DWR EXHIBIT K
Application, File No. 45,576

PENGAD 800-631-6989

EXHIBIT

DWR "K"

THE STATE OF KANSAS

F.O. 2
GMD 2
MEETS
K.A.R.5 -3 -1
USE MUN
GWS 6
Co. HV
By SP
Date 7/3/03

KANSAS DEPARTMENT OF AGRICULTURE
Jamie Clover Adams, Secretary of Agriculture

DIVISION OF WATER RESOURCES
David L. Pope, Chief Engineer

File Number 45576
This item to be completed by the Division of Water Resources.

APPLICATION FOR PERMIT TO APPROPRIATE WATER FOR BENEFICIAL USE

Filing Fee Must Accompany the Application
(Please refer to Fee Schedule attached to this application form.)

WATER RESOURCES RECEIVED
DEC 16 2003
KS DEPT OF AGRICULTURE

ASR Project RRW-1

To the Chief Engineer of the Division of Water Resources, Kansas Department of Agriculture, 109 SW 9th Street, Second Floor, Topeka, KS 66612-1283:

1. Name of Applicant (Please Print): City of Wichita, Water & Sewer Dept.
   Address: 455 N. Main
   City: Wichita State KS Zip Code 67202
   Telephone Number: (316) 268-4504

2. The source of water is: G surface water in _____ (stream)
   OR ✓ groundwater in Equus Beds, Arkansas River Basin (drainage basin)

   Certain streams in Kansas have minimum target flows established by law or may be subject to administration when water is released from storage for use by water assurance district members. If your application is subject to these regulations on the date we receive your application, you will be sent the appropriate form to complete and return to the Division of Water Resources.

3. The maximum quantity of water desired is 1,000 acre-feet OR 325.851mgy * BO 7-15-03 gallons per calendar year,
   to be diverted at a maximum rate of 1,000 gallons per minute OR _____ cubic feet per second.

   Once your application has been assigned a priority, the requested maximum rate of diversion and maximum requested quantity of water under that priority number can NOT be increased. Please be certain your requested maximum rate of diversion and maximum quantity of water are appropriate and reasonable for your proposed project and are in agreement with the Division of Water Resources' requirements.

4. The water is intended to be appropriated for (Check use intended):
   (a) G Artificial Recharge (c) G Irrigation Use (e) G Recreational Use (g) G Water Power use
   (b) G Industrial Use (d) ✓ Municipal Use (f) G Stockwatering Use

YOU MUST COMPLETE AND ATTACH ADDITIONAL DIVISION OF WATER RESOURCES FORM(S) PROVIDING INFORMATION TO SUBSTANTIATE YOUR REQUEST FOR THE AMOUNT OF WATER FOR THE INTENDED USE REFERENCED ABOVE.

For Office Use Only: WATER RESOURCES FEES 440 TR # 04000238 Receipt Date 7-3-03 Check # 00018490

WATER RESOURCES RECEIVED
JUL 03 2003
1:09 PM

341

MICROFILMED 7-15-03 BO

DWR 1-100 (Revised 6/2003)

KS DEPT OF AGRICULTURE MICROFILMED

WATER RESOURCES
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DEC 16 2003

KS DEPT OF AGRICULTURE File No. 45576

5. The location of the proposed wells, pump sites or other works for diversion of water is:

Note: For the application to be accepted, the point of diversion location must be described to at least a 10 acre tract, unless you specifically request 60 days in which to locate the site within a quarter section tract. Any request for an extension of time in which to locate the point of diversion shall include a contract with a well driller or a contractor for the necessary test holes.

(A) One in the SW quarter of the SW quarter of the SW quarter of Section 12, more particularly described as being near a point 69 feet North and 5212 feet West of the Southeast corner of said section, in Township 23 South, Range 3 East/(West) (circle one), Harvey County, Kansas.

(B) One in the _____ quarter of the _____ quarter of the _____ quarter of Section _____, more particularly described as being near a point _____ feet North and _____ feet West of the Southeast corner of said section, in Township _____ South, Range _____ East/West (circle one), _____ County, Kansas.

(C) One in the _____ quarter of the _____ quarter of the _____ quarter of Section _____, more particularly described as being near a point _____ feet North and _____ feet West of the Southeast corner of said section, in Township _____ South, Range _____ East/West (circle one), _____ County, Kansas.

(D) One in the _____ quarter of the _____ quarter of the _____ quarter of Section _____, more particularly described as being near a point _____ feet North and _____ feet West of the Southeast corner of said section, in Township _____ South, Range _____ East/West (circle one), _____ County, Kansas.

If the source of supply is groundwater, a separate application shall be filed for each proposed well or battery of wells, except that a single application may include up to four wells within a circle with a quarter (¼) mile radius in the same local source of supply which do not exceed a maximum diversion rate of 20 gallons per minute per well and which are operated by means of submersible pumps.

A battery of wells is defined as two or more wells connected to a common pump by a manifold; or not more than four wells in the same local source of supply within a 300 foot radius circle which are being operated by pumps not to exceed a total maximum diversion rate of 800 gallons per minute and which supply water to a common distribution system.

6. The proposed project for diversion of water will consist of one recharge/recovery well (number of wells, pumps or dams, etc.)

and (was)(will be) completed (by) March 1, 2004 (Month/Day/Year - each was or will be completed).

7. The first actual application of water for the proposed beneficial use was or is estimated to be 06/01/10 (Mo/Day/Year)

8. Will pesticide, fertilizer, or other foreign substance be injected into the water pumped from the diversion works?

Yes G No ✓ If "yes", a check valve shall be required.

All chemigation safety requirements must be met including a chemigation permit and reporting requirements.

WATER RESOURCES
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JUL 03 2003

KS DEPT OF AGRICULTURE

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WATER RESOURCES
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DEC 16 2003

KS DEPT OF AGRICULTURE File No. 45576

9. If you are planning to impound water, please contact the Division of Water Resources for assistance, prior to submitting the application. Please attach a reservoir area capacity table and inform us of the total acres of surface drainage area above the reservoir.

   Have you also made an application for a permit for construction of this dam and reservoir with the Division of Water Resources? G Yes G No

   ! If yes, show the Water Structures permit number here _____

   ! If no, explain here why a Water Structures permit is not required _____

10. The application must be supplemented by a U.S.G.S. topographic map, aerial photograph or a detailed plat showing the following information. On the topographic map, aerial photograph, or plat, identify the center of the section, the section lines or the section corners and show the appropriate section, township and range numbers. Also, please show the following information:

   (a) The location of the proposed point(s) of diversion (wells, stream-bank installations, dams, or other diversion works) should be plotted as described in Paragraph No. 5 of the application, showing the North-South distance and the East-West distance from a section line or southeast corner of section.

   (b) If the application is for groundwater, please show the location of any existing water wells of any kind within ½ mile of the proposed well or wells. Identify each existing well as to its use and furnish the name and mailing address of the property owner or owners. If there are no wells within ½ mile, please advise us.

   (c) If the application is for surface water, the names and addresses of the landowner(s) ½ mile downstream and ½ mile upstream from your property lines must be shown.

   (d) The location of the proposed place of use should be shown by crosshatching on the topographic map, aerial photograph or plat.

   (e) Show the location of the pipelines, canals, reservoirs or other facilities for conveying water from the point of diversion to the place of use.

   A 7.5 minute U.S.G.S. topographic map may be obtained by providing the section, township and range numbers to: Kansas Geological Survey, 1930 Constant, Campus West, University of Kansas, Lawrence, Kansas 66047.

11. List any application, appropriation of water, water right, or vested right file number that covers the same diversion points or any of the same place of use described in this application. Also list any other recent modifications made to existing permits or water rights in conjunction with the filing of this application.

Part of City of Wichita's ASR project. Water will be withdrawn from this well only when recharge credits are available.

WATER RESOURCES
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JUL 03 2003

KS DEPT OF AGRICULTURE

MICROFILMED

WATER RESOURCES
RECEIVED

DEC 16 2003

KS DEPT OF AGRICULTURE

File No. 45576

12. Furnish the following well information if the proposed appropriation is for the use of groundwater. If the well has not been completed, give information obtained from test holes, if available.

Information below is from: Test holes ✓ Well as completed G Drillers log attached G

Well location as shown in paragraph No.	(A)	(B)	(C)	(D)
Date Drilled	09/04/02			
Total depth of well	124			
Depth to water bearing formation	58			
Depth to static water level	35.9			
Depth to bottom of pump intake pipe	—			

13. The relationship of the applicant to the proposed place where the water will be used is that of agent.
(owner, tenant, agent or otherwise)

14. The owner(s) of the property where the water is used, if other than the applicant, is (please print):

(name, address and telephone number)

(name, address and telephone number)

15. The undersigned states that the information set forth above is true to the best of his/her knowledge and that this application is submitted in good faith.

Dated at Wichita, Kansas, this 2nd day of July (month), 2003 (year)

(Applicant Signature)

APPLICANT(S) SOCIAL SECURITY IDENTIFICATION NUMBER(S)

By Gerald T. Blain
(Agent or Officer Signature)

48-6000653
and/or
APPLICANT(S) TAXPAYER I.D. NO.(S)

Gerald T. Blain
(Agent or Officer - Please Print)

Assisted by WATER RESOURCES RECEIVED JUL 03 2003 KS DEPT OF AGRICULTURE (office/title) Date:

MICROFILMED

344

MICROFILMED

Recharge and Recovery Well No. 1
69 ft. N. and 5212 ft. W. of SE Corner of Sec. 12, T 23 S, R 3 W.

Diversions within 1/2 mile:

Irrigation Wells –
3036
Ronald & Sharon Neuway
903 Willow Lake Rd.
Burrton, KS 67020

Domestic Wells
D1 - Corey Flickinger
17911 NW 12th St.
Burrton, KS 67020

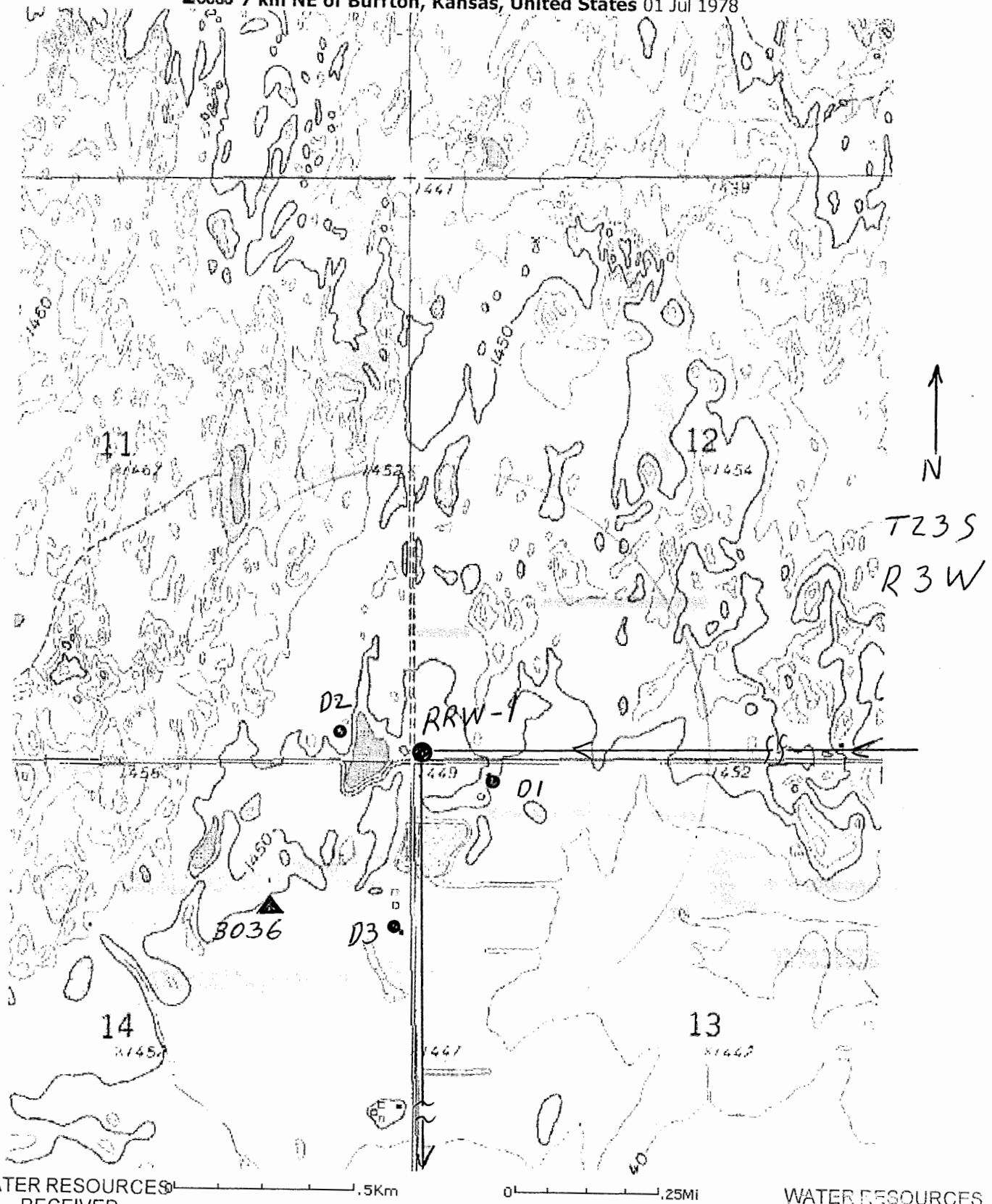
D1- Edward Combs
18116 NW 12th St.
Burrton, KS 67020

