

January 9, 2006
McCook, Nebraska



109 East 2nd McCook, NE 69001-3719
Tel: 308-345-3710
Fax: 308-345-7370
www.miller-engineers.com

Ms. Tracy Zayac
Natural Resources Program Specialist
Department of Natural Resources
301 Centennial Mall South, 4th Floor
P.O. Box 94676
Lincoln, NE 68509-4676

RECEIVED

JAN 10 2006

DEPARTMENT OF
NATURAL RESOURCES

Re: Transfer Permit
North Platte, Nebraska
M&A Project No. 125-C1-001

Dear Ms. Zayac:

This letter and attached material is in response to correspondence dated October 5, 2005 concerning the above referenced project. Original comments/requests from your correspondence are in bold and italicized type, with our responses following.

1. The new well field encompasses a substantial portion of upper Whitehorse Creek, including a surface storage right (A-10650) in Section 30, Township 15 North, Range 30 West.

a) Please provide information on or an analysis of the anticipated impacts to the surface water in the well field area.

The Twin Platte NRD has access to the COHYST model, which is the tool to be used for water use developments in the NRD basin. The Twin Platte NRD relies on the Nebraska Public Power District in conjunction with the Platte River Cooperative Hydrology Study (COHYST) Technical Committee to determine impacts to the ground water system. NPPD was contracted to run the calibrated model which addresses the impacts of the well field. The report is provided in its entirety with this correspondence for your review. The simulations ran assume the North Platte well field begins pumping immediately for 48 years at the projected rate of 159% of the current pumping requirements. Gradual development and increased water use will not actually be realized for several years or decades.

Surface water right (A-10650) was determined to be approximately 13 acres of surface water based on FSA maps. Using a net evaporation of approximately 8" per year, 0.012 cfs is needed to maintain the 94.6 AF impoundment excluding run-off. The overall estimated decrease in stream flow due to pumping for the 48 years is 1.1 cfs (see Figure 32 of the attached report).

The effects of the surface water could be further reduced by development and operations of the well field. The outlying wells from the impoundment and Whitehorse Creek should be utilized first in the operations.

b) What mitigation possibilities has the City of North Platte developed to offset the potential impact to Whitehorse Creek and its surface-water appropriator?

col

As discussed in the attached modeling report prepared by COHYST and NPPD, over the 48 years of pumping approximately 1.1 total cfs reduction was observed on the Whitehorse Creek due to ground water pumping of the North Platte well field.

As mentioned in the report, there are three surface water users on the Whitehorse Creek. One is the landowner for 94.6 AF and two are Alphonse Kosmicki for 0.41 cfs and 0.16 cfs. Thus, the total diversion on the Whitehorse Creek is 0.56 cfs. With the predicted maximum decline of 1.1 cfs over 48 years, and just under 5 cfs remaining base flows (excluding precipitation events), mitigation does not appear to be necessary. The projected reduction in base flow is graphically shown in Figure 32 of the report.

2. a) What are North Platte's current wastewater returns, in gallons per year?

The 2004 City of North Platte records reflect they receive approximately 1,347,000,000 gallons per year at the WWTF. The measured effluent return is approximately 924,000,000 gallons per year. This calculates to a water loss of 423,000,000 gallons due to evaporation. The application (page 3 of 11) referenced increased returns to the river of 377,961,000 gallons per year after the new mechanical WWTF is completed. This allowed for evaporation and treatment process losses.

b) Where does the wastewater stream enter the river?

The WWTF effluent enters the river approximately ¼ mile east of the effluent structure which is located in Section 2, Township 13 North, Range 30 West.

c) Does North Platte anticipate that the percentage of withdrawal that is returned through wastewater will increase, decrease, or remain the same before the renovations to the wastewater treatment plant are completed?

It is expected the returns will remain the same before the renovations are completed.

d) When will the results of the wastewater plant renovations become material, in terms of net increased return flows to the river?

The Bids for the construction have been received by the City of North Platte. Construction on the WWTF is scheduled to begin February 1, 2006. It is estimated the WWTF will be in operation before the new well field is developed.

e) Will all of the potential "credits" cited in the application materials as resulting from the renovations to the wastewater plant be realized as return flows to the river, or will a portion of the water currently lost to evaporation be redirected toward the waste-treatment process?

The estimated net credit was provided in the application dealing with the WWTF renovations (see Comment 2a)

JAN 1 0 2006

If you have any questions or require additional information, please do not hesitate to give our office a call.

Sincerely,
MILLER & ASSOCIATES
CONSULTING ENGINEERS, P.C.

A handwritten signature in cursive script that reads "Chris A. Miller".

Chris A. Miller, P.E.

CAM/cll

Enclosure

cc: Jerry Deal, City of North Platte, w/2 sets of enclosures

JAN 19 2006