i. Do you own all proposed places of use?	■ Y ☐ N
1. If no,	
a. Explain. Documentation that shows you either have possessory interest or written permission of the parties with possessory interest of the place of use will be required at application submittal. _____ _____ _____ _____	☐ A
b. Would you like the water right to be appurtenant to the land? Please note that if your water right is not appurtenant to land it will not transfer by default with the conveyance of the property, pursuant to § 85-2-403.	■ Y ☐ N
i. If no, explain. _____ _____ _____	☐ A

Non-Mandatory Project Specific Questions

Place of Storage

76. Does the proposal include at least one place of storage? If yes, answer questions 77 to 80 for each individual place of storage (use "Additional Place of Storage (600P)" sheet for additional places of storage). A Permit Storage Addendum (Form 600-SA) will be required at application submittal. If no, this section is complete, and you can skip to question 81.	☐ Y ■ N
77. Are preliminary designs available? Preliminary designs will be required at application submittal.	☐ S
a. If yes, submit preliminary designs.	☐ Y ☐ N
78. Will the place of storage be lined?	☐ Y ☐ N
79. What is the annual net evaporation of water from the place of storage, based on the Department's gridded net evaporation layer? If you propose a different method, attach an explanation and justification of the method. _____	☐ A

80. Is the place of storage capacity calculated to be greater than 50 AF?	☐ Y ☐ N
a. If yes, have you made an application to the DNRC Water Operations Bureau for a determination of whether the dam or reservoir is a high-hazard dam? This will be required by application submittal.	☐ Y ☐ N

Project-Specific Questions: Water Marketing

81. Does the proposal include water marketing? If yes, please answer the questions in this section (questions 82 to 85). A Water Marketing Addendum Purpose Addendum (600/606-WMA) will be required at application submittal. If no, this section is complete.	☐ Y ■ N
82. For what purpose(s) will the marketed water be used? _____ _____ _____	☐ A
83. How will you control or limit access to the water? _____ _____ _____	☐ A
84. Do you have contracts for the entire volume and flow rate sought?	☐ Y ☐ N
85. Provide a service area map. Create map on an aerial photograph or topographic map and show the following: general service area boundary, section corners, township and range, scale bar, and north arrow.	☐ S

FOLLOW-UP

The tables below will identify all questions marked for follow-up. Applicant follow-up will be submitted with the completed Preapplication Meeting Form: Part B (Form 600P-B). Applicant will provide all responses to questions marked for follow-up on a separate document entitled "Follow-up Responses." At the preapplication meeting, the Department may offer to provide the Applicant with information pertinent to identified follow-up. In this case, record in the notes column what information the Department will provide and the date by which the Department will email this information to the Applicant. This information will supplement but not replace Applicant follow-up. It is the responsibility of the Applicant to provide all follow-up, including questions supplemented by Department information, in the "Follow-up Responses" document.

The "Follow-up Responses" document must conform to the following standards. Label all responses with the question number. Answer questions in the same format as the form. For responses in the form of checkboxes, write "Y", "N", "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is attached to the Preapplication Meeting Form. Label all submitted items with the question number for which they were submitted.

***The Applicant may not alter the Preapplication Meeting Form: Part A (Form 600P-A) signed at the Preapplication Meeting**. Instead, the Applicant must use the Amended Responses procedure defined in Form 600P-B. Do not include additional information for questions that were not marked for follow-up on this table; instead include any additional information pursuant to the process for amending responses defined in Form 600P-B.*

QUESTION #	NOTES

PREAPPLICATION MEETING AFFIDAVIT & CERTIFICATION

"We attest that the information on this form accurately describes the proposed project discussed during the preapplication meeting, and that the items marked for follow-up will require the Applicant to provide additional information before the form is deemed complete."

"Applicant acknowledges that any information provided by the Department during the preapplication meeting is preliminary and subject to change."

"Applicant acknowledges that if the follow-up information provided to the Department substantially changes the proposed project, for example in a way that alters which sections of the form are applicable or which technical analyses are required, or who is to complete the technical analyses, the applicant will need to schedule a new preapplication meeting so that the Department can identify any additional information necessary for completion of the technical analyses (ARM 36.12.1302(3)(c))."

Upon Department receipt of the completed form (within 180 days following the meeting), the Department reserves five business days to return the form to the applicant if:

1 – the completed form does not include all necessary follow-up information identified in the meeting, OR
2 – the completed form is not adequate for the Department to proceed with technical analyses, OR
3 – the applicant has elected to complete technical analyses and has not submitted each piece of technical analysis required, OR
4 – the applicant has substantially changed the details of the proposed project, such as in a way that alters which sections of the form are applicable, which technical analyses are required, or who is to complete the technical analyses.

If the Department returns the form to the Applicant within these five days due to reasons 1-3 above, the Applicant can use the balance of their 180-day period in ARM 36.12.1302(4) or (5) to gather the remaining follow-up information needed. If there is no time remaining in the 180-day period, the Applicant can submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). Even if there is still time remaining, the Applicant can choose to schedule a new preapplication meeting. The Department shall transfer the $500 payment received to the new preapplication meeting or refund the payment to the Applicant if the Applicant desires. If the Department returns the form to the Applicant within these five days due to reason (4) above, the Applicant must submit a written request for a new preapplication meeting, pursuant to ARM 36.12.1302(2). The Department shall transfer the $500 payment received to the new preapplication meeting or refund the payment to the Applicant if the Applicant desires.

[signature]	5-22-2025
Applicant Signature	Date
Applicant Signature	Date
Joseph P Howerton	5-22-2025
Department Signature	Date

PREAPPLICATION MEETING FORM: PART B
PERMIT

§ 85-2-302, MCA

Form No. 600P-B *(Revised 02/2025)*

For Department Use Only

Application # 30170983 Basin 76D

Form Received TW

Fee Rec'd $ 500.00 Check # _____

Deposit Receipt # KLU2523530

Payor Kurtis Hafferman

Form Returned _____

Refund $ _____ Date _____

RECEIVED
05/22/2025
DNRC
KALISPELL WATER RESOURCES

PREAPPLICATION MEETING FEE

$ 500

FILING FEE REDUCTION & EXPEDITED TIMELINE

An application will be eligible for a filing fee reduction and expedited timelines if the Applicant completes a preapplication meeting with the Department (ARM 36.12.1302(1)), which includes submitting any follow-up information identified by the Department (ARM 36.12.1302(3)(c)) and receiving either Department-completed technical analyses or Department review of Applicant-submitted technical analyses (ARM 36.12.1302(4) and (5)). An application for the proposed project also must be submitted within 180 days of delivery of Department technical analyses or scientific credibility review and no element on the submitted application can be changed from the completed preapplication meeting form (ARM 36.12.1302(6)).

The Applicant is responsible for providing a "Follow-up Responses" document for all follow-up identified in Preapplication Meeting Form Part A (Form 600P-A). The Applicant may not alter Form 600P-A. If a response has changed to a question answered at the preapplication meeting, the Applicant can provide a new response in a separate document entitled "Amended Responses" with the question number labeled.

The following guidelines are applicable to both the "Follow-up Responses" and "Amended Responses" documents. Clearly label all question numbers. Answer questions in the same format as Form 600P-A. For responses in the form of checkboxes, write "Y", "N", or "S". Constrain narrative responses to the specific question as is asked on the form; do not respond to multiple questions in one narrative. Label units in narrative responses and tables. Tables must have the exact headings found on the form. Questions that require items to be submitted to the Department may be marked "S" when the required item is included with the document.

1. ☐ Y ☑ N Are you submitting this form in response to a determination by the Department that a previously submitted Form 600P-B was inadequately completed?

   If yes,

   a. Date form was returned ("Form Returned" date found in "For Department Use Only" box on the previously submitted Form 600P-B): _____

   b. If a "Follow-up Responses" or "Amended Responses" document is required by questions 2 or 3, submit complete updated documents with responses that stand-alone. The Department will only use the most recently submitted "Follow-up Responses" and "Amended Responses" documents for departmental technical analyses or scientific credibility review; the Department will not use multiple versions of a document.

2. ☐ Y ☑ N Were any questions identified as requiring follow-up on Form 600P-A?

   If yes,

   a. ☐ S Submit "Follow-up Responses" document for all questions requiring follow-up.

3. ☐ Y ☑ N Are you submitting amended responses to any questions from Form 600P-A?

If yes,

a. ☐ **S** Submit "Amended Responses" document and record in the table below each question number with an amended response. The amended response will entirely replace the previous response; the amended response cannot build off the previous response.

Question No.	Question No.	Question No.	Question No.

FOLLOW-UP AND AMENDED RESPONSES AFFIDAVIT & CERTIFICATION

"I attest that this preapplication meeting form (Form 600P-A and Form 600P-B), follow-up, and amended responses accurately portray the proposed project. I am aware that my application for this project will not qualify for a discounted filing fee and expedited timelines if, upon submittal of the application to the department, I change any element of the proposed application from the preapplication meeting form, amended responses, or follow-up materials (ARM 36.12.1302(6)(a))."

Applicant Signature — Date: 5-22-2025

Applicant Signature — Date

"We confirm that the preapplication form (Form 600P-A and Form 600P-B), amended responses, and follow-up information are adequate for the Department to proceed with technical analyses in ARM 36.12.1303. Or, if the Applicant has elected to complete technical analyses, we confirm they have submitted each required element of technical analysis based on the proposed project and the Department is able to proceed with the scientific credibility review (ARM 36.12.1303(8))."

Department Signature — Date: 05/22/2025

Department Signature — Date

DNRC Form 600: 23- SUPPLEMENTAL WATER RIGHTS

There is a groundwater well that has been completed on the property. The notice of completion of groundwater development has been filed before this application and has been granted by the DNRC as water right 76D 30116146. The groundwater well has been used for domestic use and for irrigation use on the 0.86 acres of lawn irrigation. The well will continue to be used for irrigation until the water use permit from the Kootenai River is granted (Assumed 3 years). When the water right from the Kootenai River is granted, the water used from the groundwater well will be reduced to lawn and landscaping around the house (~0.1 ac.) and the surface water irrigation will be used for the remaining lawn and landscaping (0.76 ac.).

These water rights will be supplemental because they have an adjoining place of use but have different points of diversion and different means of diversion and they will not share the same pipeline and distribution system.

DNRC Form 600: 26-ADVERSE EFFECT

The applicant will monitor the flow of the Kootenai River at the USGS Station 12301933 Kootenai River below Libby Dam to assure there is adequate water to satisfy all existing rights before using water.

The point of diversion for the irrigation system uses an electric pump. Electricity for the pump is supplied from a 50-amp breaker in a 200-amp service panel with power from Flathead Electric Cooperative. In the event of a water shortage the power to the pump can be shut off and diversion of water will stop.

DNRC Form 600: ADEQUATE MEANS OF DIVERSION AND OPERATION

DNRC Form 600 - 33.-Means of Diversion: The point of diversion is shown in the attached Point of Diversion sketch. The Point of Diversion sketch pump system will consist of a standard 8-inch well casing buried in the stream bank of the Kootenai River above the ordinary high-water mark[1]. Hafferman and Miner will apply for a Lincoln Conservation District 310 permit, a USACOE 410 permit for placement of fill in the water body of the U.S., a MDEQ 318 permit to allow short term turbidity during excavation and a DNRC TLD Land Use license for placement of the point of diversion below the ordinary high water in a navigable stream in Montana.

There will be a 4-inch schedule 80 PVC pipe that exits the well casing approximately 6-ft. below the ordinary high-water elevation and is placed into the bed of the Kootenai River. The pipe will be placed approximately 12 ft. from the edge of the ordinary high water and buried with river gravel to avoid interference with navigation. The end of the pipe will be capped and approximately 6 ft. of the end of the pipe will be slotted with 50-¼-inch slots to allow water into the pipe.

A Grundfos 22 SQ10-160 pump and motor will be suspended in the 8-inch well casing using 1-1/2" galvanized pipe set into a standard Boshart's 1-1/2" P-150-SS stainless steel pitless adapter that will allow for easy removal of the pump for service and connection to the 1-1/2" HDPE distribution system

[1] MCA 23-2-301 (9)

piping outside the casing. The pump will be powered by a 220 V 60 Hz 50-amp power supply from the existing pump house.

DNRC Form 600 - 34.-Conveyance System: Water will be pumped to three separate zones as shown on the attached place of use map. Only one zone will operate at a time. Water will be distributed to the zones on the property through a 1-1/12" main line from the river to the north end of the property along the east side property line and then distributed to the sprinklers in the individual zones with 1" HDPE and ¾" HDPE will tee from the 1" HDPE to the individual sprinklers.

The zones will be controlled by a Rainbird sprinkler system. The details of the system are attached to the Rainbird list of materials. The zone controller will be a Rainbird ARC8 App Based Residential Controller - 8 Zone. Sprinklers will be the Rainbird 42SA+ - Heavy Duty Simple Adjustable Professional ¾" Inlet Gear Drive Rotor Sprinkler and 1gpm 5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve. Zone 1 will irrigate pasture grass with 6-2 gpm 42SA Sprinkler and 4- trees will be irrigated with 1gpm 5000S+PCSR - 5000 Series Shrub Rotor sprinkler equivalent to a maximum of 18 gpm. Zone 2 will use the 6-2 gpm 42SA sprinklers for pasture grass and 4- trees will be irrigated with 1gpm 5000S+PCSR sprinklers up to a maximum of 18 gpm. Zone 3 will irrigate pasture grass and lawn near the new house (to be constructed in 2023-2024) with 5-2 gpm 42SA+ sprinklers and 8-trees will be irrigated with 1 gpm 5000S+PCSR - 5000 Series Shrub sprinklers.

