Response to Comments
Yellowstone Mountain Club, LLC
MPDES Permit MT0032051

On March 22, 2021, the Montana Department of Environmental Quality (DEQ) issued Public Notice MT-21-07, stating DEQ's intent to issue a Montana Pollutant Discharge Elimination System (MPDES) permit to Yellowstone Mountain Club, LLC, for discharges from the Yellowstone Mountain Club Snowmaking on Eglise Mountain. On March 26, 2021, the public comment period was extended and required that all substantive comments be received or postmarked by May 5, 2021, in order to be considered in formulation of the final determination and issuance of the permit.

This Response to Comments document includes a summary of all significant comments on the draft permit and fact sheet received during the public comment period and DEQ's responses to those comments. The Response to Comments document is an addendum to and supersedes relevant portions of the Fact Sheet to the extent specific clarifications or changes are described herein.

The table below identifies those individuals who submitted comments.

Persons Submitting Significant Comments on the Fact Sheet and Draft MPDES Permit MT0032051	
Number	**Commenter**
1	Rich Chandler, Yellowstone Mountain Club, LLC
2	Scott Bosse, American Rivers
3	Jon Olsen, Lone Mountain Land Club, Spanish Peaks Resort
4	David Tucker, Gallatin River Task Force
5	Mike Richter and Jodi Moravec-Butash
6	Ron Edwards, Big Sky County Water & Sewer District
7	Charles Wolf Drimal, Greater Yellowstone Coalition
8	Taylor Middleton, Big Sky Resort
9	Andrea Wass, Association of Gallatin Agricultural Irrigators

Persons Submitting Significant Comments on the Fact Sheet and Draft MPDES Permit MT0032051	
Number	**Commenter**
10	Patrick Byorth, Trout Unlimited
11	John Meyer, Cottonwood Environmental Law Center
12	Clint Nagel, Gallatin Wildlife Association
13	Joe Gutkoski, Montana Rivers

Responses to Comments on the Fact Sheet and Draft MPDES Permit MT0032051

Commenter 1. Rich Chandler, Yellowstone Mountain Club, LLC

Comment 1: Total Residual Chlorine
YC proposes an alternative compliance monitoring location for total residual chlorine.
The YC respectfully requests that the DEQ consider moving the point of compliance for Total Residual Chlorine (TRC) from a location prior to the snowmaking process to a location after the snowmaking process (i.e., in the actual artificial snow).

TRC is a water quality-based pollutant of concern, as indicated in Table 6 of the Fact Sheet (Page 13), rather than a technology-based effluent limit (TBEL), such as biochemical oxygen demand (BOD5) or total suspended solids (TSS), or a parameter regulated in Circular DEQ-2 (DEQ-2) Design Standards for Public Sewage Systems (2018), such as *E. Coli*. DEQ has acknowledged that the processes of snowmaking, snow storage, and snowmelt provide further treatment of the treated wastewater used to make artificial snow which was shown in the results of our snow pilot study and the scientific literature review presented in the YC's permit application report. DEQ states on page 5 of the Fact Sheet, "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." Similar scientific rational are made throughout the reasonable potential analysis (RPA) discussion section from pages 19 to 23. In addition, DEQ states on Page 5 of the Fact Sheet, "Additional disinfection of the wastewater may be necessary before it is pumped to the snowmaking gun." The YC agrees that additional disinfection may be required with respect to *E. coli* prior to snowmaking; therefore, we request that TRC be monitored for regulatory compliance after snowmaking, where TRC can be further treated through the snowmaking process as allowed for a water quality-based pollutant. Typically, water quality-based effluent limits are applied in the pipeline that discharges effluent directly into to a waterbody. In the case of snowmaking, there are several additional treatment

