

MEMORANDUM

Date: March 3, 2023

To: Madison County Planning Board

From: David Donohue, M.S., P.G., Senior Hydrogeologist, HydroSolutions Inc

Subject: **Comments on Mile Creek RV Park & Resort Subdivision – Analysis of New Information**

I am a senior hydrogeologist with HydroSolutions Inc in Helena Montana. I have been retained by Kaye Counts of Cameron, Montana to review the Mile Creek RV Park & Resort Subdivision – Analysis of New Information dated February 28, 2023. My comments are provided below.

Comment 1: Item No. 2 – Gaston Engineering Handout

I assume that the page from a nearby 2016 opencut permit application is intended to support depth to groundwater statements in the subdivision application and imply that no further hydrogeologic assessment is needed. However, the lack of site-specific data is not a valid or defensible submittal supporting depths to first or shallow groundwater. Several concerns with this position by the applicant are identified below.

- 1) There are no wells on the property to provide site specific groundwater data.
- 2) The statement by the Montana Bureau of Mines and Geology (MBMG) Research Specialist Mike Richter relies on one static water level recorded in one nearby well. However, it is common practice for drillers not to record depths to first water in their borehole log and only record water level in the aquifer where the well is completed. Therefore, just because there is no mention of water encountered closer to the surface does not prove that shallow groundwater is not present. A well drilled onsite with the oversight from a hydrogeologist to focus observations for shallow groundwater is required.
- 3) The attached note from MBMG Research Specialist Mike Richter does not support the conclusion that shallow groundwater is not present. It more accurately represents the possibility that depth to shallow groundwater, if present, was not recorded on the four well logs reviewed.
- 4) In summary, it is incorrect to conclude that shallow groundwater does not exist, or appear to exist, when drillers do not record shallow water intervals on their borehole log.

Comment 2: DNRC Letter

The letter addressed to Gaston Engineering from Department of Natural Resources and Conservation (DNRC) Bozeman Water Rights Office does not include the information provided to DNRC from Gaston Engineering. To verify the data which DNRC reviewed and used to conclude that proposed water use for RV Tract 1 will not exceed 10 acre-feet per year, the information provided by Gaston Engineering to DNRC, and the supporting data and analysis must be available for review.



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March 3, 2023

Madison County Planning Board
Madison County Commissioners
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Madison County Planning Board and Commissioners,

I recently obtained an updated public comment analysis for the Mile Creek RV Park major subdivision dated March 1, 2023, and offer the following comments related to the new findings and recommended conditions outlined in this document:

First, I appreciate the Planning Board's recognition of the need to cluster the RV park and private residential developments proposed on Lots 1 and 2 of the subdivision to minimize the impacts of these developments on migratory wildlife and wildlife habitat. Based on the 3/1/23 public comment analysis, I see the County's new recommended conditions pertaining to wildlife (included on pages 13 and 14) have acknowledged this need.

In reviewing the Comment Summary on page 14, row 1 and the new suggested conditions on page 13, row 2, I found what I believe is a typo that, if not corrected, could potentially have implications on the development.

The comment summary on page 14, row 1 states, "*Development on **Lot 1** should lie immediately adjacent to the RV Park to promote a clustered development or within Lot 1.*" Based on Confluence's comment submittal on 1/25/23, this comment summary should be corrected to state, "*Development on **Lot 2** should lie immediately adjacent to the RV Park to promote a clustered development, or within Lot 1.*"

Similarly, I believe a correction should be made in the New Suggested Condition on page 13, row 2 which currently states, "*Development on **Lot 1** should lie immediately adjacent to the RV Park to provide a larger wildlife migration corridor and less disturbance to the spring calving/fawning season.*" If the County is proposing a clustered development, the suggested condition should state, "*Development on **Lot 2** should lie immediately adjacent to the RV Park to provide a larger wildlife migration corridor and less disturbance to the spring calving/fawning season.*"

Again, I believe both of these may be typographical errors; however it is important to reiterate and clarify that to accomplish a clustered development plan for this major subdivision, the private residential and outbuilding development proposed on Lot 2 should either be combined by with the RV park and built in Lot 1, or the lot lines adjusted to ensure the residential/outbuildings in Lot 2 can be built immediately adjacent to the RV Park proposed in Lot 1. Either condition would minimize impacts to wildlife and wildlife habitat. As proposed, the high-density development of the RV park

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coupled with another multi-building residential development with separate access route does not comply with the County's growth policy of promoting clustered development.

Second, I wish to comment on the Planning Board's new recommended condition as stated in row 1, page 14 of the 3/1/23 comment analysis. This new recommendation states, "*The number of allowable RV spaces should be re-evaluated before the commencement of Phase 2 if there is new information that Phase 1 of the RV Park has had a significant adverse impact on wildlife.*"

My comments and questions pertaining to this specific recommended condition include the following:

- What constitutes a significant adverse impact on wildlife and whose decision is it to define whether significant adverse impacts are occurring?
- What methods should be employed to determine whether adverse impacts are occurring?
- What species will need to be considered when conducting a wildlife impact assessment between Phases 1 and 2?
- Considering the RV park could have significant impacts on wildlife, I urge the Planning Board and Commissioners to consider the following excerpt from a Wildlife Conservation Assessment of the Madison Valley, Montana (Brock et al 2006):

"Development and other human activities tend to reduce the amount of available habitat for wildlife and break large blocks of contiguous habitat into smaller habitat fragments. When this happens, some areas of potential connectivity are lost because either habitat changes between fragments create barriers to movement, or the distances between fragments become too large to be successfully bridged by some species. In addition to loss of connectivity, habitat value can also increase connectivity value in many areas. When habitats are fragmented, areas between fragments that formerly provided core habitat (and therefore not needed for connectivity) may become important areas for movement between habitat fragments. If these new areas of connectivity are lost, then habitat fragments may become unusable because they can't support a sustainable population of animals. Results of the wildlife connectivity hotspot analysis indicated Papoose Creek to Raynold's Pass is one of five priority areas to protect remaining connectivity in the Madison Valley. This area is one of the most important zones of connectivity in the Greater Yellowstone Ecosystem because it provides quality habitat and security for montane species moving from the western edge of the Greater Yellowstone Ecosystem to mountain ranges to the west. In addition, this area creates a bottleneck for antelope that seasonally migrate between Henry's Lake and the Upper Madison Valley. Continued development in the area could impair the future value of this area for wildlife habitat connectivity."

- By offering the recommended condition on page 13, the Planning Board has acknowledged that the proposed density of RV spaces in Phase 1 might have a significant impact on wildlife. If a wildlife impact assessment is performed and

indicates significant adverse impacts have occurred due to Phase 1 of the RV park, isn't it too late to remedy the problem? If the added noise, light pollution, traffic, and presence of pets irreparably disrupts the migration of pronghorn through this critical pathway, how will that migratory behavior be restored? Will the developer be responsible for ensuring the recovery of this lost wildlife resource?

Thank you for considering these comments as they pertain to the implications on wildlife and wildlife habitat in your review of the proposed Mile Creek RV Park. I appreciate the opportunity to be involved in this public process.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Sanctuary". The signature is fluid and cursive, with the first name "Mike" and last name "Sanctuary" clearly distinguishable.

Mike Sanctuary
Confluence Consulting, Inc.