Water Quality Division
Montana Pollutant Discharge Elimination System (MPDES) ▪ Fact Sheet

Permittee: Yellowstone Mountain Club, LLC

Permit No.: MT0032051

Receiving Waters: Muddy Creek, Third Yellow Mule Creek

Facility Information
Name: Yellowstone Mountain Club Snowmaking
Contact: Rich Chandler, Environmental Manager

County: Madison

Fee Information
Major/Minor: Minor
Type: Private Minor
Number of Outfalls: 2 (for fee determination only)
001 – Domestic wastewater land application/runoff to Muddy Creek
002 - Domestic wastewater land application/runoff to Third Yellow Mule Creek

TABLE OF CONTENTS

1 BACKGROUND

This fact sheet identifies the principal facts, and significant factual, legal, methodological, and policy issues considered in preparing a draft permit as required by the Administrative Rules of Montana

Yellowstone Mountain Club (Permittee) is the owner and operator of the proposed Yellowstone Mountain Club Snowmaking (Facility), which is a reclaimed domestic wastewater reuse project.

1.1 Permit and Application Information

The application is for a new Montana Pollutant Discharge Elimination System (MPDES) and is assigned permit number MT0032051. The application is for a proposed discharge from a new source, as described below. DEQ received the initial application on April 27, 2020, and determined the application was complete on May 22, 2020.

1.2 Description of Facility and Discharges

A facility, activity, or outfall is any point source, including land or appurtenances thereto, that are subject to regulation under the MPDES program. The discharge of pollutants to state waters is limited to outfalls authorized in the Facility's discharge permit. Yellowstone Mountain Club LLC (Permittee) plans to use treated and disinfected reclaimed wastewater to make a basal snowpack on ski runs. The activity of making snow with reclaimed wastewater onto ski slopes does not require a MPDES permit. but an MPDES permit is needed if snowmelt carries pollutants introduced into the artificial snow from the reclaimed wastewater into adjacent surface waterbodies.

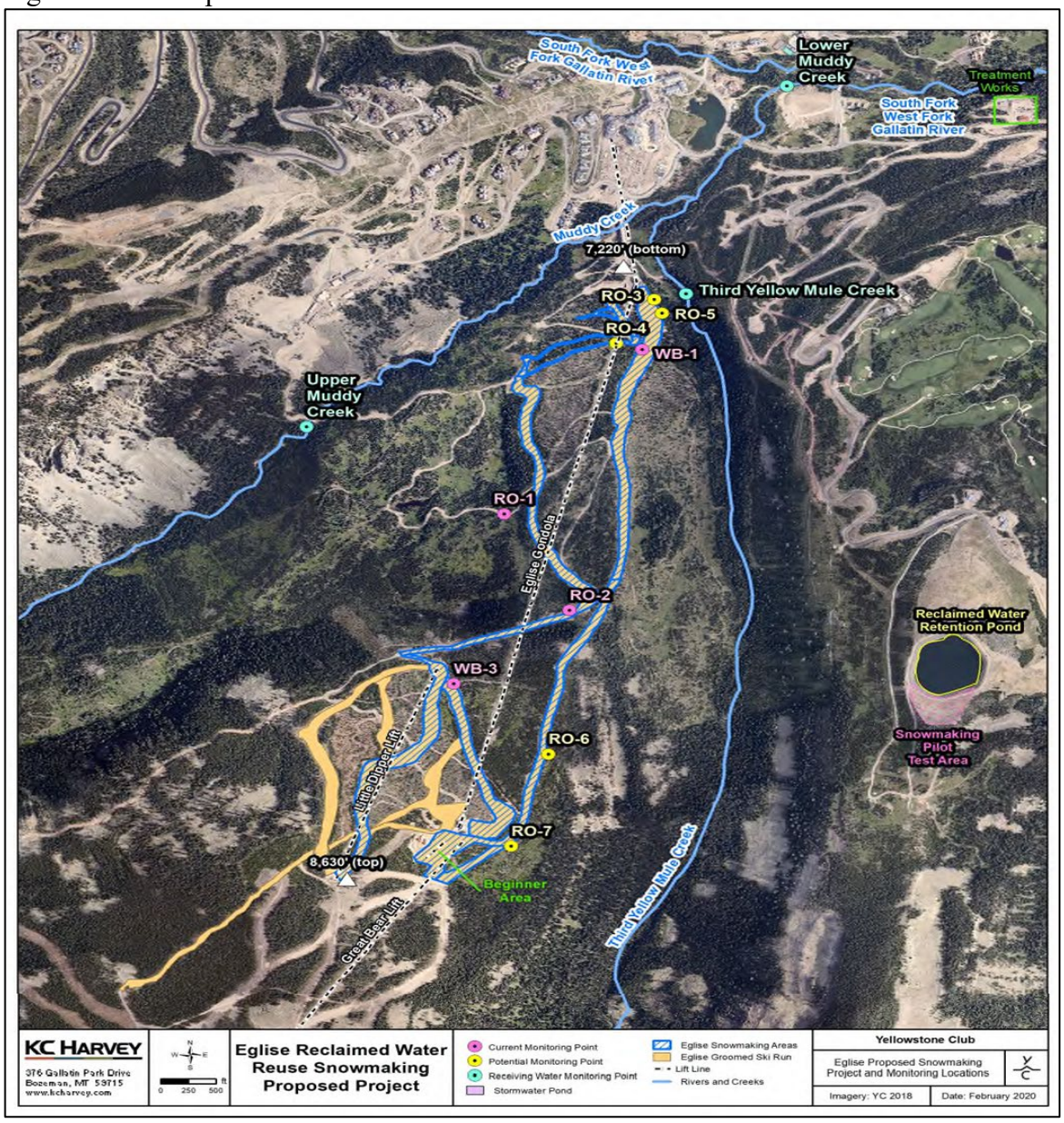
1.2.1 Description and Location of Facility

The Facility is not yet fully developed and constructed. All references to the Facility operations and location in this fact sheet are to the proposed Facility and location as described in the MPDES permit application.

The Permittee is a 15,200-acre private residential, ski, and golf community located near Big Sky, Montana. The Permittee manages the reuse of reclaimed (treated and disinfected) domestic wastewater generated by the Yellowstone Club municipal wastewater treatment plant, as well as a portion generated by the Big Sky community treated by the Big Sky County Water and Sewer District (BSCWSD). Treated wastewater is currently land applied at agronomic rates on the permittee's golf course during the growing season. To expand its capacity for reclaimed water reuse, the Permittee proposes to construct and operate a reclaimed water snowmaking campaign to add a basal snowpack for alpine skiing on Eglise Mountain, a ski expansion located on Yellowstone Club owned land and developed in 2016 for beginner and intermediate skiers. The proposed project will use existing infrastructure used for summer land application and add new pumping, piping, and snowmaking equipment for the winter discharge to make snow.

The Facility location is in Section 7 in Township 7S, Range 3E near Big Sky, Montana, in Madison County. Facility operations will be located within approximately 150 acres on Eglise Mountain, with snowmaking on approximately 55 acres of ski runs. Elevation ranges from 7,220 to 8,630 feet above sea level. The slopes where snowmaking will occur are generally north facing. A site map is shown in Figure 1 below.

Figure 1. Site Map



Wastewater Sources, Treatment and Controls

The existing 84 million gallon (MG) reclaimed water retention pond is located to the east of Eglise Mountain and holds reclaimed water from the BSCWSD and the YC treatment works. Reclaimed water from the BSCWSD is pumped uphill via a 7.5-mile-long force main to the YC retention pond and fills approximately 75% to 80% of the pond water volume.