actions that occur during the snowmaking process which the DEQ and the YC agree upon as cited above. The YC believes there is conflicting guidance for disinfection treatment between the regulations that apply to reclaimed water snowmaking set forth in DEQ-2 and the effluent compliance monitoring location established in the MPDES Draft Permit. For example, in DEQ-2 regulation, disinfection of treated water is demonstrated by meeting a specific Reclaimed Wastewater Classification (i.e., Class A-1, A, B-1, B…) defined by meeting a numeric *E. Coli* concentration (among numeric criteria for other parameters) and a monitoring requirement for TRC. There is also an instream surface water quality criterion for TRC established in Circular DEQ-7 (DEQ-7) Montana Numeric Water Quality Standards (2019) which was applied in the draft permit by meeting compliance in the pipeline from the treated water retention pond to the snowmaking guns. However, applying the disinfectant (TRC) compliance effluent limit applicable to surface water quality criteria at a monitoring point where disinfection is required is conflicting between the two regulations. The rational is presented in the Fact Sheet for applying TBELs and the DEQ-2 regulated parameter *E. Coli* at this location but not TRC. The Draft Permit compliance monitoring point represents the treated wastewater held in a storage pond where disinfection is required by DEQ-2 to be able to make artificial snow and in order to lower the potential *E. Coli* bacteria in the treated wastewater. The retention pond is an open water pond which could also provide habitat for waterfowl throughout the year; therefore, the YC acknowledges that further disinfection with chlorine of the treated wastewater stored in the retention pond may be necessary. The YC proposes that the TRC compliance monitoring point be moved to the artificially made fresh snow from the snowmaking guns in order to meet both the DEQ-2 and DEQ-7 requirements. The attenuation of chlorine in the environment is well studied and documented for accidental spills and chlorine drinking water treatments; however, there appears to be no studies documented in the scientific literature for the exact fate and transport of chlorine during and after snowmaking processes. Similar fate and transport mechanisms as shown in the literature for other situations can be assumed for TRC in the snowmaking process. The toxicity review for chlorine completed by the Agency for Toxic Substances and Disease Registry (ATSDR 2010) summarizes the typical fate and transport of chlorine in water, air, and soil via scientific study. The ATSDR summarizes chlorine's fate in air: "The primary removal mechanism for chlorine in air is direct photolysis (EPA 1993; Graedel 1978; Graedel et al. 1986)…The mean atmospheric lifetime of chlorine has been reported as 440 seconds …(Graedel 1978)." "Chlorine undergoes direct photolysis in the air and its half-life in the troposphere is on the order of several minutes." "Chlorine is too reactive to be bioavailable from soil, water, or other environmental media. Chlorine is not expected to bioaccumulate in plants or animals since it reacts with the moist tissues of living systems (Compton 1987; Schreuder and Brewer 2001; Schmittinger et al. 2006)." In summary, chlorine may be required for additional disinfection of reclaimed water stored in the YC retention pond due to residual levels of *E. coli* and additional inputs of *E. coli* from waterfowl. Addition of chlorine immediately prior to the compliance monitoring port will undoubtably result in non-compliance for TRC. It is well known that TRC will undergo environmental fate mechanisms in the air and in the snowpack during and after snowmaking significantly reducing the concentration of the TRC in the artificial snow. YC proposes compliance with the TRC effluent limit be judged in melted samples of artificial snow immediately following snowmaking. We are proposing the

same monitoring frequency as currently presented in the Draft Permit in Table 2 of one sample per week; however, the YC is recommending a composite sample of freshly made artificial snow collected at three or more different snowmaking guns, combined to form one sample for laboratory analysis of TRC (required reporting limit (RRV) of 0.1 mg/L). References: Agency for Toxic Substances and Disease Registry (ATSDR). 2010. Toxicological Profile for Chlorine. U.S. Department of Health and Human Services, Public Health Service.

Response: DEQ agrees to change the TRC monitoring location. The monitoring location and compliance point for TRC is changed to allow sample collection in the artificial snow immediately after discharge from the snowmaking guns. Samples must be collected so that artificial snow is collected without mixing with any natural snow that may be present. Grab samples collected from different snowmaking guns on the same day may be used to form one sample for TRC analysis.

