

January 10, 2006

Mr. Rodney Schwartz  
CENWO-OD-RF  
U.S. Army Corps of Engineers  
12565 West Center Road, Rm 151  
Omaha, NE 68144-3869

RE: 2006 Annual Groundwater Monitoring Report  
Metropolitan Utilities District  
Platte West Water Production Facilities Project – Permit No. 199910085

Mr. Schwartz,

Enclosed is a copy of the 2006 Annual Groundwater Monitoring Report. As specified in Appendix A of the permit conditions, copies of this report are being made available to the Corps of Engineers – Kansas City District, USEPA Region VII, and NDEQ.

In addition, this report will soon be available to the public and other interested agencies via MUD's website, [www.mudomaha.com/platwest/documents/contents.html](http://www.mudomaha.com/platwest/documents/contents.html).

Sincerely,

**SIGNATURE**

Kevin P. Tobin  
Platte West Project Manager

Encl.

cc: Mr. Garth Anderson, USACE – Kansas City District  
Ms. Melissa Kemling, Nebraska DEQ  
Mr. Scott Marquess, USEPA Region VII

**2006**

**Annual Groundwater Monitoring Report**

**for the**

**Platte West Wellfield Project**

**Submitted by the**

**Metropolitan Utilities District of Omaha**

**to the**

**Corps of Engineers – Omaha District**

**January 2007**

## Introduction

The purpose of this report is for the Metropolitan Utilities District of Omaha (MUD) to provide the Omaha District Corps of Engineers (Corps) with groundwater monitoring data collected over the past year relevant to MUD's Platte West Water Production Facilities Project. The content of this report is as outlined in applicable conditions from the Project's Section 404 Permit No. 199910085. A summary of the requirements of the applicable conditions is provided below:

**Permit Condition #53** – Requires that MUD provide an annual “Groundwater Monitoring Report”, which shall include at a minimum: groundwater modeling results, water table elevations, stream gaging data, and any chemical data collected by MUD as set forth in Conditions 62a through 62e.

**Permit Condition #61e** – Requires that MUD submit a “Nebraska Ordnance Plant Groundwater Report” on an annual basis, which shall include at a minimum a presentation and evaluation of data collected as required by Condition #61a through #61d. Condition 61a requires the Corps to provide and for MUD to utilize the most current “Mead Site Groundwater Baseline”, and to work cooperatively with Corps and other agencies by providing data and updated modeling in event other contamination is discovered along eastern edge of the Site. Condition 61b requires MUD to coordinate with the Corps, the installation of an unspecified number of monitoring wells in the area east of the Mead Site and to conduct semi-annual sampling events. Condition 61c requires MUD to provide a baseline transient groundwater model. Condition 61d requires that MUD submit a “Nebraska Ordnance Plant Groundwater Assessment/Monitoring Plan”, which shall include at a minimum: discussion of the groundwater model, location and construction plan for groundwater monitoring wells, sampling and analysis plan, and quality assurance plan to meet requirements of Permit Conditions 61b and 61c.

**Permit Condition #62f** – The Permit Conditions included in #62 apply after the start of wellfield operations (expected to be 2008), Condition #62f requires that MUD submit a “Nebraska Ordnance Plant Groundwater Report on an annual basis, which includes at a minimum a presentation and evaluation of all data collected as required by Conditions #62a through #62e. This reporting requirement is essentially the same as required by Condition #61e.

**Appendix A to the Permit Conditions** – Anticipates combining the “Groundwater Monitoring Report” with the “NOP Groundwater Report” into a single report.

As anticipated and allowed by Appendix A to the Permit Conditions, the required “Groundwater Monitoring Report” and “NOP Groundwater Report” have been combined into this single reporting document titled “2005 Annual Groundwater Monitoring Report”.

## **Presentation and Evaluation of Required Data**

### **Groundwater Modeling Results:**

As provided in the past years, these results have been previously provided separately in the form of a Baseline Groundwater Modeling Report (Phase I), submitted in November 2004, and a Phase II Groundwater Modeling Report, submitted in November 2005. These reports are included by reference and not repeated in this report.

Both the Baseline and Phase II Modeling efforts utilized the 1997 ROD data for location of the NOP plume boundary. Requests for updated information were made during development of the Phase II Model; however, an updated boundary map was not made available to MUD until September 1, 2005 which was too late to be incorporated into the Phase II Report. Future modeling efforts will incorporate the most recent version available at the time. It should be noted that there are no discernable differences on the eastern edge of the plume boundary between the 1997 ROD version and the updated version.

### **Additional Groundwater Monitoring Wells:**

MUD has proposed development of a plan to provide both hydraulic and chemical monitoring data. This proposed plan was developed based on MUD's understanding of CENWK's proposed groundwater management plan for the NOP Site. It proposes the installation of two additional hydraulic monitoring wells, collection of daily groundwater level data from existing and future Corps monitoring wells with MUD supplied level transducers, and complimenting Corps chemical monitoring with chemical monitoring of four additional wells through agreements between MUD and ECC, the Corps NOP contractor. An outline of the proposed plan, titled "Memorandum Outlining Proposed Monitoring Program to Detect Influence of MUD's Platte West Wellfield on NOP Operations" is included under Appendix A.

### **Water Table Elevations:**

Groundwater elevation data from MUD's existing monitoring well network in Douglas, Sarpy, and Saunders Counties is included in Appendix B. The data represents the collection of baseline information related to conditions that exist prior to the start of wellfield operations. It is noted that data on some monitoring wells was lost due to a theft of portable device used to collect data before collected information could be downloaded to MUD's network. Revised security and collection methods will make a repeat of this event in the future unlikely.

### **Stream Gaging Data:**

Stream gaging data, in the form of a graph, from USGS' "Station #06796550 near Venice, NE" is included in Appendix C. This information as well as other gaging station data both upstream (Leshara and North Bend) and downstream (Ashland and Louisville) are available from USGS' real-time website

[http://waterdata.usgs.gov/ne/nwis/current?type=flow&group\\_key=basin\\_cd&search\\_site\\_no\\_station\\_nm=](http://waterdata.usgs.gov/ne/nwis/current?type=flow&group_key=basin_cd&search_site_no_station_nm=)

**Chemical Data:**

Under an agreement with MUD, USGS conducted two sampling and testing events during 2006 for six (6) existing monitoring wells in Saunders County. The sampling and testing of these existing monitoring wells is not covered under the permit conditions, regardless, MUD desired that this work be conducted in a manner compatible with the requirements as set forth in the permit. As such, USGS developed and followed a Sampling and Analysis Plan that was submitted to and approved by the Corps. The approved plan is available on USGS' website <http://pubs.usgs.gov/of/2005/1337/>. The environmental results for the 2005 sampling events were included in the 2005 Report and are still available on USGS' website <http://ne.water.usgs.gov/projects/mud/MUDGWhome.html>. The results for the spring 2006 sampling event included low level detections in trip and equipment blanks and environmental samples of several compounds not expected to be present. This necessitated a more in-depth review of the laboratories quality assurance procedures and these results are not yet available for publication. Preliminary results from the fall 2006 sampling event resulted in non-detects for these compounds, these results have also not yet been published by USGS. The USGS website will be updated as soon as the results are available.

*End of Report*