The BSCWSD treats approximately 154.8 million gallons per year (MGY) in a biological nutrient removal plant to remove nitrogen and phosphorous, including filtration and disinfection. The reclaimed water is stored, applied to the local Big Sky golf course, or pumped to the YC or Spanish Peaks holding ponds when on-site storage capacity is limited. The YC treats its wastewater through a 2-Basin

Sequencing Batch Reactor (SBR) treatment system. The reclaimed water is then transported to the 84 MG retention pond for storage where it is mixed with reclaimed water from the BSCWSD and applied to the YC golf course as irrigation during summer months. The same wastewater sources and storage pond will comprise the source of wastewater for the proposed snowmaking project during the winter months. Snowmaking infrastructure will be designed and installed after final DEQ approval of the project. A pipe would carry water from the YC retention pond to Eglise Mountain, and then the water would be pumped up to the proposed project area. Snowmaking machines or snow guns (Techno Alpine TF10) would be used to make artificial snow on the slopes of the ski runs in the proposed Project area (Figure 1).

The Permittee is currently upgrading the capacity of the YC wastewater treatment system to accommodate the full build out of the development. The updates will improve flow and water quality of the system to account for a maximum of 0.25 million gallons per day (MGD) treatment volume. The Permittee is also in the design and permitting phase for installation of a second retention pond with a 40 MG capacity necessary to meet contractual agreements for future storage of BSCWSD treated wastewater. The BSCWSD is currently in the initial stages of upgrading the treatment level of their facility to accommodate an increased population and a higher treatment level to meet Circular DEQ-2 Design Standards for Public Sewage Systems Class A-1 to expand their reuse opportunities. These upgrades are expected to take place in 2022.

Treated wastewater from the YC treatment works is piped to the Permittee's 84 MG retention pond. The contribution from the YC treatment works is currently 7.3 MGY; however, this is expected to increase to approximately 18.3 MGY at full buildout. The BSCWSD pumps water from their reclaimed water holding ponds in the Big Sky Meadow up to the Permittee's retention pond when the demand is necessary on a variable basis. The BSCWSD current contribution to this pond is an estimated annual average of 60 MGY (estimated annual contribution over the last three years).

For snowmaking, treated wastewater from the retention pond will be piped gravity-feed to the bottom of Eglise Mountain and then pumped uphill to the snowmaking guns. The anticipated maximum amount of wastewater used for the entire snowmaking effort will be 25 million gallons. Snowmaking will take place over up to 45 days. Average discharge from the retention pond will therefore average about 0.56 MGD. The stated maximum design flow of the snowmaking system is "< 1,000,000 gallons per day", so wastewater flow will be between 0.56 MDG and 1 MGD when operations are running.

Most of the snowmaking guns will be mobile, however a few are expected to be stationary. In addition to advanced treatment provided by the two facilities contributing wastewater to the proposed snowmaking project, significant additional treatment and attenuation of pollutants present in the wastewater occurs during the snowmaking and accumulation process. Additional disinfection of the wastewater may be necessary before it is pumped to the snowmaking guns. See the water quality discussion of this fact sheet.

1.2.2 Discharge Points

While the initial discharge of wastewater to the environment will occur via the snowmaking guns, discharge to state waters will occur as snowmelt runoff each spring. Runoff will be diffuse and occur over a large area. The permit application identifies two outfalls. Outfall 001 is for runoff from snowmaking to ski runs on the Muddy Creek side of Eglise Mountain. Outfall 002 is for runoff that will drain to Third Yellow Mule Creek. Because the area where snowmaking will occur extends over a

mile in length, from the "bottom" of Eglise Mountain to the "top", the outfall locations listed in the table below show the approximate upstream and downstream points on each receiving water that will potentially receive runoff from Outfall 001 and Outfall 002.

Table 1 - Discharge Locations

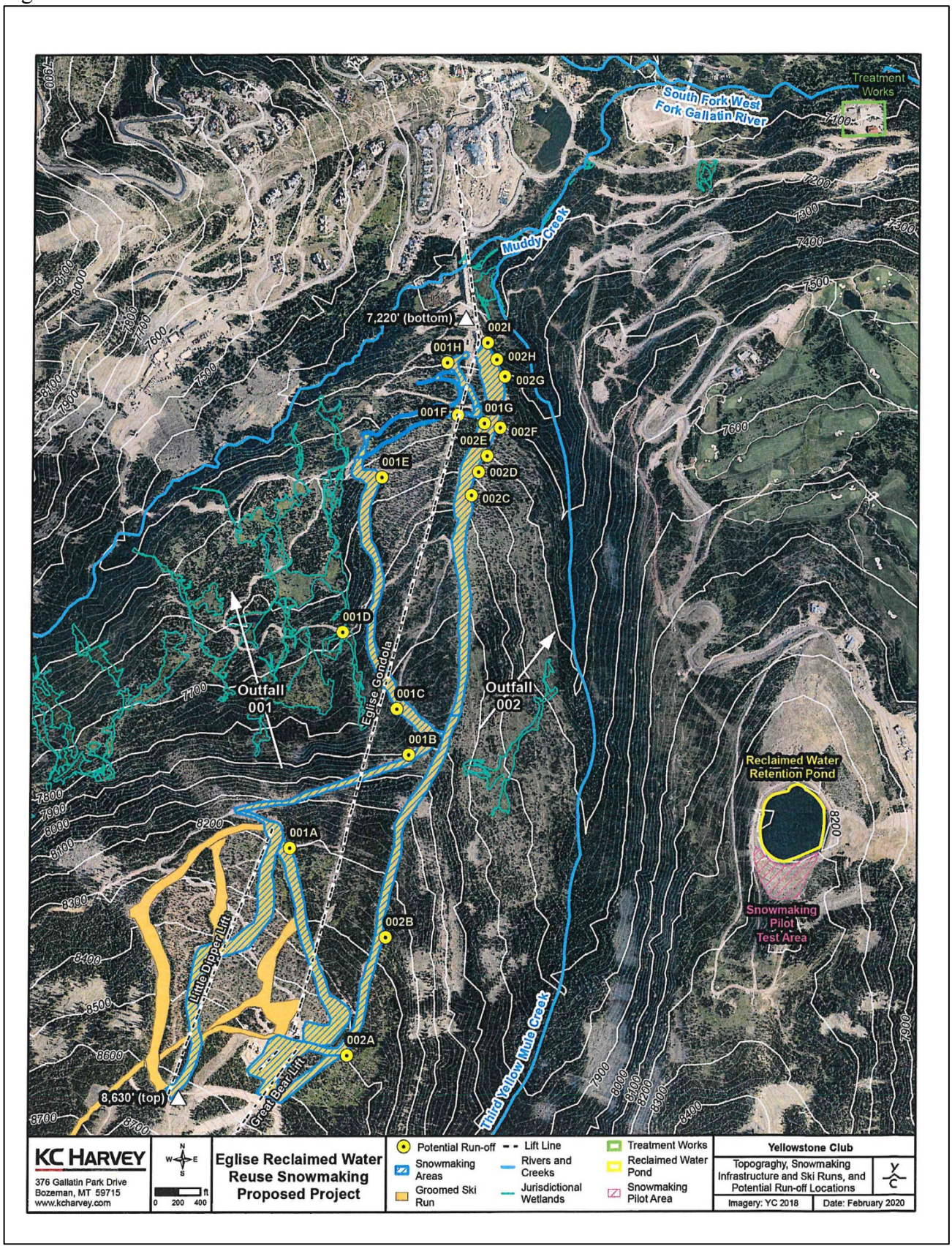
Outfall	Latitude	Longitude	Receiving Water	Receiving Water Classification
001 (Upstream)	45.228353° N	111.427480° W	Muddy Creek	B-1
001 (Downstream)	45.236963° N	111.413155° W		
002 (Upstream)	45.216218° N	111.410660° W	Third Yellow Mule Creek	B-1
002 (Downstream)	45.235912° N	111.410432° W		

The permit application identifies locations where runoff discharge from the ski runs may occur during spring snowmelt. These locations are identified as 001A – 001H on the Muddy Creek side of the mountain and 0002A – 002I on the Third Yellow Mule Creek side. While the discharge from melting snow will be diffuse and not funnel along discrete flow paths, the applicant identified several potential discharge locations. These points represent locations where representative samples could be collected during the April – June runoff period. Approximate locations are shown in Figure 2 below. Latitude and longitude coordinates are listed in Table 2.

