

Memorandum of Understanding
Between
Equus Beds Groundwater Management District No. 2
And
The City of Wichita, Kansas
Regarding
Wichita’s Proposed Aquifer Storage and Recovery Project, Phase II

Background

As part of its Integrated Local Water Supply (“ILWS”) Plan (“the Plan”), the City of Wichita (“City”) planned and constructed the Aquifer Storage and Recovery Project (“ASR”) Phase I and completed the same in September of 2006. The City and the Equus Beds Groundwater Management District #2 Board of Directors (“GMD2”) entered into a Memorandum of Understanding in 2004 to address issues of mutual concern on that project.

The City now plans to design and construct Phase II of the ASR (“the Project”). Phase II calls for the construction of a surface water intake on the Little Arkansas River, a water treatment plant and pump station, a series of water recharge and recovery wells, a matrix of water pipelines, a matrix of overhead electric power lines and a supervisory control and data acquisition (SCADA) system. The contemplated system will be capable of withdrawing water from the Little Arkansas River, treating, transmitting, storing and recovering up to 30 million gallons per day in compliance with permits issued by the Kansas Department of Agriculture, Division of Water Resources (“DWR”) and the Kansas Department of Health and Environment (“KDHE”).

The Plan called for the development of both direct surface water diversions and bank storage diversions from induced infiltration. The initial conceptual Plan was for development of 75 Mgd of bank storage diversion facilities and 25 Mgd of surface water diversion facilities. With recent advances in water treatment technology development of additional surface water supplies appears to be feasible.

Application of current well spacing regulations under K.A.R. § 5-22-2 to applications for new permits or for changes in existing water rights create problems in obtaining GMD2 and DWR approval. The City and GMD2 believe that the well spacing regulations should be waived due to the unique nature of the recharge and recovery wells and the benefits to be derived from the operation of the Project.

The City and GMD2 believe the Project has mutual benefits to the City as a source of water supply for the City and its customers and to the residents and landowners in the vicinity of the Project as a means of insuring and protecting the quality and quantity of water for the future.

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The purpose of this Memorandum of Understanding (“MOU”) is to document agreements made by and between the City and GMD2 relating to the permitting, construction and operation of the Project associated with GMD2’s recommendation for approval of the City’s water appropriation applications.

Items of Understanding:

A. GMD2 and the City agree that the following eight issues will be resolved in the following manner:

1. **Issue:** How will the City change the original Plan ratio of 75 Mgd of bank storage diversion and 25 Mgd of surface water diversion?

Commitment: Based on current technology, the City will develop at least 67 Mgd of surface water diversion facilities for recharge based on an ultimate 100 Mgd ASR system.

2. **Issue:** How can the City help GMD2 to cover extraordinary expenses incurred to monitor and review the Project?

Commitment: As reimbursement for expenses incurred and services rendered by GMD2 and necessitated by the Project, the City will provide a grant to GMD2 of \$20,000/year for a period not to exceed five (5) years. This grant is in addition to and not a substitute for GMD2 land and groundwater assessments owed by the City. At the end of five years, the City will consider an extension of the grant as provided in Section B. 5. of this MOU.

3. **Issue:** If GMD2 requests monitoring wells to be located on property where the City has no right of entry or requests the City to perform water quality monitoring of domestic wells near the diversion or recharge facilities, how can GMD2 help the City to accomplish these tasks?

Commitment: GMD2 will assist the City by seeking to obtain permission for right of entry to sites for Project monitoring wells. GMD2 will also assist the City by seeking right of entry and/or samples from domestic wells located near the Project.

4. **Issue:** How can the City maintain water quality in the Project area?

Commitment: The City will insure that the quality of the recharge water injected into the aquifer through the proposed Project wells will meet Kansas Department of Health and Environment recharge well standards as stated in the letter dated February 9, 2007, attached hereto and made a part hereof by reference. Additionally, the City will insure that the water recharged by the Project will not degrade the ambient use of water in the basin storage area. Each new Project well will have two (2) nearby piezometers for continuously measuring water levels. In addition to the six additional proposed monitoring wells, the recharge and recovery well at each site will be sampled annually for the key water quality constituents. The City and GMD2 will jointly conduct an annual public Project review meeting to include stakeholders, regulatory agencies and other interested parties. Within sixty (60) days following the review meeting GMD2 will provide to the City and regulatory agencies a review report on the Project which may include recommendations.

5. **Issue:** How can the City protect domestic water wells from changes in water quality standards?

Commitment: If water quality in existing or future domestic wells meets the then current drinking water standards and the water quality is subsequently changed by the Project such that the water no longer meets the then current drinking water standards, the City will provide and install a home water treatment system to bring the water back to drinking water standards or provide other appropriate remedies to replace the domestic water supply with water that meets the drinking water standard without additional cost to the resident.

