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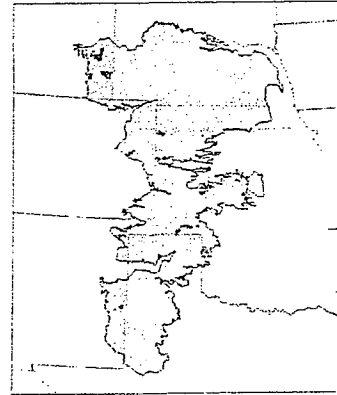
MAY 05 2008

DEPARTMENT OF
NATURAL RESOURCES

May 1, 2008

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

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



Dear Steve:

Enclosed please find my monthly report for April, 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

Richard R. Luckey
Senior Hydrologist

Groundwater Modeling Support for the Nebraska Department of Natural Resources

Status Report, April 30, 2008

- 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 spent some time in April working on the comparison of the COHYST and Republican models. He worked on comparison of simulated baseflows between the RRCA and COHYST models. He added several more streams outside of the mound area to the comparison. He did that because about half the streams previously compared were inside the mound area. This made the overall comparison and the mound comparison similar.

For the four streams in common that are affected by the mound, Dick computed and plotted annual stream baseflow to see how this would work into the report. He has not yet decided how to best discuss streamflow changes due to the mound in the report.

Dick made the table of contents, list of figures, and list of tables for the report.

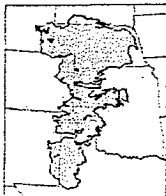
Plans for next month:

Dick will continue to work on comparisons of COHYST and Republican models in May. He will complete the section on changes in simulated streamflows out of the mound area. Dick will then work on a section on the effects that the differences between the models might have. This section will be fairly general because the effects cannot be accurately known without changing the models. Dick hopes to have this done and a first draft sent to DNR for review by the middle of the month. He had hoped to have this done by the end of April, but didn't have enough time to work on it in April.

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 #146
 DATE: MAY 1, 2008

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
April, 2008, Task 1-1 (see attached spreadsheet)	0.50	\$ 75.00	\$ 37.50
April, 2008, Task 1-2 (see attached spreadsheet)	25.50	75.00	1,912.50
EXPENSES DESCRIPTION	QUANTITY	UNIT PRICE	LINE TOTAL
TOTAL this Period			\$ 1,950.00
Previous balance			\$ 4,050.00
Payments received			\$ 4,050.00
TOTAL			\$ 1,950.00

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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!

Date	Start	Stop	Start	Stop	Start	Stop	Hours	COHYST 1	COHYST 4	DNR 1-1	DNR 1-2	Notes
04/01/2008	10:45 AM	1:00 PM	2:15 PM	5:15 PM			5.25	4.75		0.50		Monthly reports. CMU stream links - Clear Creek to Whitetail collector system.
04/02/2008	8:30 AM	1:00 PM	1:45 PM	4:00 PM			6.75	6.75				Reviewed Doug's and Kevin's monthly reports. Building SPNRD zone file, Ran & cf SPNRD budgets. Checked Kimball tablelands and South Platte valley. Okay. Sent 1
04/03/2008	2:30 PM	4:00 PM					1.50	1.50				Met with Rod Horn at SPNRD about water budgets and use of COHYST models.
04/04/2008	9:45 AM	3:00 PM					5.25	5.25				Call to Jesse Bradley about wei2GIS and dat2GIS utilities. Tested wei2GIS.exe and documentation. Tested dat2GIS.exe, found work-around for GMS caused problems to Duane and Julie about meeting with Rod Horn. Phone call with Kevin - 30 minute CycleWell is okay. Worked on joining CMU streams with GMS segment numbers - 1
04/07/2008	8:45 AM	12:45 PM	1:15 PM	5:15 PM			8.00	8.00				Talked about wei2GIS issues with Rich. Built CMU_stream_segment_080407.shp. Whitetail Creek - okay. Started CMU Republican River tributaries. Found disconnect package.
04/08/2008	8:30 AM	12:30 PM	1:00 PM	4:15 PM			7.25	3.00	4.25			Completed checking CMU stream linkage. Summarized notes. Checked CMU New Did everywhere pumpage and processed to spreadsheet. Note to Clint. Note to Dur
04/09/2008	8:45 AM	10:00 AM	12:00 PM	1:15 PM	1:45 PM	5:15 PM	6.00	6.00	6.00			Processing TPNRD NDbyNRD, TBNRD, CPNRD, OtherNRD. Rebuilt NDbyNRD m- documentation. OA models were wrong. Forgot to multiply recharge by OA mask. S
04/10/2008	8:30 AM	10:00 AM	1:00 PM	4:30 PM			5.00	5.00	5.00			Processed OA NDbyNRD simulations. Zone C for TBNRD doesn't make sense after
04/11/2008	11:15 AM	12:00 PM	12:30 PM	4:15 PM			4.50	1.00	3.50			Worked on OA-TBNRD NDbyNRD. Helped Kevin with CycleWell. Realized that 1 hr of days have to be redone. Got CMU 1950-98 model from DVD. Got pumpage from going to take a long time.
04/14/2008	8:00 AM	12:00 PM	12:30 PM	3:00 PM	5:45 PM	6:15 PM	7.00	1.00	6.00			Checking CMU with new streams. Reading OA for NDbyNRD with new stream paci CycleWell results. OA-NDbyNRD looks okay. Started everywhere NDbyNRD.
04/15/2008	8:30 AM	12:15 PM	1:00 PM	2:45 PM			5.50	1.00	4.50			Everywhere NDbyNRD. Updated tables in documentation. COHYST/RRCA comparison. Lo
04/16/2008	8:00 AM	1:00 PM	1:45 PM	4:30 PM			7.75		1.50	6.25		Checked and updated NDbyNRD documentation. COHYST/RRCA comparison. Lo
04/17/2008	9:15 AM	12:30 PM	1:15 PM	4:30 PM			6.50			6.50		RRCA/COHYST table of contents file update. EMU streamflow text. CMU streamflow
04/18/2008	8:45 AM	1:00 PM					4.25				4.25	RRCA table of contents. Finished text on simulated streamflow for four new stream change from mound area.
04/21/2008	9:00 AM	10:00 AM	1:00 PM	5:45 PM			5.75		5.75			Reviewed NDbyNRD email from Jim Schneider. Picked up Bill Hann's NDbyNRD c
04/22/2008	8:15 AM	10:00 AM	3:30 PM	5:15 PM			3.50		3.50			reproduce Doug Hallum's results.
04/23/2008	11:45 AM	1:45 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	4.00		4.00			Preparation for Technical Committee meeting. Reviewing NDbyNRD comments an
04/24/2008	8:00 AM	12:00 PM	1:30 PM	5:30 PM			8.00	8.00	4.00			Preparation for Technical Committee meeting. Made PowerPoint of comments and
04/25/2008	10:30 AM	11:45 AM	1:45 PM	4:45 PM			4.25	0.50			3.75	Technical Committee meeting.
04/28/2008	10:00 AM	12:30 PM	1:30 PM	7:00 PM			8.00	8.00				Follow up on Technical Committee meeting. Looked at streamflow out of RRCA mc
04/30/2008	10:15 AM	12:15 PM	2:15 PM	5:00 PM			4.75				4.75	In North Platte for DNR modelers meeting. Met with Duane about future COHYST
							118.75	48.75	44.00	0.50	25.50	RRCA mound streamflow. Building stream file for documentation figure.
												April total and total by task number