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ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

RESPONSE TO COMMENTS

Permit #2023-025

Teton Village Resort, Small Wastewater Facility

Basecamp Teton WY SPV LLC

July 13, 2023

Wyoming Department of Environmental Quality
Water Quality Division–Water and Wastewater Section
200 W. 17th Street, Cheyenne, WY 82002

Executive Summary

On April 17, 2023, the Wyoming Department of Environmental Quality (DEQ) received an application from Basecamp Teton WY SPV LLC (Basecamp) for a permit to construct a small wastewater facility at Teton Village Resort, located in the NE¼SE¼, Section 36, Township 42 North, Range 117 West, Teton County. Following its review of the application, the DEQ drafted a permit for the facility. Given the significant interest in the facility and the draft permit, the DEQ, in accordance with Chapter 3 of the Wyoming Water Quality Rules, held a 30-day public comment period on the draft permit. The public comment period began May 3, 2023 and closed June 2, 2023. Both the draft permit and the final application were made available for public review. Based on commenters' requests for a public meeting, the DEQ, also in accordance with Chapter 3 of the Wyoming Water Quality Rules, held a public meeting on June 9, 2023 in Wilson, WY and accepted oral and written comments at that meeting.

During the May 3 - June 2, 2023 public notice period, written comments were received from 58 entities.

- Gregory Bigler
- Bruce Bonich
- Laura Bonich
- Kerri Ratcliffe
- John Wasson
- Frances Clark
- Mark Clark
- Les Gibson
- Scott Harmon
- Laurie Hunter
- Esther Kane
- Anne Ladd
- Michelle McCormick
- Kathryn Nyrop
- Daniel Paduano
- Steve Stokes
- Stephen Koch
- Berthe Ladd
- Béatrice Screve
- Elizabeth Walton
- Cynthia Dietzmann
- David Landes
- John McMorrow
- Ashleigh Babcock
- Jane Carey
- Mitchell Dann
- William Hayes
- Sarah Kraemer
- Philip Leeds
- Bradford Nielson
- Jared Smith
- Lisa Friesecke
- Katherine Goldfeder
- Leo Hopkins
- Maggie Hunt
- Margie Whistler
- Gayle Roosevelt
- Robert Strawbridge
- Andrew Bergin
- Richard Hobbins
- Cassandra Hopkins
- Lisa Nesbitt
- Steve Feldman
- Michele Goodman
- Geoff Gottleib
- Duncan McClelland
- Jay Kaplan
- David and Christine Murdoch
- Coco and Tom Bancroft
- Karen Daubert
- Melissa Turley
- Juliann Whelan
- Dan Creighton
- Susan Lurie
- Stephen and Jaye Alfers
- Anne Columbia
- Lisa Franzen
- Kevin Regan (Protect Our Waters Jackson Hole, POWJH)

During the June 9, 2023 public meeting, written comments were provided by 15 entities:

- Fred and Ginny Becker
- Mary Cheney
- Nancy and Doug Cole
- John Culbertson
- Mitchell Dann
- Jennifer Durning
- William Hayes
- Thomas Markovitz
- Margery and Edgar Masinter
- Andrew and Danna Nehrbas
- Hank Phibbs and Leslie Petersen
- Kevin Regan, POWJH
- Andrew Sheehan
- Kenneth Taylor
- Geoff Tennican

During the June 9, 2023 public meeting, oral comments were provided by 24 entities:

- Meghan Quinn, POWJH
- Robert Paulson
- Bob Shriver
- Kay Modi (2)
- Brad Nielson (2)
- Sue Lurie
- Luther Propst
- Valerie Brown
- Kevin Regan, POWJH
- Roger Smith
- John Wasson
- Christine Murdoch

- Hank Phibbs
- Aaron Pruzan
- Leslie Petersen
- Charlie Gulatta
- Andrew Breffeilh
- Duncan McClelland
- Sally Yocum
- Scott Harmon
- Margeret Breffeilh
- Liz Storer
- Fred Staehr
- Tricia Tsckettr

This document provides DEQ's responses to comments received during the public notice period and the public meeting. DEQ's responses to comments received are organized into the following tables:

- Table 1: Miscellaneous comments
- Table 2: Comments regarding performance or specifications of the small wastewater facility
- Table 3: Comments regarding wetlands
- Table 4: Comments regarding Fish Creek and the surrounding watershed
- Table 5: Comments regarding compliance, inspections, and monitoring

Table 1. Miscellaneous comments

#	Comment/Response
1-1	**Comment:** Comments expressed opposition to development of the Teton Village Resort (glamping facility) in general.
	Response: Comments acknowledged. Comments are outside the scope of DEQ's permit and authority.
1-2	**Comment:** Comments stated that the facility's domes are an eyesore or blight.
	Response: Comments acknowledged. Comments are outside the scope of DEQ's permit and authority.
1-3	**Comment:** Comments expressed concern about the importance of water quality and the ecosystem to tourism and the economy in Teton County.
	Response: Comments acknowledged.
1-4	**Comment:** Comments expressed concerns with the state lease, how the state lease was awarded, and that the lease should require county regulations to be followed.
	Response: Comments are outside the scope of the DEQ's permit and authority.
1-5	**Comment:** Comments stated that Wyoming DEQ lacks the authority to issue the permit. Commenters stated that county regulations should be followed.
	Response: The DEQ is issuing this permit pursuant to the Wyoming Environmental Quality Act, specifically W. S. 35-11-301(a)(iii) and Chapters 3 and 25 of the Wyoming Water Quality Rules. Comments on county regulations not pertaining to the small wastewater facility are outside the scope of the permit and DEQ's authority.
1-6	**Comment:** Comments and questions about the Office of State Lands and Investments Temporary Use Permit were provided.
	Response: Comments and questions are outside the scope of the DEQ's permit and authority.
1-7	**Comment:** Numerous commenters requested that DEQ hold a public meeting.
	Response: Based on the requests, DEQ held a public meeting in Wilson, WY on June 9, 2023.
1-8	**Comment:** Comments asked about what has changed between DEQ's revocation of the first permit for the small wastewater facility and the issuance of this permit.
	Response: The DEQ revoked the first permit issued for the small wastewater facility due to administrative deficiencies. Following revocation of the first permit, DEQ required Basecamp to submit a new application for an individual permit. In order to ensure the application was given an objective review, a new DEQ engineer was assigned to review the application to determine compliance with DEQ's rules. As part of that review, Basecamp was required to make modifications to the facility's designs. These modifications are reflected in the design drawings included with the final application during the public notice. Upon issuance of the permit,

