Message

From: Sedlacek, Michael [Sedlacek.Michael@epa.gov]
Sent: 4/16/2015 11:58:02 AM
To: McKim, Krista [mckim.krista@epa.gov]; Ackerman, Mark [ackerman.mark@epa.gov]; Burdick, Melanie [Burdick.Melanie@epa.gov]; Poleck, Thomas [poleck.thomas@epa.gov]; Wagener, Christine [wagener.christine@epa.gov]
Subject: FW: NorthMet EPA Comment #25 and PFEIS Section 6.2.2
Attachments: removed.txt; Response EPA Comment 25_Cumulative Water Resources_041515.pdf

This meeting is today from 9-12 in Room 1910. I'm not expecting anybody to have gone over this information before the meeting, given it was sent at the end of the day yesterday. Aside from that, we will also be discussing the mercury and NPDES issues.

From: Woldeab, Irina (DNR) [mailto:irina.woldeab@state.mn.us]
Sent: Wednesday, April 15, 2015 4:46 PM
To: Sedlacek, Michael; Westlake, Kenneth; Bruner, Douglas W MVP; "Jimenez, Michael -FS'; Colvin, Steve E (DNR); Foss, Ann (MPCA); Clark, Richard (MPCA); Kunz, Michael (DNR); Liljegren, Michael W (DNR)
Cc: Doneen, Randall (DNR); Fay, Lisa (DNR); Johnson, Bill H (DNR); Howard Levine; Ross Vellacott; Erik Carlson; 'Fred Marinelli'
Subject: NorthMet EPA Comment #25 and PFEIS Section 6.2.2

Dear colleagues,

In advance of our NorthMet call tomorrow morning, please find attached the updated response for EPA comment #25/Issue #25. The file has also been uploaded to the SharePoint site and the USFS Cloud Vault site.

Additionally, below you will find the relative language that would go into Section 6.2.2 of the PFEIS, relating to cumulative flow to the Upper and Lower Partridge River.

Please feel free to forward this message to others that I missed in this distribution. Also, do not hesitate to contact me, Lisa, or Bill with any questions.

Warm regards,
Irina,
on behalf of the MDNR NorthMet Project Managers

Upper Partridge River flows are currently influenced by the timing and magnitude of Northshore Mine discharges from the Peter Mitchell Pit and would be influenced by the cessation of those discharges in approximately mine year 55. Peter Mitchell Pit dewatering records for the Northshore Mine are incomplete and only provide a rough estimate of daily discharge. Available records show an average annual discharge to the Partridge River ranging from 6.8 to 15.1 cfs, with a highest reported monthly discharge of 34 cfs (Barr 2008f). Over the past several years (2004 to present), the average annual daily discharge from the Northshore Mine has been approximately 5.8 cfs, but is quite variable, ranging from zero (mostly during the winter and summer droughts) to as high as approximately 20 cfs. Flows from the Northshore Mine are uncertain due to incomplete pumping records, complex storage and release mechanisms (e.g. wetlands and ponds), and also seepage from the West Pond. A continuous flow of 2.6 cfs from the Northshore Mine was derived from a calibration exercise and is used as a basis for impact predictions in the FEIS.

The NorthMet Project Proposed Action would also influence future Partridge River flows through 1) WWTF discharges starting in mine year 52; 2) a watershed reduction in closure; 3) pit inflows during operations; and 4)

groundwater flowpath contributions from stockpiles and pits during reclamation and closure. The WWTF would discharge continuously at rate of 0.65 cfs. Watershed area reductions resulting from the NorthMet Project Proposed Action for SW-001, SW-002, SW-003, SW-004, and SW-004a range from 0 percent to 2.1 percent during closure and long-term maintenance, which translates to a reduction of 0.39 cfs below current and future flows at SW-004a. Pit inflows would reduce Partridge River flows by less than 2 cfs. Change to groundwater flows are considered negligible. The P50 average annual modeled flows assessed for the 200-year simulation in the Partridge River at SW-004a considering the totality of these influences are estimated to decrease by no more than 4 percent and increase by no more than 2 percent. Figure 6.2.2-3 shows changes in cfs. The decrease in flows occurs during operations (about mine year 12) of the NorthMet Project Proposed Action when the rate of pit inflows would be the greatest. The increase in flows would occur during closure for about a 3 year period where the WWTF and Northshore Mine are both discharging to the Partridge River.

Figure 6.2.2-2 Change in average annual stream flow at SW-004a

Cumulative effects to lower Partridge River flows (below Colby Lake) are influenced by four factors, WWTF discharges Northshore Mine discharges, the removal of water from Colby Lake for the NorthMet Project Proposed Action and discharges from the Mesabi Mining site. From mine years 1 to 20, The NorthMet Project Proposed Action would remove on average 1.7 cfs of water while the Northshore Mine would contribute water at a rate of 2.6 cfs. There would be no WWTF discharge. The cumulative effects to flows into Colby Lake would be an increase of 0.9 cfs. From mine year 52 to 55 the WWTF and Northshore Mine would discharge water, however there would be no

removal of water from Colby Lake. For this 3 year period, the rate of water to Colby Lake would increase by 3.3 cfs. The cumulative effects to flow from and to Colby, which is 518 acres, would be negligible.