Table 2 – Discharge Monitoring Locations

Outfall	Latitude	Longitude	Receiving Water
001-A	45.22349° N	111.4180° W	Muddy Creek
001-B	45.22549° N	111.4136° W	
001-C	45.22654° N	111.4142° W	
001-D	45.22840° N	111.4161° W	
001-E	45.23210° N	111.4148° W	
001-F	45.23368° N	111.4121° W	
001-G	45.23356° N	111.4113° W	
001-H	45.23496° N	111.4125° W	
002-A	45.21828° N	111.4158° W	Third Yellow Mule Creek
002-B	45.22103° N	111.4145° W	
002-C	45.23175° N	111.4117° W	
002-D	45.23231° N	111.4114° W	
002-E	45.23272° N	111.4107° W	
002-F	45.23339° N	111.4107° W	
002-G	45.23456° N	111.4106° W	
002-H	45.23501° N	111.4109° W	
002-I	45.23551° N	111.4112° W	

Figure 2. Outfall 001 and Outfall 002



1.2.3 Effluent Characteristics

Effluent characteristics for wastewater from the reclaimed water retention pond, reported on the permit application, are shown in Table 1 below. Sample results from snowmelt collected during a 2011 pilot study are used as estimates of effluent quality (snowmelt) from Outfalls 001 and 002. Retention pond data collected during the 2011 pilot study and during 2018 and 2019 winter sampling events are also shown for comparison.

Table 3 -Reclaimed Water Retention Pond/Snowmelt Conventional and Non-Conventional Pollutants Outfalls 001 and 002

Parameter	Units	Permit Application		No. Samples	Analytical Method	ML or MDL
		Maximum Daily	Average Daily			
Biochemical Oxygen Demand	mg/L	11	5.4	14	A5210B	3
Total Suspended Solids	mg/L	13	10.3	12	A2540D	10
E. coli [1]	MPN	< 1	< 1	9	A9223B	1
E. coli [2]	MPN	< 1	< 1	6	A9223B	1
E. coli [3]	CFU	2	< 1	10	E1603	1
Ammonia as N [1]	mg/L	0.15	0.11	9	E350.1	0.05
Ammonia as N [2]	mg/L	0.9	0.87	6	E350.1	0.05
Ammonia as N [3]	mg/L	11.2	7.1	14	E350.1	0.05
Temperature, winter	°C	2.9	1.2	15	--	--
Temperature, summer	°C	--	--	--	--	--
Ph, maximum	SU	8.6	--	--	--	--
pH, minimum	SU	7.4	--	--	--	--
Kjeldahl Nitrogen [1]	mg/L	1.2	0.86	9	E351.2	0.5
Kjeldahl Nitrogen [2]	mg/L	2.5	2.3	6	E351.2	0.5
Kjeldahl Nitrogen [3]	mg/L	15.7	9.0	14	E351.2	0.5
Nitrate+ Nitrite [1]	mg/L	0.17	0.08	9	E353.2	0.01
Nitrate + Nitrite [2]	mg/L	0.93	0.91	6	E353.2	0.01
Nitrate + Nitrite [3]	mg/L	1.36	0.86	14	E353.2	0.01
Total Nitrogen [1]	mg/L	1.37	0.94	9	Calc	--
Total Nitrogen [2]	mg/L	3.4	3.2	6	Calc	
Total Nitrogen [3]	mg/L	16.4	9.9	14	Calc	
Total Phosphorus [1]	mg/L	4.9	2.3	9	E365.1	0.005
Total Phosphorus [2]	mg/L	1.81	1.70	6	E365.1	0.005
Total Phosphorus [3]	mg/L	2.84	2.24	14	E365.1	0.005

Footnotes:
1. Snowmelt results from 2011 snowmaking pilot study
2. Retention pond results from 2011 snowmaking study
3. 2018 – 2019 winter retention pond results

2 EFFLUENT LIMITATIONS

The control of pollutants discharged is established through effluent limitations and other requirements. There are two principal bases for effluent limitations: technology-based effluent limitations (TBELs), which represent the minimum treatment requirements implemented in MPDES permits, and water quality-based effluent limitations (WQBELs) that attain and maintain applicable numeric and narrative water quality standards.

2.1 Technology-based Effluent Limitations

Section 402(a)(1) of the federal Clean Water Act (CWA), the federal regulations at 40 CFR 125.3(a), and Montana regulations at ARM 17.30.1207 require that permits contain TBELs that implement the technology-based treatment requirements specified in the CWA. These technology-based requirements may be national technology standards for existing sources or new sources established by EPA or, in some cases, standards established by the permit writer on a case-by-case basis using best professional judgement (BPJ). ARM 17.30.1203.

2.1.1 Scope and Authority

The Yellowstone Club Snowmaking Project is privately owned facility that will discharge wastewater (as manmade snow) after treatment from the Yellowstone Mountain Club LLC wastewater treatment facility and the publicly owned Big Sky County Water and Sewer District. EPA has not promulgated Effluent Limitations Guidelines (ELGs) or TBELs for private domestic wastewater treatment facilities. When EPA has not promulgated ELGs and TBELs for a discharger, DEQ must develop TBELs based on best professional judgment (BPJ).

The Montana Board of Environmental Review has adopted by reference 40 Code of Federal Regulations (CFR) 133, which defines minimum treatment requirements for secondary treatment for POTWs, known as National Secondary Treatment Standards (NSS). NSS are defined in terms of effluent quality as measured by 5-day Biochemical Oxygen Demand (BOD_5), Total Suspended Solids (TSS), percent removal of BOD_5 and TSS, and pH.

Because the facility proposes to discharge domestic wastewater from public and private wastewater treatment works, both of which treat domestic wastewater, DEQ will implement BPJ TBELs based on NSS.

2.1.2 Proposed Technology-based Effluent Limitations

To ensure the source water is of acceptable quality, both the YC treatment facility and the BSCWSD will be required, as applicable, to meet DEQ-2 treatment requirements for reuse of wastewater, which will be reviewed and approved by the DEQ Engineering Bureau as allowed by the Public Water Supplies, Distribution and Treatment Act and applicable administrative rules.

The source water for the snowmaking project is fully treated prior to introduction into the reclaimed water storage pond and will therefore not be required to meet the NSS requirements for percent removal of BOD_5 and TSS. Percent removal is a comparison of influent to effluent to ensure adequate treatment efficiency in POTWs with MPDES permits. The influent in this case is already treated and would lead to misleading percent removal calculations. Similarly, because there is not a direct

discharge to the receiving waters, load limits in lbs/day that are normally applied to POTW discharges, will not be required. Compliance with the following TBELs shall be monitored at a sampling port between the reclaimed water storage pond and the pumps that will deliver reclaimed water to the snowmaking guns. The exact location of the sampling port will be determined during DEQ-2 design review. Monitoring results shall be reported on Discharge Monitoring Report (DMR) SUM-A.