	Basecamp will be authorized to construct the modified facility.
1-9	**Comment:** Several commenters stated that a contained system, as originally proposed, should be used at this site, with waste periodically hauled to a treatment facility. Other commenters asked if the wastewater system could be connected to an existing municipal sewer line.
	Response: While holding tanks can be a feasible wastewater management solution in some cases, the DEQ in general does not advocate for their use when other wastewater management solutions are available. Because holding tanks do not provide any treatment, if the tanks fail, the resulting impacts to the environment can be significant due to the release of raw sewage into groundwater or surface water. Spills of raw sewage can also occur during transport of wastewater. For these reasons, the DEQ determined that the use of the sand mound pressure distribution system at this site will provide increased protection over holding tanks. The basis for how the sand mound pressure distribution system will provide effective treatment is outlined in responses to comments 3-1 and 4-1. The option to connect to an existing municipal sewer line would require the installation of approximately two miles of sewer line, the need for sewer line easements, and possibly remapping of sewer district boundaries. A sewer connection to a permanently installed sewer line would provide a safe, reliable wastewater management solution. However, a permanently installed sewer line would not lend itself to the temporary use nature of the facility. A properly designed, installed, and maintained sand mound pressure distribution septic system can effectively treat the wastewater effluent. The sand mound pressure distribution septic system can then be reclaimed on the property should the facility's land use permit not be renewed.
1-10	**Comment:** Several commenters asked about the permittee's responsibility to obtain other permits and the timing of those permits, based on the following language in the permit: "It is the duty of the permittee, owner and operator to comply with all applicable federal, state and local laws or regulations in the exercise of its activities authorized by this permit." How is DEQ making sure these requirements are being met for Teton County Regulations and other potential regulations for the site?
	Response: DEQ can only regulate activities in accordance with the authority specifically granted to the agency per the Wyoming Environmental Quality Act (Wyoming Statutes Title 35, Chapter 11). The issued permit represents DEQ's regulation of the design and construction of the small wastewater facility. The language identified in the comment is standard language included in all Permits to Construct primarily to notify the permittee of their responsibility to secure all other applicable permits as required by federal, state, and local laws or regulations. DEQ is not the arbiter, however, of what those permits may be and whether a permittee is in compliance with another entity's permitting requirements. If presented with a final judicial determination that a permittee had not obtained or complied with another entity's permitting requirement, DEQ would be able to take enforcement action with respect to its permit. It is the responsibility of the respective federal, state, or local agencies to regulate and enforce permits under their authority.
1-11	**Comment:** Commenters requested additional information on stormwater permitting and erosion control. What stormwater and erosion control, if any, are in place on the site, and how is DEQ going to enforce "best management practices" and proper stormwater and erosion control going forward?
	Response: The DEQ has reviewed the facility for compliance with Wyoming Pollutant Discharge Elimination System (WYPDES) stormwater permitting requirements. Because the facility's planned land disturbance will total less than five acres, the facility falls under the Small Construction Stormwater General Permit. In accordance with that general permit, the DEQ received a Stormwater Pollution Prevention Plan (SWPPP) for the facility on October 20, 2022. A site visit by a WYPDES inspector was conducted on November 1, 2022 to ensure best management practices are being implemented and general housekeeping requirements (e.g., trash removal) are being followed in accordance with the SWPPP. The inspection resulted in DEQ issuing a Letter of Violation (LOV) to the permittee on November 10, 2022. The LOV outlined actions the permittee needed to

	complete to address concerns noted by the WYPDES inspector. The permittee has since completed all actions outlined in the LOV. The DEQ will complete additional stormwater inspections on an as-needed basis.
1-12	**Comment:** Commenters requested clarification on the facility in general. There appears to be confusion on what is being built on the site. Some records indicate 13 overnight units, 2 staffing units, and a welcome center. Other records indicate a different number of overnight units and staffing units. What is being proposed on the site?
	Response: Based on the application submitted by Basecamp, DEQ's small wastewater facility permit applies to wastewater from the following structures on the site: • 11 Overnight Units • 2 Staffing Units • 1 Welcome Center DEQ has conducted site visits and confirmed with the permittee that these are the applicable structures on the site. The fixtures in each unit are as follows: • Overnight Unit o 1 sink o 1 toilet o 1 shower • Staffing Unit o 1 sink o 1 toilet o 1 shower • Welcome Center o 2 sinks o 1 toilet
1-13	**Comment:** Several commenters asked if the proper permit was being issued?
	Response: DEQ's determination is that the facility is a small wastewater system treating less than 2,000 gallons per day of domestic sewage (see comment/response 2-1). Therefore, the proper permit (a Permit to Construct issued under Chapters 3 and 25 of the Wyoming Water Quality Rules) is being issued.
1-14	**Comment:** Is the proposed permit sufficient to protect health and the environment?
	Response: DEQ's rules are established to protect water quality. By meeting DEQ's rules, the facility will protect human health and the environment, in accordance with DEQ's mission. If a proposed facility meets DEQ's rules, the DEQ, under the Wyoming Environmental Quality Act, is obligated to issue a permit for the facility. Information about how the facility meets DEQ's rules and DEQ's analysis of how the facility will protect water quality, is outlined in other comments/responses, particularly 3-1 and 4-1 below. Given the high level of treatment that will occur in the facility, the DEQ's determination is that the facility will be protective of groundwater in the area and will not cause additional pollutant loading to Fish Creek or other surface waters. In accordance with DEQ's rules and given the public's concerns about water quality in the area, the DEQ has determined that an environmental monitoring program is appropriate for the facility to ensure it is operating effectively and protecting water quality.
1-15	**Comment:** With regards to Fish Creek, is the DEQ fulfilling its mission to protect, conserve, and enhance Wyoming's environment?