The following text is added to Part I.C.1.a of the permit:

> *Sampling and monitoring for compliance with the total residual chlorine limits shall consist of a composite of grab samples from freshly made artificial snow collected at three or more snowmaking guns on the same day. Samples must be collected so that artificial snow is not mixed with natural snow.*

Comment 2: The YC proposes to modify surface water monitoring locations and requirements based on actual site conditions.
See Draft Permit, Page 6, Section D.1 (b, c, d) and Fact Sheet, Page 27, Section 4.1
The distances from the upper ski runs where snow will be made on Eglise Mountain and the streams are roughly 1,600 feet to Third Yellow Mule Creek and 2,500 feet to Muddy Creek. The area between the ski runs and the creeks are vast areas of native and undisturbed vegetation. DEQ concurs on page 14 of the Fact Sheet, "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…. 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 YC respectfully requests to modify specific conditions of the surface water monitoring requirements based on site conditions and typical stream and climate characteristics of the surrounding mountainous area. Both the Muddy Creek and Third Yellow Mule Creek drainages are lined by steep terrain in the upper reaches above the currently established receiving water sample points (please reference Figure 1). There are no roads or trails to access the upper reaches of Muddy Creek above the MC-1 sample location established during the 2018 and 2019 baseline monitoring program. In Third Yellow Mule Creek, there is a newer access road slightly upgradient to the TYMC-1 sample location established during he 2018 and 2019 monitoring program. Downed trees line the drainages with steep banks on either side of both streams. Snow typically melts later in the season in these drainages compared to on the mountain slopes above due to snow accumulation (depth) and limited sunlight exposure in these narrow drainages. In addition, high water flow

conditions for these streams are typically from April to June as indicated in the flow data collected in the 2018 and 2019 baseline monitoring study (see Table 1 below). Accessibility by vehicle or UTV to these upper reaches is nonexistent, and hiking would prove to be arduous and hazardous considering the terrain, steep banks, downed trees, and remaining snow coverage during the high flow period. These conditions are outside of typical safety standards for the environmental industry. MC-1 is located on upper Muddy Creek and ~2,300 feet southwest and updrainage from the nearest ski run where artificial snow will be made; in addition, the terrain on Eglise Mountain slopes due north. The distance from the upper Eglise ski runs to MC-1 equates to 3,000 feet of vegetation buffer between the nearest upper ski run with artificial snow. All snowmelt from the artificial reclaimed water snowmaking operations on the Muddy Creek side of Eglise that does not directly infiltrate into the vegetation on the ski run will be captured in previously constructed water bars and roadside ditches that transport the flow to the north through the vegetation buffer (please refer to Figure 2) and to newly installed sediment catchments in lower Eglise. MC-1 is accessible via a road from the YC's equipment yard that leads down to upper Muddy Creek. MC-1 has been located upgradient to the bridge on this access road and is the most upgradient location accessible in this drainage and above all disturbance in the drainage. Depending on snow conditions in the spring, this road is not accessible via vehicle and has to be hiked to obtain access to MC-1.

TYMC-1 is accessed via a spur road from the main Eglise Mountain access road. TYMC-1 is located upgradient to the bridge on this road that crosses Third Yellow Mule Creek. A newly established access road has been established just upgradient to this point. It may be possible to hike slightly further upgradient of this road in late spring (potentially for the May June, and August monitoring events). This would be the most upgradient point potentially accessible on the Third Yellow Mule Creek side of Eglise (Figure 1). Downgradient to this bridge, Third Yellow Mule Creek begins to braid and separate into several smaller flow paths and wetland areas prior to flowing into Muddy Creek before it merges with the South Fork of the West Fork Gallatin River. Potential disturbances upgradient to the newer access road were researched. The headwater of Third Yellow Mule Creek is located on United States Forest Service (USFS) lands. There are no visual land disturbances observed on recent (7/2020) aerial imagery. In addition, the USFS geospatial database was searched for any active livestock grazing leases (or grazing allotments) (i.e., spatial data downloaded, and the area searched in ArcMap; https://data.fs.usda.gov/geodata/edw/datasets.php). There were no active grazing allotments found within the Third Yellow Mule Creek drainage or the Muddy Creek drainage. Personal communication with the Bozeman Ranger District for the Custer National Forest District indicated there are no grazing leases in the Big Sky area.