DNRC Form 600 - 35.-Adequacy of Diversion: A system curve was analyzed for Zone 1 which has the furthest distance from the pump. The Zone 1 system has been analyzed, assuming 20 ft. of vertical lift, 60 psi outlet pressure, 565 ft. of 1-1/2-inch HDPE pipe with approximately 37 ft. of minor equivalent pipe. The system curve was plotted on the Grundfos 22 SQ10-160 pump curve and the operation point was found to be a minimum 1.4 HP pump operating at 18 gpm at 62% efficiency allowing for 10 ft. of net positive suction head (NPSH). It is assumed that a standard 1.5 HP pump motor will be used with the 220 V power supply. The configuration of submersible pump in an 8-inch casing will require less than 10 ft. of NPSH. The pump-curve and system-curve graphs showing the most probable operation point at 18 gpm are attached.

DNRC Form 600- 36. Adequate Means of Diversion and Operation: Beneficial Use Operations

Using 18 gpm for flow rate will allow for efficient distribution of water to each zone and will allow for each zone to run the minimum amount of time each day of use. The source for the water is the Kootenai River which has an average daily flow rate of 16,100 cfs, and the average low recorded flow after the construction of Libby Dam is near 4,000 cfs. The requested flow rate is 0.00024% of the average flow rate and 0.001% of the low flow rate showing the flow capacity is readily available without adverse effects to stream flows. Using a high flow rate per acre will minimize pump runtime, sprinkler system use, have lower power costs and lengthen the system life.

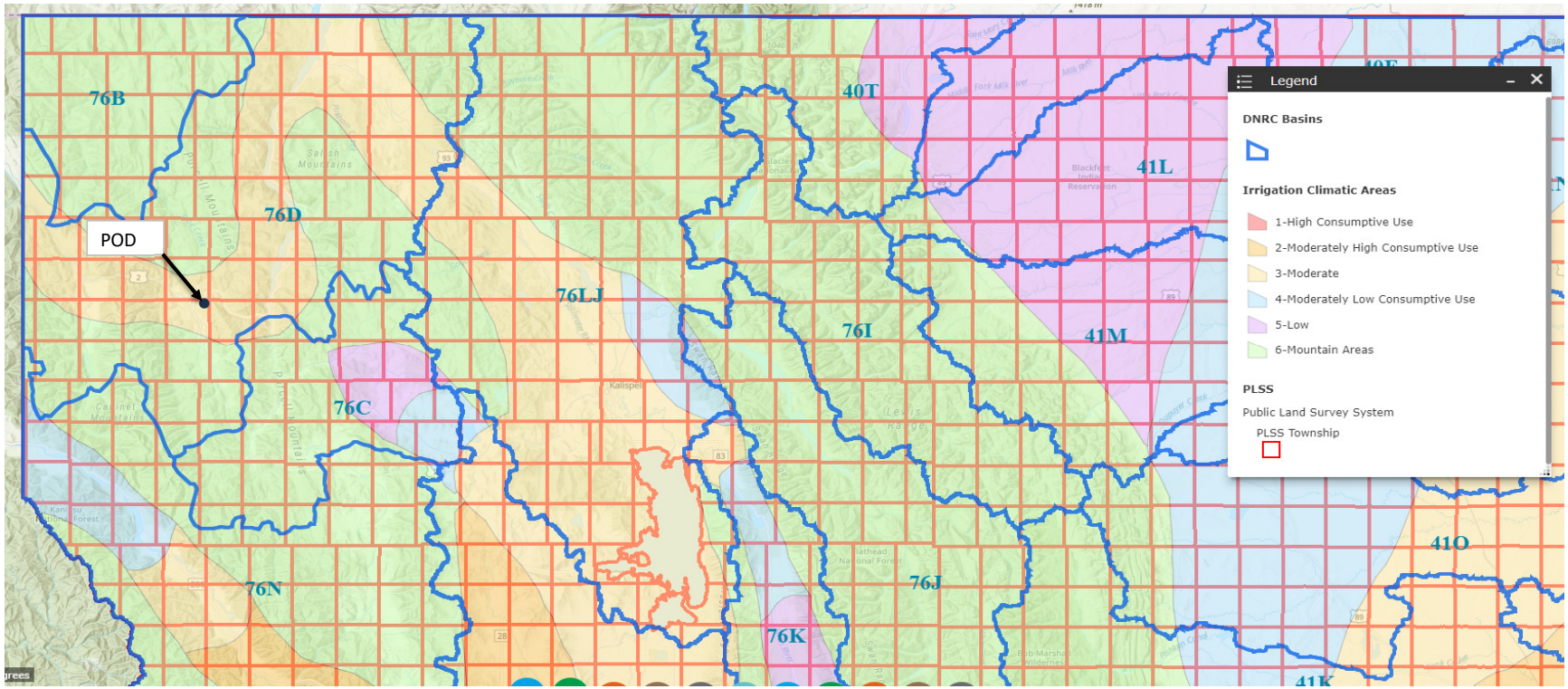
The volume is based on a climatic area map from the DNRC WRD, which shows this property is in a moderately high consumptive use area. The climatic area map is attached with the POU shown as a dot on the map. ARM 36.12.112 Period of Diversion and Period of Use Standards shows for this area the period of use could be from April 1 to October 15 in any year. The maximum volume of water in this climatic area is defined in ARM 36.12.115 Water Use Standards to be between

2.08 to 2.41 AF/ac./year. For the 0.86 ac proposed to be irrigated on the property that would be a maximum useable volume between 1.85 and 2.14 AF/year.

Water is planned to be used for ½ -hour each irrigated day which would have a maximum use of 1,620 gallons per day of use. The average amount of water used in a dry year; it is planned to be irrigation every day throughout a 190-day irrigation period. This rate and time would divert a maximum of 0.94 AF/year for this property.

Therefore, the requested maximum flow rate of 18 gpm up to 0.94 AF per year from April 1 to October 15 each year is a reasonable flow rate and volume and is a beneficial use of water.

DNRC Form 600: Climatic Area Map


76B
40T
41L
76D
POD
76LJ
76I
41M
76C
41O
76N
76J
76K
Legend
DNRC Basins
Irrigation Climatic Areas
1-High Consumptive Use
2-Moderately High Consumptive Use
3-Moderate
4-Moderately Low Consumptive Use
5-Low
6-Mountain Areas
PLSS
Public Land Survey System
PLSS Township

DNRC Form 600: Supplemental Water Rights

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: 76D 30164146 GROUND WATER CERTIFICATE

Version: 1 -- ORIGINAL RIGHT

Version Status: ACTIVE

Owners: KURTIS M HAFFERMAN
PO BOX 1690
LIBBY, MT 59923-5001

KATHY M MINER
PO BOX 1690
LIBBY, MT 59923-1690

Priority Date: JULY 22, 2024 at 01:00 P.M.

Enforceable Priority Date: JULY 22, 2024 at 01:00 P.M.

Purpose (Use): DOMESTIC

LAWN AND GARDEN

LAWN AND GARDEN

Maximum Flow Rate: 15.00 GPM

Maximum Volume: 3.16 AC-FT

Maximum Acres: 0.86

Source Name: GROUNDWATER

Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		SWSESE	25	31N	31W	LINCOLN

Period of Diversion: JANUARY 1 TO DECEMBER 31

Diversion Means: WELL

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT: 8

Purpose (Use): DOMESTIC

Households: 1

Volume: 1.00 AC-FT

Period of Use: JANUARY 1 to DECEMBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NWNENE	36	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Purpose (Use): LAWN AND GARDEN

Volume: 0.73 AC-FT

Period of Use: APRIL 1 to OCTOBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	0.29		SWSESE	25	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Total: 0.29

Purpose (Use): LAWN AND GARDEN

Volume: 1.43 AC-FT

Period of Use: APRIL 1 to OCTOBER 31

Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1	0.57		NWNENE	36	31N	31W	LINCOLN

Subdivision: MBMI DEVELOPMENT INC TRACT/LOT 8

Total: 0.57

Geocodes/Valid: 56-4283-25-4-01-19-0000 - Y

DNRC Form 600: Possessory Interest Deed

291611 RECORDS BOOK:388 Page: 246 Pages: 2
STATE OF MONTANA, LINCOLN COUNTY
RECORDED:03/05/2021 08:23 AM KOI: DEED:17
Robin A. Benson CLERK AND RECORDER
FEE: $14.00 BY: Clyde E Ron Deputy
TO:First American Title - Libby 120 W 6th Street Ste 5, Libby, Montana 59923

AND WHEN RECORDED MAIL TO:
Kurtis Hafferman and Kathy Miner
3610 MT Hwy 37
Libby, MT 59923

Filed for Record at Request of:
First American Title Company

Space Above This Line for Recorder's Use Only

Order No.: 958062-FT
Parcel No.: 0050473

WARRANTY DEED
(Joint Tenancy)

FOR VALUE RECEIVED,

MBMI Development, Inc., a closely-held corporation

hereinafter called Grantor(s), do(es) hereby grant, bargain, sell and convey unto

Kurtis Hafferman and Kathy Miner

whose address is: **Lot #8 Margaret Ln., Libby, MT 59923**

hereinafter called Grantees, as joint tenants (and not as tenants in common) and to the survivor of said named joint tenants, and to the heirs and assigns of such survivor, the following described premises, in **Lincoln** County, **Montana**, to-wit:

Lot 8 of MBMI Development Inc., according to the map or plat thereof on file in the office of the Clerk and Recorder, Lincoln County, Montana. Plat 7152

SUBJECT TO Covenants, Conditions, Restrictions, Provisions, Easements and encumbrances apparent or of record.

TO HAVE AND TO HOLD, the said premises, with its appurtenances unto the said Grantees, as joint tenants with the right of survivorship (and not as tenants in common) and to the heirs and assigns of the survivor of said named tenants forever. And the said Grantor(s) do(es) hereby covenant to and with Grantees, he(she or they) is/are the owner(s) in fee simple of said premises; that they are free from all encumbrances except for taxes and assessments for current and subsequent years and he (she or they) will warrant and defend same from all lawful claims whatsoever.

Dated: March 03, 2021

MBMI Development, Inc., a closely-held corporation

By: _____
Name: Walter Rucinski
Title: President

STATE OF Montana)
ss.
COUNTY OF Flathead)

On March 4, 2021, before me a Notary Public, personally appeared **Walter Rucinski**, known to me to be the President of MBMI Development, Inc..

_____
Signature of Notarial Officer

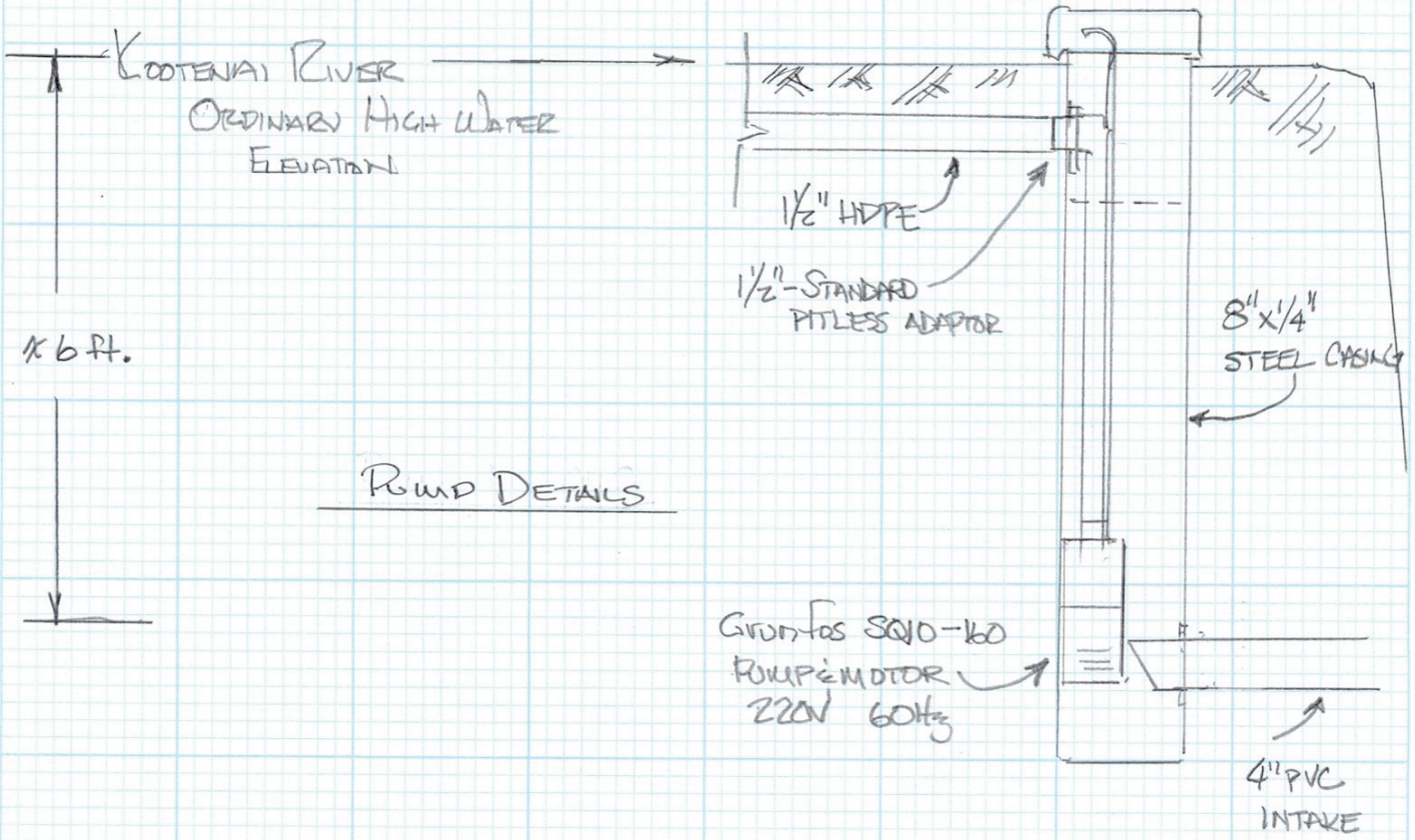
Notary Public for the State of Montana
Residing at:
Commission Expires:

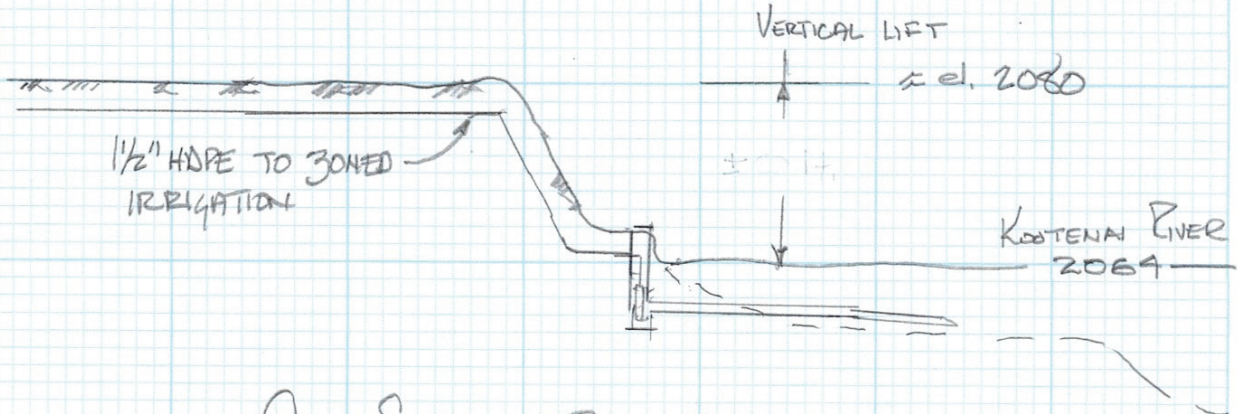
DARLA BROWN
NOTARY PUBLIC for the
State of Montana
Residing at Whitefish, Montana
My Commission Expires
September 12, 2023

DNRC Form 600 Adequate Means of Diversion Attachments

DNRC Form 600 Adequate Means of Diversion: POD Design

Property Sketch — Point of Diversion





Cross Section at River P.O.D.

Mark:

- ☐ Water Meter or Pump Location
- 0 Timer (Where you want it to be placed)
- X Valve Manifold Locations (Where you want them)
- North

Accuracy is important. Mark the scale of your drawing:

(If the scale used is not one of the options below, please identify the scale used)

- ☐ 1 in. = 10 ft. For lots less than 80 ft. x 100 ft.
- ☐ 1 in. = 20 ft. For lots less than 160 ft. x 200 ft.
- ☐ 1 in. = 30 ft. For lots less than 240 ft. x 300 ft.

Name: Hafferman Property: 149 Margaret Lane, Libby, Montana Lot Dimensions: 140 x 350

Maximum yard size for a Rain Bird computerized design is 240' x 300'.

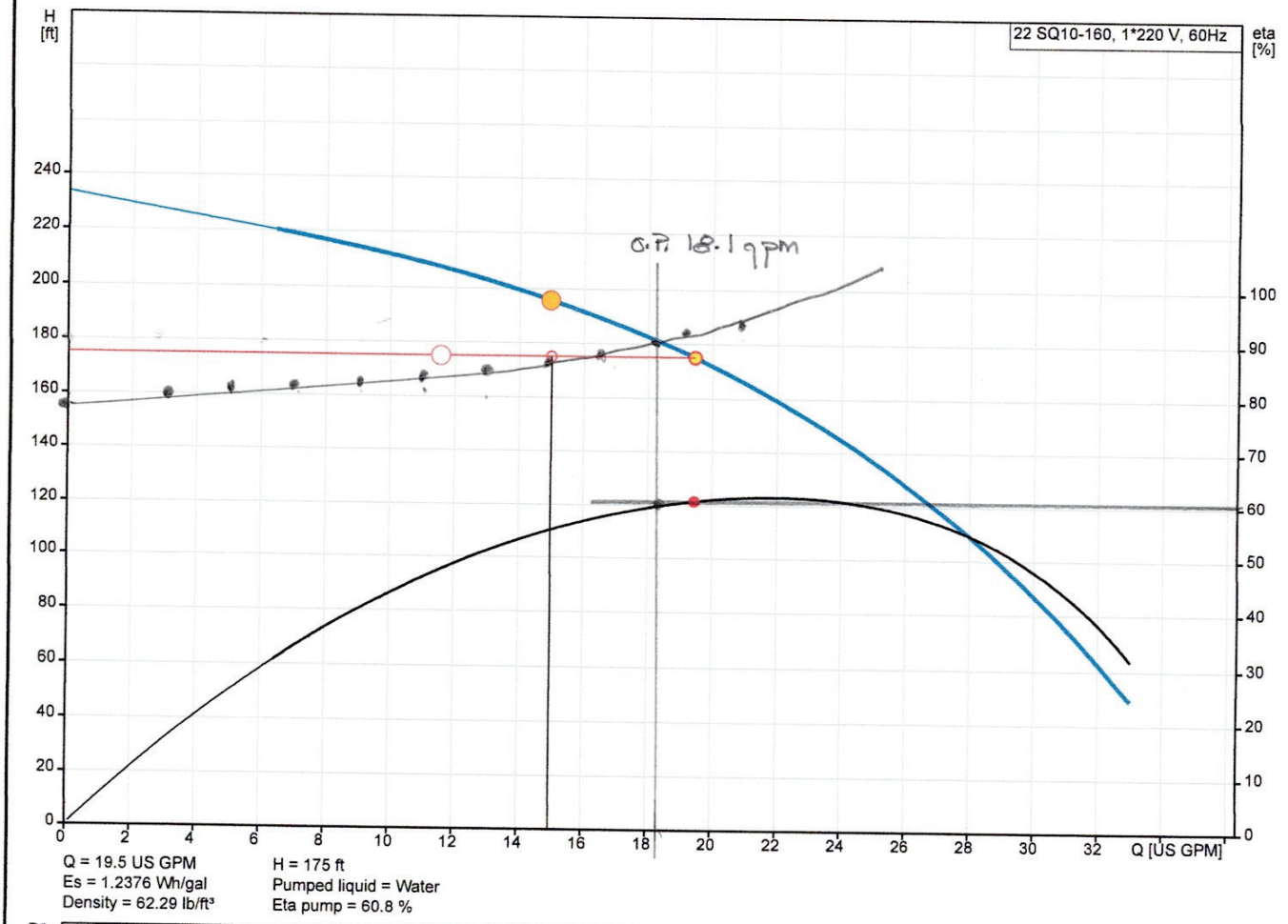
DNRC Form 600 Adequate Means of Diversion: POD Design Pump Operation and System Curve

GRUNDFOS

Company name:
Created by:
Phone:

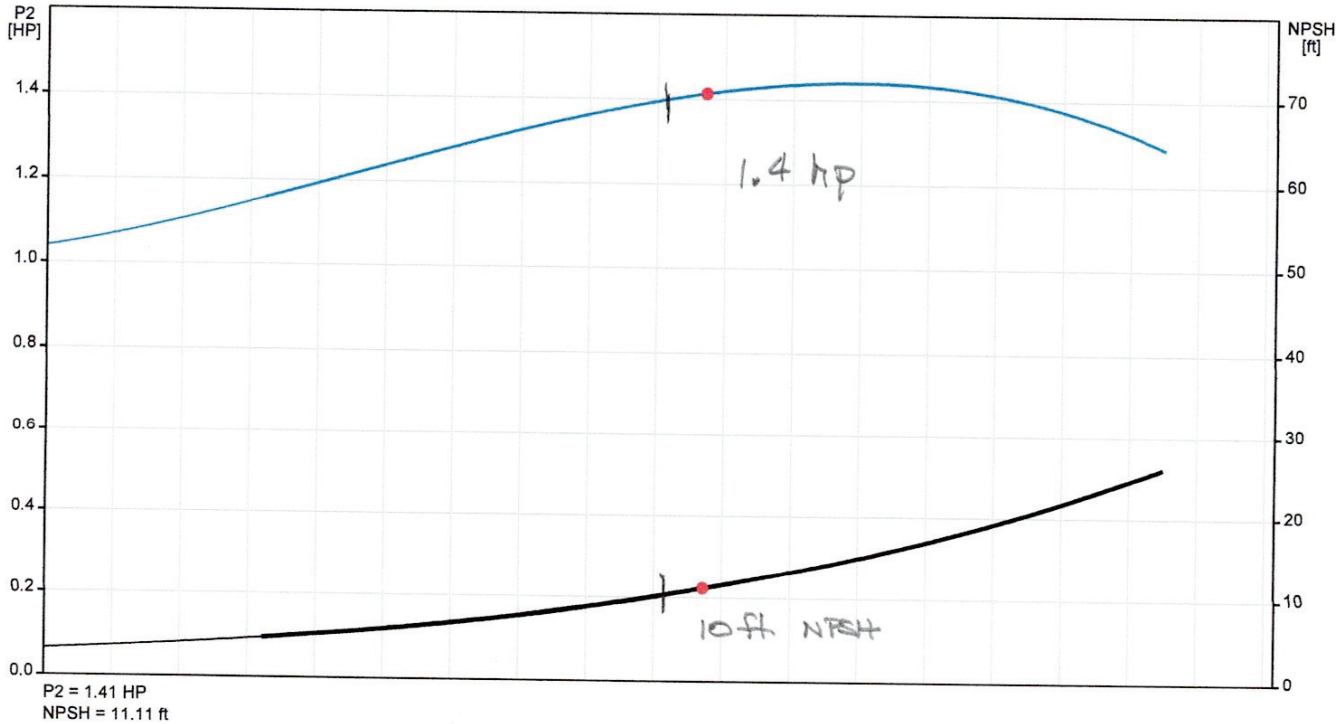
Date: 30/12/2023

96160156 22 SQ10-160 60 Hz



Q = 19.5 US GPM
Es = 1.2376 Wh/gal
Density = 62.29 lb/ft³

H = 175 ft
Pumped liquid = Water
Eta pump = 60.8 %



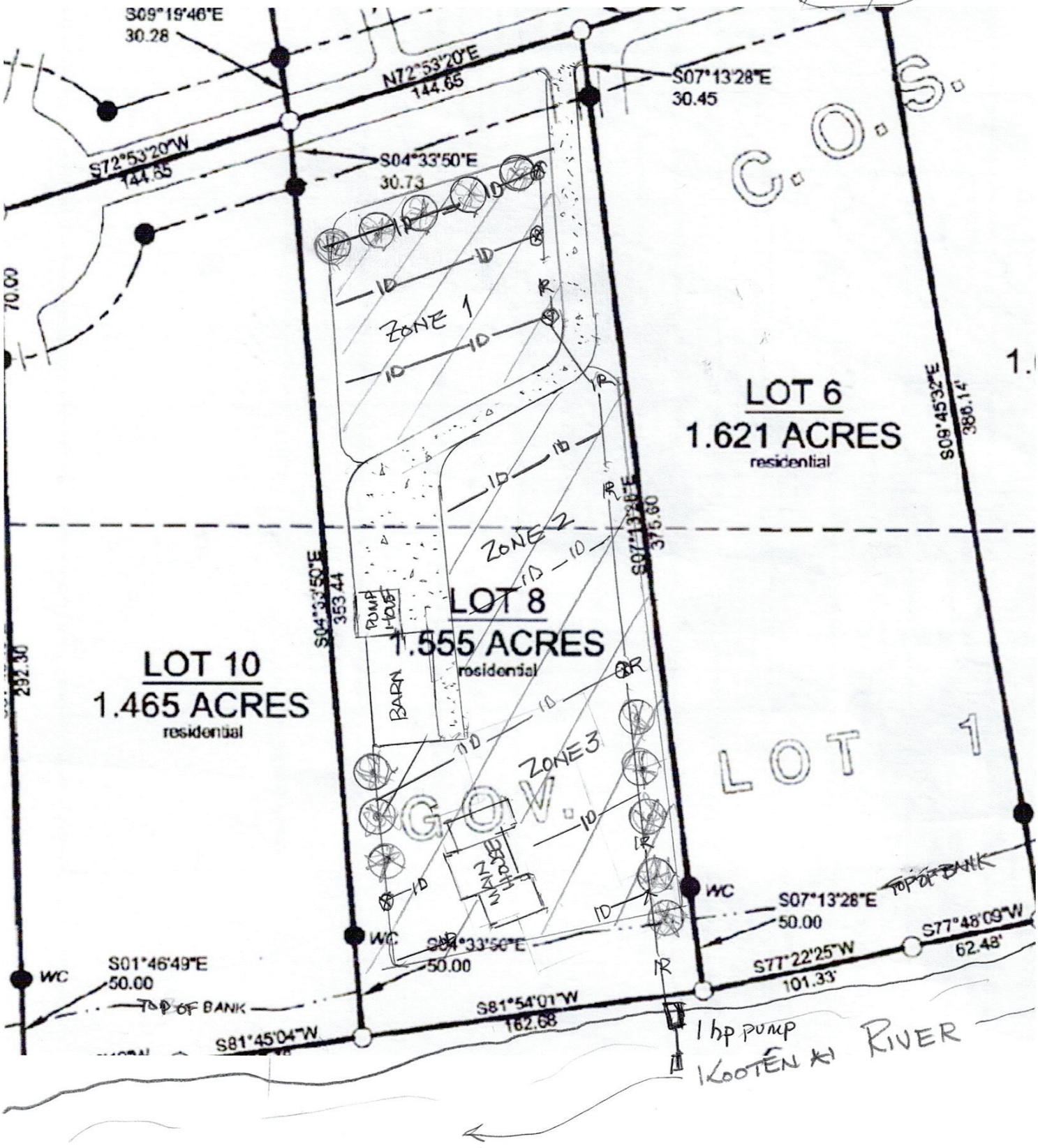
P2 = 1.41 HP
NPSH = 11.11 ft

DNRC Form 600 Adequate Means of Diversion: Irrigated Acres

1½" — MAIN IRRIGATION PIPE — IR - AUTUMN MAPLE

1" — DISTRIBUTION PIPE — ID — IRRIGATED LAWN

SCALE 1"=60'