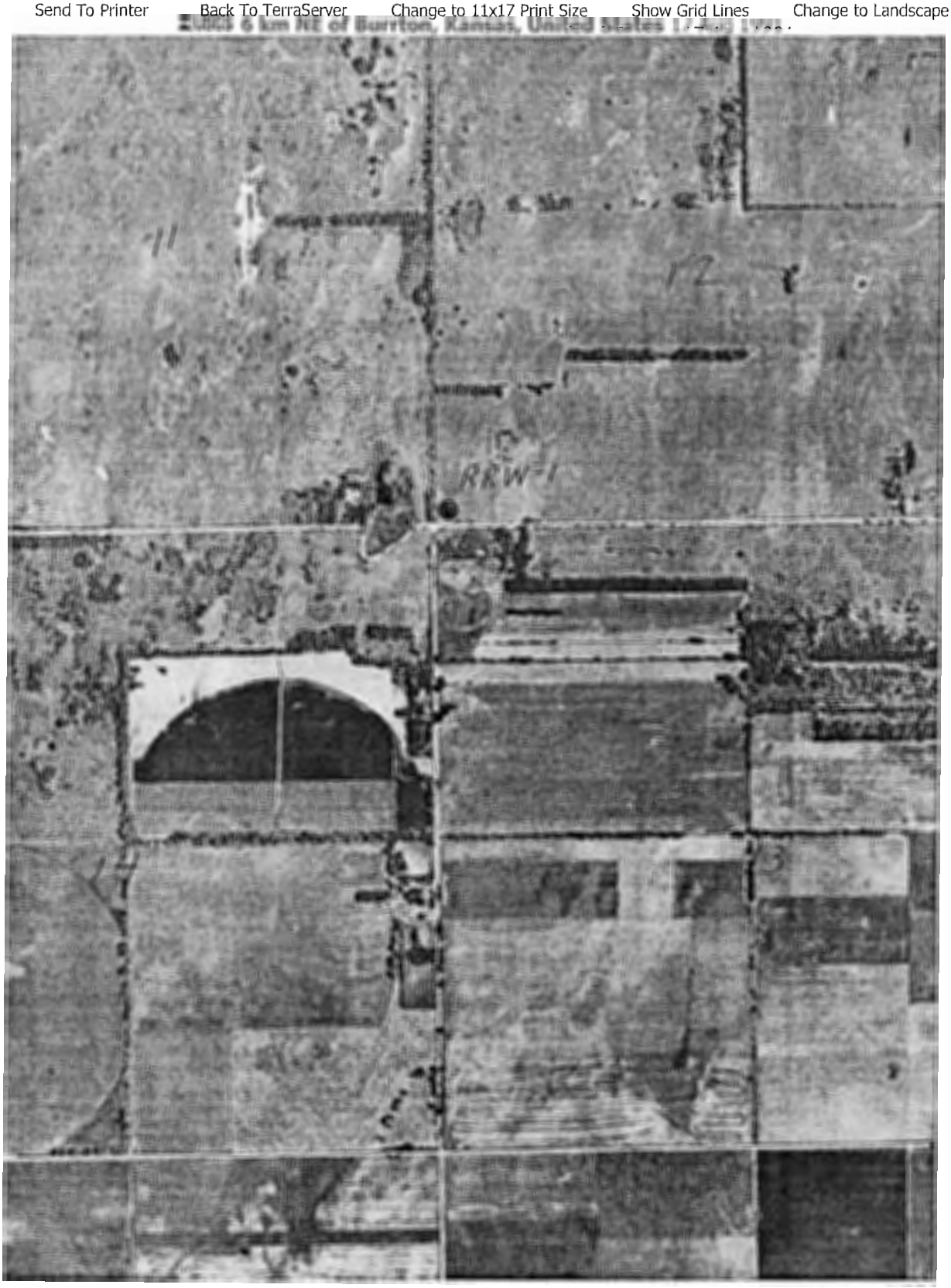
D3 - Ronald Neuway
903 Willow Lake Rd.
Burton, KS 67020

MICROFILMED

Send To Printer Back To TerraServer Change to 11x17 Print Size Show Grid Lines Change to Landscape

USGS 7 km NE of Burrton, Kansas, United States 01 Jul 1978





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T23S
R3W

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Image courtesy of the U.S. Geological Survey

MUNICIPAL (PUBLIC WATER SUPPLY) APPLICATION
SUPPLEMENTAL INFORMATION SHEET

NAME _____
(Please Print)

Application File Number
_____
(assigned by DWR)

SECTION 1: PRESENT WATER USE SUMMARY (IF NO PREVIOUS MUNICIPAL WATER USE HAS BEEN UTILIZED, PROCEED TO SECTION 3)
NOTE: WORKSHEET FOR WATER PUMPED, PURCHASED, AND SOLD BY YOUR WATER DISTRIBUTION SYSTEM.

Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Below Explanation)
TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

UNACCOUNTED FOR WATER = TOTAL WATER - ACCOUNTED FOR WATER

Column 1: The amount of raw water diverted from all of your points of diversion.

Column 2: The amount of water purchased wholesale from all other public water supply systems or the Kansas Water Office.

Column 3: The amount of water sold wholesale to all other public water supply systems.

Column 4: The amount of water sold retail to all industrial, pasture, stockwater, feedlot, and bulk water service connections. Include the amount of water sold to all farmsteads using at least 200,000 gallons of water per year.

Column 5: The amount of water sold retail to your residential and commercial customers and to industries and farmsteads using less than 200,000 gallons of water per year.

Column 6: The amount of water used that is metered at individual service connections and supplied free, such as for public service, treatment processes, and connections receiving free water.

Column 7: The amount of remaining water used. The gallons reported in this column are found by adding the numbers in Columns 1 and 2 and subtracting the numbers in Columns 3, 4, 5, and 6.

UNACCOUNTED FOR WATER

Use the following to calculate your distribution system's Unaccounted For Water:
Start with the amount in Column 1 and add the amount in Column 2, then subtract the amounts in Columns 3, 4, 5, and 6 leaving an amount of water representing your unaccounted for water to enter in Column 7.

Use the following to calculate the percent Unaccounted For Water versus the Total Water of your system:

$$\text{Percent Unaccounted For Water} = \frac{\text{Unaccounted For Water}}{\text{Total Water (Columns 1,2)}} \times 100$$

If this number exceeds 20%, please explain the large amount of unaccounted for water and describe any steps being taken to reduce it.

SECTION 2: PAST WATER USE
COMPLETE THE FOLLOWING TABLE FROM YOUR PAST WATER USE RECORDS.

	Column 1 Raw Water Diverted Under Your Rights	Column 2 Water Purchased From All Sources	Column 3 Water Sold to Other Public Water Suppliers	Column 4 Water Sold to Your Industrial, Stock, and Bulk Customers	Column 5 Water Sold to Your Residential and Commercial Customers	Column 6 Other Metered Water	Column 7 Remaining Water Used (See Above Explanation)
20 years ago							
15 years ago							
10 years ago							
5 years ago							
	TOTAL WATER = Columns 1 + 2		ACCOUNTED FOR WATER = Columns 3 + 4 + 5 + 6				UNACCOUNTED FOR WATER

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

July 8, 2003

CITY OF WICHITA
WATER AND SEWER DEPT
455 N MAIN
WICHITA KS 67202

RE: Application
File No. 45,576

Dear Sir or Madam:

Your application for permit to appropriate water in 12-23-03 West, Harvey County, was received and has been assigned the file number noted above.

As a matter of information, the Division of Water Resources has on hand a large number of applications awaiting processing. In order to be fair to all concerned, it is our policy to process applications in the order they are received. Once review of your application has begun, we will contact you, if additional information is required.

In accordance with the provisions of the Kansas Water Appropriation Act, a portion of which is included below, the use of water as proposed prior to approval of the application is unlawful. Once approved, compliance with the terms, conditions and limitations of the permit is necessary. Conservation of the water resources of Kansas is required.

Section 82a-728 of the Kansas Water Appropriation Act, provides (a) except for the appropriation of water for the purpose of domestic use, . . . it shall be unlawful for any person to appropriate or threaten to appropriate water from any source without first applying for and obtaining a permit to appropriate water in accordance with the provisions of the Water Appropriation Act or for any person to violate any condition of a vested right, appropriation right or an approved application for a permit to appropriate water for beneficial use. (Emphasis added)

(b) (1) The violation of any provision of this section by any person is a class C misdemeanor . . .

A class C misdemeanor is punishable by a fine not to exceed $500 and/or a term of confinement not to exceed one month in the county jail. Each day that the violation occurs constitutes a separate offense.

If you have any questions, please contact our office. If you wish to discuss a specific file, please have the file number ready so that we may help you more efficiently.

Sincerely,

William J. Gilliland, L.G.
Permits Unit Head
Water Appropriation Program

WJG:zjp
pc: Stafford Field Office
Groundwater Management District No. 2

Division of Water Resources David L. Pope, Chief Engineer
109 SW 9th ST., 2nd Floor Topeka, KS 66612-1283
Voice (785) 296-3717 Fax (785) 296-1176 http://www.accesskansas.org/kda

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

RONALD & SHARON NEUWAY
903 N WILLOW LAKE RD
BURRTON KS 67020

August 12, 2003

Re: Application
File No. 45,576

Dear Mr. & Mrs. Neuway:

This is to advise you that the City of Wichita Water and Sewer Department has filed the application referred to above for permit to appropriate 1,000 acre-feet of groundwater per calendar year from the Equus Beds aquifer for municipal use to be diverted at a maximum rate of 1,000 gallons per minute from a location or locations as follows:

one (1) well in the Southwest Quarter of the Southwest Quarter of the Southwest Quarter (SW¼ SW¼ SW¼) of Section 12, Township 23 South, Range 3 West, Harvey County Kansas.

The well is intended to produce water recharged to the aquifer by the City of Wichita, as part of the city's aquifer storage and recovery project. Pumping of water from the proposed well could take place only at times when recharge credits are available.

Records in this office indicate that you have a well in this vicinity and you are notified of receipt of this application in order that you may be fully informed of the proposed location of the applicant's point of diversion and proposed use of water. Consideration will be given to comments or other information which you desire to submit to this office within 15 days from the date of this letter.

Sincerely,

Mark D. Jennings, L. G.
Environmental Scientist
Water Appropriation Program

MDJ
pc: Stafford Field Office
City of Wichita Water & Sewer Dept.

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

COREY FLICKINGER
17911 NW 12TH ST
BURRTON KS 67020

August 12, 2003

Re: Application
File No. 45,576

Dear Mr. Flickinger:

This is to advise you that the City of Wichita Water and Sewer Department has filed the application referred to above for permit to appropriate 1,000 acre-feet of groundwater per calendar year from the Equus Beds aquifer for municipal use to be diverted at a maximum rate of 1,000 gallons per minute from a location or locations as follows:

one (1) well in the Southwest Quarter of the Southwest Quarter of the Southwest Quarter (SW¼ SW¼ SW¼) of Section 12, Township 23 South, Range 3 West, Harvey County Kansas.

The well is intended to produce water recharged to the aquifer by the City of Wichita, as part of the city's aquifer storage and recovery project. Pumping of water from the proposed well could take place only at times when recharge credits are available.

Records in this office indicate that you have a well in this vicinity and you are notified of receipt of this application in order that you may be fully informed of the proposed location of the applicant's point of diversion and proposed use of water. Consideration will be given to comments or other information which you desire to submit to this office within 15 days from the date of this letter.

Sincerely,

Mark D. Jennings, L. G.
Environmental Scientist
Water Appropriation Program

MDJ
pc: Stafford Field Office
City of Wichita Water & Sewer Dept.

