Message

From: Sedlacek, Michael [Sedlacek.Michael@epa.gov]
Sent: 10/17/2016 5:25:24 PM
To: Poleck, Thomas [poleck.thomas@epa.gov]; Marko, Katharine [Marko.Katharine@epa.gov]; Burdick, Melanie [Burdick.Melanie@epa.gov]; McKim, Krista [mckim.krista@epa.gov]
Subject: FW: PolyMet Northmet Mine Site MODFLOW Model Report
Attachments: Final NorthMet Review 9-15-16.pdf

See the attached "final" version of the Corps' MODFLOW analysis for NorthMet. The Corps does not intend to do any additional work. No action is needed on your part, but I do thank all of you for trudging through the trenches to help me review it and provide comments!

Mike

-----Original Message-----
From: Spading, Kenton E RAO @ MVP [mailto:Kenton.E.Spading@usace.army.mil]
Sent: Friday, October 14, 2016 7:18 PM
To: TPint@Barr.com; Brad Moore <bmoore@polymetmining.com>; Jennifer Saran <jsaran@polymetmining.com>; Bill Latady <blatady@boisforte-nsn.gov>; nancyschuldt@fdlrez.com; MWatkins@GrandPortage.com; 'John Coleman' <jcolema1@wisc.edu>; Dvogt@1854treatyauthority.org; Sommer, Steve (MPCA) <steve.sommer@state.mn.us>; Jimenez, Michael -FS <mjimenez@fs.fed.us>; Oknich, Jen (MPCA) <jen.oknich@state.mn.us>; Westlake, Kenneth <westlake.kenneth@epa.gov>; Barb.Naramore@state.mn.us; Foss, Ann (MPCA) <ann.foss@state.mn.us>; Jess.Richards@state.mn.us; 'deamer.eileen@epa.gov'; 'Fortin.Denise@epa.gov'; garrett_peterson@fws.gov
Cc: Augustin, Ralph J MVP <Ralph.J.Augustin@usace.army.mil>; Konickson, Chad S MVP <chad.konickson@usace.army.mil>; Desiree.L.Morningstar@usace.army.mil
Subject: PolyMet Northmet Mine Site MODFLOW Model Report

Hello to All,

The final report on the Polymet-Northmet Mine Site MODFLOW Model is attached. Please review the To: List and forward the report to other interested stakeholders. This is a summary:

The attached report provides an assessment of the mine site MODFLOW model developed by PolyMet contractor Barr Engineering to estimate groundwater flows to the NorthMet mine pits during operations. The report represents an independent review of:

1. The Model's input parameters and setup in relation to their sufficiency for estimating groundwater flows to the mine pit.

2. The issues raised by other reviewers regarding the MODFLOW model being utilized to estimate northward groundwater flow from the NorthMet mine pits to the Peter Mitchell pits after closure of NorthMet.

The review concludes that the model is generally sufficient for the purpose for which it has been developed, namely, to estimate groundwater flows to the pits as one component of the volume estimate used to design and size a water treatment plant.

Other reviewers have used this model as one component of their argument for additional study into the possibility of post-mine-closure northward flow. This review concludes that the model, as currently configured (in its current form), is not an appropriate tool for this analysis. Recommendations are made in the report for improving the model such that it may be used to investigate northward flow.

These recommendations for future modeling are not intended to imply that the U.S. Army Corps of Engineers intends to model or analyze northward groundwater flow at this site. This task is outside the scope of the Corps' Section 404 permit authority under the Clean Water Act. All comments and recommendations related to northward flow modelling are provided for informational purposes only and as a possible guide for future work which may be undertaken by others. Because the model has been used by outside reviewers to investigate northward flow, the report also includes a summary of the arguments for and against the development of northward flow after closure of the mine pits.

Bound Hardcopies of the report are available upon request.

Thank you,

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