PLACE OF USE MAP

DNRC Form 600 Adequate Means of Diversion: System Specifications and Cost

Hafferman-Miner Irrigation System Demand and Rainbird Comonenets and cost

gallons per minute	18	gpm	
(minutes per day/zone)*3	90	min.	0.0002490005
gallons per day	1620	cfs	0.0010022272
days per irrigation season	95	days	
cubic feet per second	0.040	cfs	
time per day (90 minutes/1440 minutes per day)	0.0625	days	
acre feet per year=(gallons per day*95 days)/325851 gallons/AF	0.94	AF/year	

Detail	Unit Cost	#Units	Subtotal		Comments
Zone Valve	$ 344.75	3	$ 1,034.25	Zone Valve	Rainbird; 200PESB - 2 in. Inlet Inline Plastic Industrial Irrigation Valve
Controller	$ 179.99	1	$ 179.99	Controller	Rainbird: ARC8 App Based Residential Controller - 8 Zone
42SA Sprinklers	$ 14.99	18	$ 269.82	42SA Sprinklers	42SA+ - Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler
Shrub Rotor on Riser	$ 30.00	15	$ 450.00	Shrub Rotor on Riser	5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve
1-1/2" Poly Pipe/100 ft	$ 207.00	4	$ 828.00	2" Poly Pipe/100 ft.	1-1/2 in. x 100 ft. IPS 100 psi NSF Poly Pipe: Home Depot
1" Poly Pipe/100 ft.	$ 176.00	3	$ 528.00	1" Poly Pipe/100 ft.	1 in. x 100 ft. IPS 100 psi NSF Poly Pipe: Home Depot
90 degree	$ 1.49	12	$ 17.88	90 degree	1-1/2 in. Barb Insert Blue Twister Polypropylene 90-Degree Elbow
Pipe to Pipe coupling	$ 0.94	11	$ 10.34	Pipe to Pipe coupling	1-1/2 in. Barb Insert Blue Twister Polypropylene Coupling Fitting
Barb to 2" thread	$ 1.00	13	$ 13.00	Barb to 2" thread	1-1/2 in. Barb Insert Blue Twister Polypropylene x MPT Adapter
3-barb tee 1-1/2"-1"	$ 1.76	25	$ 44.00	3-barb tee	1-1/2" to 1" reducer from mainline to zonesBlue Twister Polypropylene Tee Fitting
3-barb tee 1"-3/4"	$ 1.12	20	$ 22.40	3-barb tee	1"-3/4" reducer from zones to sprinkler Blue Twister Polypropylene Tee Fitting
Trench Length total	$ 2.00	565	$ 2,030.00	Trench excavation	Cost of excavation and backfill labor, materials and excavator rental.
Subtotal Materials and Excavtion and burial			$ 5,427.68		
10% contingency			$ 542.77		
Total Estimated irrigation system cost			$ 5,970		

DNRC Form 600 Adequate Means of Diversion: Conveyance System Specifications

42SA+ - Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler

★★★★★ 7 Reviews Ask a question

$14.99

List Price ~~$29.73~~

IN STOCK

SKU#: W42003

Qty 1 Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- Improve coverage consistency and reduce cycle times with this rotor's Rain Curtain nozzle technology that distributes water more evenly throughout the pattern
- More effective close-in coverage solves problems with dry spots around the heads of your rotor zone
- Water lubricated, gear driven design is quiet and trouble-free
- Self-flushing at pop-down to clear debris and maintain spray efficiency
- Easy to adjust spray distance from 26 to 38 ft
- 3/4 In. female inlet threads
- Additional o-rings and seals for extra protection in "gritty" water
- Easy to adjust arc from 40 to 360 degrees for part or full operation
- Heavy-duty stainless steel retract spring assures positive pop-down
- 4 In. pop up height to clear tall grass

42SA Adjustment

How to change Rotor Nozzles

Rotor Selection Guide

Rotor Performance Chart

Save 49%

Details

This professional grade Rain Bird 42SA+ rotor sprinkler features superior durability plus exceptional watering uniformity of patented Rain Curtain nozzle technology, resulting in a greener and more even lawn with reduced watering time.

The rotor distributes larger water droplets that cover evenly throughout the pattern, also reducing wind-blown overspray.

Nozzle micro ramps direct a portion of the spray near the head, adding gentle close-in coverage with reduced watering velocity that won't wash out new seed.

Simple top adjustments for arc and distance help you keep water on the grass, not spraying on the house, sidewalk or driveway.

The rotor also features a rugged dual-action, positive stop wiper seal that protects internals from debris and, together with a heavy duty stainless steel spring, assures positive retraction for leak-free performance.

It installs on a standard 3/4 in. riser for simple replacement of older rotors.

Rain Bird 42SA Rotor Sprinklers

Warranty

If a purchaser of any new Rain Bird consumer product becomes dissatisfied with it for any reason, he may return it to the retailer where it was purchased within a reasonable time for a full refund. Rain Bird's obligation is limited to this refund for any product that does not meet a purchaser's expectations. Other than its satisfaction policy, there are no warranties on Rain Bird consumer products, express or implied, nor will Rain Bird be responsible for any economic or consequential damages.

More Information

Frequently Bought Together

- [x] This Item: 42SA+ - Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler $14.99 ~~List Price $29.73~~
- [x] 42SA+/4PKS – Heavy Duty Simple Adjust Professional ¾" Inlet Gear Drive Rotor Sprinkler - 4 Pack $51.99 ~~List Price $87.47~~
- [x] 4252NZLPK - Rotor Nozzle Tree for 42SA+, 52SA & 5000+ Rotors $2.99 ~~List Price $3.71~~
- [x] 32SA/4PK - 32SA Simple Adjust Series Closed-Case ½" Inlet Gear Drive Rotor Sprinkler - 4 Pack $53.99 ~~List Price $66.71~~
- [x] 32SANZLPK - 32SA Rotor Nozzle Tree $2.82
- [x] SST400in - 4-Station Indoor SST "Simple to Set" Irrigation Timer $69.99 ~~List Price $122.93~~

Add All to Cart **Total price $196.77**

5000S+PCSR - 5000 Series Shrub Rotor with PRS Pressure Regulation and SAM Check Valve

★★★★★ 1 Review Ask a question

$30.00

List Price ~~$37.50~~

IN STOCK

SKU#: Y65550

Qty 1 Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- 5000 Series Shrub Rotor with SAM Check Valve, ideal for watering shrubs and hillsides
- **NOTE: Shrub rotors do not pop up -- mount above ground on a 3/4" fixed threaded riser**
- Includes locking screw to fasten shrub rotor to the riser and Secure Ribs™ to assist in staking.
- Heavy-duty cover assembly for extra durability
- Top-adjust arc adjustment requiring only a flat-blade screwdriver
- 40 - 360° arc rotation and reversing full circle rotation in one
- Radius adjustment screw allows up to 25% radius reduction without changing nozzles
- Rain Curtain™ Nozzles
- Faster maintenance with a new self-cleaning arc adjustment screw
- Slip clutch mechanism for quick adjustment on installation
- Additional O-rings and seals for extra protection in "gritty" water
- Seal-A-Matic (SAM) check valve holds up to 7 feet (2.1m) of elevation change to prevent puddling and erosion caused by low head drainage
- Pressure Regulating Stem (PRS) which regulates pressure at the head, assuring optimum performance

Save 20%

Details

Relax with the knowledge your landscape is being watered by reliable 5000 Series Rotors and industry-leading Rain Curtain Nozzle Technology. Rain Bird® 5000 Series Shrub Rotors are ideal for medium to large-size shrub areas and hillsides and evenly distribute water from 25 to 50 feet.

Outstanding Results

Superior Distribution Uniformity. 5000 Series Rotors with Rain Curtain Technology are engineered to deliver a uniform spray pattern, giving you a consistently green lawn throughout.

Superior Wind Resistance

The larger water droplets produced by Rain Curtain technology prevent misting and airborne evaporation so the right amount of water is delivered to the right place, saving you water and money.

Superior Close-in Watering

Gentle close-in watering eliminates dry spots around the rotor, prevents seed washout and allows plants to grow healthy with no matting or bending.

More Information

200PESB - 2 in. Inlet Inline Plastic Industrial Irrigation Valve

☆☆☆☆☆ Write a review 1 Questions \ 1 Answers

$344.75

IN STOCK
SKU#: B35213

Qty 1 Add to Cart

ADD TO WISH LIST ADD TO COMPARE

- 2 in. (50/60) plastic industrial irrigation valve
- Durable glass-filled nylon construction with fabric-reinforced rubber diaphragm for long life and reliable performance
- Globe configuration
- Normally closed, forward flow design
- Slow closing to prevent water hammer and subsequent system damage
- Low flow capability for a wide range of applications
- One-piece solenoid design with captured plunger and spring for easy servicing; prevents loss of parts during field service
- Flow control handle adjusts water flows as needed
- * Solenoid handle is not included *

Details

More Information

Model	200PESB
Valve Size	2 in
Valve Type	Inline
Material	Plastic
Valve Inlet/Outlet Configuration	NPT Female x NPT Female Threaded
Valve Options	Dirty Water
Valve Series	PEB/PESB
Operating Temperature	Up to 150° F (66° C)
Dimensions	6 1/2" x 4" x 4" (16,5 cm) x (10,2 cm) x (10,2 cm)
Electrical Specifications	24 VAC 50/60 Hz (cycles per second) solenoid Inrush current: 0.41A (9.9VA) Holding current: 0.14A (3.43VA) Coil resistance: 30-39 Ohms
Flow Range	Flow without PRS-D option: 0.25 to 200 GPM (0,06 to 45 m3/h; 0,02 to 12,60 l/s) Flow with PRS-D option: 5 to 200 GPM (1,14 to 45 m3/h; 0,32 to 12,60 l/s)
Operating Pressure	20 to 200 psi (1,4 to 13,8 bar)

Frequently Bought Together

- This Item: 200PESB - 2 in. Inlet Inline Plastic Industrial Irrigation Valve $344.75
- SOLASSG4 - Solenoid Repair Kit for PEB, PGA, EFB-CP, BPE/BPES and GB Valves $37.80 ~~List Price $50.50~~
- 20PESBDIBO - 200 PESB Valve Replacement Diaphragm Assembly and Bonnet Assembly $122.86 ~~List Price $131.46~~
- F4PC - Falcon 6504 Rotor Pop-Up Sprinkler - Part-Circle Pattern Nozzle $70.00
- AG-5 - Maxi-Paw Pop-up ½" or ¾" Inlet Impact Rotor Sprinkler with Blue Nozzle #8 $21.99 ~~List Price $45.58~~
- ET/IPK - Emitter Installation Tool $6.99 ~~List Price $12.00~~

Add All to Cart **Total price $604.39**

RAIN BIRD

ENGLISH | EN | ES | FR

WiFi Smart Controller User Manual

Feature	Description
Maximum zones	8
Automatic programs	3
Start times per program	4
Custom run days	Yes
Master valve control	Yes
Rain delay	Yes
Rain/freeze sensor control	Yes
Seasonal adjust	Yes
Manual zone run	Yes
Manual program run	Yes
Manual test all zones	Yes
Zone advance	Yes
Built-in WiFi	Yes
AP Hotspot	Yes

Installation

If You're Replacing an Existing Controller

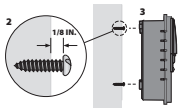
1. Take a photo of the wiring details, which will be useful to reference when installing the new controller.
2. Unplug the power cord from the AC power outlet and disconnect wires from the controller.

