Contract between

Platte River and Basin Cooperative Hydrology Study And

NEBRASKA COMMUNITY FOUNDATION, INC. and PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

THIS AGREEMENT made and entered into this _____ day of _______, 2014, by and between **Platte River and Basin Cooperative Hydrology Study** (hereinafter "COHYST"), with its office at 415 Lincoln Street, Holdrege, NE 68949 and the **Nebraska Community Foundation (representing all signatories to the Platte River Recovery Implementation Program**), a Nebraska non-profit corporation, with its principal office located at 3833 South 14th Street, Lincoln, Nebraska 68501-3107, hereinafter referred to as "Foundation," and the **Platte River Recovery Implementation Program**, with its principal office located at 4111 4th Avenue, Suite 6, Kearney, Nebraska 68845, hereinafter referred to as "Platte Program," (jointly referred to as "Parties" and individually as "Party.")

WITNESSETH:

WHEREAS, COHYST is developing a groundwater and surface water model of the central Platte River (hereinafter "Model"); and

WHEREAS, Platte Program is interested in revisions to the model to evaluate water management projects in the Platte River; and

WHEREAS, COHYST is willing to revise the COHYST model to allow the Platte Program to evaluate water management projects.

NOW, THEREFORE, IN CONSIDERATION of the mutual covenants and agreements herein contained and the terms and conditions hereinafter set forth, it is hereby covenanted and agreed:

- 1. Scope of Services COHYST will provide professional services to develop a calibrated and linked ground and surface water models that can quantify the effects on stream flow and aquifer levels from water management projects identified in Exhibit A.
- 2. Compensation For services rendered, the Platte Program will pay to COHYST the following for model development as described herein:

| Task | Hours | Estimated Fee |
|--|-------|---------------|
| 100 — Incorporation of J-2 Regulating Reservoir | 184 | \$24,500 |
| 200 — 1985-2005 Simulation of Updated STELLA Model | 72 | \$10,500 |
| 300 — Simulation of Phelps Canal Recharge Project | 128 | \$17,500 |
| 400 — Recharge Response Function | 52 | \$9,500 |
| 500 — Preparation for 1947-2010 Simulation | 88 | \$10,000 |
| 600 — Documentation of Task Series 100-500 | 60 | \$8,000 |
| | | |
| Estimated Direct Expenses (@5%) | | \$4,000 |
| Estimated Project Management | | \$6,000 |
| | | · |
| Total Estimated Fee | 584 | \$90,000 |

Additional information on each task is provided in Appendix A. COHYST shall invoice the Foundation for the above charges beginning as soon as invoices from HDR, Inc are received. Payment shall be due within 60 days of invoice and shall be provided to Lyndon Vogt, Treasurer, Cooperative Hydrology Study, 215 Kaufman Avenue, Grand Island, NE 68803, vogt@cpnrd.org.

- 3. Term This Contract shall be effective upon endorsement by the Parties and shall terminate on December 31, 2014. If the scope of work is not completed by December 31, 2014 the parties shall consider extension of this contract upon mutually agreeable terms.
- 4. DATA SHARING. COHYST agrees to share all modeling data generated for the tasks in Section 2.
- 5. FORCE MAJEURE. COHYST shall not be liable for any delay or failure to perform its obligations under this Agreement caused by an event or condition beyond the reasonable control of, and without the fault or negligence of COHYST, including, without limitation, failure of facilities, flood, earthquake, storm, lightning, fire, severe cold or other weather event, epidemic, contamination, war, terrorist act, riot, civil disturbance, labor disturbance, accidents, sabotage, or restraint by court or restrictions by other public authority which delays or prevents performance (including but not limited to the adoption or change in any rule, policy, or regulation or environmental constraints imposed by federal, state or local governments), which COHYST could not reasonably have avoided by exercise of due diligence and foresight. Upon the occurrence of such an event or condition, the obligations of COHYST under this Agreement shall be excused and suspended without penalty or damages, provided that COHYST shall give the Platte Program prompt written notice describing the particulars of the occurrence or condition, the suspension of performance is of no greater scope and of no longer duration than is required by the event or condition, and COHYST proceeds with reasonable diligence to remedy its inability to perform and provides progress reports to the Platte Program describing the actions taken to remedy the consequences of the event or condition.
- 7. DEFAULT. If any Party to this Agreement fails to perform or otherwise breaches any of the terms of this Agreement, then such failure shall constitute a default. In the event of default by any Party, the non-defaulting Party/s shall give written notice of the default to the defaulting Party. Following such written notice, the defaulting Party may cure the default within thirty (30) days. Upon cure, this Agreement shall remain in full force and effect. If the defaulting Party fails to cure, the non-defaulting Party/s shall be entitled to any and all legal and equitable remedies except COHYST's total liability to the Platte Program for any loss or damage, including but not limited to special and consequential damages, arising out of or in connection with the performance of this Agreement shall be limited to reimbursements provided by HDR, Inc..
- 8. ENTIRE AGREEMENT. This Agreement contains the entire understanding of the Parties hereto with respect to the water service contemplated hereby and supersedes all prior agreements and understandings between the Parties with respect to such subject matter.
- 9. AMENDMENT. No amendment to this Agreement shall be valid unless it is in writing and signed by the Parties hereto.
- 10. BINDING EFFECT. This Agreement shall inure to the benefit of and be binding on the Parties, their successors and assigns. This Agreement may not be assigned by the Platte Program without the written consent of COHYST.