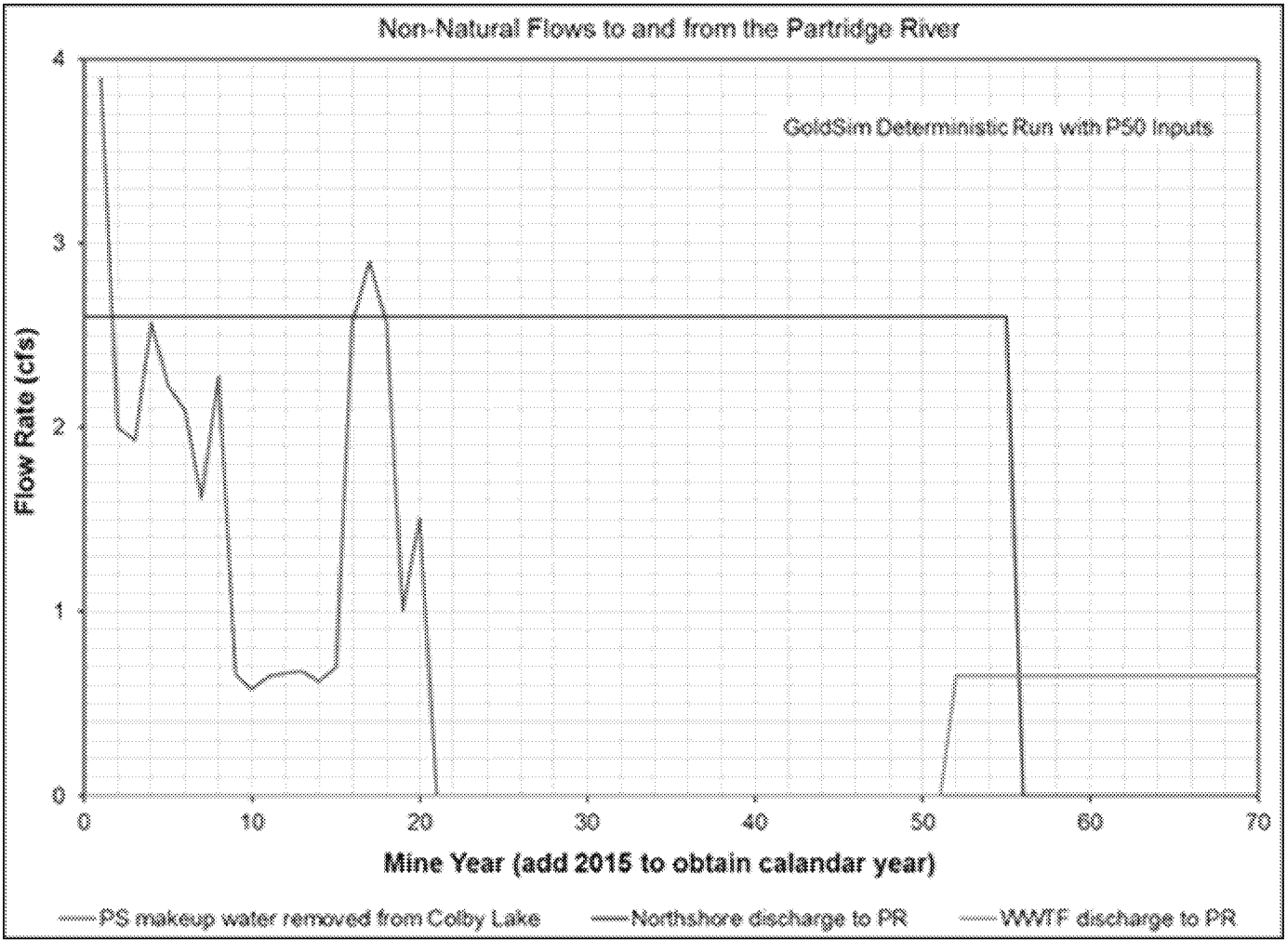

Figure 6.2.2-3 Cumulative Effects to Colby Lake

First Creek an Second Creek meet the Partridge River downstream from Colby Lake. The Mesabi Mining project is at the headwaters to these creeks. Discharges from this area are more uncertain, but may occur, which could result in a net increase of flow to the Lower Partridge River, Given that the cumulative change in flows from Colby to the lower Partridge are negligible, cumulative effects from the addition any Mesabi Mining discharges are not expected.

In summary, the cumulative effects of the NorthMet Project Proposed Action, plus present and reasonably foreseeable future actions on the hydrology of the Partridge River, would not be expected.