Mount New Controller

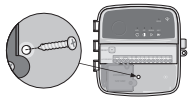
1. Unless installing with custom wiring, choose a mounting location on a wall within six feet of an AC power outlet and at least 15 feet away from major appliances or air conditioners.

⚠ WARNING
Install the controller with the power supply cord exit side pointing downwards to avoid ingress of water.

2. Drive a mounting screw into the wall, leaving an 1/8-inch gap between the screw head and the wall surface (use supplied wall anchors if necessary).
3. Locate the keyhole slot on back of the controller and hang it securely on the mounting screw.



4. Remove the wire bay cover on the lower part of the controller and drive a second screw through the open hole and into the wall (use supplied wall anchors if necessary).



Connect Valve Wiring

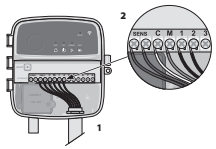
1. With the wire bay cover removed, route all field wires through the opening at the bottom of the controller.

⚠ WARNING
DO NOT route valve wires through the same opening as power wires.

2. Connect one wire from each valve to one of the numbered zone terminals (1–8) on the controller.

NOTICE
DO NOT connect more than one valve to the same zone terminal (1–8).

3. Connect a field common wire to the common terminal (C) on the controller.
4. For connection of optional accessories (rain or rain/freeze sensor, master valve, pump start relay), refer to the appropriate section within this manual.



639885-01 Rev. 10/22

Connect Custom Wiring (optional)

⚠ WARNING
- Ensure that AC power is disconnected before replacing wiring.
- The strain-relief bar must be resecured for safe and proper function.
- When using fixed wiring to main supply, the installation must incorporate a disconnection device.
- DO NOT apply power until you have completed and checked all wiring connections.
- DO NOT attempt to link two or more controllers together using a single transformer.

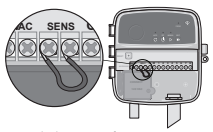
1. If desired, the provided power cord can be removed and replaced with custom wiring.
2. Remove the wire bay cover on the lower part of the controller.
3. Locate the transformer box in the left-hand corner of the wire bay and unscrew the wiring compartment cover.
4. Unscrew the wire nuts connecting the AC power cord and the transformer wires. Remove the power cord wires from the transformer box.
5. Remove the factory installed power cord by loosening the two screws securing the metal strain-relief bar.
6. Route the three wires from an external power source into the wiring compartment.
7. Connect the external power supply wires using the wire nuts and resecure the metal strain relief bar by tightening the two screws.

Power Wiring Connections 120 VAC
- Black supply wire (live) to the black transformer wire
- White supply wire (neutral) to white transformer wire
- Green supply wire (ground) to the green transformer wire

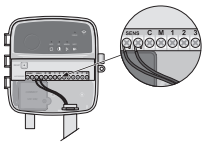
Connect Rain/Freeze Sensor (optional)

NOTICE
- DO NOT remove the jumper wire unless connecting a rain or rain/freeze sensor. The controller will not function if the jumper wire is removed and a rain or rain/freeze sensor is not connected.
- Rain Bird controllers are only compatible with normally closed rain or rain/freeze sensors.
- Check local and/or state regulations to determine if a rain or rain/freeze sensor is required.

1. Remove the yellow jumper wire from the SENS terminals on the controller.



2. Connect both rain or rain/freeze sensor wires to the SENS terminals.



3. For detailed installation and operation of rain or rain/freeze sensor, refer to sensor manufacturer's installation instructions.

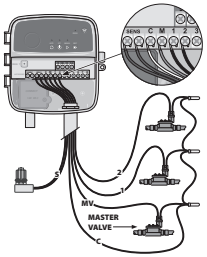
Connect Master Valve (optional)

⚠ WARNING
DO NOT route the master valve wires through the same opening as the power wires.

1. Using a direct burial cable, connect one of the wires from the master valve to the master valve terminal (M).

NOTICE
DO NOT connect more than one valve to the master valve terminal (M).

2. Connect the remaining wire from the master valve to the common terminal (C).

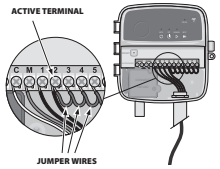


Connect Pump Start Relay (optional)

⚠ WARNING
DO NOT route the pump start relay wires through the same opening as the power wires.

NOTICE
- A pump start relay connects to the controller in the same way as a master valve, but connects differently at the water source.
- This controller DOES NOT provide power for a pump. A relay must be wired according to pump manufacturer's installation instructions.

1. Using a direct burial cable, connect one of the wires from the pump start relay to the master valve terminal (M).
2. Connect the remaining wire from the pump start relay to the common terminal (C).
3. To avoid possible pump damage in the event run times are assigned to unused zones, connect a short jumper wire from all unused zone terminals to the nearest zone terminal in use.



4. For detailed installation and operation of pump start relay, refer to pump manufacturer's installation instructions.

Connect Power

- The controller comes with a standard six-foot power cord so it can be installed indoors or outdoors (if plugged into a weatherproof external outlet).
- The controller can be wired directly into a power supply by removing the power cord. It has an internal transformer that reduces supply voltage from 120 VAC to 24 VAC. You will need to connect power supply wires to the transformer's three wires (live, neutral, ground). Refer to "Connect Custom Wiring" section for installation details.

⚠ WARNING
- Electric shock can cause severe injury or death. Ensure power supply is turned OFF before connecting power wires.
- DO NOT plug in or apply power to the controller until you have completed and checked all wiring connections.
- Disconnect or turn off the external power source before connecting or disconnecting wires to the controller.

Programming

Add a New Controller to the Rain Bird App

1. Before mounting new controller, check the WiFi signal at controller.
   - Verify minimum signal strength of two bars at controller.
   - Mount controller closer to router or add signal booster if needed.
2. Download and launch the Rain Bird App.

Download on the App Store | GET IT ON Google Play

3. Select "Add Controller" to begin the set-up wizard.

Set Date and Time

- When the controller is connected to WiFi, it will automatically set the date and time according to the local WiFi network settings. In the event of a power outage, the date and time will default to the local WiFi network settings.
- If a local WiFi network is not available at setup and the controller is connected to the Rain Bird App in AP Hotspot mode, the controller will default to the date and time in the mobile device settings. In the event of a power outage, the date and time will need to be manually reset by reconnecting the controller to your mobile device through AP Hotspot mode.

Create a Watering Schedule

1. **ADD PROGRAM(S)**: This controller is scheduled using up to three programs (A, B and C). Basic programs include instructions on watering days, start times and durations.
   In the Rain Bird App, add a new program by selecting + PGM and an available program.

NOTICE
- The first time you connect to the controller, the Rain Bird App will reflect the default program assigned to the controller. You can choose to retain, change, or set up a new program.
- Programming is stored in non-volatile memory and will remain in the controller in the event of a power outage.

2. **SET PROGRAM START TIME(S)**: This controller is scheduled using up to four independent start times per program. The start time(s) is the time of day at which the program will begin. Each start time will run every zone for its scheduled duration within that program.
   - In the Rain Bird App, add a program start time by selecting the ⊕ icon.
   - Set the zone(s) and watering duration(s) associated with the start time by selecting the ⊕ icon.

NOTICE
Start times apply to the entire program, not individual zones. Depending on landscaping needs, multiple start times may be assigned for that program. Once the start time is set, the controller begins the watering cycle with the first zone; the other zones in the program follow in sequence.

3. **SET PROGRAM RUN DAYS**: Run days are the specific days of the week in which watering occurs.
   In the Rain Bird App, set the watering frequency by selecting Odd (days of the week), Even (days of the week), Custom or Cyclic (specific intervals).

NOTICE
Watering days apply to the entire program, not the individual zones.

4. **SEASONAL ADJUST** changes the watering duration (as a percent) for all zones associated with run times in an individual program. This may be manually adjusted in the Rain Bird App using the slider in the program settings.

NOTICE
- The controller must be connected to WiFi to make automatic adjustments.
- An adjustment value of 100% is representative of irrigation during the average hottest time of year, so even if you're experiencing warm weather on a summer day, you may not see an adjustment above 100%.

5. **RAIN DELAY**: In the Rain Bird App, manually turn off automatic watering for a fixed number of days when it rains even without a rain sensor.
   - Suspend watering for up to 14 days by selecting the ☔ icon in the controller settings.
   - Slide the bar to the desired number of days to delay automatic watering.
   - Select "Save" to store the setting.

NOTICE
The maximum numbers of days to delay watering is 14. After the days expire, automatic irrigation will begin again according to the programmed schedule.

Manual Watering

ON THE CONTROLLER
- To start manual watering, press the ▷ button.
- As a default, each zone will run for 10 minutes; you can choose to retain or change the watering duration in the Rain Bird App.
- The blinking LED will give indication for which zone is active.
- To advance to the next zone, press the ⏭ button.
- To stop manual watering on the controller, press the ⏻ button.

IN RAIN BIRD APP
- To start manual watering, select the 💧 icon and select manual watering preferences.
- To advance to the next zone, select the ⏯ icon.
- To stop manual watering in the Rain Bird App, select the ■ icon.

Automatic Watering

ON THE CONTROLLER

NOTICE
When operating in automatic mode, each program will run according to the start times, run days, and run times for each zone in sequence until all scheduled watering has been run.

- Press ↻ to start automatic watering according to scheduled program(s).
- The blinking LED will give indication for which zone is active.
- To advance to the next zone, press the ⏭ button.
- To stop automatic watering on the controller, press the ⏻ button.

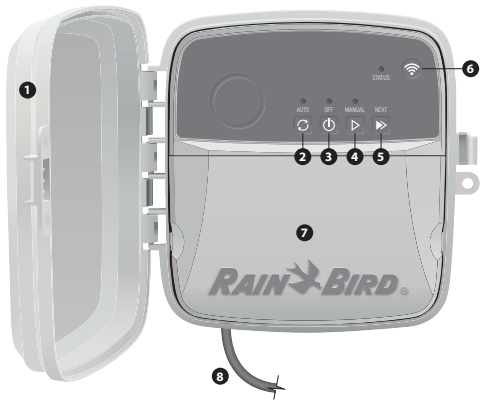
IN RAIN BIRD APP
The Rain Bird App offers a toggle to switch between automatic watering and off status.

Technical Support

For help setting up or operating the Rain Bird WiFi Smart Controller, please call Rain Bird toll-free Technical Support at: 1-800-RAIN BIRD (800-724-6247) or visit www.rainbird.com.

For more information, including troubleshooting, scan the QR code:

READ AND SAVE THESE INSTRUCTIONS
LEA Y GUARDE ESTAS INSTRUCCIONES
LIRE ET CONSERVER CES INSTRUCTIONS



1. **CONTROLLER DOOR**: Removable door for protection against inclement weather
   PUERTA DEL CONTROLADOR: Puerta removible para protección contra el clima inclemente
   PORTE DU PROGRAMMATEUR : Porte amovible pour la protection contre les intempéries
2. **AUTOMATIC WATERING**: Watering occurs automatically according to programmed schedules
   RIEGO AUTOMÁTICO: El riego ocurre automáticamente de acuerdo con los horarios programados
   ARROSAGE AUTOMATIQUE : L'arrosage se produit automatiquement selon les horaires programmés
3. **OFF**: Cancel all active watering immediately and disable automatic irrigation
   APAGADO: Cancela todo el riego activo de inmediato y deshabilita el riego automático
   DÉSACTIVÉ : Annule immédiatement tous les arrosages actifs et désactive l'arrosage automatique
4. **MANUAL WATERING**: Start watering immediately for all zones in sequence
   RIEGO MANUAL: Comienza el riego de inmediato en todas las zonas en secuencia
   ARROSAGE MANUEL : Commence à arroser immédiatement pour toutes les zones en séquence
5. **ADVANCE TO NEXT ZONE**: Advance to the next zone in sequence
   AVANZAR A LA SIGUIENTE ZONA: Avanza hasta la siguiente zona en secuencia
   PASSER À LA ZONE SUIVANTE : Passe à la zone suivante dans l'ordre
6. **PAIRING MODES**: Toggles between AP Hotspot and WiFi pairing modes
   MODOS DE EMPAREJAMIENTO: Alterna entre modos de emparejamiento de punto de acceso inalámbrico y WiFi
   MODES D'APPARIEMENT : Bascule entre les modes d'appariement Point d'accès AP et WiFi
7. **WIRING BAY**: Contains the AC power transformer and terminal block to connect valve zone wires and optional accessories
   PUERTO DE CABLEADO: Contiene el transformador de alimentación de corriente y el bloque de terminal para conectar los cables de la zona de válvula y accesorios opcionales
   BAIE DE CÂBLAGE : Ontient le transformateur d'alimentation CA et le bornier pour raccorder les fils de zone de la vanne et les accessoires en option
8. **POWER CORD**: 120 VAC transformer with six-foot AC power cord
   CABLE DE CORRIENTE: Transformador de 120 VCA con 1.8 m de cable de alimentación de corriente
   CORDON D'ALIMENTATION : Transformateur 120 VCA avec cordon d'alimentation CA de 1,8 m

LED Status on Controller

LED	ACTION
STATUS flashing blue	Quick Pair broadcast mode
STATUS alternating red and green	AP Hotspot broadcast mode
STATUS solid green	WiFi broadcast mode
STATUS flashing red	Not connected
AUTO solid green	Automatic watering active
OFF solid red	Controller off
MANUAL flashing green	Manual watering active

Safety Information

⚠ WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capacity, or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons in order to avoid a hazard.