	Response: The DEQ is fulfilling its mission by ensuring that permitted facilities meet DEQ's rules and by working through other programs to monitor and assess Fish Creek and provide technical and financial assistance for locally-led efforts to plan and implement watershed restoration and protection measures.
1-16	**Comment:** Commenters expressed concerns about population growth in the valley affecting the environment.
	Response: Comments acknowledged.
1-17	**Comment:** Commenters asked about who will manage safety from campfires?
	Response: Comments acknowledged. Comments are outside the scope of DEQ's permit and authority.
1-18	**Comment:** Commenters expressed that Teton County's voice needs to be heard and asked for DEQ's assistance in communicating with other entities in the state.
	Response: DEQ thanks everyone who attended the public meeting and provided comments. While the above comment is outside the scope of the small wastewater facility permit, the DEQ has communicated and shared information with other state agencies as needed throughout its permitting process to notify those agencies of DEQ's actions. The DEQ will continue to communicate with those agencies as needed moving forward. This document and the June 9 public meeting transcript will be shared with those agencies.

Table 2. Comments regarding performance or specifications of the small wastewater facility

#	Comment/Response
2-1	**Comment:** Comments were received on the type of wastewater from this facility. This facility will be operating eleven overnight units, operating for a profit, appears to be a commercial facility and so the wastewater generated must be classified as commercial/industrial wastewater. Based on this business, what is the type of wastewater generated at the facility and should this business be considered a commercial wastewater facility?
	Response: As part of its application review, the DEQ evaluates the type of wastewater that a proposed facility will generate. Based on DEQ's review of Basecamp's application, the DEQ has determined the proposed facility is a small wastewater facility that will treat domestic sewage. This determination is based on the following statutes and rules: W.S. 35-11-103(c)(ix) defines a "small wastewater system" as "any sewerage system, disposal system or treatment works having simple hydrologic and engineering needs which is intended for wastes originating from a single residential unit serving no more than four (4) families **or** which distributes two thousand (2,000) gallons or less of domestic sewage per day (emphasis added)." Chapter 3, Section 3(e) defines "domestic sewage" as "waste and wastewater that is primarily from human or household operations that is discharged to or otherwise enters a treatment works." Furthermore, Chapter 25 (which applies to septic tanks, soil absorption systems, and other small wastewater systems), Section 4(l) defines "domestic wastewater" as "combination of the liquid carried from residences, business buildings, institutions and other establishments arising from normal living conditions." The Basecamp Teton Village Resort is a business generating wastewater from human or household operations and arising from normal living conditions. The facility has no restaurant, no on-site laundry, no brewery, no commercial, or industrial waste facilities, nor are there any other high concentrated waste streams. Therefore,

	the wastewater generated from this facility is domestic sewage. Because the facility will generate less than 2,000 gallons per day of domestic sewage (see comment/response 2-4), the facility is a small wastewater facility, and regulations in Chapter 25 apply.
2-2	**Comment:** Comments and questions were received about future development. The plans indicate future development and expansion plans including a septic drainfield/leachfield. Is future development allowed?
	Response: As required by Water Quality Rules, Chapter 25, Section 7(b), the facility plans identified a future replacement leach field. The identified replacement leach field (sand mound location in this instance) is incorrectly labeled on the plans as "future expansion." The DEQ will require Basecamp to update the plans to correct the labeling error. Basecamp is only allowed to construct the facility as identified in the permit and permit application. Any future modification would require Basecamp to submit a permit modification application to DEQ.
2-3	**Comment:** Comments and questions were received about the performance of the system in colder months and severe winters. How is the facility mitigating freezing of the small wastewater system?
	Response: The sand mound pressure distribution system is designed to operate in cold and freezing climate conditions. Water Quality Rules, Chapter 25 requires the applicant to take measures to prevent freezing of the small wastewater facility. DEQ has reviewed the facility plans and materials to ensure the project meets or exceeds material requirements. All applicants are encouraged to take additional measures to mitigate freezing conditions and enhance system operations in cold conditions. Sand mound septic systems are permitted in the following surrounding states: Colorado, Nebraska, South Dakota, North Dakota, Montana, Utah, and Idaho. Many of these states experience winter conditions similar to those in Teton County. The designed system meets rules established for DEQ to mitigate freezing conditions on the septic tanks and dosing chambers. There is at least four feet of cover on the septic tanks and dosing chambers. The septic tank and dosing chambers both have additional bury depth reaching nine to ten feet in total depth. Teton County's Planning Department identifies 34 inches as the frost line depth from finished grade to the bottom of support footings. As designed, DEQ has determined the small wastewater system will effectively treat the wastewater effluent and mitigate freezing conditions. However, because of the concerns expressed by the public, DEQ discussed the winter conditions and freezing potential with Basecamp. In order to help address the concerns, Basecamp has opted to provide insulation on the septic tanks and dosing chambers as an extra measure to aid in heat retention and effluent treatment. DEQ will incorporate this extra measure into the permit. The insulation on septic tanks and dosing chambers was a recommended outcome from the Teton County Septic System Effluent Monitoring Report, August 2022.
2-4	**Comment:** Commenters identified concerns on how the wastewater flow calculations were determined for the facility and the type of wastewater flow being used to determine daily flows. How is the facility meeting DEQ rules for its wastewater flow determination?
	Response: The determination was made in accordance with DEQ rules, as outlined below. Water Quality Rules, Chapter 25, Section 5, Design Flows, provides that the volume of wastewater shall be determined by one of the following: • Section 5(a) – Tables 1 and 2 provided in this section • Section 5(b) – Metered water supply data from the facility