Table 4 - Technology-Based Effluent Limits for Outfall 001 and Outfall 002 (SUM-A)

Parameter	Units	Average Monthly Limit	Average Weekly Limit
Biochemical Oxygen Demand (BOD_5)	mg/L	30	45
Total Suspended Solids (TSS)	mg/L	30	45
pH	s.u.	Within the range of 6.0 and 9.0	

2.2 Water Quality-based Effluent Limitations

Permits must include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

2.2.1 Scope and Authority

The Montana Water Quality Act at 75-5-401(2), MCA states that a permit may only be issued if DEQ finds that the issuance or continuance of the permit will not result in pollution of any state waters. Montana water quality standards require that no wastes may be discharged such that the waste either alone or in combination with other wastes will violate or can reasonably be expected to violate any standard.

2.2.2 Applicable Water Quality Standards

Outfall 001 will discharge as snowmelt on the Muddy Creek side of Eglise Mountain. Outfall 002 will discharge as snowmelt on the Third Yellow Mule Creek side. The distance from the discharge monitoring locations shown in Table 2 to Muddy Creek range from approximately 300 feet to 2,500 feet. The receiving waters are in the Missouri Headwaters watershed, USGS Hydrological Unit Code (HUC) 10020008. Muddy Creek and Third Yellow Mule Creek merge just downstream of the proposed snowmaking area and flow into the South Fork West Fork Gallatin River (SFWFGR). The SFWFGR is identified as Montana Assessment Unit ID MT41H005_060. The designated water-use classification for the three receiving waters is B-1.

Table 5 - Water Use Classification and Beneficial Uses— Muddy Creek, Third Yellow Mule Creek, and South Fork West Fork Gallatin River

Classification	Beneficial Uses
Surface Waters B-1	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

The water quality standards for B-1 waters include both numeric and narrative standards that protect the beneficial uses set forth in the water use classifications. The specific standards for B-1 waters are given in ARM 17.30.623 and incorporate by reference Circular DEQ-7 which contains numeric water quality standards for protection of aquatic life and human health.

All state waters must be free from substances which will: (a) settle to form objectionable sludge deposits or emulsions beneath the surface of the water or upon adjoining shorelines; (b) create floating debris, scum, a visible oil film (or be present in concentrations at or in excess of 10 milligrams per liter) or globules of grease or other floating materials; (c) produce odors, colors or other conditions as to which create a nuisance or render undesirable tastes to fish flesh or make fish inedible; (d) create concentrations or combinations of materials which are toxic or harmful to human, animal, plant or aquatic life; and (e) create conditions which produce undesirable aquatic life. ARM 17.30.637(1).

For new sources, effluent limitations for numeric and narrative standards are modified by the criteria in ARM 17.30.715 which are based on the protection of existing water quality.

2.2.3 Impaired Waters

The Montana Water Quality Act requires DEQ to monitor state waters and to identify surface water bodies or segments of water bodies whose designated uses are threatened or impaired. DEQ must complete a TMDL for those water bodies that are identified as threatened or impaired.

Upon approval of the TMDL, the wasteload allocation (WLA) developed for a point source must be incorporated into the Facility's discharge permit. A WLA is defined as the portion of the receiving water's loading capacity that is allocated to one of its existing or future point sources.

Draft 2020 303(d) List

Neither of the initial receiving waters for the snowmaking project are listed as impaired on the 303(d) list. Protecting existing water quality in MC and TYMC will protect downstream waters and will not cause or contribute to any violation of downstream water quality standards. The SFWFGR is listed as impaired on the 2020 303(d) list as not fully supporting aquatic life or primary contact recreation uses for the following causes and sources.:

- Alteration in stream-side vegetative covers (aquatic life)
- Nitrate plus nitrite (aquatic life)
- Total phosphorus (aquatic life)
- Physical substrate habitat alterations (aquatic life)
    - Probable sources for all above are forest roads, site clearance (land development redevelopment), and silviculture activities.
- Cholorphyll-a (aquatic life, primary contact recreation)
    - Probable sources are onsite treatment systems (septic systems) and silviculture activities.

Approved TMDL

The West Fork Gallatin River TMDLs and Water Quality Improvement Plan was approved by EPA in 2010. This TMDL addressed nitrate plus nitrite and sediment in the SFWFGR and did not include a wasteload allocation for the proposed snowmaking project. Nitrate plus nitrite is a potential pollutant

in the proposed discharge. The permit will ensure that existing water quality in the primary receiving waters and the SFWFGR is protected.

2.2.4 Pollutants of Concern

WQBELs are assessed for pollutants of concern (POC) based on effluent characteristics and the water quality objectives for the affected receiving water(s). DEQ has identified the POCs listed below for purposes of assessing WQBELs. Included in this list is any pollutant that has an assigned wasteload allocation as part of a TMDL, exceeds a water quality standard or nondegradation criterion in the effluent, or is subject to a federal ELG.

Table 6 - Pollutants of Concern for WQBELs

Parameter	Basis for Identifying as a Pollutant of Concern for WQBELs
Outfall 001	
BOD TSS pH	Applicable ELGs/TBELs
Total Nitrogen Total Phosphorus Nitrate + Nitrite Ammonia Total Residual Chlorine Turbidity *E. coli*	Permit Application Review

2.2.5 Nondegradation Determination

The MWQA includes a nondegradation policy that applies to any new or increased activity which results in a change in existing water quality. The level of protection provided to the receiving water(s) conforms to three "tiers" of the federal antidegradation policy. These three levels of protection are as follows:

*Protection of Existing Uses (Tier 1)***:** Existing and anticipated (designated) uses of state waters and the level of water quality necessary to protect those uses must be maintained and protected. Tier I protection applies to all state waters including waters not designated as high quality. The effluent limitations applied to outfalls subject to this level of protection are derived from and comply with the state's numeric and narrative water quality standards and, therefore, ensure the level of water quality necessary to attain and maintain existing and anticipated uses are fully protected.

Protection of High Quality Waters (Tier 2): Unless authorized by DEQ (authorization to degrade) or exempted from review, the quality of high-quality waters must be maintained. This rule applies to any activity that may cause degradation of high quality waters, for any parameter, unless the changes in existing water quality are determined to be nonsignificant. High quality waters include all state surface waters except those not capable of supporting any one of the designated uses for their classification or that have zero flow or surface expression for more than 270 days during most years. Any water body

for which the receiving water pollutant concentration is less than the applicable water quality standard is considered high quality. This determination is made on a parameter by parameter basis and may include waters listed on the state's 303(d) list.

Protection of Outstanding Resource Waters (Tier 3): For outstanding resource waters, no degradation is allowed and no permanent change in the quality of outstanding resources waters resulting from a new or increased point source discharge is allowed.

A discharge that meets the nondegradation criteria is in compliance with Montana's nondegradation policy.

DETERMINATION – NEW OR INCREASED SOURCES

The Facility is a new source subject to review under the non-degradation rules. DEQ has made the following determinations with respect to the pollutants of concern in the proposed discharges:

Table 7 - New or Increased Source Determination

Outfall(s)	Receiving Water	Source Determination	Nondegradation - Level of Protection Required
001 and 002	Muddy Creek and Third Yellow Mule Creek	New	Tier 2

For the parameters of concern the discharges to Muddy Creek and Third Yellow Mule Creek must not cause changes in water quality that exceed the nonsignificance criteria of ARM 17.30.715. See Part 7 of this fact sheet.