Division of Water Resources David L. Pope, Chief Engineer
109 SW 9th ST., 2nd Floor Topeka, KS 66612-1283
Voice (785) 296-3717 Fax (785) 296-1176 http://www.accesskansas.org/kda

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

EDWARD COMBS
18116 NW 12TH ST
BURRTON KS 67020

August 12, 2003

Re: Application
File No. 45,576

Dear Mr. Combs:

This is to advise you that the City of Wichita Water and Sewer Department has filed the application referred to above for permit to appropriate 1,000 acre-feet of groundwater per calendar year from the Equus Beds aquifer for municipal use to be diverted at a maximum rate of 1,000 gallons per minute from a location or locations as follows:

one (1) well in the Southwest Quarter of the Southwest Quarter of the Southwest Quarter (SW¼ SW¼ SW¼) of Section 12, Township 23 South, Range 3 West, Harvey County Kansas.

The well is intended to produce water recharged to the aquifer by the City of Wichita, as part of the city's aquifer storage and recovery project. Pumping of water from the proposed well could take place only at times when recharge credits are available.

Records in this office indicate that you have a well in this vicinity and you are notified of receipt of this application in order that you may be fully informed of the proposed location of the applicant's point of diversion and proposed use of water. Consideration will be given to comments or other information which you desire to submit to this office within 15 days from the date of this letter.

Sincerely,

Mark D. Jennings, L. G.
Environmental Scientist
Water Appropriation Program

MDJ
pc: Stafford Field Office
City of Wichita Water & Sewer Dept.

SEE EXHIBIT L

COMMENT LETTERS RECEIVED AND DWR RESPONSES

SEE EXHIBIT M

INFORMAL SUBMISSION
CARL NUZMAN
AUGUST 7, 2003

SEE EXHIBIT N

DWR LETTER TO CITY OF WICHITA REQUESTING INFORMATION NEEDED TO COMPLETE THE APPLICATION
OCTOBER 30, 2003

SEE EXHIBITS O, P, AND Q

CITY OF WICHITA'S RESPONSE TO REQUEST FOR INFORMATION
DECEMBER 16, 2003

[DO NOT BATE-STAMP]

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

GROUNDWATER MANAGEMENT DISTRICT NO 2
313 SPRUCE ST
HALSTEAD KS 67056-1925

February 11, 2004

Re: Application File Nos.
45,567 through 45,576
Wichita ASR Project

Ladies and Gentlemen:

We are enclosing copies of the applications referred to above which appear to be in proper form.

We are delaying any further action for a period of 15 days from the date of this letter, or within any authorized extension of time, to allow you time to submit your recommendations concerning this application.

Please note that some of the technical reports submitted by the City of Wichita in support of these applications have not been included with the applications, because the District most likely already has copies of these reports. These reports include the Final Report on the Equus Beds Groundwater Recharge Demonstration Project, by Burns and McDonnell, dated April, 2000; USGS Water Resources Investigations Report 99-4250, on water quality samples taken during the demonstration project, and USGS Water Resources Investigations Report 98-4141, on water level changes in the Wichita Well Field Area, 1940-1998. A copy of data relating to the groundwater model for the ASR project has been included on a CD for your review.

Please submit your recommendations within the allotted time, or any authorized extension of time thereof. If you wish to discuss a specific file, please refer to the file number so that we may help you more efficiently.

Sincerely,

Mark D. Jennings, L. G.
Environmental Scientist
Water Appropriation Program

MDJ
Enclosure

pc: Stafford Field Office

Division of Water Resources David L. Pope, Chief Engineer
109 SW 9th ST., 2nd Floor Topeka, KS 66612-1283
Voice (785) 296-3717 Fax (785) 296-1176 http://www.accesskansas.org/kda

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2

313 SPRUCE • HALSTEAD, KANSAS 67056-1925 • equusbed@ink.org • VOICE (316) 835-2224 • FAX (316) 830-2210

February 13, 2004

David L. Pope, Chief Engineer
Division of Water Resources
Kansas Department of Agriculture
109 S.W. 9th Street, Second Floor
Topeka, Kansas 66612-1283

Re: Application Nos. 45,567 through 45,576 – City of Wichita

Dear Mr. Pope:

The Equus Beds Groundwater Management District No. 2, on February 12, 2004, received the referenced applications for the City of Wichita aquifer storage and recovery project.

Due to the unique conditions of the applications, the District requests that the time to review the applications and provide recommendations be extended 120 days from the date of this letter. The extension will permit the Board of Directors to review the applications at its next available public meeting.

Should you have any questions, please contact me.

Sincerely,
EQUUS BEDS GROUNDWATER
MANAGEMENT DISTRICT NO. 2

Michael T. Dealy, L. G.
Manager

MTD/DRK/rk

pc: Gerald T. Blain, City of Wichita
John F. and Ileen L. Weber
Edward J. Weber
Dick Van Wye
Ronald and Sharon Neuway
Edward W. Combs
Equus Beds Groundwater Management District Board of Directors

KANSAS

DEPARTMENT OF AGRICULTURE
ADRIAN J. POLANSKY, SECRETARY

KATHLEEN SEBELIUS, GOVERNOR

June 7, 2004

GROUNDWATER MANAGEMENT DISTRICT NO 2
313 SPRUCE ST
HALSTEAD KS 67056-1925

Re: Application File Nos.
45,567 through 45,576
Wichita ASR Project

Ladies and Gentlemen:

In response to your request, dated May 13, 2004, for an extension of time to review and submit recommendations regarding the referenced applications, the Chief Engineer has approved an extension of time until August 13, 2004.

For your information, the Division of Water Resources is currently in the planning process for setting up formal hearings on these applications, as required by K.A.R. 5-12-3. A tentative date for a pre-hearing conference has been scheduled for August 31, 2004

Please submit your recommendations within the allotted time, or any authorized extension of time thereof. If you wish to discuss the extension of time or the formal hearing process, please contact this office.

Sincerely,

Thomas L. Huntzinger, P. E.
Water Appropriation Program Manager

TLH:mdj

pc: Stafford Field Office

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2

313 SPRUCE • HALSTEAD, KANSAS 67056-1925 • equusbed@ink.org • VOICE (316) 835-2224 • FAX (316) 830-2210

May 13, 2004

David L. Pope, Chief Engineer
Division of Water Resources
Kansas Department of Agriculture
109 S.W. 9th Street, Second Floor
Topeka, Kansas 66612-1283

Re: Application Nos. 45,567 through 45,576 – City of Wichita

Dear Mr. Pope:

The Equus Beds Groundwater Management District Board of Directors, at its May 11, 2004, meeting discussed the proposed review of the referenced water appropriation applications for the City of Wichita aquifer storage and recovery project.

It was the consensus of the Board to request an extension of time to review the proposed applications, to allow additional time for application review by its consultant and to establish a time and location for the public meeting.

Based upon the Board's decision, the District requests that the time to review the applications and provide recommendations be extended an additional 90 days. 60

Should you have any questions, please contact me.

Sincerely,
EQUUS BEDS GROUNDWATER
MANAGEMENT DISTRICT NO. 2

Michael T. Dealy, L. G.
Manager

MTD/DRK/rk

pc: Gerald T. Blain, City of Wichita
John F. and Ileen L. Weber
Edward J. Weber
Dick Van Wye
Ronald and Sharon Neuway
Edward W. Combs
Equus Beds Groundwater Management District Board of Directors

EQUUS BEDS GROUNDWATER MANAGEMENT DISTRICT NO. 2

313 SPRUCE • HALSTEAD, KANSAS 67056-1925 • equusbed@ink.org • VOICE (316) 835-2224 • FAX (316) 830-2210

August 12, 2004

David L. Pope, Chief Engineer
Division of Water Resources
Kansas Department of Agriculture
109 S.W. 9th Street, Second Floor
Topeka, Kansas 66612-1283

Re: Application No. 45576 – City of Wichita

Dear Mr. Pope:

The referenced application was reviewed by the Equus Beds Groundwater Management District pursuant to K.A.R. 5-22-12. The application was reviewed using the District's Revised Management Program (effective May 1, 1995), and Rules and Regulations K.A.R. 5-22-1 through 5-22-12. Copies of the District's Application Review Information report and the independent consultant's project report are enclosed for your information.

Additionally, a draft copy of the proposed Memorandum of Understanding (MOU) between the District and the applicant has been enclosed. The District Board of Directors and the City of Wichita have conditionally agreed to the terms of the MOU, and a copy of the signed agreement shall be submitted to the Division by September 15, 2004.

Based upon the review findings, the provisions of the proposed MOU, and comments from the Board of Directors, the applicant and the public, the District recommends the application for approval subject to conditions that:

1) the basin storage area shall be defined in compliance with K.A.R. 5-1-1(k) specifying the portion of the aquifer's unsaturated zone used for aquifer storage that has defined horizontal boundaries and is delimited by the highest and lowest index water level elevations;

2) monitoring of the basing storage area shall include water levels, water quality, water use, water storage, water recovery, precipitation, basic data access and operational reports;

3) a monitoring well network is established using Kansas Geological Survey methodology to determine index water levels in each water budget accounting unit, and monitoring water levels for water balance calculations and determination of recharge credits;

4) as determined by Kansas Geological Survey methodology the basin storage area is divided into 38 water budget accounting units and each unit is assigned an index identification number as shown on figure 3;

5) the index water levels are established in compliance with K.A.R. 5-1-1(oo), to designate water level elevations spatially throughout the basin storage area, to be used to represent the maximum volume of a basin storage area, and storage available for recovery based upon accounting methodology, and conditions of the permit;

6) the highest index water level shall be limited to the predevelopment water table measurement or computed gradient based on KGS Bulletin 79 data and a minimum depth of 10 feet below land surface at the point of lowest land surface elevation in water budget accounting unit index no. 2;

7) the lowest index water level shall be determined per K.A.R. 5-12-1(b)(2) and the highest index water level shall be 1427.5 feet msl (22 feet bls), based on the predevelopment water level for accounting unit index no. 2, as determined from Kansas Geological Survey Bulletin 79 (1949);

8) water level monitoring data from index well no. 2 shall be used to compute the water balance and determine recharge credits for the proposed ASR application;

9) the total volume of the basin storage area shall be calculated in acre-feet utilizing the established highest and lowest index well levels for each water budget accounting unit, the area of the basin storage area, and the storage coefficient of the aquifer in each accounting unit;

10) the water balance to determine change in the basin storage area shall be calculated, where total inflow minus total outflow equals the change in groundwater storage;

11) the inflow data utilized in water balance calculations shall include natural recharge, groundwater and stream inflow, artificial recharge, and any other source of water deemed inflow by the District or the Division of Water Resources, further passive recharge shall not be considered as inflow and shall be excluded from water balance calculations;

12) the outflow data utilized in water balance calculations shall include evapotranspiration, baseflow, groundwater and stream outflow, non-domestic well use, and any other source of water deemed outflow by the District or the Division of Water Resources;

13) the proposed recovery of water artificially recharged by the operator of the aquifer storage and recovery system shall only occur when recharge credits are determined to be available;

14) determination of recharge credits for the proposed ASR application shall be computed through water balance methodology utilizing index data from water budget accounting unit nos. 1, 2, 3, 4, 5 and 6, and credit for passive recharge shall be prohibited;

15) a monitoring well network is installed at the applicant's expense to monitor the aquifer storage and recovery site as shown on Attachment 45576-A(r), and shall include existing monitoring well site IW02;

16) the monitoring wells are drilled and completed at depths correlating to the upper and lower zones of the aquifer for water sample collection, water level measurements and testing purposes;

17) the monitoring well sites are completed at spacing distances within 660 feet from the recharge and recovery well;

18) water level monitoring at the recharge and recovery site shall be automated with a frequency not to exceed six hours;

19) before installation of the proposed ASR well, the applicant shall submit a water level and water quality monitoring plan to GMD2 for review and comment and to the Chief Engineer, DWR for approval;

20) the water quality monitoring plan shall provide all necessary chemical, physical, radiological and biological data, and include but not be limited to continuous monitoring of specific conductance, PH, turbidity, dissolved oxygen, and temperature;

21) the proposed ASR well is equipped with water meters to separately and accurately record the total flow of water injected and diverted from the ASR well;

22) the water meter installations shall comply with K.A.R. 5-22-4;

23) the use of the proposed ASR well is authorized by the Kansas Department of Health and Environment as a Class V UIC well and minimum water quality standards for effluent are approved by the Department for organic and inorganic compounds, pesticides and bacteria; the

water recharged to the aquifer through the ASR well shall comply with the source water regulation K.A.R. 5-1-1(sss);

24) the water recharged to the aquifer shall either comply with EPA and KDHE safe drinking water standards, or meet the ambient water quality at the recharge sites, whichever is better, as determined by the Secretary of the Kansas Department of Health and Environment;

25) the quality of recharge water injected into the aquifer through the proposed well shall not degrade the ambient groundwater quality in the basin storage area;

26) to establish baseline ambient groundwater quality prior to bank storage withdrawal, water quality analyses shall be completed at the applicant's expense for samples collected from: a) domestic wells located within one-quarter mile of the proposed aquifer storage and recovery well, b) the proposed ASR well, and 3) all monitoring wells located at the ASR site;

27) the recharge system is constructed, operated and monitored to prevent groundwater contamination;

28) the applicant shall provide to the District a final report containing a description and scaled map of the as-built aquifer storage and recovery system;

29) the diversion quantities, aquifer injection quantities, water level data and water quality analyses are reported to the Division of Water Resources and the District each month for the 1st year of operation, each calendar quarter for the 2nd year of operation, and annually thereafter by March 1, of each year; and

30) the operation of the proposed ASR well shall not impair existing water rights nor prejudicially affect the public interest.