	• Section 5(c) – Metered water supply data from another facility where similar water demands have been demonstrated. Basecamp supplied information meeting the requirements of Section 5(c) demonstrating flows of 61 gallons/day/unit for a similar facility. • This equates to 920 gallons per day (gpd) for the facility. ○ Overnight Units: 11*61 = 671 gpd ○ Staff Units: 2*61 = 122 gpd ○ Welcome Center Guests: 28*4 = 112 gpd ○ Welcome Center Staff: 1*15 = 15 gpd ■ Total = 920 gpd To further evaluate flow rates from the facility to ensure the system was designed appropriately, the DEQ calculated flow rates using three other methods: • Chapter 25, Table 2, Motel, Hotel, Resort – 140 gpd ○ Calculating flows for 11 overnight units, 2 staffing units and 1 welcome center, and the facility is designed for 28 guests and 5 staff or 33 overnight persons. The hotel, resort rate would generate the following flow: ▪ Overnight Units: 11*140 = 1,540 gpd ▪ Staff Units: 2*140 = 280 gpd ▪ Welcome Center Guests: 28*4 = 112 gpd ▪ Welcome Center Staff: 1*15 = 15 gpd • Total = 1,947 gpd ○ 1,947 gpd is less than the 2,000 gpd threshold for small wastewater facilities to be classified as a UIC facility, per Chapter 25 ○ The flow calculation of 1,947 gpd includes laundry flows, which are not applicable to this facility due to laundry being conducted off-site ○ Chapter 25, Section 17(b)(i)(B) identifies Laundry flow at 15 gpd/person ○ The facility is designed for 28 guests and 5 staff or 33 overnight persons ▪ Laundry flows would be: 33*15 = 495 gpd ▪ Facility Flows without Laundry would be: 1947 - 495 gpd • Total flow without Laundry = 1,452 gpd • Chapter 25, Table 2, Campground (w/showers) – 45 gpd/person ○ The facility is designed for 33 persons ○ Total flow: 33*45 = 1,485 gpd • Additional Flow evaluations: ○ USEPA Onsite Wastewater Treatment Systems Manual – Cabins/Resort – 40 gpd/person ○ The facility is designed for 33 persons ○ Total flow: 33*40 = 1,320 gpd Based on these evaluations ranging from 920 to 1,485 gpd for the facility, the DEQ conservatively used 1,500 gpd for the wastewater flow determination for the facility. Basecamp will be required to conduct and report flow metering to ensure this capacity is not exceeded.
2-5	**Comment:** Comments identified concerns on how the facility meets separation distance requirements. How is the facility meeting DEQ rules for horizontal separation distances?
	Response: As described in the responses to comments above, the DEQ has determined (1) the facility is producing domestic wastewater generated from normal living conditions and (2) the facility will produce a

	maximum of 1,500 gpd of wastewater. Therefore, setback distances established in Water Quality Rules Chapter 25, Section 7 apply. Because the facility is not generating commercial or industrial waste, or domestic waste greater than 2,000 gpd, the setback distances in Chapter 25, Section 19 do not apply. Chapter 25, Section 7, Table 4 provides the following minimum horizontal setback distances: • 200 ft setback from public water supply well to absorption system (the sand mound effluent distribution laterals) • 50 ft setback from surface water or spring to absorption system The proposed system meets or exceeds the minimum horizontal setback distances provided in Chapter 25, Section 7, Table 4: • 287 ft between the public water supply and the absorption system • 65 ft between the nearest surface water* and the absorption system *The separation distance from the absorption system to surface water (including wetlands) is based on the US Army Corps of Engineers Wetland Delineation for the site as shown on the design plans.
2-6	**Comment:** Commenters stated that the facility should provide treatment beyond a basic septic system to ensure protection of the groundwater.
	Response: See comments/responses 3-1 and 4-1, which outline the high level of treatment the system will provide. The DEQ notes that the permitted facility is not a basic septic system, in which the leach field would be buried in native soils. That type of system would not be appropriate for this site due to the high groundwater. In contrast, the permitted system, as a sand mound pressure distribution system (see comments/responses 3-1 for details), will provide treatment in the sand mound above native soils, and the effluent will be highly treated before leaving the sand mound and reaching native soils. As noted in comments/responses 3-1, these types of systems are commonly used in areas of high groundwater to be protective of water quality. In addition, Basecamp has opted to incorporate additional measures to ensure effective operation of the system (see comments/responses 2-3 and 2-8).
2-7	**Comment:** How does the system protect high groundwater? Will flood irrigation in the area impact the system's performance? Has it been properly documented that these lands and therefore the mound system are not subject to seasonal flooding? Was the perc test done at the right time of year (September) and was the individual who did the perc test qualified?
	Response: See comments/responses 3-1 and 4-1 on how the system will protect high groundwater. The system meets required setback distances to be protective of seasonally high groundwater and wetlands as delineated by the US Army Corps of Engineers. Such delineations would account for factors such as flood irrigation that can cause high groundwater. The submitted percolation test was conducted and submitted by Basecamp in accordance with Chapter 25, Appendix A. DEQ evaluated the percolation test information, determined the provided results were similar to other tests conducted for this type of soil in the area, and accepted the results.
2-8	**Comment:** Are there other technological requirements that would serve as Best Management Practices for wastewater management on the site?
	Response: The facility as designed meets DEQ requirements per Water Quality Rules. Because of the public's concerns about water quality, particularly for the Class 1 surface waters in the watershed, the DEQ has incorporated an environmental monitoring program into the permit in accordance with Water Quality Rules Chapter 3, Section 14. The permit requires that two groundwater monitoring wells be installed to verify the sand mound pressure distribution system is operating effectively and protecting water quality. The applicant will be required to submit quarterly water quality results from the two groundwater monitoring wells. DEQ will review the information to evaluate effectiveness of the system and determine whether impacts to groundwater

