High Plains Hydrology LLC 7956 S. Shawnee St. Aurora, CO 80016-7206 (303) 693-0299

March 1, 2007

Steve Gaul Supervisor, Planning and Assistance Division Nebraska Department of Natural Resources P.O. Box 94676 Lincoln, NE 68509-4676



RECEIVED

MAR 0 5 2007

DEPARTMENT OF NATURAL RESOURCES

Dear Steve:

Enclosed are my monthly report for February, an invoice for the time and expenses for work with the Department of Natural Resource, and a spreadsheet supporting the time. If you have any questions, please give me a call. Thank you.

Sincerely,

Richard R. Luckey Senior Hydrologist

Groundwater Modeling Support for the Nebraska Department of Natural Resources Status Report, February 28, 2007

Objectives: 1. Provide modeling support as requested; and

2. Compare COHYST and RRCA models in area of overlap, with emphasis on the groundwater mound area.

Status:

Dick returned to looking at the differences between the Cooperative Hydrology Study (CO-HYST) models and the Republican River Compact Administration (RRCA) model in February. He got the latest central COHYST model from Clint Carney and started looking at 1950-97 recharge. He compiled that by year and county. He noted that the recharge array also contains the boundary flows so that will require a correction.

Dick made a presentation at the modelers meeting in Lincoln on February 20 on the CO-HYST analysis of reduced irrigated land after 1997. He was a substitute speaker because the scheduled speaker had a conflict.

Dick, Jesse Bradley, Doug Hallum, and Greg Steele met with Jesse Korus of Lower Platte South NRD to discuss modeling the lower part of the Salt Creek alluvium. They discussed various strategies to construct and calibrate a model. Jesse Korus is seeking a grant to do this work.

Plans for next month:

Dick will continue to compare recharge between the RRCA and COHYST models. He will get the latest eastern COHYST model from Steve Peterson and will summarize its recharge. He will build a composite COHYST recharge data set using the two model areas. He will figure out how to build the RRCA recharge for 1950-97 and then he can start comparing that with the COHYST recharge. He will do that for the entire overlap area and for the mound area.

Dick will arrange time to work with Doug Hallum on the COHYST models, working around the COHYST meeting in Lincoln on March 27.

Dick will do other tasks as requested by DNR.

High Plains Hydrology LLC

7956 S. Shawnee St. Aurora, CO 80016-7206 Phone (303) 693-0299 Cell (303) 916-5973



INVOICE

INVOICE #118 DATE: MARCH 1, 2007

TO:

Nebraska Department of Natural Resources 301 Centennial Mall South P.O. Box 94676 Lincoln, NE 68509-4676 **FOR:** Services of Senior Groundwater Modeler

LABOR DESCRIPTION	HOURS	RATE	AMOUNT
February, 2007, Task 1-1 (see attached spreadsheet)	5.00	\$ 70.00	\$ 350.00
February, 2007, Task 1-2 (see attached spreadsheet)	11.75	70.00	822.50
EXPENSES DESCRIPTION	QUANTITY	UNIT PRICE	LINE TOTAL
			٠
TOTAL this Period		,	\$ 1,172.50
Province Lat			
Previous balance			\$ 0.00
Payments received			\$ 0.00
		TOTAL	\$ 1,172.50

Make all checks payable to **High Plains Hydrology LLC**Total due in 30 days. Overdue accounts subject to a service charge of 1% per month.

Thank you for your business!

DNR 1-1 DNR 1-2 Notes	0.25 Call with Mike McDonald	Call with Steve Peterson	Getting reorganized. Dua	Kraus and Drain. 1/27 re	Drain questions.	Searching for source of 1	check.	Looking at Duane's result	Holoing Doing With power	Weiling Bood Bindion	Crecking Clints CAZPA	messed up.	Getting reorganized after	All times CST. Travel to L	Technical Committee mai	All times CST, At DNR wr	meeting.	Proposal to look at new di	Clint's new OA2FA stuff to	Email to Clint about OA2F		8.00 Working on CMU recharg		11.75 February total and total	Bio Bin moi Con in			
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