2.2.6 Mixing Zones

The Permittee did not request a mixing zone. DEQ finds allowing dilution or granting a mixing zone is not appropriate. The discharges from Outfalls 001 and 002 are from snowmelt runoff over an extended area. Mixed vegetation (grasses, shrubs, trees) are present between all the ski runs where snowmaking will occur and the two receiving streams. Distances from the ski runs to the receiving streams range from approximately 300 to 2,500 feet. Discharges from the ski runs will be diffuse and diluted before reaching the receiving waters. Direct discharge of snowmelt runoff from the ski runs will not occur.

The permit will require monitoring in both receiving streams. Water quality at monitoring locations upstream and downstream of the snowmaking runoff areas will be compared to assess whether changes are occurring due to the discharges. Permit required monitoring data will also be compared to existing water quality as measured during field sampling by the permittee's consultants in 2018 and 2019. Ambient monitoring was conducted in Muddy Creek (MC-1) and Third Yellow Mule Creek (TYMC-1) near the lower (downstream) areas where snowmaking will occur on either side of Eglise Mountain. Data were also collected on Muddy Creek (MC-2) downstream, near the confluence with SFWFGR. Since snowmaking has not yet occurred, background snowmelt water quality data were also collected during the 2018 and 2019 field seasons. Representative data were collected at monitoring locations RO-1, RO-2 and WB-3 (Locations shown in Figure 1). This data will be compared to snowmelt data after snowmaking occurs. The 2018/2019 ambient receiving and snowmelt background water quality data are summarized in the tables below.

Table 8 - Receiving Water Characteristics – Third Yellow Mule Creek (TYMC-1)

Parameter	Units	Required Reporting Value (RRV) / Detection Limit	25th Percentile	75th Percentile	Mean	Number of Samples
Biochemical Oxygen Demand	mg/L	--	1.0	2.0	2.0	12
Total Suspended Solids	mg/L	10	< 10	< 10	20.75 [1]	12
E. coli	cfu/100 ml	1	< 1	1.25	1.5 [1]	8
pH	SU	0.1	8.1	8.3	8.0	7
Total Nitrogen	mg/L	0.3 / 0.5	< 0.3	< 0.5	< 0.37	12
Total Phosphorus	mg/L	0.003 / 0.005	0.008	0.013	0.022	12
Nitrate+ Nitrite	mg/L	0.01	< 0.01	0.03	0.02	12
Nitrogen, Total Kjeldahl	mg/L	0.3 / 0.5	< 0.5	< 0.5	< 0.5	12
Ammonia	mg/L	0.05	< 0.05	< 0.05	< 0.05	8
Turbidity	NTU	0.2	0.7	4.4	6.4	8
Temperature	°F	--	35.2	45.3	40.1	7
Chlorophyll - α	mg/m^3	1	< 1	< 1	< 1	4

Footnotes:
1. Most samples were below detection.

Table 9 - Receiving Water Characteristics – Muddy Creek Upstream (MC-1)

Parameter	Units	Required Reporting Value (RRV) / Detection Limit	25th Percentile	75th Percentile	Mean	Number of Samples
Biochemical Oxygen Demand	mg/L	--	1.0	2.25	2.5	12
Total Suspended Solids	mg/L	10	< 10	< 10	12.2 [1]	12
E. coli	cfu/100 ml	1	< 1	5.0	3.5	8
pH	SU	0.1	7.4	7.9	7.5	7
Total Nitrogen	mg/L	0.3 / 0.5	< 0.3	< 0.5	< 0.37	12
Total Phosphorus	mg/L	0.003 / 0.005	0.006	0.026	0.015	12
Nitrate+ Nitrite	mg/L	0.01	0.03	0.05	0.04	12
Nitrogen, Total Kjeldahl	mg/L	0.3 / 0.5	< 0.5	< 0.5	< 0.5	12
Ammonia	mg/L	0.05	< 0.05	< 0.05	< 0.05	8
Turbidity	NTU	0.2	0.7	4.4	5.2	8
Temperature	°F	--	33.71	42.3	37.8	7
Chlorophyll - α	mg/m^3	1	< 1	< 1	< 1	2

Footnotes:
1. Most samples were below detection.

Table 10 - Receiving Water Characteristics – Muddy Creek Downstream (MC-2)

Parameter	Units	Required Reporting Value (RRV) / Detection Limit	25th Percentile	75th Percentile	Mean	Number of Samples
Biochemical Oxygen Demand	mg/L	--	1.0	2.25	2.5	12
Total Suspended Solids	mg/L	10	< 10	< 10	12.2 [1]	12
E. coli	cfu/100 ml	1	< 1	5.0	3.5	8
pH	SU	0.1	7.4	7.9	7.5	7
Total Nitrogen	mg/L	0.3 / 0.5	< 0.3	< 0.5	< 0.37	12
Total Phosphorus	mg/L	0.003 / 0.005	0.006	0.026	0.015	12
Nitrate+ Nitrite	mg/L	0.01	0.03	0.05	0.04	12
Nitrogen, Total Kjeldahl	mg/L	0.3 / 0.5	< 0.5	< 0.5	< 0.5	12
Ammonia	mg/L	0.05	< 0.05	< 0.05	< 0.05	8
Turbidity	NTU	0.2	0.7	4.4	5.2	8
Temperature	°F	--	33.71	42.3	37.8	7
Chlorophyll - α	mg/m^3	1	< 1	< 1	< 1	2

Footnotes:
1. Most samples were below detection.

Table 11 – Background Snowmelt Runoff from RO-1, RO-2, and WB-3 (combined)

Parameter	Units	Required Reporting Value (RRV) / Detection Limit	25th Percentile	75th Percentile	Mean	Number of Samples
Biochemical Oxygen Demand	mg/L	--	1.0	2.0	2.0	21
Total Suspended Solids	mg/L	10	10	10	11	20
E. coli	cfu/100 ml	1	1	19	2	8
pH	SU	0.1	7.6	7.9	7.8	14
Total Nitrogen [1]	mg/L	0.3 / 0.5	0.3	0.4	0.4	22
Total Phosphorus	mg/L	0.003 / 0.005	0.016	0.027	0.023	22
Nitrate+ Nitrite	mg/L	0.01	0.01	0.05	0.03	22
Nitrogen, Total Kjeldahl	mg/L	0.3 / 0.5	0.5	0.5	0.5	22
Ammonia	mg/L	0.05	<0.05	<0.05	<0.05	19
Turbidity	NTU	0.2	4.1	6.7	7.4	19
Temperature	°F	--	3.3	9.0	6.9	14
Chlorophyll - α	mg/m^3	1	0.9	1	1	2

Footnotes:
1. 18 of 22 samples below detection limit.

2.2.7 Reasonable Potential Analysis (RPA)

No wastes may be discharged, either alone or in combination with other wastes, or activities, that will violate or can reasonably be expected to violate any of the standards. Limitations must be established in permits to control all pollutants or pollutant parameters that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion above any water quality standard. A "reasonable potential analysis" (RPA) is used to determine whether a discharge, alone or in combination with other sources of pollutants already present in the water body could lead to an excursion above a numeric or narrative water quality standard.

When determining the need for WQBELs for individual pollutants regulated by standards expressed in terms of concentration, DEQ primarily uses a mass-balance equation. The mass-balance equation is a steady state equation used to determine the concentration of a pollutant after accounting for other sources of pollution in the receiving water and any dilution provided by a mixing zone. The mass balance equation is an effective and simple model for estimating impacts from discharges that are directly into state waters from a traditional discharge pipe. The mass balance approach is not appropriate for this permit because the discharge to state waters occurs as snowmelt several months after the artificial snow is applied to the ski slopes and after natural snowfall has accumulated on the artificial snowpack. DEQ is therefore taking a qualitative approach to determining reasonable potential as discussed further below.