Based on the above details of the site conditions, terrain, snowpack, climate in the mountainous area surrounding Eglise Mountain; the baseline study data; and that no livestock grazing leases or other disturbances exist upgradient to the defined outfalls, the YC respectfully requests the DEQ modify the monitoring locations required in the Special Conditions section of the Draft Permit and Fact Sheet, as follows:
Muddy Creek:

• Due to the narrow drainage, terrain, steep slopes, spring snowpack, high flow, snowmelt flow patterns on Eglise, and inaccessibility, MC-1 represents the upgradient monitoring point on Muddy Creek, satisfying item b of the Special Conditions for Muddy Creek.
• A monitoring point representing the "middle" of the reach to be established along Muddy Creek prior to confluence with Third Yellow Mule Creek satisfying item c in the Special Conditions.
• MC-2 remains to be the downgradient monitoring point as defined in item d of the Special Conditions.
Third Yellow Mule Creek:
• Due to the narrow drainage, terrain, steep slopes, spring snowpack, high flow, distance from Watson's Revenge to the creek, and inaccessibility, the upgradient monitoring location requirement for Third Yellow Mule Creek be a monitoring point to be established upgradient to TYMC-1 and sampled when site conditions allowed in the April to June and August monitoring periods. The approximate location is shown on Figures 1 and 2 (TYMC-A) and represents potentially the most upgradient monitoring location accessible. TYMC-A would satisfy item b in the Special Conditions.
• Propose TYMC-1 represent the middle monitoring point in the reach satisfying item c in the Special Conditions.
• MC-2 remains to be the downgradient monitoring point as defined in item d of the Special Conditions.

Response: DEQ agrees with the comment in part. Most of the comment addresses the establishment of specific monitoring locations. The approval of such locations is better addressed during DEQ's review and approval of the permit required instream and surface water monitoring plan. To address the commenter's concerns, DEQ made the following changes to Part I.D. Special Conditions, in the final permit:

> *1.b. "At least one monitoring location on both Muddy Creek (MC) and Third Yellow Mule Creek (TYMC) that is upstream of all potential snowmaking runoff. Where site conditions prevent safe access to upstream locations, the monitoring locations may be located as far upstream as is reasonably achievable. Site locations will be subject to review as part of DEQ's approval of the surface water/snowmelt runoff monitoring plan. At least one sampling event must occur at each upstream location prior to the first discharge of artificial snow to the ski runs." The results of the pre-discharge samples must be incorporated into each annual monitoring report submitted to DEQ.*
>
> *1.d. "The plan must include continued monitoring at monitoring locations MC-1, MC-2 and TYMC-1."*

Comment 3: Propose to alter the monitoring frequency of Chlorophyll-a as outlined in the Special Conditions.
The YC requests the DEQ modify the monitoring frequency of Chlorophyll-a in consideration of

typical mountain stream flow regimes and site conditions to a single sampling event in August. The high-water period for both Muddy and Third Yellow Mule Creeks is between mid-April and July making it nearly impossible to monitor for Chlorophyll-a. During the period from April to June it is also extremely difficult to see the substrate in the mountainous streams due to the high flow conditions. Considering these characteristics of the streams in the area, Chlorophyll-a (in accordance with the description and characteristics of Chlorophyll-a) would not reasonably be expected to be present in these conditions. Based on this rational and for practicality purposes, the YC respectfully requests to remove the requirement for monitoring Chlorophyll-a once during the period from April to June in the Special Conditions requirements in the Draft Permit and Fact Sheet and in the statement made on Page 21 of the Fact Sheet.

Response: DEQ declines to make this change. When possible, it is important to establish the relationship between Chlorophyll-a analyses conducted during the period when discharges may occur (April – June) and those later in the year (August). While conditions may make Chlorophyll-a monitoring difficult, or even impossible during the April – June period in some years, it is possible that the monitoring could be conducted in others. DEQ does not expect monitoring to be conducted when conditions are not safe. In such situations, the permittee should contact DEQ about any unsafe conditions. When the monitoring cannot be conducted, the annual report must document the unsafe conditions. To address the commenter's concerns, DEQ made the following change to Part I.D.1.i. of the final permit:

> *1.i. "Monitoring of Chlorophyll-a shall be conducted at each monitoring location once between June 15 and July 1 and at least once during August. If runoff conditions do not allow Chlorophyll-a sampling during the June 15 to July 1 period, then the permittee must contact the DEQ Water Protection Bureau to report such conditions. Dated photo documentation of the unsafe runoff conditions must be included in the annual monitoring report."*

Comment 4: Propose to define the monitoring period included in the annual report as outlined in the Special Conditions.
The yearly monitoring period is not defined in *item j* of the Special Conditions. The YC proposes to define the monitoring period that will represent 'new data' in the annual report due to the DEQ by December 31 of each year. We suggest a monitoring 'year' of November to October to represent monitoring from snowmaking through the run-off and summer period of each 'year.' The data collected during the monitoring 'year' will be presented in the report as new data and added to previous monitoring 'year(s)' data trend analyses as outlined in item j of the Special Conditions.