	quality are occurring. Basecamp will also be required to submit quarterly effluent metering reports to ensure the system is operating within its maximum design flow. Exceeding the maximum design flow would be a violation of permit conditions. Basecamp has opted to provide additional measures that serve as best management practices for wastewater management. Basecamp will provide insulation on the septic tanks and dosing chambers as an extra measure to aid in heat retention and effluent treatment. The insulation on septic tanks and dosing chambers was a recommended outcome from the Teton County Septic System Effluent Monitoring Report, August 2022. In addition, Basecamp will add aeration treatment units on each septic tank to provide aerobic pretreatment of the effluent. DEQ will incorporate these extra measures into the permit.
2-9	**Comment:** How is DEQ going to incorporate the results of a two-year study of raised mound wastewater treatment leach fields and septic systems in the Fish Creek watershed? More specifically, the study identifies recommendations to improve winter treatment of wastewater in leach fields and septic systems through heat retention designs.
	Response: The designed system meets DEQ's review for mitigating freezing conditions on the septic tanks and dosing chambers. There is at least four feet of cover on the septic tanks and dosing chambers. The septic tank and dosing chambers both have additional bury depth reaching nine to ten feet in total depth. Teton County's Planning Department identifies 34 inches as the frost line depth from finished grade to the bottom of support footings. . As designed, the small wastewater system will effectively treat the wastewater effluent and mitigate freezing conditions. However, because of the concerns expressed by the public, DEQ discussed the winter conditions and freezing potential with Basecamp. In order to help address the concerns, Basecamp has opted to provide insulation on the septic tanks and dosing chambers as an extra measure to aid in heat retention and effluent treatment. DEQ will incorporate this extra measure into the permit. The insulation on septic tanks and dosing chambers was a recommended outcome from the Teton County Septic System Effluent Monitoring Report, August 2022. Additionally, Basecamp has opted to install aeration units in the septic tanks to provide aerobic pretreatment to the effluent prior to the sand mound system. The aeration units will aid in treatment of the effluent throughout the year and assist to mitigate any potential freezing.
2-10	**Comment:** Is a system designed in Wisconsin applicable to this location?
	Response: See comment/response 3-1. This type of system, initially developed in North Dakota and extensively studied by North Dakota and Wisconsin, has been adopted for use by most states, including Wyoming, through small wastewater system regulations. The information presented regarding this research in other states supports the use of these systems in climates and conditions similar to those at the site for this facility. The "Wisconsin Mound" has been adopted by most states coast-to-coast due to its ability to mitigate potential impacts to water quality due to local soil conditions or a high-water table. The sand mound accomplishes treatment by requiring specific design requirements and the use of specific, imported materials for the filter sand. Treatment of effluent is conducted in the imported sand material and does not rely on native soils. The DEQ has also considered and incorporated information from Teton Conservation District's septic system study (see comment/response 2-9).
2-11	**Comment:** Commenters expressed concern that the wastewater going into the system would have increased concentration of pollutants when compared to a residence. If this is the case, will the system be able to treat those concentrations?

	Response: Based on its review, the DEQ has determined the system as designed will be able to treat the concentration of pollutants in the wastewater (see comment/response 3-1). However, given the public concerns, DEQ has consulted with Basecamp, and Basecamp has offered to install aeration treatment units in the septic tanks and insulation over the septic tanks and dosing tanks as extra measures to address public concerns. Aeration units have demonstrated enhanced pre-treatment of septic effluent by introducing aerobic treatment into the septic tank. The aeration units will aid in providing aerobic pretreatment of the effluent prior to receiving additional aerobic treatment in the sand mound. The aeration units will also aid in mitigating freezing potential of the effluent and providing pre-treatment during winter conditions.

Table 3. Comments regarding wetlands

#	Comment/Response
3-1	**Comment:** Comments were received about how the facility will be protective of wetlands and surface water on site and the interaction between groundwater and wetlands on the site. Have there been any studies of the hydrological relationship between wetlands or ponds on the site and groundwater? Many comments raised the concern that having a septic system installed at the Basecamp Teton Village Resort does not protect Fish Creek or the Snake River and will expose groundwater to septic effluent discharge.
	Response: Chapter 25 of the Wyoming Water Quality Rules was established to ensure that septic tanks, soil absorption systems, and other small wastewater systems are designed and constructed to protect water quality. DEQ is not aware of any studies of the hydrological relationship between the wetlands or ponds and groundwater specific to this site. However, the US Army Corps of Engineers has conducted a wetland delineation for the site. A wetland delineation determination requires that one or more indicators of wetland vegetation, hydric soil, and wetland hydrology must be present for an area to be a wetland. Basecamp is building their facilities on areas deemed non-wetlands based on the US Army Corps of Engineers wetland delineation for the site. Additionally, in POWJH's June 9, 2023 Letter, Exhibit N, Alder Environmental identified wetland and non-wetland areas that align with the Army Corps of Engineers wetland delineation for the site. The proposed septic system is a sand mound pressure distribution septic system. These systems were initially developed in the 1930s in North Dakota to mitigate impacts to water quality due to a high-water table, slow or fast permeability in soils, and shallow soil cover over creviced or porous bedrock. Significant research has been conducted by North Dakota and Wisconsin since that time, and most states have adopted regulations for the "Wisconsin Mound" design, including Wyoming DEQ (see Water Quality Rules, Chapter 25). Teton County has also adopted regulations for these systems in its Small Wastewater Facility Regulations (effective 2022). The "Wisconsin Mound" has been adopted by most states due to its ability to mitigate potential impacts to water quality due to local soil conditions or a high-water table. The sand mound accomplishes treatment by requiring specific design requirements and the use of specific, imported materials for the filter sand. Treatment of effluent is conducted in the imported sand material and does not rely on native soils. The sand mound pressure distribution septic system has three major components – a septic tank, a pressure dose tank, and the sand mound system. The septic tank pretreats the effluent and allows the solids to settle out. The effluent passes through an effluent filter and then moves to the pressure dosing tank. The pressure dosing tank, at timed intervals or volume intervals, pressurizes the distribution lines and evenly disperses effluent into the sand mound system. The sand mound system is located above ground with separation requirements over native ground and high groundwater. The proposed sand mound has approximately two feet of separation between the bottom of the mound and high groundwater (both DEQ and Teton County regulations require one foot of separation), and the sand mound has four feet of separation between the native soil and the distribution laterals (DEQ regulations require three feet of separation, and Teton County regulations require four feet of separation).

