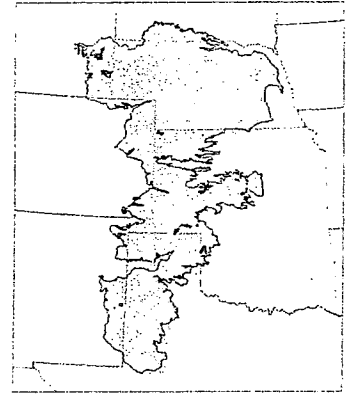


High Plains Hydrology LLC
7956 S. Shawnee St.
Aurora, CO 80016-7206
(303) 693-0299



October 1, 2007

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

RECEIVED

OCT 03 2007

DEPARTMENT OF
NATURAL RESOURCES

Dear Steve:

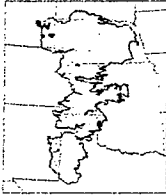
Enclosed please find my monthly report for September, an invoice for the time and expenses for work with the Department of Natural Resource, and a spreadsheet supporting the time. If you have any questions, please give me a call. Thank you.

Sincerely,

Dick

Richard R. Luckey
Senior Hydrologist

High Plains Hydrology LLC



INVOICE

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

INVOICE #132
DATE: OCTOBER 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
September, 2007, Task 1-1 (see attached spreadsheet)	2.00	\$ 70.00	\$ 140.00
September, 2007, Task 1-2 (see attached spreadsheet)	16.00	\$ 70.00	1,120.00
EXPENSES DESCRIPTION	QUANTITY	UNIT PRICE	LINE TOTAL
TOTAL this Period			\$ 1,260.00
Previous balance			\$ 192.50
Payments received			\$ 192.50
TOTAL			\$ 1,260.00

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!

Groundwater Modeling Support for the Nebraska Department of Natural Resources

Status Report, September 30, 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 working on comparison of the COHYST and Republican models in September, although he spent limited time on it. He ran the COHYST central model and got seasonal outputs into a form that he could get into the Republican grid. He also ran the COHYST eastern model, but that is a model as it existed when this task started. That model ran many hours and had noise in it. Steve Peterson has since updated the model, so that model probably should be used in subsequent analysis.

Dick spent a little bit of time working with Doug Hallum on his analysis of new depletions accounting for change in recharge due to change in land use.

Plans for next month:

Dick will continue to work on comparison of COHYST and Republican models as time permits. However, he will give priority to new depletions by Natural Resources Districts until that task is ready for review.

Dick will do other tasks as requested by DNR.