Response: DEQ agrees with the comment. The first sentence of permit Part I.D.1.j is changed to read:

"A proposed format for a written report summarizing all monitoring activities conducted during the annual period starting November 1 each year and ending October 31 of the following year."

Comment 5: Review the longitude for the point defining the upgradient extent of Outfall 001 in Muddy Creek.
There is a discrepancy in the longitude defining the extent of Outfall 001 in the Draft Permit and the Fact Sheet. The latitude listed in the Draft Permit for the upgradient extent of Outfall 001 on the Muddy Creek side of Eglise is listed as 111.427840°W. The longitude listed in Table 1 of the Fact Sheet is 111.427480°W. The YC believes the longitude listed in Table 1 of the Fact Sheet is the correct longitude based on mapping the point and requests that DEQ clarify the location in both the Draft Permit and the Fact Sheet.

Response: The longitude for the upgradient extent of Outfall 001 is changed in the final permit to be consistent with the Fact Sheet: 111.427480°W.

Comment 6: The title and text in Table 1 require correction.
Outfall 002 is left out of the table's title. Please update the Table 1 title to: "Table 1. Final Effluent Limits – Outfalls 001 and 002" or similar, to include Outfall 002. In addition, footnote (4) should be removed as it is not referenced within the table.

Response: The comment is correct. The changes are made to the final permit as noted.

Comment 7: Text clarification.
The YC respectfully requests the wording for "each facility" in the sentence: "Reporting frequency shall be monthly, and *each facility* must submit the result…" be modified to "the facility."

Response: The requested change is made to the final permit.

Comment 8: Propose to further clarify monitoring location SUM-A in the text.
The YC proposes to clarify the monitoring location in the descriptive text under "Effluent Monitoring." Upon first review of the draft permit, there was confusion on the location of the compliance monitoring location. The YC suggests including "SUM-A" in the descriptive sentence: "All effluent monitoring shall be conducted at a dedicated monitoring location after all treatment processes and prior to the snowmaking guns, or SUM-A" or similar descriptive text. In addition and based on our comments related to TRC above, we propose to also define "SUM-B" in this section.

Response: Part I.C.1.a of the final permit is changed to read:

"All effluent monitoring shall be conducted at a dedicated monitoring location after all treatment processes and prior to routing to the snowmaking guns, or SUM-A, unless otherwise noted."

The requested change in monitoring location for TRC is added as noted in response to comment 1.

Comment 9: Propose to clarify the title of Table 2.
The YC respectfully requests to remove "Outfall" from the Table 2 title to read: "Table 2. Monitoring Requirements for SUM-A." The outfalls are described as Outfalls 001 and 002 in the Draft Permit. SUM-A is described as a monitoring location for Outfalls 001 and 002 for parameters listed in the Draft Permit and Fact Sheet.

Response: DEQ declines to make the requested change. Outfalls, internal outfalls, and monitoring locations are all permitted features that are referred to within the agency as "outfalls" for the purpose of coding limits and monitoring requirements into the agency's databases.

No change is made to the permit in response to this comment.

Comment 10: Propose to clarify sample type in Table 2.
The YC respectfully requests to use the grab sample type rather than composite for total suspended solids (TSS), 5-day biochemical oxygen demand (BOD5), total ammonia, nitrate plus nitrite, total nitrogen, and total phosphorus parameters in consideration of consistent water quality and analytical hold times for required monitoring. SUM-A will be a single sample port on the pipeline to the snowmaking guns on Eglise Mountain sourced from a consistent source (the retention pond). The treated wastewater that will be transported through the pipe to the snowmaking guns on Eglise Mountain is sourced from the YC's retention pond and water quality characteristics as outlined in the draft permit are not dependent on flow or volume. It can be assumed since it is from a single source, the water quality characteristics are the same at the sample time as they would be one hour later in the day. In consideration of laboratory analytical requirements, the hold time for BOD5 is 24 hours, which limits the available time to collect samples, transport samples to the shipping carrier in Big Sky, and ship them in order to get them to the laboratory within this analytical hold time.

