

MEMORANDUM

TO: Programs, Projects, and Operations Subcommittee
FROM: Eric Williams, Natural Resources Planner
SUBJECT: LPRCA Water Quality Monitoring Network Agreement
DATE: February 9, 2016

As a member of the Lower Platte River Corridor Alliance (LPRCA), the District has been involved with real-time water quality monitoring network sites to provide comprehensive real-time water quality data for the Lower Platte River. Past agreements thru the LPRCA have led to four existing testing locations; Platte River at Louisville, Salt Creek at Ashland, Elkhorn River at Waterloo, and Shell Creek near Columbus. The proposed work would add a fifth site at the current USGS streamflow station on the Platte River at Leshara to provide real-time data for temperature, turbidity, dissolved oxygen, specific conductance and nitrate/nitrite. A nitrate/nitrite sensor was added to the Louisville site approximately four years ago. The sites are operational approximately March through October with data collected at 15-minute intervals. The data is publically available over the internet in near real time and historical data are available. Additional constituents can be monitored upon request.

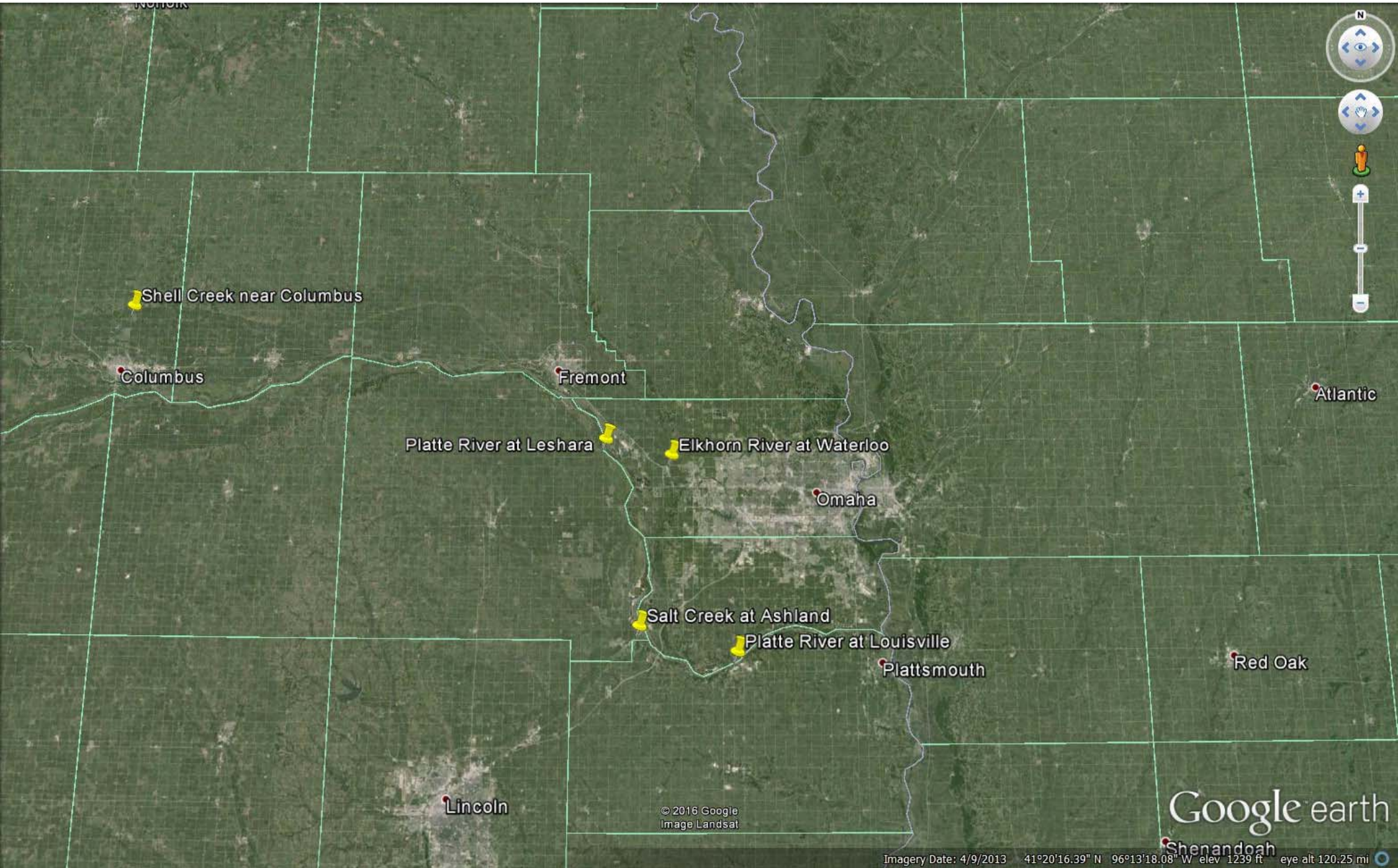
It is proposed that a nitrate sensor be added to the traditional Waterloo monitoring site on the Elkhorn River. This will provide nitrate monitoring on a major watershed in the Lower Platte system.

Leshara was selected from conversations with USGS during and following the completion of the LPRCA water quality management plan. USGS indicated that with the Leshara site, there would be adequate data available within the network to get a clearer understanding of loads from the major tributaries to help guide LPRCA and NRD Water Quality management work. Additionally conversations with MUD indicated that they would find the data from Leshara site useful for their operations, especially if it includes a nitrate sensor.

The LPRCA hopes that MUD and Lincoln Water System (LWS) will consider providing some level of partnership funding for the operation of the Leshara real-time water quality site. A meeting with MUD was held during the first week of January. MUD indicated they would recommend providing an annual \$4,000 contribution to the Leshara site. The data from this site as well as the additional sites within the network can provide MUD, LWS, the LPRCA, and others a comprehensive look at the water quality within the Lower Platte River and its tributaries.

In order to move forward with the existing monitoring sites, adding a nitrate sensor at Waterloo, and adding the additional site at Leshara, LPSNRD will sign an agreement with USGS on behalf of the LPRCA. Monitoring sites will be deployed in March 2016, if weather conditions allow. The expenses for all sites will be included in the LPRCA budget request for FY 2017 and thereafter.

- **It is recommended that the Subcommittee recommend to the Board of Directors that the District continue to partner in the traditional LPRCA Water Quality Monitoring Network at Louisville, Ashland, and Waterloo, and partner in adding nitrate monitoring at the Waterloo station, and subject to participation by MUD, LPSNRD, and LPNNRD, partner in adding a new site at Leshara including nitrate monitoring.**



© 2016 Google
Image Landsat

Google earth

Imagery Date: 4/9/2013 41°20'16.39" N 96°13'18.08" W elev 1239 ft eye alt 120.25 mi