RPA DISCUSSION

In the absence of a mixing zone, reasonable potential is assessed based on achieving the nonsignificance criteria at the point of discharge to the receiving water.

ARM 17.30.715 describes the criteria for determining nonsignificant changes in water quality. The nonsignificance criteria for each POC is discussed in the following sections.

BOD, TSS, and pH

BOD and TSS lack numeric water quality criteria and the pH water quality standard is expressed as a range that must be maintained based on existing water quality. All three are regulated in the discharge permit by TBELs applied prior to discharge via the snowmaking guns. The TBELs are protective of existing water quality and beneficial uses of the receiving water bodies.

Total Residual Chlorine (TRC)

TRC standards are 0.011 mg/L and 0.019 mg/L for chronic and acute aquatic life respectively. Chlorine is a toxic parameter and the nonsignificance criteria requires that changes in existing water quality be no more than 15% of the lowest standard (0.002 mg/L). It is assumed the background concentration of chlorine in MC and TYMC is zero. The discharge concentration of TRC to each named receiving water must be less than 0.002 mg/L. This concentration of TRC is not measurable using approved methods and DEQ's policy for TRC monitoring allows any non-quantified TRC result of less than 0.1 mg/L to be considered in compliance the standard. The water quality standards for TRC will be applied to the discharge from the retention pond, prior to snowmaking. All TRC monitoring results must be less than the 0.1 mg/L detection limit.

E. coli

Water quality standards for *E. coli* are seasonal. During the snowmelt season (April through October) the standards require that the geometric mean number of *E. coli* may not exceed 126 colony forming units (cfu) per 100 milliliters and 10 percent of the total samples may not exceed 252 colony forming units per 100 milliliters during any 30-day period. The nonsignificance criteria for *E. coli* require that any change in existing water quality must be less than 10% of the standard, or 12.6 cfu. However, because of the potential for direct consumption of the artificial snow, the permit will require that *E. coli* concentrations meet limits based on the DEQ-2 Class A requirements for wastewater reuse combined with the nonsignificance criteria; 2.2 colony forming units (cfu) as a monthly geometric mean and 12.6 cfu as a daily maximum.

Turbidity

The water quality standard for turbidity allows a five nephelometric turbidity unit (NTU) change in existing water quality. The discharge will occur as part of the normal spring runoff snowmelt cycle and DEQ finds that no significant change in turbidity will occur because of the artificial snowmelt runoff.

Total Nitrogen

The discharge of snowmelt from the artificial snow will occur during the spring snowmelt/runoff period. The permit application states that on Eglise Mountain snowmelt generally begins about mid-April and all snow is historically melted by July 1st each year. DEQ Circular 12A includes numeric nutrient criteria for both Total Nitrogen and Total Phosphorus. These numeric water quality standards are applicable July 1st through September 30th annually. Yellowstone Club plans to make and apply snow during the winter months with all snow reported to melted by July 1st each year. DEQ finds the snowmelt will not discharge during the months that the numeric nutrient criteria apply and therefore the snowmelt does not have reasonable potential to cause or contribute to an exceedance of either the TN or TP numeric water quality standard.

The nonsignificance criteria for nutrients outside the July to September growing season requires that discharges may not cause a change in existing water quality that will have a measurable effect on existing or anticipated beneficial uses or cause a measurable change in aquatic life or ecological integrity. DEQ finds that the snowmelt run off will not cause a significant change in existing water quality, as discussed below.

The concentration of total nitrogen in the snowmaking source water reported in the permit application ranges between 3.2 mg/L and 9.9 mg/L on average (Table 3). As the two facilities upgrade and improve treatment, especially the Big Sky facility which will contribute most of the reclaimed water, these concentrations are expected to improve or be at the lower end of the reported range.

As described in the permit application, after snowmaking, total nitrogen concentrations in the artificial snow will be significantly reduced by dilution with natural snowpack and during snowpack storage and initial snowmelt. Further reduction will occur via a variety of natural processes, including the following:

- Plant and microbe nutrient uptake (assimilation)
- Soil infiltration
- Decomposition
- Nitrification/Denitrification
- Volatilization
- Wind distribution
- Additional dilution via snowmelt from accumulated snow between the ski slopes and the receiving waters and/or by rainfall

The applicant submitted a technical memorandum on March 1, 2021, to provide estimates of resulting nutrient concentrations in the snowmelt after the above processes have occurred. The memorandum used the higher 9.9 mg/L (rounded to 10 mg/L) average value shown above as the concentration of source water for snowmaking. Estimated TN concentrations after the above dilution and natural processes, and before entering the receiving water, will range from 0.05 to 0.15 mg/L. These concentrations are well below the numeric water quality standard that applies from July to September and will not cause an exceedance of the narrative nonsignificance criteria applicable during the March to June snowmelt period when any potential discharge will occur.

Based on the above discussion, the discharge does not have reasonable potential to exceed the water quality standards or nonsignificance criteria during the time when discharge could potentially occur. Nonetheless, the permit will require the permittee to develop a sampling plan to determine if TN concentrations increase in MC and/or TYMC. The sampling plan must include monitoring TN in the facility effluent prior to snowmaking discharge. The plan must also include at least one monitoring location, in both MC and TYMC, that is upstream of all potential snowmaking runoff, at least one monitoring location corresponding to the middle of each stream reach potentially affected by snowmaking runoff, as well as continued monitoring at the existing downstream locations submitted in the permit application (MC-1, MC-2, and TYMC-1). Effluent sampling must be conducted for TN monthly during snowmaking operations. Instream sampling must occur monthly at each location during the April to June runoff period and once in August during the period when numeric water quality standards and TMDL wasteload allocations for downstream waterbodies are in effect. Additionally, monitoring of Chlorophyll-a must be conducted at each monitoring location once during the April – June period and once in August. Monitoring results will be used to determine upstream to downstream trends in TN concentration and for comparison to pre-snowmaking data submitted with the permit application. In addition to the instream monitoring above, the permittee must sample the snowmelt runoff at the locations RO-1, RO-2, and WB-3, which approximately correspond to Outfall locations 001-H, 001-F, and 001-E respectively, for comparison to the background data submitted with the permit application. In addition to RO-1, RO-2, and WB-3, monitoring locations must be established to measure runoff quality for at least three locations corresponding to discharges from Outfall 002 on the TYMC side of Eglise Mountain.

Total Phosphorus

Total phosphorus (TP) is subject to the same water quality standards, nonsignificance criteria, and seasonal discharge as discussed for TN above.

The TP concentration in the snowmaking source water reported in the permit application ranges between 1.7 mg/L and 2.2 mg/L on average (Table 3). Unlike TN however, the concentration of TP in the snowmelt/runoff water increased during the 2011 snowmaking pilot study. The study report speculated that the increase was due to mobilization of soils containing TP during runoff. However, the baseline runoff data from monitoring location RO-1, RO-2 and WB-3 on the much larger vegetated landscape does not appear to support this conclusion. The 2011 pilot study monitored the snowmelt water concentrations outside of the growing season when the TP standards apply, and before any additional uptake by plants or soil infiltration over the a larger vegetated area. It is expected that given the large vegetative buffer between the ski slopes and the receiving waters TP concentration will be reduced further before any discharge to the receiving waters might occur.

