

**TO:** City of Ponderay  
288 Fourth Street  
Ponderay, Idaho 83852

**RE:** FXG – Sandpoint, ID  
195 McNearney Road  
Ponderay, ID 83852  
Drainage Report Letter

**DATE:** July 11, 2022

**VEI #:** F22-020

**RECEIVED**

JUL 26 2022

To Whom It May Concern,

**PLANNING OFFICE  
CITY OF PONDERAY**

This letter is to summarize the analysis of the existing detention pond with respect to the additional paved surface proposed for this project. The scope of this project consists of adding approximately 2,563 sf of additional pavement north of the existing building.

As part of this analysis an existing drainage report by Z Development Services, dated August 27, 2013, herein attached and hereinafter referred to as the report, has been utilized to determine the adequacy of the volume in the pond. Also, the volume analysis of the pond with respect to the water quality volume has been performed and attached herein. The pond's water quality volume in the report was calculated based on the impervious area of 77,595 sf. Based on the survey performed for this project, the as-built area was determined to be approximately 80,989 sf. The total impervious area including the proposed 2,563 sf of additional pavement used for this analysis is 83,552 sf. This area requires approximately 3,481 cf of water quality volume based on the report.

The above proposed water quality volume water surface elevation in the existing pond is 2131.81 ft. The As-built water surface elevation based on the HMH Engineering survey, dated 05/23/2022 is 2131.95 ft, yielding approximately 3,985 cf of water quality volume provided.

In this drainage study it has been determined that the existing volume in the pond is more than sufficient to accept the runoff from the additional impervious area. No adverse effects of this additional paved area are foreseen in this plan for the downstream, as well as upstream conditions. Please find attached supporting calculations, the report and the HMH Engineering survey.

Upon your review of the enclosed documents, should you have any questions or require additional information, please do not hesitate to contact me at 970-245-9051 or by e-mail at [rjones@vortexeng.us](mailto:rjones@vortexeng.us). Thank you.



**Vortex Engineering, Inc**

**Robert W. Jones II, P.E.**

Cc: FXG  
File

As-built Impervious Area = 80,989 cf  
 Proposed Impervious Area = 2,563 cf  
 Total Impervious Area = 83,552 cf  
 Water Quality Volume Required (1/2" x Impr. Area) = 3,481 cf

Elevation [ft.]	Area [ft <sup>2</sup> ]	Stage Volume [cf]	Change in Elevation [ft]	Cumulative Volume [cf]	Cumulative Volume [acre-ft]
2130.40	0	0.00	0.0	0.0	0.000
2131	3145	629.00	0.6	629.0	0.014
2132	3936	3533.11	1.0	4162.1	0.096
2133	4983	4449.22	1.0	8611.3	0.198
2134	6189	5575.12	1.0	14186.5	0.326

Proposed Water Quality Volume Surface Elevation\* = 2,131.81 ft  
 Original Water Quality Volume Surface Elevation\*\* = 2,131.95 ft  
 Water Quality Volume Provided\* = 3,985 cf

\* Based on Pond's As-Built conditions per HMH Engineering survey, dated 05/23/2022  
 \*\* Based on **Z Development Drainage Report** dated August 27, 2013

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 CITY OF PONDERAY**