	Therefore, a sand mound pressure distribution septic system will treat the effluent prior to it leaving the mound system. Effluent leaving the mound system will be highly treated and thus protective of groundwater (see additional information in the comment/response 4-1). Because effluent will be highly treated before reaching groundwater, no adverse impacts or additional pollutant loading is expected to occur in Fish Creek. Because of the public's concerns about water quality, particularly for the Class 1 surface waters in the watershed, the DEQ has incorporated an environmental monitoring program into the permit in accordance with Water Quality Rules Chapter 3, Section 14. The permit requires that two groundwater monitoring wells be installed to verify the sand mound system is operating effectively and protecting water quality. The applicant will be required to submit quarterly water quality results from the two groundwater monitoring wells. DEQ will review the information to evaluate effectiveness of the system and determine whether impacts to groundwater quality are occurring. Basecamp will also be required to submit quarterly effluent metering reports to ensure the system is operating within its maximum design flow. Exceeding the maximum design flow would be a violation of permit conditions.
3-2	**Comment:** Comments were received on the delineation of wetlands and surface water on the site. How was the surface water area delineation determined, does the delineation include the wetlands, and was the United States Army Corps of Engineers involved in these determinations? Are these jurisdictional wetlands under the Clean Water Act?
	Response: In the permit application, Basecamp's engineer supplied information and offset distances for review. Basecamp provided information from a US Army Corp of Engineers wetland delineation for the site. The US Army Corp of Engineers wetland delineation for the site allowed DEQ to determine the small wastewater facility will meet the necessary setback requirements from surface water. The existing sand mound will be removed and rebuilt to meet the required setback requirements. Additionally, the POWJH letter dated June 9, 2023 provided wetland delineation information in Exhibit N. The wetland delineation conducted by Alder Environmental further identifies wetland and non-wetland areas on the site. The information provided by Alder Environmental aligns with information provided by the Army Corp of Engineers and Basecamp. The information provided by POWJH and Alder Environmental confirms the small wastewater facility will meet setback requirements to surface water and wetlands. The US Army Corps of Engineers should be contacted for jurisdictional determinations. Regardless of whether the wetlands are jurisdictional or non-jurisdictional, the same setback distances apply, which the facility has met based on the US Army Corps of Engineers wetland delineation provided in the application.
3-3	**Comment:** A commenter noted the access road shown on the drawings encroaches well within the required County required setback from the US Army Corps of Engineers wetland buffer (See sheet C-100). Please address this issue and how the needed re-design will be accommodated given the parcel constraints and footprint of the facilities?
	Response: The location of the access road and associated required setbacks in county regulations are outside the scope of DEQ's permit and authority.

Table 4. Comments regarding Fish Creek and the surrounding watershed

#	Comment/Response
4-1	**Comment:** A number of commenters are concerned with a septic system discharging into the groundwater and further impacting Fish Creek. Fish Creek is a Class 1 waterbody with a current impairment from *E. coli* levels. Commenters are concerned about water quality in general in the area and additional pollutant loading to the creek and potential impacts on drinking water.

	Response: Chapter 25 of the Wyoming Water Quality Rules was established to ensure that septic tanks, soil absorption systems, and other small wastewater systems are designed and constructed to protect water quality. USEPA, Wisconsin, Colorado, North Dakota, and universities including but not limited to the Colorado School of Mines, South Dakota State University, and the University of Madison-Wisconsin have conducted research on the treatment capabilities of sand mound systems and sand filtration treatment. USEPA's Onsite Wastewater Treatment Systems Manual, Table 3-18, concludes the removal of organic compounds and suspended solids is greater than 95% in effluent from sand mound systems. USEPA, Onsite Wastewater Treatment Systems Manual, Table 3-18, concludes that effluent is treated such that levels of Fecal Coliform and Fecal Streptococci are undetectable at two feet below the absorption field and four feet below the absorption field. Therefore, the risk of groundwater contamination below a properly sited, designed, constructed and maintained wastewater infiltration system is unlikely (USEPA, Onsite Wastewater Treatment Systems Manual, 3-28). The proposed facility has four feet of separation between the absorption field and native soil. The facility has an additional two feet of separation between native soil and groundwater. A total of six feet of separation exists between the absorption field and groundwater. The system is designed to achieve the pollutant removal efficiencies identified above. As described in comment/response 3-1, the system is designed to effectively treat the effluent prior to it leaving the mound system. The permit also incorporates an environmental monitoring program to evaluate effectiveness of the system and determine whether impacts to groundwater quality are occurring. Based on the proposed design and performance of sand mound systems, DEQ does not anticipate any untreated effluent from the system reaching or negatively impacting Fish Creek or other surface waters. DEQ understands the importance of Fish Creek to the community and the significance of its designation as a Class 1 waterbody. The DEQ has invested significant resources into assessing Fish Creek to better understand its water quality. This includes collecting *E. coli* samples from Fish Creek in 2017 to determine whether the creek is supporting its primary contact recreation use. The DEQ has also collaborated with partners since 2016 to collect and assess nutrient stressors and response data in Fish Creek and is currently sharing the results of that assessment with stakeholders. In 2023, the DEQ provided grant funds to Teton Conservation District to support the development of a watershed plan to address both *E. coli* and nutrient pollution in Fish Creek. The District, which has experience and expertise in developing effective watershed plans, is well suited to bring stakeholders to the table to evaluate all potential sources of pollutants in a watershed and identify restoration strategies. Sources of both *E. coli* and nutrient pollution in any given watershed can be numerous–e.g., wildlife, human, livestock, pets, fertilizers–and effective watershed plans need to consider all sources. The DEQ looks forward to supporting and assisting with that effort and subsequent projects to implement restoration strategies with the goal of reversing the degradation in Fish Creek and returning it to attaining water quality standards. The DEQ will continue to work with Teton Conservation District and other partners to provide assistance as needed, including supporting and assisting with additional monitoring in the watershed.
4-2	**Comment:** Many comments raised the concern that having a septic system installed at the Basecamp Teton Village Resort does not protect Fish Creek or the Snake River and will expose groundwater to septic effluent discharge.
	Response: See comments/responses 3-1 and 4-1.
4-3	**Comment:** A recent United State Supreme Court Case indicates that in certain situations a discharge to groundwater can constitute a point source (County of Maui v Hawaii Wildlife Fund). With the facility's location to a Class 1 surface water, DEQ should conduct further hydrological analysis to determine if the proposed project constitutes a prohibited point source.
	Response: W. S. 35-11-103(a)(xi) defines a "point source" as "any discernible, confined and discrete conveyance…from which pollutants are or may be discharged." Unless demonstrated to be otherwise, septic

