From: Masala, Charles
Sent: Wednesday, January 02, 2013 6:56 PM
To: Colleen Hughes
Cc: Emerson, Dan; Fathalla, Amr M
Subject: RE: Hydrological Data
Attachments: DOC311212-Hydrological Data.pdf

Colleen,

Based on my preliminary assessment of the Bootjack culvert design, the current proposed design of 2-16" pipes is not sufficient for the 1 in 200-year flood from a drainage area of 2 km2. The current design is based on peak flow of up to 0.18 m3/s. This flow is low for a 1 in 200-year flood.

My preliminary assessment is also confirm by the Hydrological Data information you sent me in the attached document. According to the attached document, the peak 1 in 200-year flood at Bootjack weir was estimated to be 10.2 m3/s for a drainage area of 3.77 km2 (Table 6-3). Based on this analysis the peak flow of the current 2.0 km2 should be approximately 5 M3/s, significantly higher than the current proposed flow of 0.18 m3/s.

My recommendation is that a more detail analysis should be performed for this design.

As I mentioned I am currently on vacation until the week of Jan. 14, 2013. At that time I will be available to perform a more detailed analysis. If you would like something done before then, I would have to defer the project to someone else (but it will depend on their availability). Please let me know what you decide.

Thanks,

Charles Masala, M.A.Sc., P.Eng, P.E.
Senior Water Resources Engineer
AMEC Earth & Environmental
Suite 600, 4445 Lougheed Highway
Burnaby, B.C. V5C 0E4
Main Tel: (604) 294-3811 / Fax: (604) 294-4664 My new direct number is: (604) 295-6104 Cell Phone (604) 417 0842
AMEC VOIP #13-6104
E-mail: Charles.Masala@amec.com
www.amec.com

-----Original Message-----
From: Colleen Hughes [mailto:chughes@mountpolley.com]
Sent: December-31-12 2:33 PM
To: Masala, Charles
Subject: RE: Hydrological Data

Here it is.

-----Original Message-----
From: Masala, Charles [mailto:charles.masala@amec.com]
Sent: December-31-12 2:31 PM
To: Colleen Hughes
Subject: RE: Hydrological Data

Colleen,

Thanks for the information. I will now just wait for the engineering design information for the culvert.

Charles

-----Original Message-----
From: Colleen Hughes [mailto:chughes@mountpolley.com]
Sent: December-31-12 11:35 AM
To: Masala, Charles
Subject: Hydrological Data

Hi Charles - looks like you were right and there has been some studies done here.

Colleen