Please contact me should there be any question regarding the District's findings or recommendation.

A District decision may be appealed to the District Board of Directors by submitting a written petition to the District office within 30 days from date of this notification, pursuant to K.A.R. 5-22-12.

Sincerely,
EQUUS BEDS GROUNDWATER
MANAGEMENT DISTRICT NO. 2

Michael T. Dealy, L. G.
Manager

This is a recommendation by the Equus Beds Groundwater Management District and not an approval of an application or water permit.

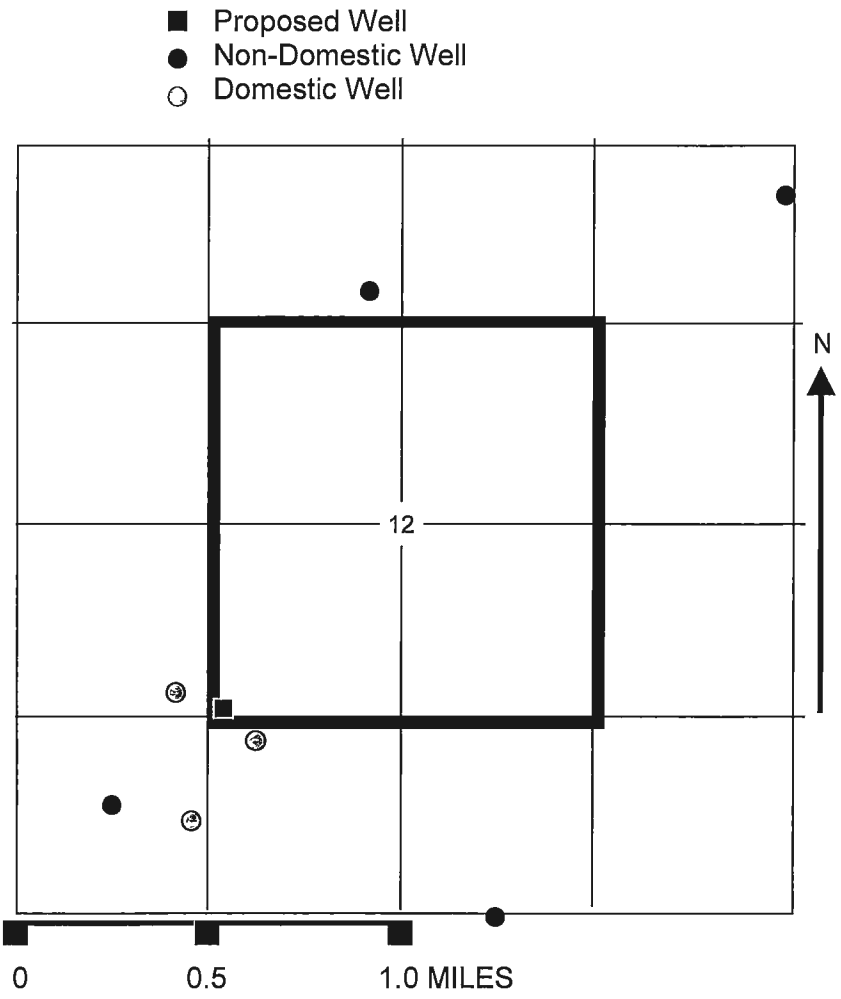
MTD/DRK/rk
Enclosures

pc: David Warren, City of Wichita
John F. and Ileen L. Weber
Edward J. Weber
Ronald and Sharon Neuway
Edward W. Combs
Dick Van Wye
Equus Beds Groundwater Management District Board of Directors

APPLICATION REVIEW INFORMATION

NAME CITY OF WICHITA
ADDRESS 455 N. MAIN STREET
WICHITA, KS 67202

APPLICATION NO. 45576
APPL. NEW
COUNTY HARVEY TRACT SW-SW-SW
WELL LOCATION S 12 T 23 R 3 W
QUANT 1000 AF RATE 1000 GPM
WELL SPACING D=680', ND=2044'



ISSUE: The application was filed for an aquifer storage and recovery well for the City of Wichita's Aquifer Storage and Recovery system. The applicant proposes to recharge water to the Equus Beds aquifer through the well for aquifer storage and recovery. The recharged water shall be diverted from the same well to be utilized for municipal use at a later time.

BACKGROUND INFORMATION:

JUL 3, 2003 - The applicant filed application no. 45576 for permit to withdraw water for municipal use as part of the Aquifer Storage and Recovery system. The application proposes the diversion of 1,000 AF/Y at a maximum diversion rate of 1,000 GPM, from a proposed aquifer storage and recovery well located in the Southwest quarter of the Southwest quarter of the Southwest quarter of Section 12, Township 23 South, Range 3 West, Harvey County. The proposed well location is more specifically described as being 69 feet north and 5,212 feet west of the southeast corner of said section (figures 1 and 2).

FEB 11, 2004 - DWR requested that the District review the application and make recommendations.

FEB 13, 2004 - The District requested an extension of time to submit recommendations on the application to allow review of the application by the Board of Directors. It was requested that

the time to provide recommendations be extended for 120 days. Copies of the extension request were submitted to the applicant and parties of interest who submitted letters of concern.

MAY 13, 2004 – It was the consensus of the Board of Directors at the May 11, 2004, meeting, that an additional 90-day extension be requested from the Chief Engineer, DWR, to provide recommendations. The additional time would allow for application review by the Board's consultant and the scheduling of a public meeting. Copies of the May 13, 2004, extension request were submitted to the applicant and parties of interest who submitted letters of concern to DWR regarding the proposed applications.

JUN 7, 2004 – The DWR approved an extension of time until August 13, 2004, to allow additional time for application review and recommendation.

FINDINGS: Application no. 45576 is subject to the Aquifer Management Program and District Standards and Policies, effective May 1, 1995, and Rules and Regulations K.A.R. 5-22-1 through K.A.R. 5-22-12.

Application no. 45576 is subject to the installation of a water flowmeter in accordance with District Metering Regulation K.A.R. 5-22-4a.

The proposed use of water is for municipal use associated with the applicant's aquifer storage and recovery (ASR) project. The applicant proposes to recharge bank storage water from the Little Arkansas River into the Equus Beds aquifer through a proposed aquifer storage and recovery well.

The applicant's proposal for aquifer storage will consist of a basin storage area underlying an area approximately 92,720 acres in size (figure 3). The following Division of Water Resources regulations as defined by K.A.R. 5-5-1, shall apply to the ASR project:

(b) Acceptable quality surface water – surface water that will not degrade the quality of the groundwater source into which it is discharged;

(e) Aquifer storage – the act of storing water in the unsaturated portion of an aquifer by artificial recharge for subsequent diversion and beneficial use;

(f) Aquifer storage and recovery system – the physical infrastructure that meets the following conditions:

(1) is constructed and operated for artificial recharge, storage, and recovery of source water; and

(2) consists of apparatus for diversion, treatment, recharge, storage, extraction, and distribution;

(g) Artificial recharge – the use of source water to artificially replenish the water supply in an aquifer;

(k) Basin storage area – the portion of the aquifer's unsaturated zone use for aquifer storage that has defined horizontal boundaries and is delimited by the highest and lowest index water level elevations;

(l) Basin storage loss – that portion of artificial recharge naturally flowing or discharging from the basin storage area;

(oo) Index water level – water level elevations established spatially throughout a basin storage area to be used to represent the maximum volume of a basin storage area, and

storage available for recovery based upon accounting methodology, and conditions of the permit;

(hhh) Recharge credit – the quantity of water that is stored in the basin storage area and that is available for subsequent appropriation for beneficial use by the operator of the aquifer storage and recovery system;

(sss) Source water – water used for artificial recharge that meets the following conditions:

(1) Is available for appropriation for beneficial use;

(2) Is above baseflow stage in the stream;

(3) Is not needed to satisfy minimum desirable streamflow requirements; and

(4) Will not degrade the ambient groundwater quality in the basin storage area;

(iiii) Water balance – the method of determining the amount of water in storage in a basin storage area by accounting for inflow to, outflow from and changes in storage in that basin storage area.

Based on Kansas Geological Survey methodology for optimum monitoring well network design, the basin storage area was sub-divided into of 38 water budget accounting units, each comprised of a four square mile area (figure 3). Each unit consists of a monitoring well site utilized to obtain index water levels, and water quality data.

The proposed ASR well is located in the SW-SW-SW of Section 12, Township 23 South, Range 3 West (figure 4), and at a point near the center of basin storage unit no. 2 (figure 5).

The proposed well is one of three aquifer storage and recovery wells centralized in basin storage unit nos. 2 and 5, to be implemented as part of Phase I of the ASR project. The aquifer storage and recovery wells are identified by the applicant as RRW-1 through RRW-3, and proposed under application nos. 45567, 45568 and 45576 (figures 2, 4 and 5).

The applicant's proposed aquifer storage and recovery system is an effort to meet the City of Wichita's projected long term water demands, and to impede the movement of saltwater contamination plumes from the Burrton oil field area and the Arkansas River.

It is projected that the recharge of bank storage water to the aquifer will raise water levels in the basin storage area creating a change in hydraulic head that will retard movement of saltwater contamination.

The proposed ASR well is located one mile east of the Burrton Intensive Groundwater Use Control Area Boundary (figure 6). Saltwater contamination plumes with chloride concentrations greater than 250 mg/L, are located southwest of the proposed well site (figure 6). The nearest saltwater plumes are in the upper (depth 66 feet bls) and middle (depth 152 feet bls) portions of the aquifer located approximately 1.8 miles southwest of the application and moving to the southeast.

The proposed quantity of 1,000 AF/Y, to be diverted at a maximum rate of 1,000 GPM, would allow the withdrawal of water for a maximum period of 226 days, when aquifer storage and recovery conditions are met.

The District Board of Directors, by approved motion recommended to the Chief Engineer, DWR, revisions of Article 22. The proposed changes included a provision to Safe Yield regulation 5-22-7, stipulating that applications not subject to the Safe Yield Regulation shall include applications for aquifer storage and recovery wells.

Under the proposed application only the water stored in the basin storage area shall be withdrawn for beneficial use by the operator of the aquifer storage and recovery system

(recharge credit). The availability of the recharge credit shall be determined based on the index water levels and water balance of the basin storage area. As a result of utilizing the recharge credit water, the aquifer's safe yield balance would not be affected.

The application complies with Well Spacing Regulation K.A.R. 5-22-2. The Division of Water Resources advised that two responses were received from the well owners contacted within one-half mile of the proposed well site (exhibits A and B).

The application complies with the Reclamation and Recycling Policy 9007.6, which provides that groundwater users are encouraged to:

a. anticipate future water demands and needs;

b. assess options for development of new water supplies;

c. embrace a philosophy that the groundwater user has a responsibility to maintain, manage and restore groundwater resources;

d. endeavor to initiate cooperative water reclamation and supply projects using water which has been treated, purified and reclaimed to recharge or store to meet future water supply needs;

e. embrace the concept of continual recycling of usable water; and

f. cooperate with the District to investigate means to supplement groundwater resources by improving recharge, preventing its deterioration and seeking means to import water.

Hydrologic and geologic data indicate that depth to bedrock is approximately 129 feet below land surface (bls). Depth to water is approximately 35 feet bls and saturated thickness 94 feet. Regional groundwater flow direction at the proposed well site is southeast.

The lithologic log of the proposed well site indicates that the aquifer is comprised of alternating sand and clay layers (figure 7). The clay units range from 1 to 31 feet in thickness. The sand units range from 4 to 15 feet in thickness, with the 15 feet thick unit located from a depth of 109 to 124 feet below land surface.