Response: DEQ declines to make the requested change. Composite sampling is the standard sample type for discharges from municipal mechanical wastewater treatment plants. DEQ has no information on the timing of pumping from the Big Sky County Water and Sewer District or the Yellowstone Mountain Club to the retention pond relative to the timing of snowmaking discharges. If the permittee wishes to change from composite samples to grab samples for the requested parameters, grab samples should be taken and analyzed separately from the composite samples to demonstrate that grab samples will be adequately representative of the permitted discharge. The permittee may then request a modification to the permit at a later time, or request the change be made in future permit renewals.

No change is made to the final permit in response to this comment.

Comment 11: Propose to add an additional report submittal method.

The Draft Permit only provides a mailing address for report submittals. The YC respectfully requests to add an electronic method for submitting "other reports" as mentioned in "Reporting of Monitoring Results." Please add a statement for the option to submit reports to the DEQ electronically in addition to the mailing address listed. For example, we would like to have the option to submit the annual report required and outlined within the Special Conditions section via email as well as via mail.

Response: DEQ declines to make this change. The official compliance submission of all reports, other than Discharge Monitoring Reports, must be in writing and by the required deadline. DEQ is always willing to accept electronic submission of reports or data, but electronic submissions do not replace the required written submission, which must include an original signature by the proper signatory authority.

No change is made to the permit in response to this comment.

Comment 12: Propose to add an additional report submittal method.
The Draft Permit only provides a mailing address for report submittals. The YC proposes to add an electronic method for submitting reporting of a noncompliance as mentioned in item 4 of "Twenty-Four Hour Notice of Noncompliance Reporting." If possible, please add a statement for the option to submit reports to the DEQ electronically in addition to the mailing address.

Response: Please see the response to comment 11. Twenty-four-hour noncompliance reporting must be made using the phone numbers listed in the permit. The written requirement is intended as a follow-up to the phone notification and may be waived, as noted in the permit. As with the response to comment 11, where the written notification is required, email correspondence may be accepted, but please seek approval from DEQ's inspector of your facility.

No change is made to the permit in response to this comment.

Comment 13: Propose to add additional distinguishing text to the description of the definition of 'Facility.'
The YC suggests adding "Eglise" to the definition of "Facility" in the Fact Sheet. We specifically suggest, "Yellowstone Mountain Club (Permittee) is the owner and operator of the proposed Yellowstone Mountain Club *Eglise* Snowmaking (Facility), which is a reclaimed domestic wastewater reuse project" to discern it from the Yellowstone Clubs already established snowmaking operations on Pioneer Mountain and Andesite Mountain.

Response: DEQ accepts the comment and notes the clarification. Fact sheets are not modified in response to public comments. This response to comments document serves as an addendum to the fact sheet, where necessary, and is part of the public record for issuance of the permit.

No change is made to the permit in response to this comment.

Comment 14: Propose clarifying text.
The YC requests to add "or similar snowmaking machine, providing equivalent technology" to the statement about the snowmaking gun model. Specifically, "Snowmaking machines or snow guns (Techno Alpine TF10 *or similar snowmaking machine providing equivalent technology*) would be used…."

Response: DEQ cannot make this clarification. The descriptions and models of the snowmaking equipment provided in the permit application are the basis for DEQ's permitting decisions. Other equipment may be proposed for use by the permittee, but an updated permit application, describing the alternative equipment, may need to be submitted before equivalent equipment could be used.

No change is made to the permit in response to this comment.

Comment 15: Suggest correcting the units of measure for temperature in Table 11.
See Fact Sheet, Page 18, Section 2.2.6, Table 11
The units to define temperature in Table 11 are incorrect. The temperature data presented in the table are in Celsius (°C) rather than Fahrenheit (°F), as indicated. The values in Table 11 should read from left to right (in °F): 37.9, 48.2, and 44.4 (n=14). The YC respectfully requests the unit of measure listed in Table 11 for temperature be resolved.

Response: The requested clarification to the fact sheet is accepted. Please also see the response to comment 13.

No change is made to the permit in response to this comment.