- 11. GOVERNING LAW. This Agreement shall be governed by and construed in accordance with the law of the State of Nebraska.
- 13. LAWS. In executing this Agreement, each Party shall be responsible for its compliance with all applicable state and federal laws.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement the date first stated above.

| | | NEBRASKA COMMUNITY FOUNDATION |
|------|----|---|
| Date | By | |
| | | Diane M. Wilson |
| | | Chief Operating Officer/Chief Financial Officer |
| | | PLATTE RIVER RECOVERY IMPLEMENTATION |
| | | PROGRAM – Office of the Executive Director |
| Date | By | |
| | | Jerry F. Kenny, Ph.D. |
| | | Executive Director |
| | | PLATTE RIVER AND BASIN COOPERATIVE |
| | | HYDROLOGY STUDY, |
| Date | By | |
| | | Don D. Kraus |
| | | Chairman |

EXHIBIT A

AMENDMENT TO AGREEEMENT FOR ENGINEERING SERVICES AMENDMENT 7

WHEREAS:

HDR ENGINEERING, INC. ("HDR") entered into an Agreement on May 14, 2010 to perform engineering services for Platte River Cooperative Hydrology Study (COHYST) ("Owner");

<u>Platte River Cooperative Hydrology Study (COHYST)</u> desires to amend this Agreement in order for HDR to perform services beyond those previously contemplated;

HDR is willing to amend the agreement and perform the additional engineering services.

NOW, THEREFORE, HDR and <u>Platte River Cooperative Hydrology Study (COHYST)</u> do hereby agree:

The Agreement and the terms and conditions therein shall remain unchanged other than those sections and exhibits listed below;

Section <u>1.01</u> shall be amended to include Amendment 7 – Platte River Recovery Implementation Program System Modeling Services: see Attachment A of this amendment for the scope of work.

Section 4.01 shall be amended to include a total not to exceed amount of \$579,022:

| Contract Total Not-To-Exceed Amount | \$579,022 | |
|---|-----------|--|
| Amendment 7 Not-To-Exceed Amount | \$84,000 | |
| Amendment 6 Not-To-Exceed Amount | \$110,000 | |
| Amendment 5 Not-To-Exceed Amount | \$43,000 | |
| Amendment 4 Not-To-Exceed Amount | \$84,582 | |
| Amendment 3 Not-To-Exceed Amount | \$75,740 | |
| Amendment 2 Not-To-Exceed Amount | \$71,700 | |
| Amendment 1 Not-To-Exceed Amount: | \$10,000 | |
| Original Contract Not-To-Exceed Amount: | \$100,000 | |

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the day and year written below:

| HDR ENGINEERING, INC. ("HDR") | Platte River Cooperative Hydrology Study ("COHYST") |
|-------------------------------|---|
| Ву: | By: |
| Its: | Its: |
| Date: | Date: |

Attachment A – Scope of Services

COHYST 2010 AMENDMENT #7 SCOPE OF SERVICES

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

Surface Water Modeling of Proposed PRRIP Projects

The Platte River Recovery Implementation Program (PRRIP) has requested surface water modeling support to evaluate potential water projects in the central Platte River valley and their respective contributions to meeting PRRIP flow target goals. The most recent version of the STELLA surface water operations model developed as part of the COHYST 2010 project will be used as the base model for this effort and modified as described herein to complete this evaluation.

The following tasks will be performed:

TASK SERIES 100 - INCORPORATION OF J-2 REGULATING RESERVOIR

Task Objective: Incorporate the J-2 Regulating Reservoir into the current STELLA

surface water model.

HDR Activities: Update the STELLA surface water model to include the J-2

Regulating Reservoir and the proposed operational rules of the reservoir to serve as the new baseline STELLA surface water model. The model will also be updated to include the U.S. Fish and Wildlife Service (USFWS) target flows at Grand Island and the

annual hydrologic classifications.

Task Deliverables: Documentation of the physical characteristics and operating rules

for inclusion in the Final Report (Task 600).

Meetings: One meeting at PRRIP Office in Kearney, NE.

Key Understandings:

 Physical characteristics of J-2 Regulating Reservoir to be provided by PRRIP.

 Operational characteristics of the J-2 Regulating Reservoir used in the original scoring of the project to be provided by PRRIP.

TASK SERIES 200 - 1985-2005 SIMULATION OF UPDATED STELLA MODEL

Task Objective: Simulate the 1985-2005 period using the updated STELLA Surface

Water Model (with inclusion of J-2 Regulating Reservoir) to

compare results with PRRIP spreadsheet evaluation.