Special precautions must be taken when valve wires are located adjacent to, or share a conduit with other wires, such as those used for landscape lighting or other electrical systems.

Separate and insulate all conductors carefully, taking care not to damage wire insulation during installation. An electrical "short" (contact) between the valve wires and another power source can damage the controller and create a fire hazard.

⚠ CAUTION

This device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

NOTICE

Changes or modifications not expressly approved by Rain Bird could void the user's authority to operate the equipment.

Use only Rain Bird approved accessory devices. Unapproved devices may damage the controller and void warranty.

All electrical connections and wiring runs must comply with local building codes. Some local codes require that only a licensed or certified electrician can install power. Only professional personnel should install the controller. Check your local building codes for guidance.

ISED NOTICE

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

SUPPLIER'S DECLARATION OF CONFORMITY

47 CFR § 2.1077 Compliance Information

Unique identifier: RC2, ARC8

Responsible Party – Rain Bird Corporation, 9491 Ridgehaven Court, Suite C, San Diego, CA 92123, USA, www.rainbird.com

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Estado del LED en el controlador

LED	ACCIÓN
ESTADO azul intermitente	Modo de transmisión de emparejado rápido
ESTADO alternando rojo y verde	Modo de transmisión a punto de acceso inalámbrico
ESTADO verde continuo	Modo de transmisión WiFi
ESTADO rojo intermitente	No conectado
AUTOMÁTICO verde continuo	Riego automático activo
APAGADO rojo continuo	Controlador apagado
MANUAL verde intermitente	Riego manual activo

Información de seguridad

⚠ ADVERTENCIA

Este electrodoméstico no está diseñado para que lo usen personas (incluidos los niños) con capacidad física, sensorial o mental reducida, o falta de experiencia y conocimiento, a menos que una persona responsable de su seguridad los supervise o les dé instrucciones sobre el uso del electrodoméstico. Los niños deben ser supervisados para asegurarse de que no jueguen con el aparato.

Si el cable de alimentación está dañado, debe ser reemplazado por el fabricante, su agente de servicio o personas calificadas de manera similar para evitar un peligro.

Se deben tomar precauciones especiales cuando los cables de las válvulas están ubicados junto a, o comparten un conducto con otros cables, como los que se usan para la iluminación de jardines, u otros sistemas eléctricos.

Separe y aísle todos los conductores con cuidado, teniendo cuidado de no dañar el aislamiento de los cables durante la instalación. Un "corto" (contacto) eléctrico entre los cables de la válvula y otra fuente de alimentación puede dañar el controlador y crear un riesgo de incendio.

⚠ ATENCIÓN

Este dispositivo debe ser instalado manteniendo una distancia de separación de por lo menos 20 cm de toda persona, y no debe ser co-ubicado u operar en conjunto con cualquier otra antena o transmisor.

AVISO

Los cambios o modificaciones no aprobados expresamente por Rain Bird podrían anular la autoridad del usuario para operar el equipo.

Utilice únicamente dispositivos accesorios aprobados por Rain Bird. Los dispositivos no aprobados pueden dañar el controlador y anular la garantía.

Todas las conexiones eléctricas y los tendidos de cableado deben cumplir con los códigos de construcción locales. Algunos códigos locales requieren que solo un electricista autorizado o certificado pueda instalar energía. Solo personal profesional debe instalar el controlador. Consulte los códigos de construcción locales para obtener orientación.

La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Importado en México por: RAIN BIRD MEXICO S DE RL DE CV
Lázaro Cárdenas 3141, Col. Chapalita, Guadalajara, Jal. C.P 44500, México. R.F.C.RBM0212135S90
CONTROLADOR ELECTRÓNICO PARA IRRIGACIÓN
Marca: Rain Bird Modelo: RC2
ESPECIFICACIONES ELÉCTRICAS:
Entrada 120 Vca 60 Hz 0.23 A
Salida 24 Vca 60 Hz 0.68 A
Hecho en México, Véase Instructivo Anexo

État de la LED sur le contrôleur

LED	ACTION
ÉTAT bleu clignotant	Mode de diffusion Quick Pair (appairage rapide)
ÉTAT rouge et vert en alternance	Mode de diffusion Point d'accès AP
ÉTAT vert continu	Mode de diffusion WiFi
ÉTAT rouge clignotant	Non connecté
AUTO vert continu	Arrosage automatique actif
DÉSACTIVÉ rouge continu	Programmateur désactivé
MANUEL vert clignotant	Arrosage manuel activé

Information de sécurité

⚠ AVERTISSEMENT

Cet appareil n'est pas destiné à être utilisé par des personnes (y compris des enfants) ayant des capacités physiques, sensorielles ou mentales réduites, ou un manque d'expérience et de connaissances, à moins qu'elles n'aient reçu une supervision ou des instructions concernant l'utilisation de l'appareil par une personne responsable de leur sécurité. Les enfants doivent être surveillés pour s'assurer qu'ils ne jouent pas avec l'appareil.

Si le cordon d'alimentation est endommagé, il doit être remplacé par le fabricant, son agent de service ou des personnes de qualification similaire afin d'éviter tout danger.

Des précautions particulières doivent être prises lorsque les fils de vannes sont situés à côté ou partagent un conduit avec d'autres fils, tels que ceux utilisés pour l'éclairage paysager ou d'autres systèmes électriques.

Séparez et isolez soigneusement tous les conducteurs, en prenant soin de ne pas endommager l'isolation des fils lors de l'installation. Un «court» (contact) électrique entre les fils de la vanne et une autre source d'alimentation peut endommager le contrôleur et créer un risque d'incendie.

⚠ ATTENTION

Cet appareil doit être installé pour fournir une distance de séparation d'au moins 20 cm de toutes les personnes, et ne doit pas être colocalisé ou fonctionner en conjonction avec une autre antenne ou émetteur.

AVIS

Les changements ou modifications non expressément approuvés par Rain Bird peuvent annuler le droit de l'utilisateur à faire fonctionner l'équipement.

Utilisez uniquement des appareils accessoires approuvés par Rain Bird. Les appareils non approuvés peuvent endommager le contrôleur et annuler la garantie.

Toutes les connexions électriques et les chemins de câblage doivent être conformes aux codes du bâtiment locaux. Certains codes locaux exigent que seul un électricien agréé ou certifié puisse installer l'alimentation. Seul le personnel professionnel doit installer le contrôleur. Vérifiez vos codes du bâtiment locaux pour obtenir des conseils.

AVIS ISDE

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Rain Bird Corporation
6991 East Southpoint Road
Tucson, AZ 85756
www.rainbird.com

RAIN BIRD

ESPAÑOL | EN | ES | FR

Manual del Usuario del Controlador Inteligente WiFi

Característica	Descripción
Máximo de zonas	8
Programas automáticos	3
Horarios de inicio por programa	4
Días de operación personalizados	Sí
Control de válvula maestra	Sí
Retardador por lluvia	Sí
Control de sensor de lluvia/ congelamiento	Sí
Ajuste estacional	Sí
Operación manual de zona	Sí
Operación manual de programa	Sí
Prueba manual de todas las zonas	Sí
Avance de zona	Sí
WiFi incorporado	Sí
Punto de acceso inalámbrico	Sí

Instalación

Si está reemplazando un controlador existente

1. Tome una fotografía de los detalles del cableado, la cual será útil para usar como referencia cuando instale el controlador nuevo.
2. Desenchufe el cable de alimentación del tomacorriente de CA y desconecte los cables del controlador.

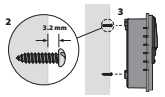
Coloque el controlador nuevo

1. A menos que la instalación sea con cableado a la medida, elija colocarlo en un lugar de la pared dentro de los 1.8 m de distancia del enchufe y por lo menos a 4.5 m de distancia de electrodomésticos o equipos de aire acondicionado grandes.

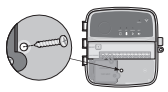
⚠ ADVERTENCIA

Instale el controlador con la salida del cable eléctrico apuntando hacia abajo, a fin de evitar el ingreso de agua.

2. Coloque un tornillo de montura en la pared, dejando un espacio de 3.2 mm entre la cabeza del tornillo y la superficie de la pared (de ser necesario, use los anclajes de pared provistos).
3. Ubique la ranura de montaje en la parte trasera del controlador y cuélguelo de manera segura sobre el tornillo de montura.



4. Retire la cubierta del puerto del cableado en la parte inferior del controlador y coloque un segundo tornillo en la pared, a través del agujero (de ser necesario, use los anclajes de pared provistos).



Conecte el cableado de la válvula

1. Después de retirar el puerto del cableado, pase todos los cables de campo por la abertura en la parte inferior del controlador.

⚠ ADVERTENCIA

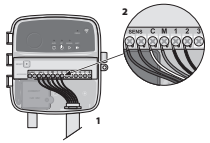
NO pase los cables de la válvula por la misma abertura que los cables de energía.

2. Conecte un cable de cada válvula en cada uno de los terminales de zona numerados (1–8) en el controlador.

AVISO

NO conecte más de una válvula en el mismo terminal de zona (1–8).

3. Conecte un cable común de campo al terminal común (C) en el controlador.
4. Para conectar accesorios opcionales (sensor de lluvia o lluvia/congelamiento, válvula maestra, relé de inicio de bomba), consulte la sección apropiada dentro de este manual.



Conecte cableado a la medida (opcional)

⚠ ADVERTENCIA

- Asegúrese de que la alimentación de corriente está desconectada antes de reemplazar el cableado.
- El aliviador de tensión debe volver a asegurarse para un funcionamiento seguro y adecuado.
- Cuando se use una conexión directa a la alimentación eléctrica, la instalación debe incorporar un dispositivo de desconexión.
- NO energice hasta que haya completado y verificado todas las conexiones del cableado.
- NO intente vincular dos o más controladores usando un solo transformador.

1. Si lo desea, puede retirar el cable de el cable de alimentación provisto y reemplazarlo con un cable a medida.
2. Retire la cubierta del puerto del cableado en la parte inferior del controlador.
3. Coloque la caja del transformador en la esquina izquierda del puerto del cableado y desatornille la cubierta del compartimiento del cableado.
4. Desatornille las tuercas de cable que conectan el cable de alimentación de corriente y los cables del transformador. Retire los cables de corriente de la caja del transformador.
5. Retire el cable de alimentación instalado de fábrica aflojando los dos tornillos que fijan el aliviador de tensión de metal.
6. Pase los tres cables de una fuente de corriente externa hasta el compartimiento del cableado.
7. Conecte los cables de suministro de corriente externa usando las tuercas de cable y luego, vuelva a asegurar el aliviador de tensión de metal ajustando los dos tornillos.

Conexiones de cableado de corriente 120 V~

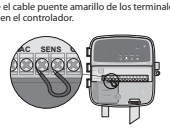
- Cable de suministro negro (fase) para el cable de transformador negro
- Cable de suministro blanco (neutro) para el cable de transformador blanco
- Cable de suministro verde (tierra) para el cable de transformador verde

Conecte el sensor de lluvia/congelamiento (opcional)

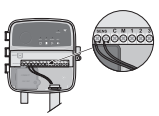
AVISO

- No retire el cable puente a menos que conecte un sensor de lluvia o lluvia/congelamiento. El controlador no funcionará si se retira el cable pasa corriente y no hay un sensor conectado.
- Los controladores Rain Bird solo son compatibles con sensores de lluvia normalmente cerrado.
- Revise las disposiciones locales y/o estatales para determinar si se requiere un sensor de lluvia o lluvia/congelamiento.

1. Retire el cable puente amarillo de los terminales SENS en el controlador.



2. Conecte ambos cables del sensor de lluvia o lluvia/congelamiento a los terminales SENS.



3. Para una instalación y operación detallada del sensor de lluvia o lluvia/congelamiento, consulte las instrucciones de instalación del fabricante del sensor.

Conecte la válvula maestra (opcional)

⚠ ADVERTENCIA

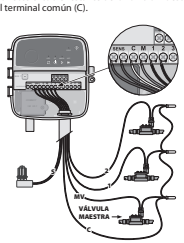
NO pase los cables de la válvula maestra por la misma abertura que los cables de energía.

1. Con un cable de enterramiento directo, conecte uno de los cables de la válvula maestra al terminal de la válvula maestra (M).

AVISO

NO conecte más de una válvula en el terminal de la zona maestra (M).

2. Conecte el cable restante de la válvula maestra en el terminal común (C).



Conecte el relé de arranque de bomba (opcional)

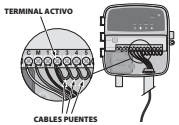
⚠ ADVERTENCIA

NO pase los cables del relé de arranque de bomba por las mismas aberturas de los cables de corriente.

AVISO

- Un relé de arranque de bomba se conecta al controlador de la misma forma que una válvula maestra, pero se conecta distinto en la fuente de agua.
- Este controlador NO proporciona corriente para una bomba. Debe cablearse un relé de acuerdo con las instrucciones de instalación del fabricante de la bomba.

1. Con un cable de enterramiento directo, conecte uno de los cables de la válvula maestra al terminal de la válvula maestra (M).
2. Conecte el cable restante del relé de arranque de bomba en el terminal común (C).
3. Para evitar posible daño en la bomba, en el caso de que se asignen horarios de operación en zonas no utilizadas, conecte un cable puente corto desde todos los terminales de zona no utilizados hasta el terminal de zona en uso más cercano.