Comment 16: Suggest correcting a text error in Table 14.
See Fact Sheet, Page 24, Section 2.3, Table 14
Footnote 2 in Table 14 of the Fact Sheet, states an incorrect numerical detection limit for TRC of "0.01 mg/L." Please correct to read, "2. Analytical results less than 0.1 mg/L are considered in compliance with these effluent limits," as defined by DEQ in Section 2.2.7 of the Fact Sheet for the reasonable potential discussion for total residual chlorine (Page 19), in Table 1 of the Draft Permit, and the RRV listed for total residual chlorine in Circular DEQ-7 (June 2019).

Response: DEQ accepts the proposed clarification. Please also see the response to comment 13.

No change is made to the permit in response to this comment.

Comment 17: Propose to clarify Table 16 title and text for monitoring location SUM-A.
See Fact Sheet, Page 26, Section 3.2-3, Table 16
The YC proposes to remove "Outfall" from the Table 16 title to read: "Table 16 - Monitoring

Requirements at SUM-A." The outfalls are described as Outfalls 001 and 002 in the Draft Permit. SUM-A is described as a monitoring location for Outfalls 001 and 002 for parameters listed in the Draft Permit and Fact Sheet.

Response: Please see the response to comment 9.

No change is made to the permit in response to this comment.

Comment 18: Spelling error in Item #3 in the Table for Impacts on the Physical Environment.
See Environmental Assessment, Page 6
There is an incorrect spelling of equipment in the table. The YC proposes to correct the spelling of "equipemnt" in the rational for no air quality impacts.

Response: The noted typographical error is corrected in the final EA.

Commenter 2: Scott Bosse, American Rivers
Commenter 3: Jon Olsen, Lone Mountain Land Club, Spanish Peaks Resort
Commenter 4: David Tucker, Gallatin River Task Force
Commenter 5: Mike Richter and Jodi Moravec-Butash
Commenter 6: Ron Edwards, Big Sky County Water & Sewer District
Commenter 7: Charles Wolf Drimal, Greater Yellowstone Coalition
Commenter 8: Taylor Middleton, Big Sky Resort
Commenter 9: Andrea Wass, Association of Gallatin Agricultural Irrigators

Comment 19: The commenters listed above all submitted comments/letters in support of the permit and the project. None of them requested changes or clarification of the fact sheet, draft permit, or EA. Common themes among the comments included:

- Support for the beneficial reuse of wastewater that may result in recharge of the aquifer and increased stream flow in the drainage.
- Support for the rationale in the permit Fact Sheet regarding the monitoring plan for nutrients and related parameters.
- The benefits of avoiding a direct discharge of treated wastewater to the Gallatin River
- Support for the prioritization of reuse of wastewater via snowmaking to support the area's recreation-based economy and that may allow for some continued growth and economic development in the community
- Support for potential reduction in the use of ground water for snowmaking, increasing water storage in the watershed
- Potentially increased water for downstream irrigators

Response: Thank you for the comment letters of support and for participating in the public review part of the permit development process.

No change is made to the permit in response to these comments.

Commenter 10: Patrick Byorth, Trout Unlimited

Comment 20: This commenter also submitted a letter of support, stating the belief that the project and discharge permit will protect high quality water and associated aquatic life in the watershed while also potentially supporting downstream irrigators. The commenter also submitted the following suggestion:
"We encourage YMC and DEQ to support expanded water quality monitoring throughout the watershed, building out the network the "Healthy Headwaters Committee" as one of the outcomes of the Water Solutions Forum.1 Monitoring assessments will be important as proof of concept, encouraging the technology in Big Sky and beyond. TU strongly encourages DEQ, YMC, and the Big Sky Sewer and Water District to lead expansion of snowmaking with treated effluent from 25MGY to 250MGY as soon as possible, emphasizing expansion to Big Sky Resort and Moonlight Basin as well."

Response: Thank you for the letter of support and for participating in the public review part of the permit development process.

Regarding the suggestion for expanded water quality monitoring throughout the watershed, DEQ has required the permittee to develop a robust monitoring program to assess potential effects to the immediate receiving waters, which will also ensure protection of downstream waters. Development of a watershed-based monitoring program is a worthy goal that may be pursued by the area stakeholders and other DEQ monitoring and assessment programs in the future but is not an appropriate requirement for this MPDES permit.

No change is made to the permit in response to this comment.