	systems are considered to be nonpoint sources rather than point sources. In *County of Maui v. Hawaii Wildlife Fund*, the Supreme Court held that a point-source discharge permit under the National Pollutant Discharge Elimination System (NPDES) is required "if the addition of the pollutants through groundwater is the functional equivalent of a direct discharge from the point source into navigable waters." For the DEQ to consider effluent from this small wastewater system as functionally equivalent to a direct discharge from a point source into a surface water, a demonstration would need to be made that the effluent is conveying pollutants to a surface water, and the location where that effluent is being conveyed into the surface water would need to be identified. Data would need to conclusively identify the small wastewater system as the source, as there are many potential sources of *E. coli* and nutrient pollution in the watershed. The *Maui* decision also noted many factors that should be considered, including the transit time of a pollutant, the distance traveled, the nature of the material through which a pollutant travels, whether the pollutant is diluted or chemically changed, the amount of discharge entering navigable waters, the manner of entry into navigable waters, and the degree to which a pollutant maintains its specific identity. At this time, the DEQ does not have information or data even suggesting that discharge from the small wastewater facility should be evaluated for functional equivalency. Further, the system has not discharged and cannot discharge before issuance of a permit, so such data could not be obtained by the DEQ prior to issuance of a permit. As described in previous responses, mound systems by their very nature are designed to not discharge pollutants into navigable waters. Effluent leaving the facility's mound system will be highly treated to protect groundwater, and the system is designed to not have negative impacts to surface waters in the watershed due to any potential groundwater/surface water interactions. If ever presented with facts and data similar to the situation in the *Maui* decision, the DEQ could take appropriate enforcement action.
4-4	**Comment:** DEQ Chapter 1 Rules for Class 1 water states that best management practices will maintain existing quality and water uses. What best management practices did DEQ evaluate in relation to this project being in proximity to the Class 1 waters?
	Response: The small wastewater facility has been permitted in accordance with DEQ rules to protect water quality. Stormwater and construction-related discharges of pollution from this site are regulated through the WYPDES Program, and Basecamp has obtained and is in compliance with applicable WYPDES stormwater permits (see comment/response 1-11). The DEQ is not aware of other nonpoint sources of pollution associated with activities at the resort (e.g., pet waste, fertilizer application, livestock waste, etc.) that the DEQ would work with Basecamp to address through best management practices in accordance with its Nonpoint Source Program. DEQ has consulted with Basecamp regarding public concerns, and Basecamp has offered to install aeration treatment units in the septic tanks and insulation over the septic tanks and dosing tanks as extra measures to address public concerns (see comments/responses 2-8 and 2-9).
4-5	**Comment:** A commenter wanted to ensure the DEQ was aware of the history of the efforts to restore Fish Creek, and the significance of those efforts, as they relate to protecting water quality at this site and the valley in general. Another commenter expressed the importance of giving the public the chance to work with the State to solve the water quality problems within the community, including the proposed septic system. Is DEQ looking at this issue (the permit) in context of the bigger picture of what's happening in Fish Creek?

	Response: The DEQ appreciates the comments. The DEQ is aware of proactive efforts of local stakeholders to restore Fish Creek as well as the proactive efforts of many entities in Teton County working together to address water quality issues in various areas of the county. We commend these proactive and locally-led efforts to restore and protect water quality. The DEQ has been a partner in many of these efforts and will continue to do so. DEQ staff routinely provide technical assistance to water quality projects in the county, and since 2009, the DEQ has awarded over $1.2 million in grant funding to local partners to implement voluntary watershed planning and restoration projects related to Fish Creek and Flat Creek. In particular, the DEQ understands the concerns with the degradation of water quality in Fish Creek, and we share the goal of seeing Fish Creek once again attain water quality standards. In addition to the past water quality assessments the DEQ has conducted on Fish Creek, the DEQ has provided financial and technical support to the Fish Creek Watershed Management Plan project, sponsored by Teton Conservation District. We look forward to working with Teton Conservation District and the public during this project to develop a plan that identifies all potential sources of pollution in the watershed and proposes strategies to address them, and we will continue to provide technical assistance as needed as the plan is developed. Following development of that plan, sponsors will be able to apply for additional DEQ grant funding to implement on-the-ground projects to address identified sources. Effective watershed planning should be based on the best available science and must look at all pollutant sources within a watershed to identify the most effective restoration strategies. It is important that all stakeholders participate in watershed planning to share information and identify effective restoration strategies, and public participation is encouraged.