4. Para una instalación y operación detallada del relé de arranque de bomba, consulte las instrucciones de instalación del fabricante de la bomba.

Conecte la corriente

- El controlador viene con un cable de corriente estándar de 1.8 m, por lo que puede instalarse en interiores o exteriores (si se conecta en un enchufe externo impermeable).
- El controlador puede cablearse directamente al suministro eléctrico retirando el cable de corriente. Este tiene un transformador interno que reduce el voltaje del suministro de 120 V~ 60Hz a 24 V~ 60Hz. Necesitará conectar los cables de suministro de corriente a los tres cables del transformador (fase, neutro, tierra). Consulte la sección "Conecte el cableado a la medida" para encontrar los detalles de instalación.

⚠ ADVERTENCIA

- La descarga eléctrica puede causar lesiones graves y hasta la muerte. Asegúrese de que el suministro de corriente esté APAGADO antes de conectar los cables de corriente.
- NO enchufe ni energice el controlador hasta que haya completado y verificado todas las conexiones del cableado.
- Desconecte o apague la fuente de corriente externa antes de conectar o desconectar los cables en el controlador.

Programación

Agregue un nuevo controlador a la aplicación Rain Bird

1. Antes de instalar el controlador nuevo, verifique la señal de WiFi en la ubicación del controlador.
   - Verifique que el controlador tenga una potencia de señal mínima de dos barras.
   - Monte el controlador más cerca del enrutador o si es necesario, coloque un intensificador de señal.
2. Descargue y abra la aplicación Rain Bird.

Consíguelo en el App Store | DISPONIBLE EN Google Play

3. Seleccione "Agregar controlador" para iniciar el asistente de instalación.

Configure fecha y hora

- Cuando el controlador está conectado a WiFi automáticamente configurará la fecha y la hora de acuerdo con la configuración de red de WiFi local. En el caso de un corte de corriente, la fecha y hora se configurará por defecto a la configuración de red de WiFi local.
- Si no hay una red de WiFi local disponible al momento de la configuración y el controlador está conectado a la aplicación Rain Bird en modo de punto de acceso inalámbrico, el controlador se configurará por defecto con la fecha y hora en la configuración del dispositivo móvil.

Cómo crear un programa de riego

1. **AGREGAR PROGRAMAS**: Este controlador está programado para usar hasta tres programas (A, B y C). Los programas básicos incluyen instrucciones para los días de riego, horas de inicio, y duraciones.

   En la aplicación Rain Bird, agregue un nuevo programa seleccionando + PGM y un programa disponible.

AVISO

- La primera vez que se conecte al controlador, la aplicación móvil Rain Bird reflejará el programa asignado por defecto al controlador. Usted puede conservar, cambiar o configurar un nuevo programa en ese momento.
- La programación se almacena en una memoria no volátil y permanecerá en el controlador en el caso de un corte de corriente.

2. **CONFIGURE LOS HORARIOS DE INICIO DEL PROGRAMA**: Este controlador está programado para utilizar hasta cuatro horarios de inicio independientes por programa. Los horarios de inicio es la hora del día en el que comenzará el programa. Cada horario de inicio operará todas las zonas por su duración programada dentro de ese programa.
   - En la aplicación Rain Bird, agregue un horario de inicio del programa seleccionando el ícono ⊕.
   - Configure las zonas y duraciones de riego asociadas con el horario de inicio seleccionando el ícono ⊕.

AVISO

Los horarios de inicio aplican al programa completo, no a zonas individuales. Dependiendo de las necesidades del paisajismo, pueden asignarse varios horarios de inicio para ese programa. Una vez que se configura el horario de inicio, el controlador comienza el ciclo.

3. **CONFIGURE LOS DÍAS DE OPERACIÓN DEL PROGRAMA**: Los días de operación son los días específicos de la semana en que ocurre el riego.

   Configure la frecuencia de riego al seleccionar Impares (días de la semana), Pares (días de la semana), Personalizado o Cíclico (intervalos específicos).

AVISO

Los días de riego aplican a todo el programa, no a las zonas individuales.

4. **EL AJUSTE ESTACIONAL** cambia la duración de riego (como porcentaje) para todas las zonas asociadas con los horarios de operación en un programa individual. Esto puede ajustarse manualmente en la aplicación Rain Bird usando el deslizador en la configuración del programa.

AVISO

- El controlador debe estar conectado a WiFi para hacer ajustes automáticos.
- Un valor de ajuste del 100 % representa la irrigación durante el tiempo promedio más caluroso del año, así que si está experimentando un clima cálido en un día de verano, puede no ver un ajuste por encima del 100 %.

5. **RETARDO POR LLUVIA**: En la aplicación Rain Bird, apague manualmente el riego automático durante una cantidad fija de días cuando llueva, incluso sin un sensor de lluvia.
   - Suspenda el riego por hasta 14 días seleccionando el ícono en la configuración del controlador.
   - Deslice la barra hasta la cantidad de días deseados para retardar el riego automático.
   - Seleccione "Grabar" para guardar la configuración.

AVISO

La cantidad máxima de días para retardar el riego es 14. Después de la expiración de los días, se reanudará la irrigación automática de acuerdo con el horario programado.

Riego manual

EN EL CONTROLADOR

- Oprima el botón ▷ para iniciar el riego manual.
- Por defecto, cada zona operará durante 10 minutos; usted puede elegir mantener o cambiar la duración del riego en la aplicación Rain Bird.
- La luz LED parpadeante dará la indicación de la zona que esté activa.
- Oprima el botón ▶▶ para avanzar a la siguiente zona.
- Oprima el botón ⏻ para detener el riego manual en el controlador.

EN LA APLICACIÓN RAIN BIRD

- Seleccione el icono ♁ y seleccione preferencias de riego manuales para iniciar el riego manual.
- Oprima el botón ⏯ para avanzar a la siguiente zona.
- Oprima el botón ■ para detener el riego manual en el controlador.

Riego automático

EN EL CONTROLADOR

AVISO

Cuando opere en modo automático, cada programa operará de acuerdo con los horarios de inicio, así como los días y horarios de operación de cada zona en secuencia, hasta que se haya realizado todo el riego programado.

- Oprima ⟳ para iniciar el riego automático de acuerdo con los programas asignados.
- La luz LED parpadeante dará la indicación de la zona que esté activa.
- Oprima el botón ▶▶ para avanzar zonas.
- Oprima el botón ⏻ para detener el riego automático en el controlador.

EN LA APLICACIÓN RAIN BIRD

La aplicación Rain Bird ofrece un alternador para cambiar entre riego automático y apagado.

Soporte Técnico

Para obtener ayuda con la configuración u operación del Controlador Inteligente WiFi Rain Bird, por favor llame al número gratuito de Soporte Técnico de Rain Bird al: 1-800-RAIN BIRD (800-724-6247) o visite www.rainbird.com.

Para obtener más información, incluido el diagnóstico de problemas, escanee el código QR:

RAIN BIRD

FRANÇAIS | EN | ES | FR

Manuel d'utilisation du programmateur intelligent WiFi

Caractéristique	Description
Zones maximales	8
Programmes automatiques	3
Heures de début par programme	4
Jours d'arrosage sur-mesure	Oui
Contrôle de la vanne principale	Oui
Délai de pluie	Oui
Contrôle du capteur de pluie/gel	Oui
Ajustement saisonnier	Oui
Arrosage manuelle de zone	Oui
Programme d'arrosage manuel	Oui
Test manuel de toutes les zones	Oui
Avance de zone	Oui
WiFi intégré	Oui
Point d'accès AP	Oui

Installation

Si vous remplacez un programmateur existant

1. Prenez une photo des détails de câblage, qui seront utiles pour référence lors de l'installation du nouveau programmateur.
2. Débranchez le cordon d'alimentation de la prise secteur et déconnectez les fils du programmateur.

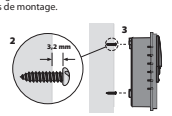
Monter le nouveau programmateur

1. À moins d'installer avec un câblage personnalisé, choisissez un emplacement de montage sur un mur à moins de 1,8 m d'une prise de courant alternatif et à au moins 4,5 m à l'écart de gros appareils électroménagers ou des climatiseurs.

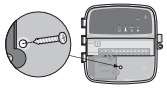
⚠ AVERTISSEMENT

Installez le programmateur avec la sortie du cordon d'alimentation vers le bas pour éviter l'infiltration d'eau.

2. Serrez une vis de montage dans le mur en laissant un espace de 3,2 mm entre la tête de la vis et la surface du mur (utilisez les chevilles fournies si nécessaire).
3. Localisez la fente en trou de serrure à l'arrière du programmateur et accrochez-la solidement sur la vis de montage.



4. Retirez le couvercle de la baie de câbles sur la partie inférieure du programmateur et vissez une deuxième vis à travers le trou ouvert et dans le mur (utilisez les chevilles fournies si nécessaire).



Connecter le câblage de la vanne

1. Une fois le couvercle de la baie de câbles retiré, acheminez tous les câbles terrestres à travers l'ouverture au bas du programmateur.

⚠ AVERTISSEMENT

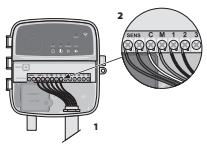
N'acheminez PAS les fils de vannes à travers la même ouverture que les fils.

2. Connectez un fil de chaque vanne à l'une des bornes de zone numérotées (1 à 8) sur le programmateur.

AVIS

NE connectez PAS plus d'une vanne à la même borne de zone (1 à 8).

3. Connectez un fil commun terrestre à la borne commune (C) du programmateur.
4. Pour le raccordement d'accessoires en option (capteur de pluie ou de pluie/gel, vanne principale, relais de démarrage de pompe), reportez-vous à la section appropriée de ce manuel.



Connecter le câblage personnalisé (en option)

⚠ AVERTISSEMENT

- Assurez-vous que l'alimentation CA est débranchée avant de remplacer le câblage.
- La barre anti-traction doit être refixée pour une utilisation sécuritaire et correcte.
- Lors de l'utilisation d'un câblage fixe à l'alimentation principale, l'installation doit intégrer un dispositif de déconnexion.
- NE mettez PAS sous tension tant que vous n'avez pas terminé et vérifié toutes les connexions de câblage.
- N'essayez PAS de relier deux programmateurs ou plus à l'aide d'un seul transformateur.

1. Si vous le souhaitez, le cordon d'alimentation fourni peut être retiré et remplacé par un câblage personnalisé.
2. Retirez le couvercle de la baie de câblage sur la partie inférieure du programmateur.
3. Repérez le boîtier du transformateur dans le coin gauche de la baie de câblage et dévissez le couvercle du compartiment de câblage.
4. Dévissez les serre-fils reliant le cordon d'alimentation CA et les fils du transformateur. Retirez les fils du cordon d'alimentation du boîtier du transformateur.
5. Retirez le cordon d'alimentation installé en usine en desserrant les deux vis fixant la barre métallique anti-traction.
6. Acheminez les trois fils d'une source d'alimentation externe dans le compartiment de câblage.
7. Connectez les câbles d'alimentation externe à l'aide des serre-fils, puis fixez à nouveau la barre anti-traction métallique en serrant les deux vis.

Connexions du câblage d'alimentation 120 VCA

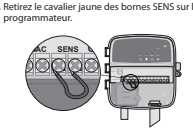
- Fil d'alimentation noir (phase) au fil noir du transformateur
- Fil d'alimentation blanc (neutre) au fil blanc du transformateur
- Fil d'alimentation vert (terre) au fil vert du transformateur

Connecter le capteur de pluie/gel (en option)

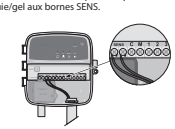
AVIS

- N'enlevez PAS le fil de raccordement à moins de connecter un capteur de pluie ou de pluie/gel. Le programmateur ne fonctionnera pas si le cavalier est retiré et qu'un capteur n'est pas connecté.
- Les programmateurs Rain Bird ne sont compatibles qu'avec les capteurs de pluie normalement fermés.
- Consultez les réglementations locales et/ou nationales pour déterminer si un capteur de pluie ou de pluie/gel est nécessaire.

1. Retirez le cavalier jaune des bornes SENS sur le programmateur.



2. Connectez les fils du capteur de pluie ou de pluie/gel aux bornes SENS.



3. Pour plus de détails sur l'installation et le fonctionnement du capteur de pluie ou de pluie/gel, reportez-vous aux instructions d'installation du fabricant du capteur.

Connecter la vanne principale (en option)

⚠ AVERTISSEMENT

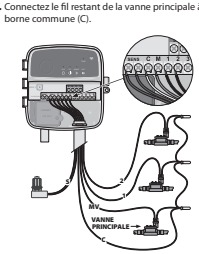
NE faites PAS passer les fils de la vanne principale par la même ouverture que les fils d'alimentation.

1. À l'aide d'un câble enterré direct, connectez l'un des fils de la vanne principale à la borne de la vanne principale (M).

AVIS

NE connectez PAS plus d'une vanne à la même borne de vanne principale (M).

2. Connectez le fil restant de la vanne principale à la borne commune (C).



Connecter le relais de démarrage de la pompe (en option)

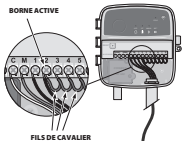
⚠ AVERTISSEMENT

N'acheminez PAS les fils du relais de démarrage de la pompe dans les mêmes ouvertures que les fils d'alimentation.

