

MEMORANDUM

Date: October 11, 2021

To: David Kim Wilson, Morrison, Sherwood, Wilson & Deola, PLLP

From: David Donohue, P.G., HydroSolutions Inc
Luke Osborne, P.E., HydroSolutions Inc

Subject: **Comments on Water, Stormwater, and Environmental Information, Mountain Gateway Planned Unit Development Application, Whitefish, Montana**

As you requested, HydroSolutions Inc (HydroSolutions) completed a preliminary review of applicable portions of selected reports and documents associated with the Mountain Gateway Planned Unit Development (PUD) Application, Whitefish, Montana. HydroSolutions review was completed on behalf of the Flathead Families for Responsible Growth.

This review focused on aspects of water quality and quantity, stormwater drainage and management, environmental issues, and proposed mitigation outlined in the documents. This review also notes specific areas where information in the application was insufficient to perform a detailed review and identifies additional information that the City of Whitefish should obtain and evaluate prior to approval of the PUD.

In general, the application lacked analysis and reports which specifically describe details regarding the development, including an environmental assessment, stormwater management plan, drainage plan, and water quality impact controls and mitigation to effectively prevent impacts to Whitefish Lake. The PUD Narrative provided general descriptions regarding water and stormwater plans and lacked the details needed for completion of an effective review of the PUD application. Comments on information found in the PUD Narrative or associated drawings are provided below.

I. Water

1. We understand that the PUD will be annexed into the City of Whitefish and connected to City water and sewer. However, there is no information provided in the application to confirm that the City water rights includes this property as a Place of Use and the water rights provide sufficient additional capacity for the new use. This information needs to be evaluated and confirmed by the City.

2. The PUD needs to provide information regarding planned water use and needs analysis and verify that the City has sufficient water rights to meet the demands of this additional use.
3. The City must require that the development have sufficient water pressure for all domestic and fire suppression needs. No analysis or documents are provided to evaluate water pressure requirements to meet domestic and fire suppression demands and if booster pumps will be necessary. This information and analysis must be provided included in this application as part of approval for the development.

II. Stormwater

1. The depth to shallow groundwater will regulate the effectiveness of a stormwater infiltration as part of stormwater runoff control system. Has depth to first groundwater been evaluated? Would seasonal fluctuations in groundwater affect effective use of storm water infiltration ponds? Infiltration rates in surface soils must be determined as well so that an effective infiltration rate can be guaranteed.
2. The vortex unit will discharge water directly into the East Lake Shore Ditch. Does the Ditch have the capacity to handle this additional stormwater flow from the increase of impermeable areas (buildings, parking lots, walkways, etc.)? Evidence that the Ditch has the capacity to contain post-development 100-year storm events or other storm events per City code must be provided.
3. The vortex unit will help to capture and retain trash, debris, sediment, and hydrocarbons from stormwater runoff. It will not prevent an increase of nutrient loading from dissolved contaminants into Whitefish Lake. How many vortex units will be included to control stormwater runoff and where will they be located? What manufacturer will be used? Who will be responsible for maintenance of the units to assure proper function?
4. As shown on the PUD renderings, there is one main storm water retention pond located on the south side of the west development parking. Several smaller retention ponds are included on the eastern side of the development. The PUD does not provide specifics on design of the stormwater system so that a technical evaluation of the stormwater management system can be made.
5. The City of Whitefish Engineering Standards (2019) requires that the NRCS Type I 24-hour distribution for the 10- and 100-year storm events must be used for sizing stormwater control systems. Please provide all data and analysis used in your application to size stormwater facilities. At present, no data were provided to support the stormwater management system for this PUD. Verify that pre- and post-development storm water runoff volumes are consistent and proposed storm water facilities sufficiently manage storm water impacts.

6. What are developed mitigation plans if proposed stormwater management is insufficient to ensure that post-development runoff matches the pre-development runoff in timing and volume?
7. More explanation of drainage and flow direction for stormwater runoff once it leaves the property needs to be provided. Where does the East Lake Shore Ditch discharge and how will dissolved nutrients from fertilizer use and other contaminants at the PUD be controlled? Water quality from runoff cannot degrade the water quality of Whitefish Lake, and specifically Monk's Bay, which according to the City's Wisconsin Avenue Corridor Plan (2018) "is very sensitive to run-off and land development".
8. The PUD application does not provide overall drainage paths for stormwater runoff on site as well as from the development to Whitefish Lake. A more thorough description and presentation of the drainage paths, both natural and artificial, should be presented, especially relating to potential impacts to Monk's Bay.

III. Environmental

1. The PUD narrative describes steeper slopes on the NE portion of the site and states that these areas will be left "primarily undeveloped". What are soil types, building property, and slope steepness for the Mountain Gateway PUD and what are the slope limitations for building?
2. The PUD application is lacking a thorough environmental assessment (EA) as required under Title 12, Appendix F of the City of Whitefish Subdivision Regulations. Page 7, Section S states that an EA is required if "... any other land use applications that may apply to the project such as a: rezone application, planned unit development application, variance request, growth policy amendment (text or map), etc. The EA must be completed and reviewed before approval of this PUD. This EA is necessary to fully evaluate the impacts from this development and how best to mitigate impacts if the PUD is approved.

IV. Other

1. A park and ride use option is included in the development. Will sufficient parking spaces be available for public use to makes this an effective traffic management tool?