Water level data has been recorded by the District at groundwater monitoring site IW02 located within 100 feet of the proposed ASR well site (figure 4). Water levels recorded at the site during the period of record from October 2001 to April 2004 (figure 8), indicated that a perched water table existed at a depth of 26 feet bls. Water levels ranged from 4.07 to 10.07 feet in IW02A (total depth 26 feet). Water level data for IW02C ranged from 33.68 to 53.27 feet (total depth 95 feet) during the period of record. The IW02C lithologic log reported that depth to bedrock was 149 feet bls, with the lowest sand unit from 75 to 115 feet bls.

The application's proposed well depth is 124 feet bls to be completed in the lower portion of the aquifer. Proposed well construction specifications were not submitted with the application. An example diagram of recharge and recovery well construction was included in the applicant's demonstration project report (figure 9).

The applicant proposes to install observation wells for groundwater level and water quality monitoring at the site. The quantity and quality of source water recharged at the site will be monitored.

STAFF RECOMMENDATIONS:

Based on data submitted by the applicant and District findings, staff recommends that the application be approved subject to conditions that:

1) the basin storage area shall be defined in compliance with K.A.R. 5-1-1(k) specifying the portion of the aquifer's unsaturated zone used for aquifer storage that has defined horizontal boundaries and is delimited by the highest and lowest index water level elevations;

2) monitoring of the basing storage area shall include water levels, water quality, water use, water storage, water recovery, precipitation, basic data access and operational reports;

3) a monitoring well network is established using Kansas Geological Survey methodology to determine index water levels in each water budget accounting unit, and monitoring water levels for water balance calculations and determination of recharge credits;

4) as determined by Kansas Geological Survey methodology the basin storage area is divided into 38 water budget accounting units and each unit is assigned an index identification number as shown on figure 3;

5) the index water levels are established in compliance with K.A.R. 5-1-1(oo), to designate water level elevations spatially throughout the basin storage area, to be used to represent the maximum volume of a basin storage area, and storage available for recovery based upon accounting methodology, and conditions of the permit;

6) the highest index water level shall be limited to the predevelopment water table measurement or computed gradient based on KGS Bulletin 79 data and a minimum depth of 10 feet below land surface at the point of lowest land surface elevation in water budget accounting unit index no. 2;

7) the lowest index water level shall be determined per K.A.R. 5-12-1(b)(2) and the highest index water level shall be 1427.5 feet msl (22 feet bls), based on the predevelopment water level for accounting unit index no. 2, as determined from Kansas Geological Survey Bulletin 79 (1949);

8) water level monitoring data from index well no. 2 shall be used to compute the water balance and determine recharge credits for the proposed ASR application;

9) the total volume of the basin storage area shall be calculated in acre-feet utilizing the established highest and lowest index well levels for each water budget accounting unit, the area of the basin storage area, and the storage coefficient of the aquifer in each accounting unit;

10) the water balance to determine change in the basin storage area shall be calculated, where total inflow minus total outflow equals the change in groundwater storage;

11) the inflow data utilized in water balance calculations shall include natural recharge, groundwater and stream inflow, artificial recharge, and any other source of water deemed inflow by the District or the Division of Water Resources, further passive recharge shall not be considered as inflow and shall be excluded from water balance calculations;

12) the outflow data utilized in water balance calculations shall include evapotranspiration, baseflow, groundwater and stream outflow, non-domestic well use, and any other source of water deemed outflow by the District or the Division of Water Resources;

13) the proposed recovery of water artificially recharged by the operator of the aquifer storage and recovery system shall only occur when recharge credits are determined to be available;

14) determination of recharge credits for the proposed ASR application shall be computed through water balance methodology utilizing index data from water budget accounting unit nos. 1, 2, 3, 4, 5 and 6, and credit for passive recharge shall be prohibited;

15) a monitoring well network is installed at the applicant's expense to monitor the aquifer storage and recovery site as shown on Attachment 45576-A(r), and shall include existing monitoring well site IW02;

16) the monitoring wells are drilled and completed at depths correlating to the upper and lower zones of the aquifer for water sample collection, water level measurements and testing purposes;

17) the monitoring well sites are completed at spacing distances within 660 feet from the recharge and recovery well;

18) water level monitoring at the recharge and recovery site shall be automated with a frequency not to exceed six hours;

19) before installation of the proposed ASR well, the applicant shall submit a water level and water quality monitoring plan to GMD2 for review and comment and to the Chief Engineer, DWR for approval;

20) the water quality monitoring plan shall provide all necessary chemical, physical, radiological and biological data, and include but not be limited to continuous monitoring of specific conductance, PH, turbidity, dissolved oxygen, and temperature;

21) the proposed ASR well is equipped with water meters to separately and accurately record the total flow of water injected and diverted from the ASR well;

22) the water meter installations shall comply with K.A.R. 5-22-4;

23) the use of the proposed ASR well is authorized by the Kansas Department of Health and Environment as a Class V UIC well and minimum water quality standards for effluent are approved by the Department for organic and inorganic compounds, pesticides and bacteria; the water recharged to the aquifer through the ASR well shall comply with the source water regulation K.A.R. 5-1-1(sss);

24) the water recharged to the aquifer shall either comply with EPA and KDHE safe drinking water standards, or meet the ambient water quality at the recharge sites, whichever is better, as determined by the Secretary of the Kansas Department of Health and Environment;

25) the quality of recharge water injected into the aquifer through the proposed well shall not degrade the ambient groundwater quality in the basin storage area;

26) to establish baseline ambient groundwater quality prior to bank storage withdrawal, water quality analyses shall be completed at the applicant's expense for samples collected from: a) domestic wells located within one-quarter mile of the proposed aquifer storage and recovery well, b) the proposed ASR well, and 3) all monitoring wells located at the ASR site;

27) the recharge system is constructed, operated and monitored to prevent groundwater contamination;

28) the applicant shall provide to the District a final report containing a description and scaled map of the as-built aquifer storage and recovery system;

29) the diversion quantities, aquifer injection quantities, water level data and water quality analyses are reported to the Division of Water Resources and the District each month for the 1st year of operation, each calendar quarter for the 2nd year of operation, and annually thereafter by March 1, of each year; and

30) the operation of the proposed ASR well shall not impair existing water rights nor prejudicially affect the public interest.

EXHIBIT A.

David L. Pope, Chief Eng.
109 SW 9th ST
2nd floor
Topeka KS 66612-1283

August 23, 2003

Re. Application
file no. 45,576

Dear Mr. Pope:

It is very difficult to express to you our feelings in a letter. We would much prefer to sit and talk to you as we would any other friend.

We ask please that the application for the permit that Wichita has filed for be denied. We know that all of the studies for this project have been biased in favor of Wichita. Wichita has said that we (the area farmers) are all insignificant. By making this statement they have shown a selfish total disregard for an entire class of people. We know that they fully intend to keep moving forward on this until the entire aquifer is under their exclusive control. This whole process has been done in a very secretive and underhanded way so as to keep all the farmers completely uninformed

EXHIBIT B.

August 22, 2003

Mark D Jennings, L.G.
Environmental Scientist
Water Appropriation Program

RE: Application File No 45576

Dear Sir:

Reference your Letter of August 12 on Subject Application. I have Three (3) wells that could be impacted by the well on Subject Applicatio. I have been To Several meeting on this watershed, The Landowners and water users (approximately 900) Are Quite Concerned with Wichita's effort To control the water in this area.

We have had no Appreciation in land value in this area in Several years, water is one of our most valuable Assets.

I would Appose such well, unless The following criteria Are Met:

1. Quality of recharge water To be "As-good-or-better than existing-water-Quality"
2. Well not be more than 60' deep.
3. Results of Recharge water does not degrade our existing water standard
4. What will be effect on Salt Plume which is moving South?

Sincerely
Edward W Comb, phone 620 463 3362
1816 NW 12 Th.
Barrton, KS 67020

cc: David L Pope.

WATER RESOURCES
RECEIVED
AUG 25 2003
KS DEPT OF AGRICULTURE

MICROFILMED 369

3.

Wichita's plan for pumping into the Aquifer Will not work as they have said it would. This plan is just an excuse to pump the aquifer dry if they so choose. Wichita has no intention of being a responsible party in this matter. They will be policing themselves on how much water is coming out of the aquifer and the quality of water going into it. If they want to bank water for the future why don't they pump the river water into Cheney? Or another idea: they could just process the water they need directly out of the river. But no! They are not about to do that. Wichita intends to rape the district's farmers, use and abuse us and then dump us without any water (or hopelessly poluted water), all of this without any compensation for our grief and ruined lives.

A year or two ago we called our district water manager to find out what all of the drilling around us was for. He said he (mr mike Dealy) had no idea and

3.

EXHIBIT A.

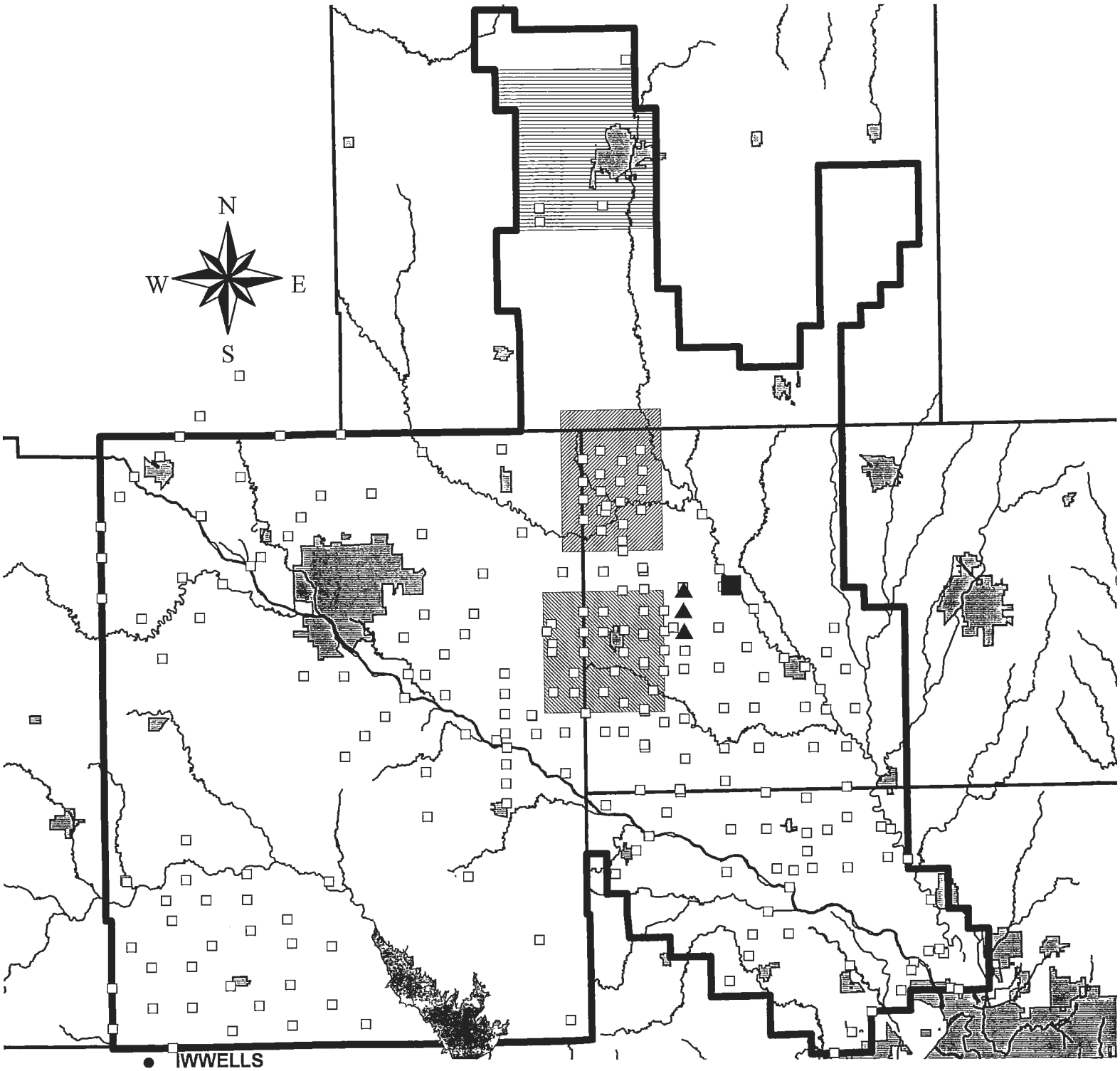
Would drive out to see if there was some drilling going on and he would get back to us. When mr. Dealy called us back he said they were just doing some testing. We would like to see a special referendum vote by all of those qualified to vote in our water district. After all this involved many more than just Wichita. We should be allowed a vote on this tremendous change in our lives. We do not have the power, influence and money that Wichita has but We are very concerned about the immediate future and all the generations to come.