Further, phosphorus in wastewater is in the form of a cation and is readily sorbed into the underlying soil and sediment matrix (Lal and Stewart, 1994). In areas where the topsoil is still in place, the upper portions of the soil matrix typically contain organics that provide for a high level capacity for cation exchange. This leads to sorption of positively charged ions such as phosphorus. The sorption of this nutrient results in a capacity to assimilate, as well as reuse in the form of plant uptake. In areas where topsoil is disturbed, the underlying matrix of sediment also provides for sorption capacity. This capacity exists in both the vadose zone and aquifer making the likelihood of underground phosphorus transport over long distances unlikely.

As with TN, there is not reasonable potential to exceed either the numeric water quality standard or the narrative standard that applies during the snowmelt season. The permit will require the addition of total phosphorus monitoring to the monitoring plan and schedule outlined in the total nitrogen discussion above.

Nitrate plus Nitrite

Nitrate plus nitrite is listed as a toxic parameter in Montana DEQ Circular-7. The nonsignificance criteria for toxics states that a change in existing water quality less than the trigger values in DEQ-7, or a change that is less than 15% of the lowest applicable standard is nonsignificant. Where a mixing zone is not applied the maximum allowable concentration (change) must be met at the point of discharge to the surface water. To assess incremental allowable changes in existing water quality DEQ uses the 25th percentile of the instream data as the existing water quality to be protected. The numeric water quality and nonsignificance criteria for nitrate plus nitrate are shown in the table below.

Table 12 Nitrate plus Nitrite Water Quality and Nonsignificance Criteria

Receiving Water	Units	Nitrate plus Nitrite Quality Standard	25th Percentile Ambient Concentration	Nondegradation Category	Nonsignificance Criterion [1]
Muddy Creek	mg/L	10	0.03	Toxic	1.53
Third Yellow Mule Creek	mg/L	10	0.01	Toxic	1.51

1. 25th percentile background concentration plus 15% of the lowest applicable water quality standard.

The nitrate plus nitrite concentrations in the snowmaking source water reported in the permit application ranges between 0.86 mg/L and 0.91 mg/L on average and the concentration in snowmelt during the 2011 pilot study was 0.08 mg/L (Table 3). All concentrations are below the nonsignificance criteria. Concentrations are expected to be reduced further as the snowmelt moves across the vegetated area between the ski slopes and the receiving water. The discharge does not have reasonable potential to exceed any of the criteria and effluent limits are not necessary. The permit will require monthly monitoring for nitrate plus nitrite in the effluent from the storage pond prior to discharge from the snowmaking guns.

Total Ammonia

Ammonia is listed as a toxic parameter in Montana DEQ Circular-7. The nonsignificance criteria for toxics states that a change in existing water quality less than the trigger values in DEQ-7, or a change that is less than 15% of the lowest applicable standard is nonsignificant. Where a mixing zone is not applied the maximum allowable concentration (change) must be met at the point of discharge to the surface water. To assess incremental allowable changes in existing water quality DEQ uses the 25th percentile of the instream data as the existing water quality to be protected.

Total ammonia water quality standards are calculated based on the pH and temperature of the receiving water. DEQ uses the 75th percentile of the ambient data for both pH and temperature to calculate ammonia criteria. The numeric water quality and nonsignificance criteria for nitrate plus nitrate are shown in the table below.

Table 13 Ammonia Water Quality and Nonsignificance Criteria

Receiving Water	Units	Temp	pH	Ammonia Standard Acute/Chronic	25th Percentile Ambient Concentration	Category	Nonsignificance Criterion [1]
Muddy Creek	mg/L	5.7 (2)	7.9	6.8 / 2.8	< 0.05	Toxic	0.47
Third Yellow Mule Creek	mg/L	7.4 (2)	8.33	3.2 / 1.5	< 0.05	Toxic	0.28

1. 25th percentile background concentration plus 15% of the lowest applicable water quality standard.
2. Degrees Celsius.

The total ammonia concentrations in the snowmaking source water reported in the permit application ranges between 0.87 mg/L and 7.1 mg/L on average and the concentration in snowmelt during the 2011 pilot study was 0.11 mg/L (Table 3). The 2011 pilot study showed an 87% reduction in total ammonia concentrations as a result of snowmaking and aging in the snowpack over winter. It did not consider additional reductions that will occur as the snowmelt flows from the ski slopes to the receiving water. An 87% reduction of the 7.1 mg/L average concentration (Table 3) observed in 2018 and 2019 is 0.9 mg/L of total ammonia where the snowmelt leaves the ski slopes. An additional study cited in the permit application (White et. al. 1997) indicates that up to 97.8% of total ammonia may be removed after snowmaking and by volatilization, nitrification, biological and abiotic nitrogen fixation, and plant/microbe nutrient uptake as the snowmelt moves across the vegetated terrain prior to reaching the receiving waters. The resulting concentration is approximately 0.16 mg/L. The discharge does not have reasonable potential to cause an exceedance of the water quality criteria. However, total ammonia, pH, and temperature, will be added to the monitoring plan described in the total nitrogen discussion.

Flow

The nonsignificance criteria require that a discharge may not cause a change in flow that would increase or decrease the mean monthly flow of a surface water by more than 15 percent or the seven-day ten-year low flow by more than 10 percent.

The discharge from artificial snowmelt will occur during the annual runoff and high flow period. Flows during this period are highly variable and depend on annual snowpack which is also highly variable. The additional snowmelt from the amount of artificial snow proposed by this project is not significant and would be difficult or impossible to measure because of the distance between the snowmaking ski slopes and the receiving water. The discharge is unlikely to cause a significant change in streamflow of the receiving waters as defined by ARM 17.30.715.

2.3 Final Effluent Limitations and Conditions

Final Effluent Limitations—Outfall 001 and 002

Table 14 – Final Effluent Limitations Outfall 001 and 002			
Parameter	**Units**	**Effluent Limitations**	
		Average Monthly	Average Weekly
pH	s.u.	6.0 to 9.0	
Total Suspended Solids	mg/L	30	45
5-day Biochemical Oxygen Demand	mg/L	30	45
E. coli	Number of organisms/mL	2.2 (1)	12.6 (3)
Total Residual Chlorine (2)	mg/L	0.011	0.019 (3)

Footnotes:
1. Geometric mean.
2. Analytical results less than 0.01 mg/L are considered in compliance with these effluent limits.
3. Daily Maximum

3 MONITORING AND REPORTING REQUIREMENTS

All test procedures must be approved under 40 CFR 136, unless another method is specified in the permit. Analytical methods must achieve the required reporting value (RRV) specified in the latest version of Department Circular DEQ-7. The RRVs specified in the following monitoring tables are included for convenience and are the RRVs at the time of permit development. RRVs are subject to change during water quality standards triennial review.

3.1 Monitoring Location

The authorization to discharge is limited to the following designated outfalls. The Permittee must monitor the effluent to demonstrate compliance with the effluent limitations and other requirements of this permit at the locations specified in the table below.

Table 15 – Outfall Monitoring Locations		
Outfall Designation	**Monitoring Location Designation**	**Monitoring Description**
001 and 002	SUM-A	Storage pond effluent, after all treatment processes and prior to routing to snowmaking guns.

3.2 Monitoring Determination

Monitoring requirements for the discharges and monitoring locations described in Section 3.1 are given in the following tables specific to each monitoring location and are incorporated into the discharge permit.

Total nitrogen in effluent is calculated as the sum of total Kjeldahl nitrogen and nitrite plus nitrate. Ambient samples may be measured via persulfate digestion.

3.3 Reporting Requirements

All monitoring results shall be electronically reported to DEQ on Discharge Monitoring Reports (DMR) via NetDMR. If no discharge occurs during an entire monthly monitoring period, then no discharge shall be reported.