6. **Issue:** How will the City protect domestic water wells within 660 feet of a Project recharge and recovery well from adverse drawdown impacts that may result from operation of the well?

Commitment: Because the Project recharge and recovery wells can only be pumped if water levels in the aquifer are higher than the historic low level, no impairment is expected. Nonetheless, if a domestic water well, existing before the approval of this MOU and within 660 feet of an existing or new Project well, is adversely impacted by drawdown from such well, the City will re-drill or take other appropriate, affirmative action to restore productivity of such domestic well to the same rate and quality as existed before.

7. **Issue:** How will the City operate the Project to manage the amount of groundwater pushed back into the groundwater formation when the Project is operating?

Commitment: The City will operate the Project in such a manner as to isolate production wells from recharge activities. The City will not pump water from its groundwater wells in one area to its groundwater wells in another area for the purpose of creating recharge credits. Daily water meter readings for all the Project facilities will be used to facilitate monitoring of recharge activities. The City will make a reasonable effort to shut down wells with above drinking water standard levels of arsenic in advance of a recharge activity to minimize arsenic levels in the Project pipeline system.

8. **Issue:** How will the City operate the Project to minimize adverse impacts arising from the increased level of groundwater associated with artificial recharge of the aquifer?

Commitment: It is the City's intent not to damage any property as a result of the operation of the Project. The City will process claims for damage resulting from the operation of the Project in accordance with KSA 12-105 b., as the City has historically for its other activities in the City's wellfield area.

B. GMD2 and the City further agree as follows:

1. As to any water permit applications filed by the City which in all other respects comply with the regulations of GMD2, and for which the proposed wells are to be used for the purposes of both aquifer recharge as defined by regulation and withdrawal of water for an authorized use, GMD2 agrees to recommend that such proposed applications be granted a waiver of the applicable well spacing requirements. A petition for waiver of the well spacing requirement shall be submitted to GMD2 and shall be granted by GMD2 upon a finding that the conditions set out above do exist and that the granting of the waiver will not unreasonably impair the public interest.
2. The commitments made by the City and GMD2 as set forth in this Memorandum of Understanding are subject to the requirements of State law and regulations and the orders of DWR. In the event that any commitment is in conflict with such law, regulation or order, the law, regulation or order controls. In such event, the City and GMD2 agree to enter into good faith discussions to seek amendment of the commitments consistent with the law, regulation or order.
3. It is the intent of the parties that the provisions of this Memorandum of Understanding are not intended to violate the Kansas Cash Basis Law (K.S.A. 10-1101, et seq.), the Kansas Budget law (K.S.A. 79-2925), or other laws or regulations addressing the budgeting, funding, or expenditures of the respective governmental entities . Therefore, notwithstanding anything to the contrary herein contained, the parties' obligations under this Memorandum of Understanding are to be construed in a manner that assures that each party is at all times in conformance of such laws or regulations.

4. Upon the acceptance of the Memorandum of Understanding by the City and GMD2, GMD2 agrees to attach this Memorandum of Understanding to any recommendation it makes on the Project and forward the same to DWR.
5. At intervals of no more than five (5) years, the City and GMD2 will jointly assess the need to continue any or all the provisions of this MOU.

The parties have each approved this Memorandum of Understanding on the dates designated below, and it is effective as of the latter date of approval.

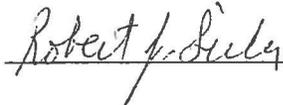
Signed:

Date 12-3-08

Date _____

Equus Beds Groundwater
Management District No. 2

City of Wichita, Sedgwick County, Kansas

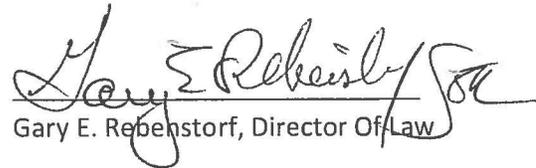


Bob Seiler, President



Carl Brewer, Mayor

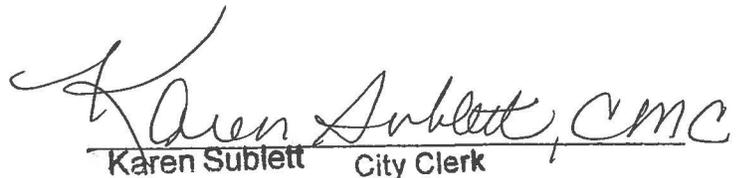
Approved as to form:



Gary E. Rebenstorf, Director Of Law



ATTEST



Karen Sublett City Clerk