AVIS

- Un relais de démarrage de pompe se connecte au programmateur de la même manière qu'une vanne principale, mais se connecte différemment à la source d'eau.
- Ce programmateur NE fournit PAS d'alimentation pour une pompe. Un relais doit être câblé conformément aux instructions d'installation du fabricant de la pompe.

1. À l'aide d'un câble enterré direct, connectez l'un des fils de la vanne principale à la borne de la vanne principale (M).
2. Connectez l'autre fil du relais de démarrage de la pompe à la borne commune (C).
3. Pour éviter d'endommager la pompe dans le cas où des durées d'arrosage sont affectées à des zones inutilisées, connectez un fil de raccordement court de toutes les bornes de zone inutilisées à la borne de zone la plus proche en cours d'utilisation.



4. Pour plus de détails sur l'installation et le fonctionnement du relais de démarrage de la pompe, reportez-vous aux instructions d'installation du fabricant de la pompe.

Brancher l'alimentation

- Le programmateur est livré avec un cordon d'alimentation type de 1,8 m afin qu'il puisse être installé à l'intérieur ou à l'extérieur (s'il est branché sur une prise externe étanche).
- Le programmateur peut être branché directement à une source d'alimentation en retirant le cordon d'alimentation. Il possède un transformateur interne qui réduit la tension d'alimentation de 120 VCA à 24 VCA. Vous devrez raccorder les fils d'alimentation aux trois fils du transformateur (phase, neutre, terre). Reportez-vous à la section « Connexion du câblage personnalisé » pour les détails sur l'installation.

⚠ AVERTISSEMENT

- Un choc électrique peut entraîner des blessures graves ou la mort. Assurez-vous que l'alimentation est coupée avant de brancher les câbles d'alimentation.
- NE branchez PAS ou NE mettez PAS sous tension tant que vous n'avez pas terminé et vérifié toutes les connexions de câblage.
- Déconnectez ou coupez la source d'alimentation externe avant de brancher ou de débrancher les fils du programmateur.

Programmation

Ajouter un nouveau programmateur à l'application Rain Bird

1. Avant de monter un nouveau programmateur, vérifiez le signal WiFi à l'emplacement du programmateur.
   - Vérifiez que la force minimale du signal est de deux barres au niveau du programmateur.
   - Montez le programmateur plus près du routeur ou ajoutez-y un amplificateur de signal si nécessaire.
2. Téléchargez et lancez l'application Rain Bird.

Télécharger dans l'App Store | DISPONIBLE SUR Google Play

3. Sélectionnez « Ajouter un programmateur » pour lancer l'assistant de configuration.

Régler le jour et l'heure

- Lorsque le programmateur est connecté au WiFi, il règle automatiquement la date et l'heure en fonction des paramètres du réseau WiFi local. En cas de panne de courant, la date et l'heure seront par défaut les paramètres du réseau WiFi local.
- Si un réseau WiFi local n'est pas disponible lors de la configuration et que le programmateur est connecté à l'application Rain Bird en mode Point d'accès AP, le programmateur utilisera par défaut la date et l'heure des paramètres de l'appareil mobile.

Créer un calendrier d'arrosage

1. **AJOUTER PROGRAMME(S)** : Ce programmateur est réglé en utilisant jusqu'à trois programmes (A, B et C). Les programmes de base comprennent des instructions sur les jours d'arrosage, les heures de début, les jours et les durées d'arrosage.

AVIS

- La première fois que vous vous connectez au programmateur, l'application Rain Bird indique le programme par défaut assigné au programmateur. Avec votre appareil mobile, modifiez le programme par défaut ou sélectionnez + PGM pour ajouter un ou plusieurs nouveaux programmes.
- La programmation est stockée dans une mémoire non volatile et restera dans le programmateur en cas de panne de courant.

2. **RÉGLER LA OU LES HEURES DE DÉMARRAGE DU PROGRAMME** : Ce programmateur est réglé sur quatre heures de démarrage indépendantes maximum par programme. L'heure de début est l'heure de la journée à laquelle le programme commencera. Chaque heure de démarrage s'appliquera à chaque zone pendant sa durée programmée dans ce programme.
   - Dans l'application Rain Bird, ajoutez une heure de début de programme en sélectionnant l'icône ⊕.
   - Réglez la ou les zones et la ou les durées d'arrosage associées à l'heure de début en sélectionnant l'icône ⊕.

AVIS

Les heures de début s'appliquent à l'ensemble du programme, et non aux zones individuelles. Selon les besoins en aménagement paysager, plusieurs heures de début peuvent être assignées à ce programme. Une fois l'heure de démarrage réglée, le programmateur commence le cycle d'arrosage avec la première zone; les autres zones du programme suivent dans l'ordre.

3. **DÉFINIR LES JOURS D'ARROSAGE DU PROGRAMME** : les jours d'arrosage sont les jours spécifiques de la semaine où l'arrosage a lieu.

   Réglez la fréquence d'arrosage en sélectionnant Impair (jours de la semaine), Pair (jours de la semaine), Personnalisé ou Cyclique (intervalles spécifiques).

AVIS

Les jours d'arrosage s'appliquent à l'ensemble du programme, et non aux zones individuelles.

4. La fonction **AJUSTEMENT SAISONNIER** modifie la durée d'arrosage (en pourcentage) pour toutes les zones associées aux temps d'arrosage dans un programme individuel. Il est possible de l'ajuster manuellement dans l'application Rain Bird à l'aide du curseur dans les paramètres du programme.

AVIS

- Le programmateur doit être connecté au WiFi pour effectuer des ajustements automatiques.
- Une valeur d'ajustement de 100 % est représentative de l'irrigation pendant la période moyenne la plus chaude de l'année. Ainsi, même si vous connaissez un temps chaud un jour d'été, vous ne verrez peut-être pas un ajustement supérieur à 100 %.

5. **DÉLAI POUR PLUIE** : dans l'application Rain Bird, désactivez manuellement l'arrosage automatique pendant un nombre fixe de jours lorsqu'il pleut même sans capteur de pluie.
   - Suspendez l'arrosage jusqu'à 14 jours en sélectionnant l'icône dans les paramètres du programmateur.
   - Faites glisser la barre jusqu'au nombre de jours souhaité pour retarder l'arrosage automatique.
   - Sélectionnez « Enregistrer » pour mémoriser le réglage.

AVIS

Le nombre maximum de jours pour retarder l'arrosage est de 14. Une fois ces jours écoulés, l'arrosage automatique recommencera selon le calendrier programmé.

Arrosage manuel

SUR LE PROGRAMMATEUR

- Pour démarrer l'arrosage manuel, appuyez sur le bouton ▷.
- Par défaut, chaque zone fonctionnera pendant 10 minutes; vous pouvez choisir de conserver ou de modifier la durée d'arrosage dans l'application Rain Bird.
- La DEL clignotante indiquera quelle zone est active.
- Pour passer à la zone suivante, appuyez sur le bouton ▶▶.
- Pour arrêter l'arrosage manuel sur le programmateur, appuyez sur le bouton ⏻.

DANS L'APPLICATION RAIN BIRD

- Pour démarrer l'arrosage manuel, sélectionnez l'icône ♁ et sélectionnez les préférences d'arrosage manuel.
- Pour passer à la zone suivante, sélectionnez l'icône ⏯.
- Pour arrêter l'arrosage manuel dans l'application Rain Bird, sélectionnez l'icône ■.

Arrosage automatique

SUR LE PROGRAMMATEURR

AVIS

Lors du fonctionnement en mode automatique, chaque programme fonctionnera en fonction des heures de démarrage, des jours de fonctionnement et des heures de fonctionnement pour chaque zone dans l'ordre jusqu'à ce que tous les arrosages programmés aient eu lieu.

- Appuyez sur ⟳ pour démarrer l'arrosage automatique selon le ou les programme(s) établi(s).
- A DEL clignotante indiquera quelle zone est active.
- Pour passer à la zone suivante, appuyez sur le bouton ▶▶.
- Pour arrêter l'arrosage automatique sur le programmateur, appuyez sur le bouton ⏻.

DANS L'APPLICATION RAIN BIRD

L'application Rain Bird offre une bascule pour basculer entre l'arrosage automatique et l'état d'arrêt.

Soutien technique

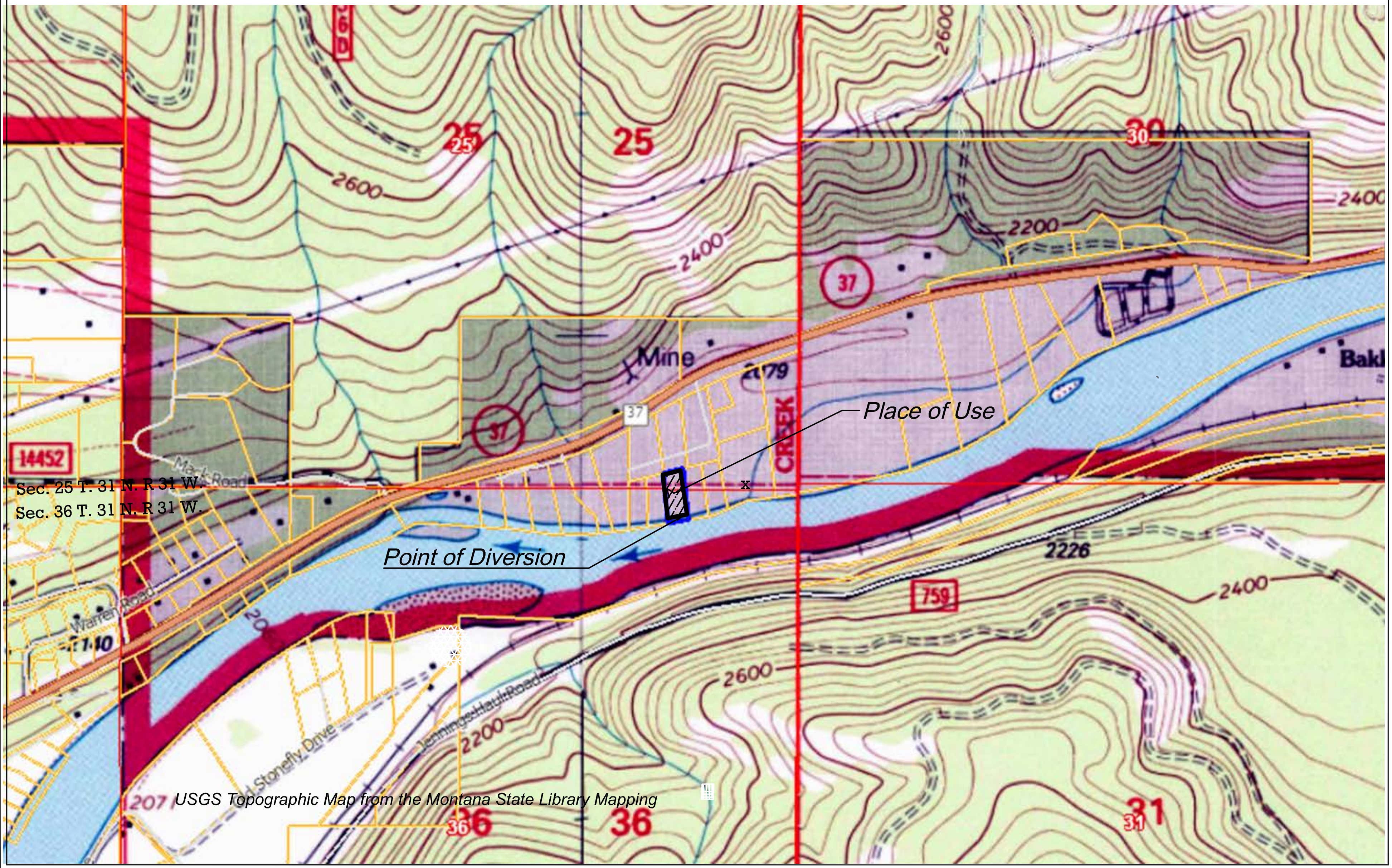
Pour obtenir de l'aide pour configurer ou utiliser le programmateur intelligent WiFi Rain Bird, veuillez appeler le soutien technique de Rain Bird au numéro de téléphone gratuit : 1-800-RAIN BIRD (800-724-6247) ou consulter le site www.rainbird.com.

Pour plus d'informations, y compris le dépannage, numérisez le code QR :

DNRC Form 600 Site Map

Lot 8 MBMI Subdivision Irrigation POD and POU Legal Location
DNRC Permit Form 600 Hafferman and Miner

NORTH



REVISIONS

DATE:	DESCRIPTION:	BY
10-23-2023	Legal Locations	KMH
11-23-2023	Legal Locations for 602 form	

DRAWN BY: KMH APPROVED BY: KH

LOT 8 MBMI SUBDIVISION IRRIGATION POD and POU

FOR

HAFFERMAN - MINER

SECTION 25 & 36 T31.N., R.31 W., P.M., M., LINCOLN COUNTY, MONTANA

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DRAWING TITLE:
LEGAL LOCATIONS
POD and POD
USGS Topographic Map

SCALE: AS SHOWN

DATE: May 10, 2025 PROJECT NO: H.112.01

DRAWING NUMBER: 1 OF 1

SITE PLAN MASTER.DWG