

Mr. Chris Thompson
Technical Committee Chairman
Mt. Nebo Water Agency (MNWA)
Central Utah Water Conservancy District
1426 East 750 North
Orem, UT 84097-5474

August 6, 2024

RE: Groundwater Management Program (1st Year of Implementation)

Dear Chris,

Hansen, Allen & Luce, Inc. (HAL) has been asked to provide this proposal to the Mt. Nebo Water Agency (MNWA) to provide technical assistance for the implementation of a groundwater management program. Included in this effort is the initial planning and development of the program with MNWA for the first year of implementation. It will work to develop an effective system for sustainable groundwater management.

HAL worked with the Technical Committee to develop the initial program in the last year and documented those efforts in a memorandum. Implementation of the groundwater management program for the Southern Utah Valley will require coordination with MNWA members, including Central Utah Water Conservancy District, Genola, Payson, Salem, Santaquin, Spanish Fork, Utah County, and Strawberry High Line Canal. Additionally, cooperation with Goshen, Woodland Hills, Elk Ridge, Springville, Mapleton, SWUA, USGS, Utah Division of Water Rights, Utah Department of Natural Resources, and irrigators with large wells will be important as explained below.

SCOPE OF WORK

TASK 1 – Database Maintenance

- a. Continue to develop the database and provide access to all MNWA members.
- b. Coordinate with MNWA members to obtain monthly well data.
- c. Review data for accuracy and completeness and work with MNWA members to make updates as needed.
- d. Work to identify large groundwater users in the region and collaborate with them to begin collecting their groundwater data.
- e. Participate in MNWA technical committee meetings to review progress and receive input from MNWA.
- f. Participate in MNWA board meetings to present information that was developed in the technical meetings.

TASK 2 – Model Development

- a. Update the existing and future groundwater models with the latest information on hydrogeologic conditions.
- b. Summarize information from the database into a format that can be implemented into the existing and future groundwater models.

- c. Calibrate models with monthly submitted well depth readings.
- d. Utilize calibrated groundwater model to review how the submitted well withdrawals are impacting the aquifer and compare those amounts to the assumed safe yield.
- e. Run the groundwater models with various scenarios to determine the overall conditions of the aquifer based on future anticipated well withdrawals.
- f. Use groundwater model outputs to help inform the next year's groundwater withdrawals for each member.
- g. Meet with Technical Committee to discuss results for the year and prepare a summary for the Board meeting.

TASK 3 – Alternative Development

- a. Work throughout the year to understand groundwater conditions and identify large groundwater users not involved with MNWA.
- b. Develop additional alternatives based on research that can be incorporated over time to better manage the groundwater. Meet and discuss with the Technical Committee throughout the year.
- c. Review model outputs and begin to develop a list of both general and member-specific recommendations.
- d. Meet with the Technical Committee near March 4, 2025, to review modeling outputs. Include a summary of the yearly submitted groundwater volume compared to assumed safe yield. Use preliminary water supply forecasts to help inform the next year's alternatives.
- e. Finalize alternatives and program decisions for the next year with the Technical Committee in a meeting on the first Tuesday of April with better-informed water supply forecasts.
- f. Present recommendations to the Board for final approval.
- g. Assist with alternative implementation.

SCHEDULE

Assistance with the first year of the groundwater management program will be take place from July 1, 2024, to June 30, 2025. The following schedule is proposed for each Task:

Task 1: Collect data from members monthly and review for accuracy and completeness. Have completed summary for the year near at the end of December.

Task 2: Refine the model from July to December. Finalize model with the years submitted groundwater data at the end of December. Develop different modeling scenarios from December to April and present results to the Technical Committee.

Task 3: Research large groundwater users and groundwater management alternatives throughout the year. Develop initial alternatives for Technical Committee meeting the first Tuesday of March. Finalize alternatives near April 1, 2025, and present to the Board for final approval.

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PROPOSED BUDGET

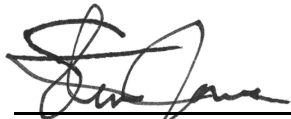
The following is a suggested proposed budget based on the tasks described above and are consistent with the Groundwater Management Program memorandum that has been reviewed by the Technical Committee. All work will be billed according to HAL's attached standard hourly rates.

Task 1 – Database Maintenance	\$6,000
Task 2 – Model Development	\$18,000
Task 3 – Alternative Development	<u>\$8,000</u>
TOTAL BUDGET	\$32,000

Thank you for the opportunity to work with MNWA to implement a groundwater management program for the basin. Please let us know if you have any questions about this proposal.

Respectfully,

HANSEN, ALLEN & LUCE, INC.



Steven C. Jones, P.E.
CEO

STANDARD FEE SCHEDULE 2024

PERSONNEL CHARGES

Client agrees to reimburse Hansen, Allen & Luce, Inc. (HAL), for personnel hourly rates related to the completion of the project, in accordance with the following:

Managing Professional III	\$228
Managing Professional II	\$220
Managing Professional I	\$208
Senior Professional III	\$197
Senior Professional II	\$188
Senior Professional I	\$174
Professional III.....	\$163
Professional II.....	\$147
Professional I.....	\$138
Professional Intern.....	\$127
Environmental Scientist I	\$119
Environmental Scientist II	\$133
Engineering Student Intern	\$76
Water Resource Specialist I	\$140
Water Resource Specialist II	\$161
Professional Geologist.....	\$161
Geologist	\$142
Senior Designer.....	\$140
Designer	\$127
Senior Field Technician	\$155
Field Technician	\$100
CAD Operator.....	\$111
Public Relations Specialist.....	\$158
Administrative Assistant	\$76
Professional Land Surveyor.....	\$156
1 Man GPS Surveying Services.....	\$175
Drone Pilot	\$210
Expert Legal Services.....	\$345

DIRECT CHARGES

Client also agrees to reimburse HAL for all other costs related to the completion of the project. Charges shall include, but not be limited to, the following:

Communication, Computer, Reproduction	\$7 per labor hour
Out-of-town per diem allowance (lodging not included)	\$66 per day
Vehicle	\$0.70 per mile
Outside consulting and services	Cost plus 10%
Other direct expenses incurred during the project	Cost plus 10%
Trimble GPS Unit	\$150 per day
Data Logger/Transducer.....	\$150 per week
Credit Card Payment Fee	3.5% of Payment Amount

INTEREST CHARGE AFTER 30 DAYS FROM INVOICE DATE.....1.5% per month

Note: Annual adjustments to personnel and expense charges will occur in January of each year.