Thank you for Considering Our Concerns.

Respectfully,
Ronald G Newby
Sharon K Newby

cc: Mark D. Jennings cc: Kathleen Sebelius
Adrian J. Polansky Todd Tiahrt

Figure 1. - Equus Beds Groundwater Management District No. 2 Aquifer Storage and Recovery Project Map July 13, 2004



- IWWELLS
- MonitoringWells
- Cheney Reservoir
- Counties
- District Boundary

Streams
- Major Stream
- Cities

Special Use Areas
- BURRTON IGUCA
- MCPHERSON IGUCA
- SWQUA

▲ Application for Proposed Aquifer Recharge and Recovery Well

■ Applications for 7 Proposed Bank Storage Withdrawal Wells

372

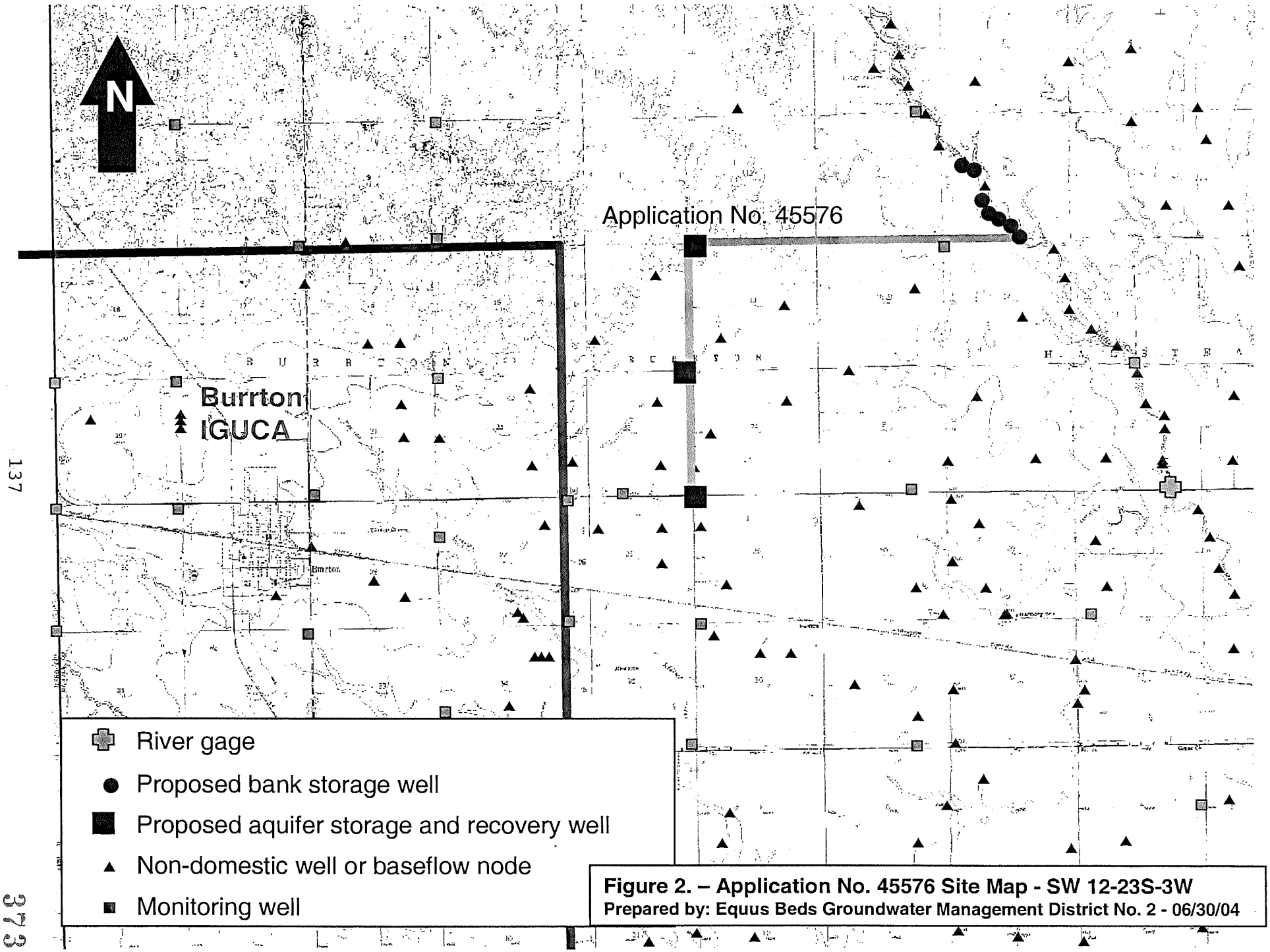
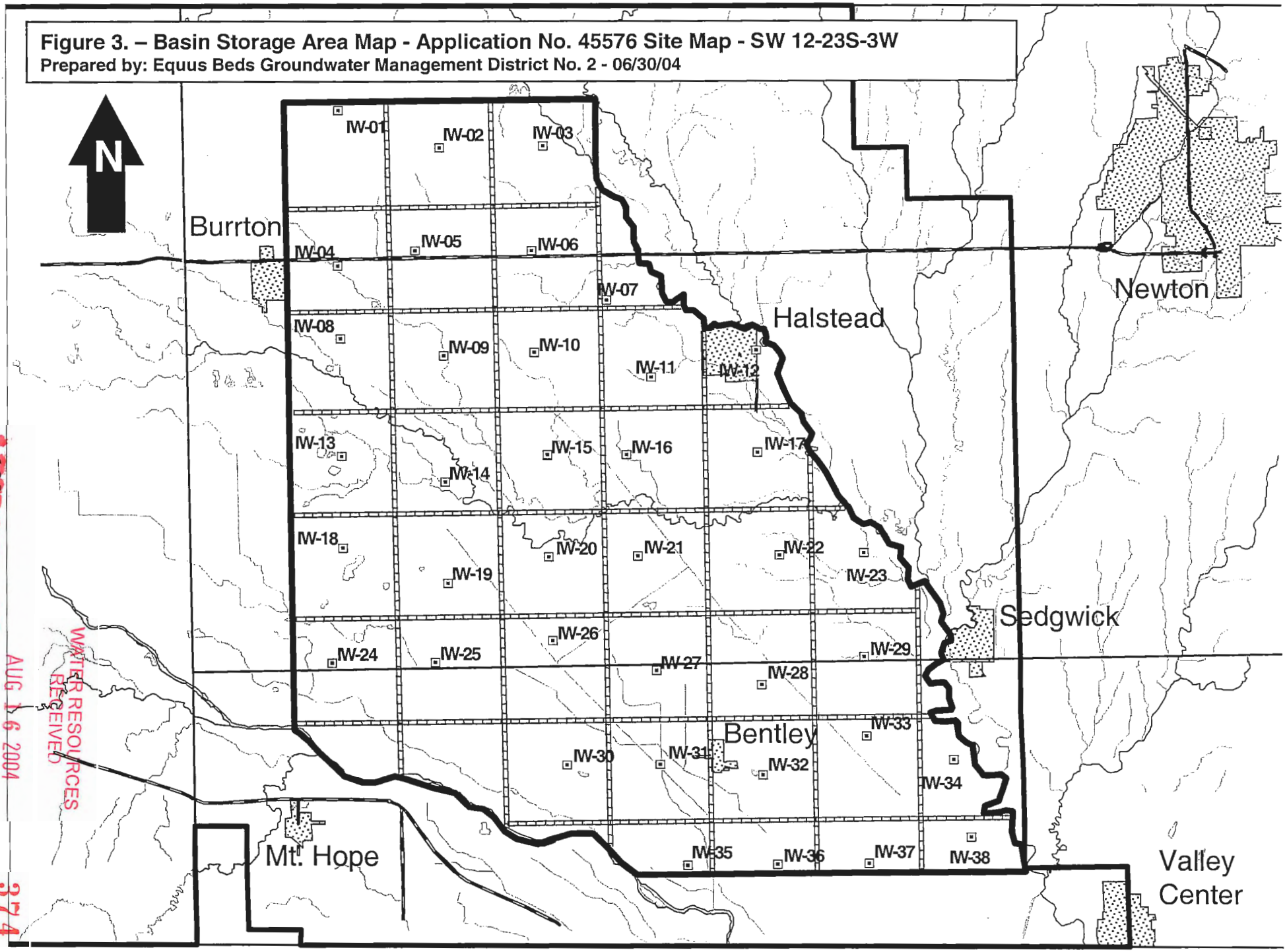


Figure 2. – Application No. 45576 Site Map - SW 12-23S-3W
Prepared by: Equus Beds Groundwater Management District No. 2 - 06/30/04