Date	Start	Stop	Start	Stop	Start	Stop	Hours	Task 1	Task 2	Task 3	Task 4	DNR 1-1	DNR 1-2	Notes
09/04/2007	8:45 AM	12:45 PM	1:45 PM	5:45 PM			8.00	0.75			7.25			Monthly reports. Build pumpage data sets for CMU OA only New Depletions by NRD (NDbyNRD). Build recharge data sets for CMU OA only. Build simulations for CMU OA only. Run them. Processed to spreadsheets. All looks okay.
09/05/2007	7:15 AM	12:00 PM	1:15 PM	6:00 PM			9.50				9.50			Backup CMU stuff. DVD burner failed. Organize EMU model stuff. Backed up CMU stuff from Paris computer. Built some EMU map stuff. Converted model to 100 stress periods. Built various masks for EMU. Built and ran No. Pump_EW.
09/06/2007	7:00 AM	12:45 PM	3:00 PM	5:00 PM			7.75				7.75			Reviewing EMU baseline simulation. Working with EMS-1 to try to get GMS to print. Started to build recharge data sets. Built yearly change in land-use.
09/07/2007	8:15 AM	10:45 AM	12:00 PM	5:15 PM			7.75	2.00			5.75			Checking EMU model after changes. Looking at mass balance errors. Reset starting head for layers 1-4 from layer 5. Working on CycleWell issues with Julie. Building EMU delta recharge files.
09/10/2007	8:45 AM	11:30 AM	1:45 PM	5:30 PM			6.50				6.50			Read Steve's 2/15/2007 model into GMS. Ran 1950-98 model to get starting heads. Converted EMU model to 100 stress periods with monthly steps. Ran No. Pump_EW. Ran No. Pump_EW. Built simulations for Only_Pump_xxNRD. Ran them and processed to database. Put CMU GMS 6.0 model * we files for Only_Pump_xxNRD for EMU. Built simulations for Only_Pump_xxNRD. Ran them and processed to database. Put CMU GMS 6.0 model on FTP site for Kevin. Working on CycleWell issues with Julie. Spent > 1 hour on phone with Kevin to get GMS 6.0 working model. Model now works. Trying to debug CycleWell for Julie.
09/11/2007	7:00 AM	12:30 PM	1:00 PM	5:00 PM			9.50	5.00			4.50			Processing EMU_EW stuff to spreadsheets. Tested CycleWell and passed on to Duane and Rich. Ran OA simulations for EMU and processed to spreadsheets. NDbyNRD simulations are done unless I find some errors as I write up results.
09/12/2007	8:45 AM	12:30 PM	1:30 PM	4:00 PM			6.25	2.00			4.25			Working with Rich on CycleWell. I am going to have to reformat hard drive. CycleWell cannot have Windows on E:\.
09/13/2007	9:00 AM	10:00 AM					1.00	1.00						Testing CycleWell with one stress period. Working on outline for NDbyNRD report. Helping Doug with ND problems (two different long calls) without too many graphs. Started work on documentation. Call to Kevin on progress.
09/17/2017	1:00 PM	5:15 PM					4.25	1.50			1.00	1.75		Worked on NDbyNRD documentation. Spreadsheets graphs for documentation. Spreadsheets tables for documentation.
09/18/2007	7:15 AM	12:30 PM	2:45 PM	5:15 PM			7.75	1.00			6.50	0.25		Working on outline for NDbyNRD report. Recharge array for WMU to Doug. GMS hardware lock issues. Worked on how to report NDbyNRD results.
09/19/2007	8:30 AM	12:15 PM	12:45 PM	2:30 PM	2:45 PM	4:15 PM	7.00				7.00			Worked on NDbyNRD documentation.
09/20/2007	8:15 AM	12:00 PM	3:15 PM	5:15 PM			5.75				5.75			Working on NDbyNRD documentation. Spreadsheets graphs for documentation.
09/21/2007	8:00 AM	12:30 PM	2:30 PM	5:00 PM			7.00	2.00			5.00			Looking at CycleWell output from Julie. NDbyNRD documentation. Spreadsheets for documentation. Help Julie with how to analyze Geog well field presentation of effects by NRD.
09/24/2007	7:15 AM	12:30 PM	2:15 PM	5:00 PM			8.00	1.00			7.00			Install ArcMap and test (works except printing). Restart CycleWell and look at results. Work on Republican model CMU simulation results. Reinstall GMS.
09/25/2007	7:00 AM	12:30 PM	2:00 PM	5:00 PM			6.50	2.00				6.50		Check on CycleWell. Worked on CMU model to run in hours instead of days. Several CMU simulations to get results to compare to Republican model. Talked with Doug to plan COHYST modelers workshop.
09/26/2007	8:00 AM	9:30 AM					3.50	1.00				2.50		Getting WMU grid for Duane. Getting head and drawdown data for Central Model Unit to compare to Republican model. Making shapfiles for Republican model. Can't use Arc Tool Box for some reason. Long time on phone with Kevin teaching him how to use ZoneBudget.
09/27/2007	7:00 AM	11:00 AM	1:15 PM	3:15 PM			6.00	2.00				4.00		Working on pumpage and recharge for Eastern Model Unit for Republican model. Helping Kevin with ZoneBudget problem. Finding problem. Real killer. 3 hours in morning and 1 hour in afternoon. Making map files for EMU model. Setting up CycleWell for the weekend.
09/28/2007	8:00 AM	1:15 PM	1:45 PM	4:00 PM			7.50	4.50				3.00		
							121.50	25.75			77.75	2.00	16.00	September total and total by task number