Table 16 - Monitoring Requirements at Outfall SUM-A					
Parameter	**Units**	**Minimum Monitoring Frequency**	**Sample Type**	**Reporting Requirements**	**RRV**
Effluent Flow Rate	mgd	Continuous	Recording Device	Monthly Average and Daily Maximum	--
pH	s.u.	1/Week	Instantaneous	Monthly Average and Maximum Weekly Average	0.1
Total Suspended Solids	mg/L	1/Week	Composite	Monthly Average and Maximum Weekly Average	1
5-day Biochemical Oxygen Demand	mg/L	1/Week	Composite	Monthly Average and Maximum Weekly Average	10
E. Coli	Number of organisms /mL	1/Week	Grab	Monthly Geometric Mean and Daily Maximum	1
Total Residual Chlorine	mg/L	1/Week	Grab	Monthly Average and Daily Maximum	0.01
Temperature	° F	1/Month	Instantaneous	Monthly Average	--
Ammonia, as N	mg/L	1/Month	Composite	Monthly Average	0.07
Nitrate plus Nitrite, as N	mg/L	1/Month	Composite	Monthly Average	0.02
Total Nitrogen	mg/L	1/Week	Composite	Monthly Average and Daily Maximum	0.07
Total Phosphorus	mg/L	1/Week	Composite	Monthly Average and Daily Maximum	0.003

4 SPECIAL CONDITIONS

4.1 Instream and Surface Runoff Monitoring Plan

The permittee must develop and implement an instream and surface water runoff monitoring plan. The plan is necessary to ensure that the addition of runoff from artificial snowmaking does not create a significant impact, as defined by ARM 17.30.715, to Muddy Creek or Third Yellow Mule Creek and by extension, any downstream receiving waters.

The plan must be submitted to DEQ for approval at least thirty days prior to any discharge from the facility for snowmaking. The plan must at minimum include:

- Monitoring for total nitrogen, total phosphorus, pH, temperature, and total ammonia at all monitoring locations.
- At least one monitoring location, in both MC and TYMC, that is upstream of all potential snowmaking runoff.
- At least one monitoring location corresponding to the middle of each stream reach potentially affected by snowmaking runoff.
- Monitoring of snowmelt runoff at the locations RO-1, RO-2, and WB-3.
- In addition to RO-1, RO-2, and WB-3, monitoring locations must be established to measure runoff quality for at least three locations corresponding to discharges from Outfall 002 on the TYMC side of Eglise Mountain.
- Continued monitoring at the existing downstream locations submitted in the permit application (MC-1, MC-2, and TYMC-1).
- Effluent sampling must be conducted for all parameters listed above as required by the permit monitoring requirements during snowmaking operations. Effluent sampling results must be incorporated into the report for this monitoring plan.
- Instream and snowmelt sampling must occur monthly at each location during the April to June runoff period and at least once in August.
- Monitoring of Chlorophyll-a must be conducted at each monitoring location at least once during the April – June period and at least once in August.
- A proposed format for a written report summarizing all monitoring activities. The report must include latitude and longitude of each monitoring location, photographs of the monitoring locations, dates and times of sampling, sampling methods including collection of QA/QC samples, and all bench sheets and field notes. The report must include a comparison of all sampling results to the sampling results submitted with the permit application. Once the format is approved, the written report must be submitted to DEQ no later than December 31st of each year.

5 STANDARD CONDITIONS

Standard conditions must be included in all MPDES permits and the Permittee must comply with all standard conditions at all times. ARM 17.30.1342. These requirements are expressly incorporated into the permit. In addition to these requirements, ARM 17.30.1343 and 40 CFR 122.42 establishes additional conditions applicable to specific categories of MPDES permits including notification requirements for municipal and non-municipal dischargers

The additional requirements of ARM 17.30.1343(1)(a) are included in the permit. The requirement establishes additional notification requirements for toxic pollutants that exceed a specified level, exceed the level given in the Facility's permit application or are not regulated in the permit.

6 PUBLIC PARTICIPATION

In accordance with ARM 17.30.1372, DEQ issued Public Notice No. MT-21-07 dated March 22, 2021. The public notice states that a tentative decision has been made to issue an MPDES permit for Yellowstone Club LLC, and that a draft permit, fact sheet and draft environmental assessment have been prepared. Public comments on the draft MPDES permit and EA impacts related to the permit are invited any time prior to the close of business April 21, 2021. Comments may be directed to:

DEQ Water Quality Division
Water Protection Bureau
PO Box 200901
Helena, MT 59620

or DEQWPBPublicNotices@mt.gov

All comments received or postmarked prior to the close of the public comment period will be considered in the formulation of the final permit. DEQ will respond to all substantive comments and issue a final decision as soon as possible after the close of the public comment period.

All persons, including Permittees, who believe any condition of a draft permit is inappropriate or that DEQ's tentative decision to deny an application, terminate a permit, or prepare a draft permit is inappropriate, shall raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period (including any public hearing) under ARM 17.30.1372.

6.1 Notification of Interested Parties

Copies of the public notice were mailed to the Discharger, state and federal agencies and interested persons who have expressed an interest in being notified of permit actions. A copy of the distribution list is available in the administrative record for this permit. In addition to mailing the public notice, a copy of the notice and applicable draft permit and fact sheet were posted on the DEQ website for 30 days.

Any person interested in being placed on the mailing list for information regarding this MPDES Permit should contact DEQ, reference this Facility, and provide a name, address, and phone number.

6.2 Public Hearing Written Comments

A public hearing may be held when if there is significant public interest. DEQ has not scheduled a public hearing for this permit action. If a public hearing is requested by the permittee or a significant number of interested persons, one may be scheduled. A public hearing is an opportunity for interested parties to submit comments in person. Public comments received at a public hearing are recorded by a

court recorder and are processed in the same manner and at the same time as written comments described in the public notice description in Section 6 above.

6.3 Permit Appeal

After the close of the public comment period DEQ will issue a final permit decision. A final permit decision means a final decision to issue, deny, modify, revoke and reissue, or terminate a permit. A permit decision is effective 30 days after the date of issuance unless a later date is specified in the decision, a stay is granted pursuant to ARM 17.30.1379, or the Permittee files an appeal pursuant to 75-5-403, MCA.

The Permittee may file an appeal within 30 days of DEQ's action to the following address:

Secretary, Board of Environmental Review
Department of Environmental Quality
1520 East Sixth Avenue
PO Box 200901
Helena, Montana 59620-0901

7 NONSIGNIFICANCE DETERMINATION

The Montana Water Quality Act states that it is unlawful to cause degradation of state waters without an authorization issued pursuant to 75-5-303, MCA [75-5-605(1)(d), MCA]. ARM 17.30.706(2) states that DEQ will determine whether a proposed activity may cause degradation for all activities which are permitted, approved, licensed, or otherwise authorized by DEQ, such as issuance of a discharge permit. A nondegradation analysis was conducted in Section 2 of this permit fact sheet for the proposed discharges and activities regulated by this permit. Based on this analysis DEQ has made the following determinations:

The discharges from the Facility are a new source. DEQ conducted the reasonable potential analysis, set the effluent limits and monitoring requirements, and established special conditions in the permit to comply with the nonsignificance criteria of ARM 17.30.715(1). DEQ reviewed the additional criteria in ARM 17.30.715(2) and at this time finds that cumulative impacts or synergistic effects are unlikely because the effluent limitations and monitoring requirements will ensure protection of water quality. Discharges in compliance with ARM 17.30.715(1) and (2) are nonsignificant and are not required to undergo review under Montana's Nondegradation Policy (75-5-303, MCA). If monitoring indicates changes in water quality are occurring, more stringent effluent limitations or treatment requirements may be implemented in future permits before the snowmaking discharge may continue.