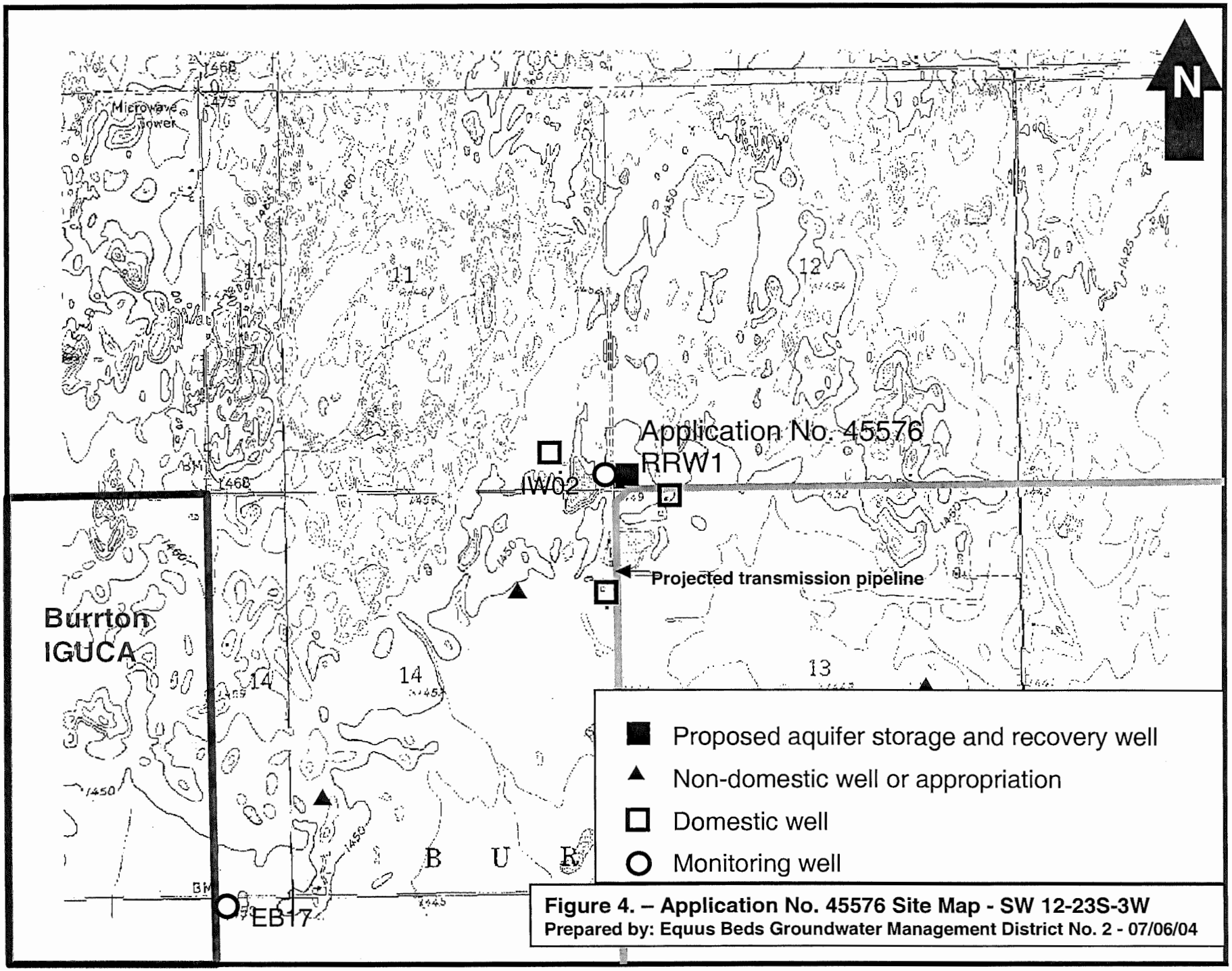
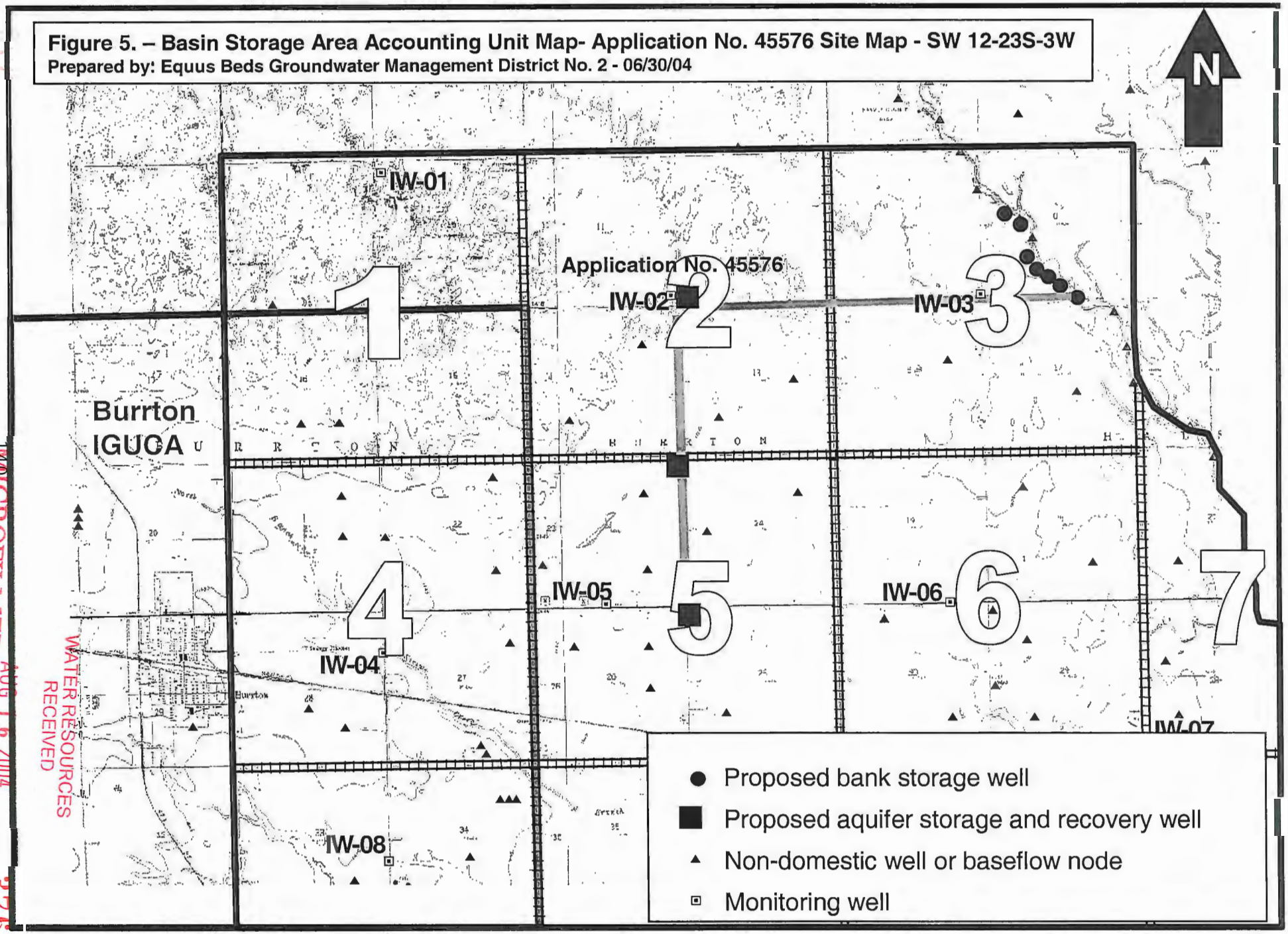


Figure 4. – Application No. 45576 Site Map - SW 12-23S-3W
Prepared by: Equus Beds Groundwater Management District No. 2 - 07/06/04



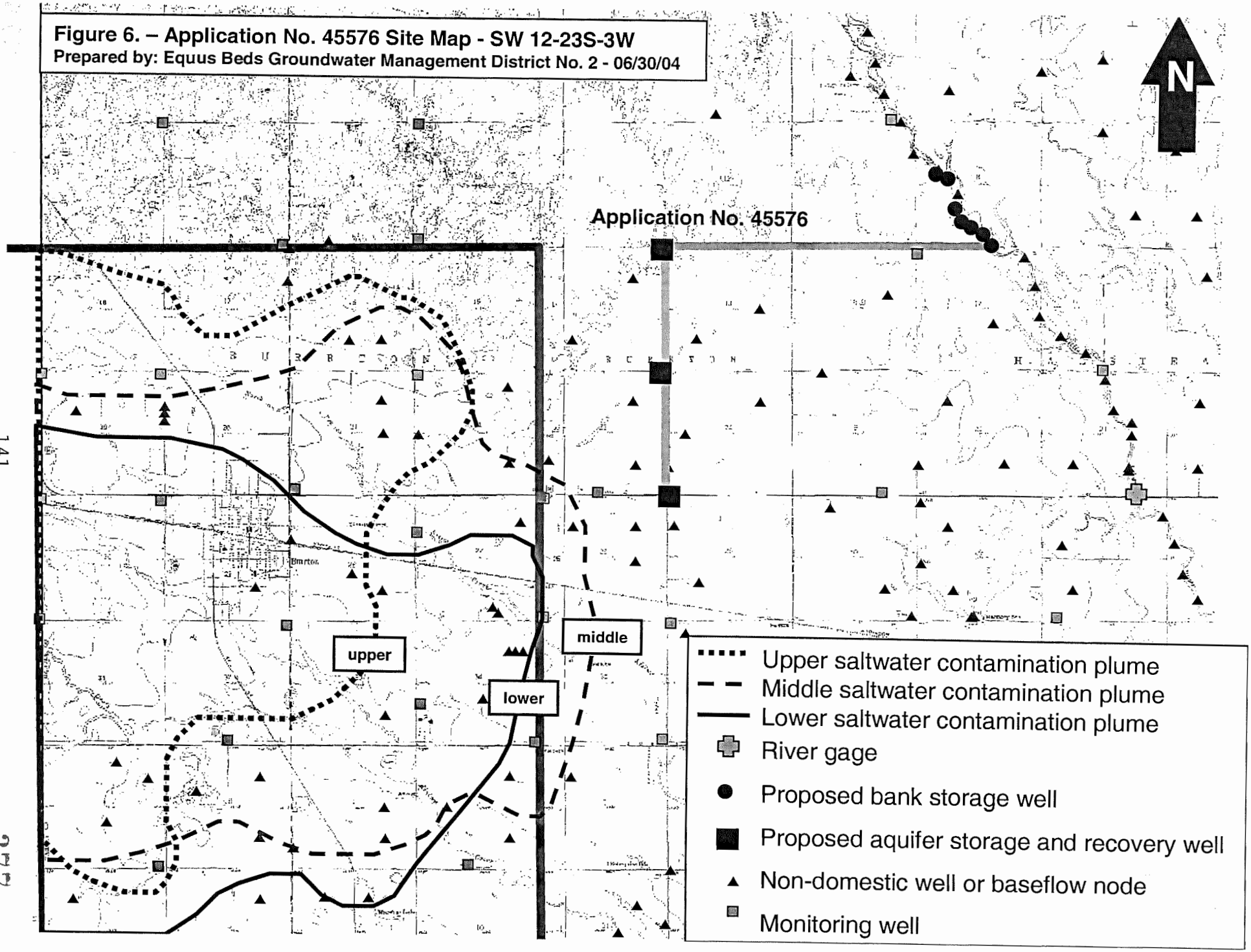


Figure 6. – Application No. 45576 Site Map - SW 12-23S-3W
Prepared by: Equus Beds Groundwater Management District No. 2 - 06/30/04
N
Application No. 45576
upper
middle
lower
Upper saltwater contamination plume
Middle saltwater contamination plume
Lower saltwater contamination plume
River gage
Proposed bank storage well
Proposed aquifer storage and recovery well
Non-domestic well or baseflow node
Monitoring well

263 5925 WATER WELL RECORD Form WWC-5 KSA 82a-1212 ID No. RRW-1

1 LOCATION OF WATER WELL: County: Harvey | Fraction: SW SW SW | Section Number: 12 | Township Number: T 23 S | Range Number: R 3 E (W)

Distance and direction from nearest town or city street address of well if located within city?
Approximately 3 1/2 miles east and 2 miles north of Burrton

2 WATER WELL OWNER: City of Wichita
RR#, St. Address, Box # : 455 N. Main
City, State, ZIP Code : Wichita, KS 67202
Board of Agriculture, Division of Water Resources Application Number:

3 LOCATE WELL'S LOCATION WITH AN "X" IN SECTION BOX: N, NW, NE, W, E, SW, SE, X, S

4 DEPTH OF COMPLETED WELL 126 ft. ELEVATION: unknown
Depth(s) Groundwater Encountered 1 ft. 2 ft. 3 ft.
WELL'S STATIC WATER LEVEL not checked ft. below land surface measured on mo/day/yr
Pump test data: Well water was not checked ft. after hours pumping gpm
Est. Yield unknown gpm: Well water was ft. after hours pumping gpm
Bore Hole Diameter 5 in. to 140 ft., and in. to ft.
WELL WATER TO BE USED AS: 5 Public water supply 8 Air conditioning 11 Injection well
1 Domestic 3 Feedlot 6 Oil field water supply 9 Dewatering 12 Other (specify below)
2 Irrigation 4 Industrial 7 Domestic (lawn & garden) (10) Monitoring well
Was a chemical/bacteriological sample submitted to Department? Yes No ✓ If yes, mo/day/yrs sample was submitted
Water Well Disinfected? Yes No ✓

5 TYPE OF BLANK CASING USED: 1 Steel 3 RMP (SR) 5 Wrought iron 8 Concrete tile
(2) PVC 4 ABS 6 Asbestos-Cement 9 Other (specify below)
7 Fiberglass
CASING JOINTS: Glued Clamped Welded Threaded ✓
Blank casing diameter 2 in. to 84 ft., Dia in. to ft., Dia in. to ft
Casing height above land surface 24 in., weight .70 lbs./ft. Wall thickness or gauge No. .154

TYPE OF SCREEN OR PERFORATION MATERIAL: (7) PVC 10 Asbestos-cement
1 Steel 3 Stainless steel 5 Fiberglass 8 RMP (SR) 11 Other (specify)
2 Brass 4 Galvanized steel 6 Concrete tile 9 ABS 12 None used (open hole)

SCREEN OR PERFORATION OPENINGS ARE: 5 Gauzed wrapped 8 Saw cut 11 None (open hole)
1 Continuous slot (3) Mill slot 6 Wire wrapped 9 Drilled holes
2 Louvered shutter 4 Key punched 7 Torch cut 10 Other (specify) ft.

SCREEN-PERFORATED INTERVALS: From 84 ft. to 124 ft., From ft. to ft.
From ft. to ft., From ft. to ft.
GRAVEL PACK INTERVALS: From 56 ft. to 140 ft., From ft. to ft.
From ft. to ft., From ft. to ft.

6 GROUT MATERIAL: 1 Neat cement 2 Cement grout 3 Bentonite 4 Other Bentonite Holeplug
Grout Intervals: From ft. to ft., From ft. to ft., From 0 ft. to 56 ft.
What is the nearest source of possible contamination:
1 Septic tank 4 Lateral lines 7 Pit privy 10 Livestock pens 14 Abandoned water well
2 Sewer lines 5 Cess pool 8 Sewage lagoon 11 Fuel storage 15 Oil well/Gas well
3 Watertight sewer lines 6 Seepage pit 9 Feedyard 12 Fertilizer storage 16 Other (specify below)
13 Insecticide storage None known
Direction from well? How many feet?