HDR Activities: The following tasks will be performed:

- Execution of the updated STELLA Surface Water Model (using historic reach gain/loss).
- Preparation of STELLA results for comparison to the PRRIP spreadsheet evaluation to include the following:
 - J-2 Return Flows
 - J-2 Regulating Reservoir Storage Volumes
 - Platte River Flows at Overton and Grand Island
- Comparison of the STELLA results and the PRRIP spreadsheets.

Task Deliverables: Documentation of the simulation results and comparison for inclusion in the Final Report (Task 600).

Meetings: One meeting at PRRIP Office in Kearney, NE

Key Understandings:

• PRRIP will provide the results of the spreadsheet evaluation and the targets identified for comparison.

TASK SERIES 300 - SIMULATION OF THE PHELPS CANAL RECHARGE PROJECT

Task Objective: Incorporate parameters of the Phelps Canal Recharge Project into

the new baseline STELLA Surface Water Model and comparison of

results with PRRIP spreadsheet evaluation.

HDR Activities: The following tasks will be performed:

- Incorporate the physical and operational characteristics of the Phelps Canal recharge project into the new baseline STELLA Surface Water Model.
- Execution of the STELLA Surface Water Model for the 1985-2005 period (using historic reach gain/loss).
- Preparation of STELLA results for comparison to the PRRIP spreadsheet evaluation to include the following:
 - J-2 Return Flows
 - J-2 Regulating Reservoir Storage Volumes

- Platte River Flows at Overton and Grand Island
- Phelps Canal Recharge Project recharge volume
- > Comparison of the STELLA results and the PRRIP spreadsheets.

Task Deliverables: Documentation of the simulation results and comparison for inclusion in the Final Report (Task 600).

Meetings: One meeting at PRRIP Office in Kearney, NE.

Key Understandings:

- Physical characteristics of Phelps Canal Recharge Project to be provided by PRRIP.
- Operational characteristics of the Phelps Canal Recharge Project used in the original scoring of the project to be provided by PRRIP.
- PRRIP will provide the results of the spreadsheet evaluation and the targets identified for comparison.

TASK SERIES 400 - RECHARGE RESPONSE FUNCTION

Task Objective: Develop a simplified response function to represent recharge return

to the Platte River.

HDR Activities: Coordinate with PRRIP staff to develop a recharge response

function for intentional recharge projects in the J-2 Regulating Reservoir/Phelps Canal Recharge Project using the COHYST 2010 groundwater model or a suitable analytical procedure. The response function will primarily focus on the J-2 Regulating Reservoir/Phelps Canal Recharge project areas with the intent that the methodology or approach used is applicable and scalable to

other locations throughout the central Platte River valley.

Task Deliverables: Recharge response function recommendation and documentation

for inclusion in the Final Report (Task 600).

Meetings: No meetings anticipated.

Key Understandings:

- Supporting data will be extracted as necessary from the current COHSYT 2010 groundwater model.
- No additional groundwater model simulations will be executed.
- Analytic methods will be similar to Hunt, Jenkins, etc.

TASK SERIES 500 - PREPARATION FOR 1947-2010 SIMULATION

Task Objective: Prepare STELLA hydrology inputs necessary to conduct 1947-

2010 simulation for evaluation of projects.

HDR Activities: The following tasks will be performed:

Compilation and reduction of available stream gage, canal diversion and canal return data for the 1947 to 2010 period.

- ➤ Compute historic reach gains and losses for the 1947 to 2010 period for inclusion in the new baseline STELLA surface water model.
- Formatting of required STELLA input files.
- Conduct 1947-2010 STELLA simulation of the Phelps Canal Recharge Project.

Task Deliverables: STELLA model inputs and documentation of the simulation results for inclusion in the Final Report (Task 600).

Meetings: No meetings anticipated.

Key Understandings:

 It is assumed that the current system operating rules which are incorporated into the STELLA surface water model for the 1985-2005 period will be applicable for the 1947-1985 period.

TASK SERIES 600 - DOCUMENTATION OF TASK SERIES 100-500

Task Objective: Preparation of Final Report documenting the activities and results

of Task Series 100-500.

HDR Activities: Develop report to document the following:

- Overview of modification to the COHYST 2010 STELLA surface water model.
- Comparison of the new baseline model results to the PRRIP spreadsheet evaluations
- Application of the new baseline STELLA model recharge response function.
- Results of the 1947-2010 new baseline STELLA simulation.

Task Deliverables: Draft and Final Report

Meetings: One meeting at PRRIP Office in Kearney, NE.

FEE ESTIMATE

| Task | Hours | Estimated Fee |
|--|-------|---------------|
| 100 — Incorporation of J-2 Regulating Reservoir | 184 | \$24,500 |
| 200 — 1985-2005 Simulation of Updated STELLA Model | 72 | \$10,500 |
| 300 — Simulation of Phelps Canal Recharge Project | 128 | \$17,500 |
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