

Task Order #7 – Service Agreement Between the Nebraska Department of Natural Resources and Board of Regents, University of Nebraska, Nebraska Water Center

TASK: Delineation and Characterization of Ground-water Basins within Nebraska

DESCRIPTION OF WORK: 1) Complete interpretations on remaining test holes identified in Task Order #4; including completing test-hole log books by County for the entire state in electronic form. These publications will include lithology logs, geophysical logs (if available), location information, elevation information and stratigraphic description.

2) Develop and implement web-based access to the completed test-hole database; 3) Initiate work on the characterization of ground-water basins within the state of Nebraska with major emphasis on developing the framework and criteria for defining basin features such as hydrostratigraphy, groundwater occurrence, boundary conditions, hydraulic properties, surface-water hydrology, and land use/land cover.

WORK PRODUCTS:

1) Expanded test-hole database that includes additional test-hole interpretations; including lithology logs, geophysical logs (at least 291), location information, elevation information and stratigraphic description. By June 30, 2007 all useable test holes (around 5,400) for all counties will be entered into the database and the database will be online and available for public use. Currently e-logs have been completed for 17 counties. By June 30, 2007 it is planned that all counties will be complete,

2) Documentation on criteria and procedures to be used in the delineation and characterization of ground-water basins within the state;

3) An example ground-water basin atlas (probably 2 to 5 counties in size) to serve as a prototype and guide for future work. Included in the example atlas will be GIS coverages related to spatial data (e.g., basin boundaries, hydraulic properties, hydrology, land use/land cover), time-variant (historical) data (e.g., rainfall, runoff, ground-water levels, water quality), and any other data and information relevant to characterizing a given groundwater-basin.

BUDGET: Attached is a detailed budget for expenses that will be incurred in completing the task. This budget represents 50% of the work effort for the task. The budget includes unexpended funds from Task Order #1 (\$7,955.00). The Center will provide resources necessary to complete the above mentioned work. The cost of the task that will be reimbursed by the Department is \$82,908.00 and will not exceed this amount without further authorization.

SCHEDULE: Work on this task order may include work commencing by July 1, 2006 and *all work shall be completed by June 30, 2007*. In this particular work order, meeting the schedule is very important.

RECEIVED

AUG 31 2006

DEPARTMENT OF
NATURAL RESOURCES

Ann Bleed

Ann Bleed, Acting Director and Task Order Coordinator

6-24-06

Date

Kyle L. Hoagland

Kyle Hoagland, Director Water Center and Project Manager

7/17/06

Date

APPROVED

AS TO FORM & CONTENT
BY NDNK LEGAL COUNSEL

RT

DATE 6/23/06

Budget

| | |
|--|---------------------------|
| <u>Staff</u> | |
| Principal Investigator – Jerry Ayers (20% FTE for 12 months) | \$15,975.00 |
| Co-investigator—Sue Lackey (10% FTE for 9 months) | 4,838.00 |
| Land Cover/Land Use Specialist (TBA) (20% FTE for 4 months) | 3,665.00 |
| Co-investigator –Water Scientist (TBA) (10% FTE for 9 months) | 2,851.00 |
| Geologist – TBA (100% FTE for 3 months) | 7,259.00 |
| GIS Specialist – Les Howard (10% FTE for 8 months) | 5,610.00 |
| 2 Hourly Employees (\$1,600 each per month for 6 months) | 19,200.00 |
| Fringe benefits for PI – Ayers (28%) | 4,473.00 |
| Fringe benefits for Co-PIs (28%) | 3,179.00 |
| Fringe benefits for GIS – Howard (28%) | 1,571.00 |
| TOTAL SALARIES | \$68,621.00 |
| <u>Supplies and Materials</u> (plotter paper, media, ink, etc.) | 1000.00 |
| <u>CALMIT Services</u> (Land use/land cover sources) | 2,750.00 |
| <u>Computer Time</u> | 3,000.00 |
| TOTAL DIRECT COSTS | \$75,371.00 |
| FACILITIES AND ADMINISTRATIVE (F&A) COSTS (10%) | \$7,537.00 |
| <u>TOTAL COSTS</u> | <u>\$82,908.00</u> |