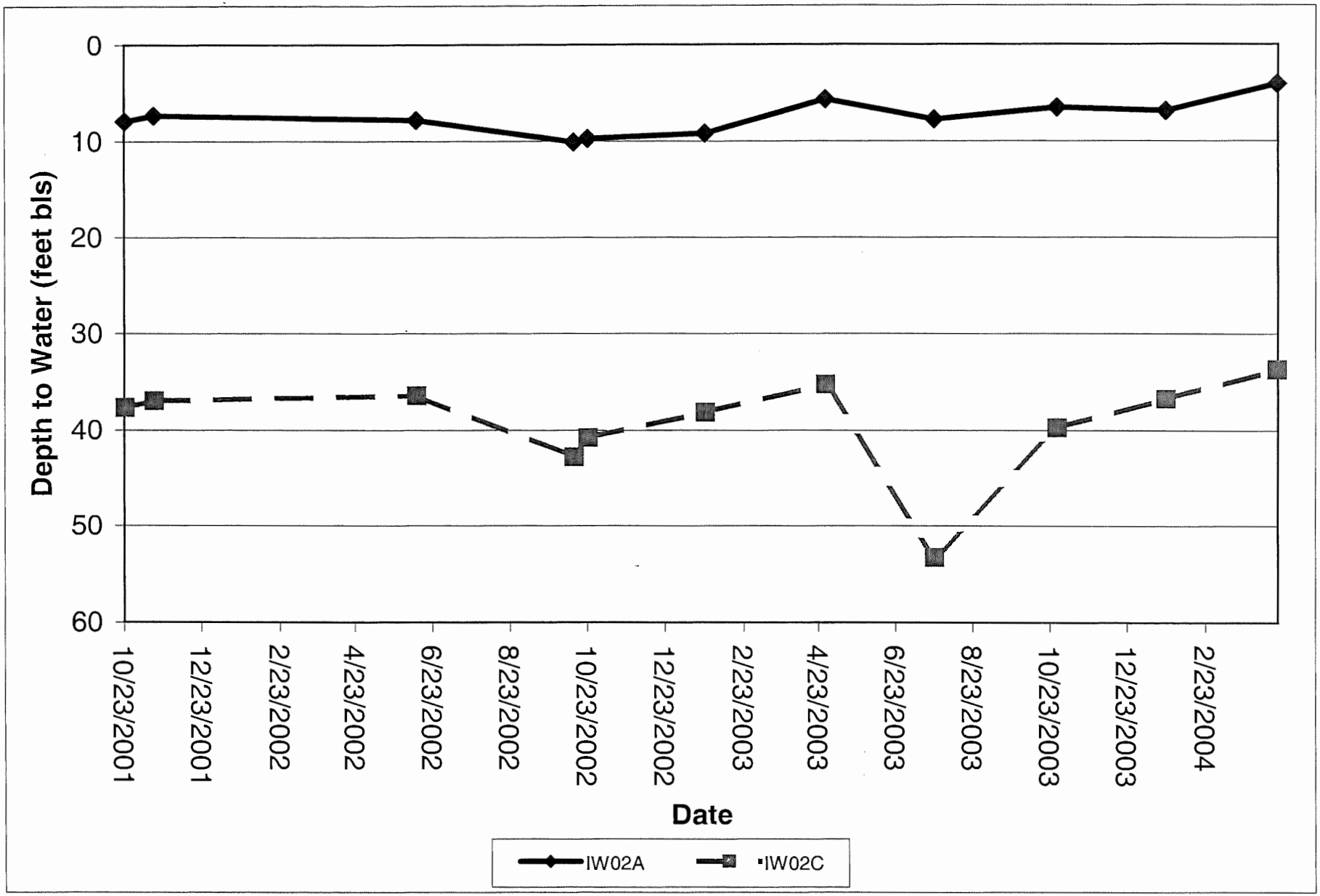
FROM	TO	LITHOLOGIC LOG	FROM	TO	PLUGGING INTERVALS
0	3	Topsoil	103	109	Clay, green, hard
3	13	Clay, brown, sandy, soft	109	124	Sand, coarse to very fine with gravel, fine
13	17	Clay, reddish brown, sandy, soft	124	129	Clay, dark gray
17	27	Sand, coarse to very fine, loose	129	140	Shale, black, hard
27	58	Clay, tan, hard			
58	62	Sand, coarse to very fine, loose			
62	64	Clay, green, hard			
64	76	Sand, coarse to very fine, loose, clean			
76	77	Clay, green, hard			
77	82	Sand, coarse to very fine with gravel, fine, loose, clean			
82	91	Clay, green, hard, sand streak at 89'			
91	103	Sand, coarse to very fine with gravel, fine, loose, clean			

7 CONTRACTOR'S OR LANDOWNER'S CERTIFICATION: This water well was (1) constructed (2) reconstructed, or (3) plugged under my jurisdiction and was completed on (mo/day/year) 12-19-02 and this record is true to the best of my knowledge and belief. Kansas Water Well Contractor's License No. 185 This Water Well Record was completed on (mo/day/yr) 12-23-02 under the business name of Clarke Well & Equipment, Inc. by (signature)

INSTRUCTIONS: Use typewriter or ball point pen. PLEASE PRESS FIRMLY and PRINT clearly. Please fill in blanks, underline or circle the correct answers. Send top three copies to Kansas Department of Health and Environment, Bureau of Water, Topeka, Kansas 66620-0001, Telephone 785-296-5524. Send one to WATER WELL OWNER and retain one for your records. Fee of $5.00 for each constructed well.

Figure 7. – Application No. 45576 Lithologic Log for Test Well at Proposed ASR Well Site

Groundwater Monitoring Site IW02
SW-SW-SW Sec. 12, T23S, R3W



IW02A Depth = 26 feet
IW02C Depth = 95 feet

Figure 8.

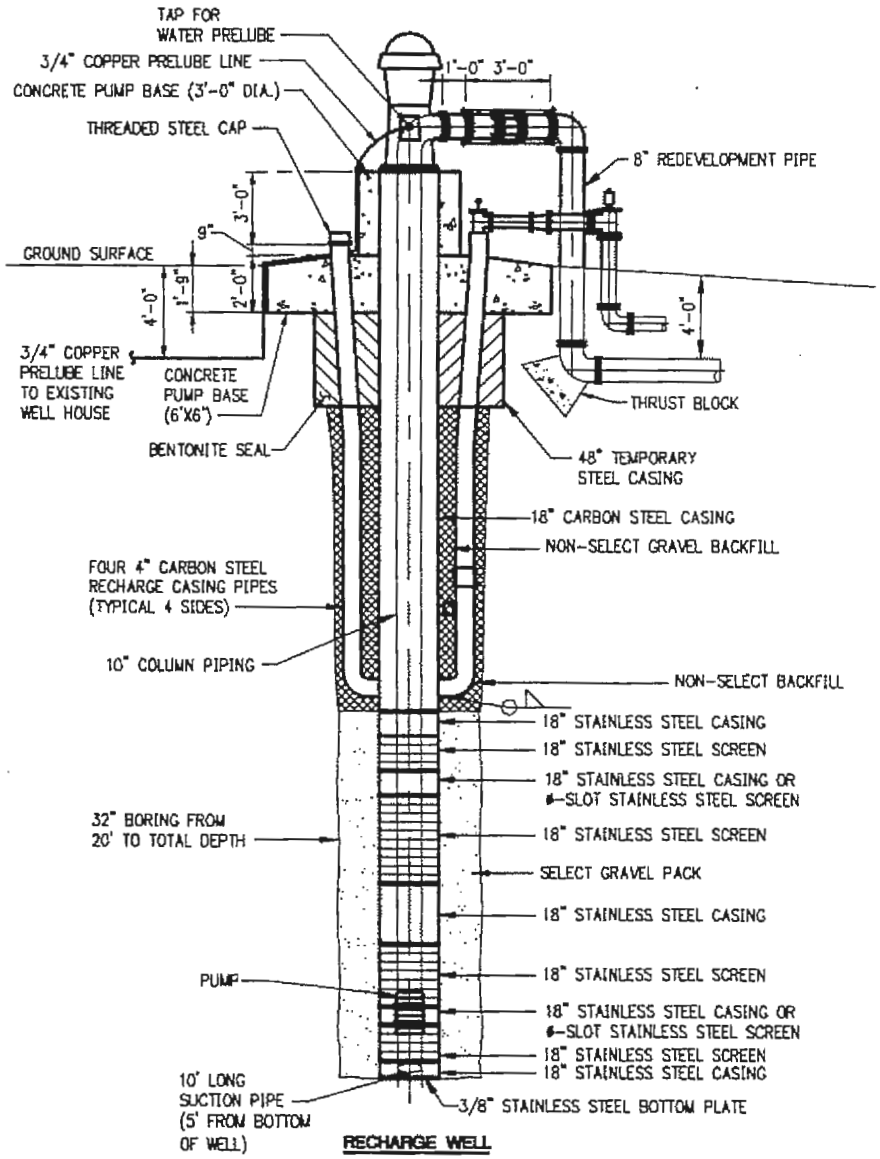
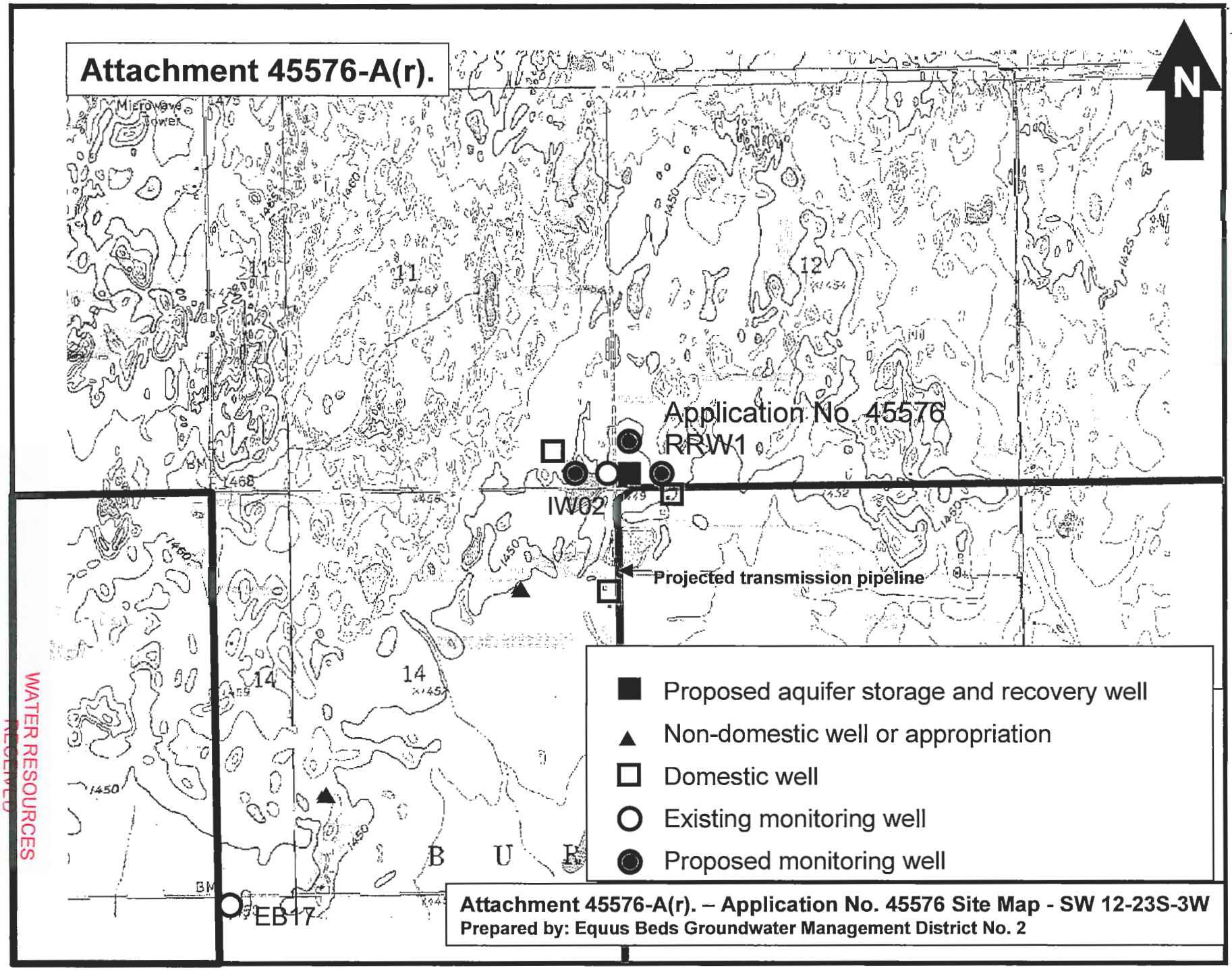


Figure 9. – Application No. 45576 Example of Construction Design for Recharge and Recovery Well



SEE EXHIBIT R

DRAFT MOU
GMD LETTER TO CHIEF ENGINEER
AUGUST 12, 2004

SEE EXHIBIT S

INDEPENDENT CONSULTANT'S REPORT
GMD LETTER TO CHIEF ENGINEER
AUGUST 12, 2004

[DO NOT BATE-STAMP]