Commenter 11: John Meyer, Cottonwood Environmental Law Center
Commenter 12: Clint Nagel, Gallatin Wildlife Association
Commenter 13: Joe Gutkoski, Montana Rivers

Comment 21: The proposed permit to allow the Yellowstone Club to make snow using treated effluent cannot be issued because the MT DEQ has not issued a final decision on whether the Gallatin River should be permanently protected as an Outstanding Resource Water. Mont. Admin. R. § 17.4.620(7)(a).

Response: The MPDES permit regulates point sources discharges of pollutants to Muddy Creek and Third Yellow Mule Creek. The MPDES permit does not authorize a discharge of pollutants

to the Gallatin River. The MPDES permit includes effluent limits, monitoring requirements and other special conditions to protect the beneficial uses of the Muddy Creek and Third Yellow Mule Creek.

Furthermore, the cited administrative rule outlines procedural steps for projects where an Environmental Impact Statement under Montana Environmental Policy Act is required. DEQ determined an Environmental Assessment is the appropriate level of MEPA review for the proposed project. DEQ reviewed the project and issued the draft MPDES permit with effluent limits, monitoring requirements and other special conditions that will protect the beneficial uses of the receiving water bodies. See Final EA Part 2.

No change is made to the permit in response to this comment.

Comment 22 The Fact Sheet acknowledges that the South Fork of the West Fork of the Gallatin River is 303(d) listed as water quality impaired. Fact Sheet at 12-13. The DEQ did not complete the necessary analysis to determine whether the proposed discharge will further impact the South Fork. 40 C.F.R. § 122.44(d). No further point source permits can be issued under the TMDL. The EA violates MEPA by failing to consider how the addition of the pollutants will contribute to the cumulative impacts of the already significant impacts of the pollutants in the 303(d) listed South Fork.

Response: Yellowstone Club snowmaking discharges as a new source are subject to DEQ's Nondegradation Policy. This policy requires all new or increased discharges comply with the nonsignificance criteria found in ARM 17.30.715. The permit protects the existing water quality in the immediate receiving waters, Muddy Creek and Third Yellow Mule Creek by setting effluent limits, monitoring requirements and other special conditions to satisfy MT's Nondegradation Policy. These immediate receiving waters are upstream of the 303(d) listed section of the South Fork of the West Fork Gallatin River. Protecting the immediate receiving waters will protect the downstream receiving waters and the proposed discharges will not cause or contribute to a violation of the nonsignificance criteria.

No change is made to the permit in response to this comment.

Comment 23: The EA violates MEPA because it fails to analyze the impacts of pharmaceuticals reaching surface waters.

Response: "Pharmaceuticals" is a general term. Pharmaceuticals are an emerging area of science and research concerning water quality. DEQ has not yet adopted water quality standards for pharmaceuticals. MPDES permits implement adopted MT water quality standards to protect the beneficial uses of the receiving water bodies. DEQ evaluated water quality concerns under Final EA Part 2.

Comment 24 The EA violates MEPA because the "Impacts on the Physical

Environment" section states there are no important surface water resources present. The receiving waters are important surface waters because they are the headwaters of the Gallatin River, which the Montana DEQ has states is an important surface water.

Response: In response to this comment DEQ updated Section 2 under Impacts on the Physical Environment. As noted in the rest of Section 2, the issuance of the MPDES permit and other DEQ regulatory processes will mitigate any potential impacts to the receiving waters.

In development of the fact sheet and MPDES permit DEQ identified Muddy Creek and Third Mule Yellow Creek as high quality water per Montana's nondegradation policy. The MPDES permit includes effluent limits, monitoring requirements and special conditions to protect existing water quality and ensures the discharge achieve the nonsignificance criteria in ARM 17.30.715.

No change is made to the permit in response to this comment. Please see Final EA Part 2.

Comment 25: The Alternatives Analysis violated MEPA by failing to consider an alternative where the agency cannot issue a permit because of statutory requirements.

Response: Part 24 of the EA disclosed DEQ's consideration of the no action alternative, which would require the applicant to find other means of effluent disposal, including potential direct discharge to the Gallatin River. Issuance of the permit is preferable to the no action alternative. Issuing the MPDES provides a regulatory mechanism to protect water quality by enforcing the terms of the permit.