



PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

Second Amendment to the Agreement between
Nebraska Community Foundation, Inc., Platte River Recovery Implementation Program,
and EA Engineering, Science, and Technology, Inc. regarding the
Water Quality Monitoring Protocol Implementation

This Second Amendment to the Agreement dated February 3, 2009 between the Nebraska Community Foundation, Inc. ("Foundation") of Lincoln, Nebraska, representing all signatories to the Platte River Recovery Implementation Program ("Program") and EA Engineering, Science, and Technology, Inc. ("Consultant") is made and entered into effective on the date of signing below, with the final date of this Second Amendment will be February 17, 2011.

The purpose of this Amendment is to:

- Expand the Scope of Work to include the tasks as described in Attachment A.
- Increase the contract amount by **\$280,000** for **FY2011**, effective as of the date of this second Amendment. With the original contract for \$180,000 in (FY2009) and the 1st Amendment for \$179,200 (FY2010), the total payment under this contract shall not exceed \$639,200.

All other terms of the original Agreement remain in effect as originally written.





Attachment A

Water Quality Monitoring Protocol Implementation Second Amendment Scope of Work and Budget



221 Sun Valley Blvd, Suite D Lincoln, NE 68528 Telephone: 402.476.3766 Fax: 402.476.7825

www.eaest.com

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM Water Quality Implementation Budget Assumptions 2011 Monitoring Season

The following assumptions were considered in the development of the water quality implementation budget.

Platte River Assumptions

- ▶ The budget includes monitoring as described in the Water Quality Monitoring Protocol.
- A one person crew would conduct the field work for operation and maintenance. A two person crew would conduct the field work for operation, maintenance, and sampling for metals.
- Operation and maintenance of the sondes would be conducted every two weeks from March through mid May, every week mid May through September, and every two weeks from October through November for a total of 29 events. Weekly operation and maintenance from mid May through September is necessary due to bio-fouling of the sondes.
- ▶ The budget includes conducting three *E. coli* sampling events. EA will utilize *E. coli* data from Nebraska Department of Environmental Quality for the other three sampling events.
- ▶ The budget does not include the replacement of a sonde in the event of loss, damage or malfunction. The Platte River Recovery Implementation Program will be responsible for the replacement of a sonde in the event of loss, damage or malfunction unless the damage or malfunction is directly caused by EA Engineering, Science and Technology, Inc.
- One field audit by a project scientist will be conducted.
- ▶ The budget includes two hard copies of the draft report for the Executive Directors office to review and three hard copies of the final report. It also includes an electronic version of the draft and final report.
- ▶ The budget includes effort for the Annual Update, Adaptive Management Plan reporting session, and field filtration supplies for metals sampling.
- ▶ The budget includes effort for the analysis of three years of water quality data. EA will work with the Executive Directors office in 2011 to identify the requirements of the data analysis.



Kearney Canal Assumptions

- ▶ EA will develop a separate monitoring plan to outline the locations and data collection methods.
- ▶ EA will purchase four additional sondes capable of collecting dissolved oxygen, pH, temperature, turbidity, and specific conductance.
- ▶ The sondes will be installed in the Platte River at the Elm Creek, NE bridge, in Elm Creek near the confluence with the Platte River, in the Kearney Canal downstream of the diversion, and in the Kearney Canal near the hydropower plant.
- ▶ EA will perform operation and maintenance of the sondes in conjunction with the operation and maintenance of the sondes for the Platte River Water Quality project from approximately April through early November for a total of 26 events.
- ▶ EA will collect grab samples for TSS analysis during the operation and maintenance of the sondes at the Platte River at the Elm Creek bridge, at the Platte River at the Lexington bridge, in Elm Creek near the confluence with the Platte River, in the Kearney Canal downstream of the diversion, and in the Kearney Canal near the hydropower plant.
- ▶ Four separate trips to collect grab samples for TSS analysis will be scheduled to allow sample collection during various environmental conditions (storm events, pulse flows, etc.).
- A total of 168 grab samples for TSS analysis (including duplicates and field blanks) are included.
- ▶ EA will collect flow data from adjacent USGS or NDNR stream gages to supplement data collected for the Platte River water quality.
- ▶ The data will be collected according to the procedures listed in the PRRIP Water Quality Monitoring Protocol.
- An individual Annual Data Summary Report will be prepared and submitted upon completion of field data collection. The purpose of the report is to present the data collected, provide a summary of the methods and procedures, evaluate the data quality, and summarize the data analysis.
- ▶ The budget includes two hard copies of the draft report for the Executive Directors office to review and three hard copies of the final report. It also includes an electronic version of the draft and final report.

TOTAL COST SUMMARY

Platte River Recovery Impelmentation Program Platte River and Kearney Canal Water Quality Monitoring Estimated Cost - 2011 Monitoring Season

| | Labor Hours | Labor Cost | Subcontractor | ODC's | Travel | Subtotal | Events | TOTAL |
|--|----------------|---------------|---------------|-------------|------------|--------------|--------|--------------|
| Phase 1 - Sampling Plan - Kearney Canal | 57 | \$4,770.00 | \$0.00 | \$180.16 | \$0.00 | \$4,950.16 | 1 | \$4,950.16 |
| Phase 2 - Installation of Field Equipment | 98 | \$6,870.00 | \$0.00 | \$1,883.60 | \$811.80 | \$9,565.40 | 1 | \$9,565.40 |
| Phase 3 - O&M for Field Equipment - Kearney Canal | 10 | \$608.00 | \$0.00 | \$315.84 | \$67.65 | \$991.49 | 26 | \$25,778.74 |
| Phase 4 - O&M for Field Equipment - Platte River | 38 | \$2,357.00 | \$0.00 | \$705.94 | \$270.60 | \$3,333.54 | 25 | \$83,338.50 |
| Phase 5 - O&M for Field Equipment and Metals Analysis - Platte River | 114 | \$6,188.00 | \$0.00 | \$2,845.68 | \$1,082.40 | \$10,116.08 | 4 | \$40,464.32 |
| Phase 6 - E. coli sampling - Platte River | 14 | \$897.00 | \$0.00 | \$611.29 | \$0.00 | \$1,508.29 | 3 | \$4,524.87 |
| Phase 7 - Storm Event Sampling - Kearney Canal | 25 | \$1,815.00 | \$0.00 | \$456.29 | \$0.00 | \$2,271.29 | 4 | \$9,085.16 |
| Phase 8 - Purchase New Sondes - Kearney Canal | 3 | \$231.00 | \$0.00 | \$28,600.00 | \$0.00 | \$28,831.00 | 1 | \$28,831.00 |
| Phase 9 - Data Collection and Management | 262 | \$19,142.00 | \$3,850.00 | \$55.00 | \$0.00 | \$23,047.00 | 1 | \$23,047.00 |
| Phase 10 - Draft and Final Report | 431 | \$32,400.00 | \$0.00 | \$277.15 | \$0.00 | \$32,677.15 | 1 | \$32,677.15 |
| Phase 11 - AMP Reporting Session | 18 | \$2,070.00 | \$0.00 | \$0.00 | \$667.70 | \$2,737.70 | 1 | \$2,737.70 |
| Phase 12 - Data Analysis - All WQ Data | 125 | \$12,138.00 | \$2,750.00 | \$112.00 | \$0.00 | \$15,000.00 | 1 | \$15,000.00 |
| TOTALS | 1,195 | \$89,486.00 | \$6,600.00 | \$36,042.95 | \$2,900.15 | \$135,029.10 | | \$280,000.00 |