

**LETTER MEMORANDUM OF AGREEMENT FOR SUPPORT OF  
COLLABORATIVE EFFORTS TO DEVELOP A REGIONAL GROUNDWATER  
MODEL FOR THE BLUE RIVER BASINS**

This Memorandum of Agreement (MOA) is intended to capture and express the joint desire of the Nebraska Department of Natural Resources (NeDNR), Upper Big Blue Natural Resources District, Lower Big Blue Natural Resources District, Little Blue Natural Resources District, and Tri-Basin Natural Resources District (NRDs) (collectively Parties) to collaborate on the development of a regional groundwater model that can be used to support integrated management planning activities.

**RECITALS**

- A. The Department has certain statutory authorities and responsibilities particularly pertaining to the surface water of the state, and also authorities and responsibilities granted under the Nebraska Ground Water Management and Protection Act, *Neb. Rev. Stat.* §§ 46-701 - 46-754 ("GWMPA") for integrated management of hydrologically connected groundwater and surface water.
- B. The NRD's are organized and existing pursuant to *Neb. Rev. Stat.* §§ 2- 3201 et seq. and has certain statutory authorities and responsibilities, particularly pertaining to the groundwater in their respective areas of the State, and also authorities and responsibilities granted by the GWMPA for integrated management of hydrologically connected groundwater and surface water.
- C. The Parties desire to enter into this MOA for purposes of agreeing to jointly and cooperatively develop a regional groundwater model that will be used to support the development and implementation of integrated management planning activities in the Big Blue and Little Blue River Basins (Basin).

**SCOPE OF AGREEMENT**

The Parties will work with the selected consultants (Brown and Caldwell and The Flatwater Group) to develop a conceptual model and numerical groundwater model intended to fulfill the needs of all Parties. All model development tasks that relate achieving the modeling objectives will require the consensus of all Parties. The following are key modeling objectives that the Parties have identified in support of Phase II modeling efforts.

- 1. The model should allow for identification of the hydrologically connected (10/50) areas of the Basin in Nebraska
- 2. The model should simulate streamflow changes caused by regional water level changes and determine the spatial and temporal distribution of streamflow depletions caused by groundwater pumping

3. The model should support NeDNR's evaluation of the appropriation status of the Basin and other management decisions related to how groundwater pumping impacts streamflows
4. The model should provide a platform and datasets representing the best available data for evaluation of local-scale issues in separate future projects, including but not limited to:
  - a. Potential impacts of new development to a localized area of the model space
  - b. Questions about the nature and timing of impacts in certain areas related to groundwater level declines in other areas
  - c. Impacts to streamflows and the aquifer from developing additional acres under current irrigation application rates
  - d. Determining offset requirements for potential large water users
  - e. Determining how much additional development can be allowed, and in what areas

The full version of the Phase II scope of work from Brown and Caldwell and The Flatwater Group are provided in Attachments 1 and 2. The

### **FINANCING AND BUDGETING**

Consultant activities undertaken in support of this MOA will be financed by cash contributions made by the Parties. The amount of the Parties contributions will strive to distribute overall project costs 50% to NeDNR and 50% to the four NRDs. The total projected costs for completing phase II modeling activities is estimated to be approximately \$526,600 with the Brown and Caldwell activities estimated at \$351,600 and The Flatwater Group activities estimated at \$175,000.

For purposes of reducing project management costs to the Parties, NeDNR will contract with The Flatwater Group and pay its expenses in full while the four NRDs will contract with Brown and Caldwell and pay the first \$175,000 in expenses in full. Once Brown and Caldwell expenses exceed \$175,000, remaining costs of up to \$175,000 will be split 50% to NeDNR and 50% to the four NRDs, these commitments will be detailed in a separate formal contract to be entered into in the future.

Should existing available budget resources be reduced, NeDNR will notify the four NRDs, and work with them to identify and pursue alternative sources of funding to complete the phase II activities.

### **ADDITIONAL MOA PROVISIONS**

1. This MOA does not serve as a formal binding contract, but rather serves as an expression of joint commitment by the Parties to work collaboratively to develop modeling tools that will support the implementation of integrated management planning activities.

2. Each Party shall make good faith efforts to comply with the terms and conditions of this MOA.
3. All of the Parties' books, records, and documents relating to work performed or monies received or spent under this MOA shall be subject to audit at any reasonable time after reasonable notice by the NRD, the Department, the State Auditor or as required by any grant agreements, donations or other source of funds.
4. This MOA does not relieve any of the Parties hereto of any obligation or responsibility imposed upon it by law.
5. This MOA may be amended in a writing duly executed by each and all of the Parties.
6. This MOA becomes effective upon execution by all Parties.

IN WITNESS WHEREOF, the Parties have signed and executed this MOA on the dates shown next to their respective signatures:

UPPER BIG BLUE NATURAL RESOURCES DISTRICT

\_\_\_\_\_

By: Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Title \_\_\_\_\_

LOWER BIG BLUE NATURAL RESOURCES DISTRICT

\_\_\_\_\_

By: Printed Name \_\_\_\_\_ Date \_\_\_\_\_  
 Title \_\_\_\_\_

LITTLE BLUE NATURAL RESOURCES DISTRICT

\_\_\_\_\_

By: Printed Name \_\_\_\_\_ Date  
Title \_\_\_\_\_

TRI-BASIN NATURAL RESOURCES DISTRICT

\_\_\_\_\_  
By: Printed Name \_\_\_\_\_ Date  
Title \_\_\_\_\_

NEBRASKA DEPARTMENT OF NATURAL RESOURCES

\_\_\_\_\_  
By: Gordon "Jeff" Fassett, P.E. Date  
Director

# **ATTACHMENT 1 – Brown and Caldwell Scope of Work**

## **ATTACHMENT 2 – The Flatwater Group Scope of Work**