Table 5. Comments regarding compliance, inspections, and monitoring

#	Comment/Response
5-1	**Comment:** Several commenters asked about actions the DEQ will take to ensure the system is installed correctly. The small wastewater facility has already been built. How will DEQ conduct inspections of the facility to determine sewer, water and the sand mound system components have been installed correctly?
	Response: DEQ District Engineers have been onsite conducting periodic site inspections. This has included conducting an April 2023 site inspection in response to a citizen complaint. The results of that site inspection indicated Basecamp was in compliance with DEQ's rules. If the permit is issued, the permit will require the sand mound to be removed and rebuilt to meet required setback distances. DEQ District Engineers will be conducting periodic construction inspections of the sand mound and the reinstallation of the septic and dosing chambers. During these site visits, the District Engineers will also inspect waste and water line installations. The system's waste and water lines will also need to pass pressure tests, and the septic and dosing chambers will need to pass a leakage test.
5-2	**Comment:** Commenters asked if DEQ will conduct site inspections and conduct inspections for building, electrical and other local code requirements?
	Response: DEQ can only conduct inspections in accordance with the authority granted to the agency under the Wyoming Environmental Quality Act (Wyoming Statutes Title 35, Chapter 11). W. S. 35-11-303(a)(i) gives the DEQ Water Quality Division (WQD) authority to conduct inspections to determine if a facility is complying with DEQ-issued permits for that facility. For the small wastewater facility, the DEQ will conduct inspections as needed to determine compliance with the permit. At a minimum, this will include an inspection during construction of the small wastewater facility. Additional inspections will be scheduled as needed. DEQ does not have authority to conduct inspections for building, electrical or other local code requirements. While DEQ requires a permittee to obtain all applicable permits, DEQ is not the arbiter of what those permits may be and whether a permittee is in compliance with another entity's permitting requirements. If presented with a final judicial determination that a permittee had not obtained or complied with another entity's permitting requirement, DEQ would be able to take enforcement action with respect to its permit.

5-3	**Comment:** Commenters asked if DEQ will conduct site inspections, verify the septic tank installation, pressure testing, backfilling, verify separation distances, and other requirements for the small wastewater facility?
	Response: Please see the response to comments 5-1 and 5-2 above. DEQ District Engineers have conducted and will continue to conduct site inspections as needed to verify the small wastewater facility is being constructed in accordance with the permit, including verifying proper installation, pressure testing, separation distances, and other applicable requirements. In addition to DEQ's inspection, Basecamp will be required to verify setback distances through a third-party surveyor.
5-4	**Comment:** A commenter stated that the Draft Permit seems to absolve DEQ of responsibility for monitoring proper construction of the permitted facility. It states that "The compliance with construction standards and the operation and maintenance of the facility to meet the engineer's design are the responsibility of the permittee, owner, and operator." Later in the permit language, however, the Draft Permit states that "In carrying out its activities authorized by this permit, the permittee, owner and operator shall comply with all of the following permit conditions," and it then lists a comprehensive list of nine requirements designed to demonstrate that the permittee is adequately and effectively protecting the Fish Creek watershed. What measures will the DEQ take to monitor compliance with the nine permit conditions enumerated in the Draft Permit? Commenters expressed their concerns that Basecamp has not acted in good faith and should not be trusted to self-monitor compliance with the permit. Commenters requested that Teton County Planning or DEQ be responsible for compliance. Commenters expressed concern with the following language in the permit: "Granting this permit does not imply that WQD (Water Quality Division) guarantees or ensures that the permitted facility, when constructed, will meet applicable discharge permit conditions or other effluent or operational requirements. Compliance with discharge standards remains the responsibility of the permittee." Commenters asked what actions DEQ will take to ensure compliance with surface and groundwater quality if a violation is detected?
	Response: The referenced language is standard language included in all DEQ Permits to Construct, though permit conditions may vary by permit to ensure appropriate conditions are incorporated for each permit. The language is included to put a permittee on notice that it is the permitee's responsibility to comply with all permit conditions. Approval of a permit by the DEQ does not absolve a permittee and cannot be a defense to any subsequent violation of the terms of the permit by the permittee. While the permittee is responsible for complying with permit conditions, the DEQ retains its inspection, compliance, and enforcement authority as granted to it under the Wyoming Environmental Quality Act (see Articles 3, 7, and 9). Under its authority, the DEQ, as determined to be necessary, can inspect facilities to determine compliance (see W. S. 35-11-303(a) and 35-11-701(a)). If the DEQ determines a facility is not in compliance and that a violation exists, the DEQ has authority to work through conference and conciliation to resolve the violation (W. S. 35-11-701(c)). The DEQ may also consider enforcement action that may include penalties (W. S. 35-11-901) to resolve the violation. As noted in comments/responses 5-1, 5-2, and 5-3, the DEQ will, as needed, conduct inspections of the facility to determine compliance with the permit. Both DEQ and the permittee have roles to ensure compliance. As needed, the DEQ will coordinate with the Teton County Planning Department on inspection and compliance issues.
5-5	**Comment:** Will the mound system have monitoring by the State DEQ and the data made available to the public?
	Response: The permit as issued requires Basecamp to conduct the required monitoring. However, as part of its authority to ensure compliance with the permit, the DEQ may opt to collect its own samples to verify data submitted by Basecamp. All files in the DEQ, including monitoring data, are open to the public unless they are found to be confidential under W. S. 35-11-1101 or otherwise protected under the Wyoming Public Records Act. The public may request DEQ records at https://deq.wyoming.gov/records-requests/.

5-6	**Comment:** Is the proposed monitoring adequate to detect changes in groundwater quality? Commenters also expressed concern about how those monitoring wells would be constructed.
	Response: The DEQ has determined that the monitoring as incorporated into the permit will be sufficient to achieve the intended objective of ensuring the system is performing as planned and protecting water quality. If data indicate additional or less monitoring is needed to achieve the objective, the DEQ will consider changes to the monitoring program at that time. As stated in the permit, monitoring wells must be constructed in accordance with Water Quality Rules, Chapter 26, Well Construction Standards.