

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. 76375

**APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1**

RECEIVED

MAR 16 2010

Name of Applicant City of Rexburg Phone 208-359-3029
Mailing Address PO Box 280, Rexburg, ID 83440 Email Department of Water Resource: Eastern Region

- ☐ If applicant is not an individual and not registered to do business in the State of Idaho, attach documentation identifying officers authorized to sign or act on behalf of the applicant. Label it **Attachment #1**.
- ☐ Attach water right ownership documentation if Department records do not show the transfer applicant as the current water right owner. Label it **Attachment #2a**.
- ☐ If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s). Label it **Attachment #2b**.
- ☐ Attach documentation of authority to make the proposed change if the applicant is not the water right owner. Label it **Attachment #3**.

Provide contact information below if a consultant, attorney, or any other person is representing the applicant in this transfer process.

☐ No Representative

Name of Representative c/o Rocky Mountain Environmental Associates Inc. Phone (208) 524-2353 / Fax 524-1795
Mailing address 482 Constitution Way, Ste 303, Idaho Falls, ID 83402 Email kmoore@rockymountainenvironmental.com

☐ Send all correspondence for this application to the representative and not to the applicant.

OR

☒ Send original correspondence to the applicant and copies to the representative.

☒ The representative may submit information for the applicant but is not authorized to sign for the applicant.

OR

☐ The representative is authorized to sign for the applicant. Attach a Power of Attorney or other documentation providing authority to sign for the applicant and label it **Attachment #4**.

I hereby assert that no one will be injured by the proposed changes and that the proposed changes do not constitute an enlargement in use of the original right(s). The information contained in this application is true to the best of my knowledge. I understand that any willful misrepresentations made in this application may result in rejection of the application or cancellation of an approval.

J. J. Miller
Signature of Applicant or Authorized Representative

JOHN MILLER PUBLIC WORKS DIR
Print Name and Title if applicable

3-11-10
Date

Signature of Applicant or Authorized Representative

Print Name and Title if applicable

Date

A. PURPOSE OF TRANSFER

1. ☐ Change Point of Diversion ☒ Add diversion point(s) ☐ Change Place of use
☐ Change Nature of Use ☐ Change Period of Use ☐ Other _____
2. Describe your proposal in narrative form, including a detailed description of non-irrigation uses to justify amounts transferred (i.e. number of stock, etc.), and provide additional explanation of any other items on the application. Attached additional pages if necessary and label it **Part 1A.2**. This transfer application proposes to add points of diversion to the municipal water rights of the City of Rexburg to maintain system pressure, reduce frictional losses and to increase system efficiency. The transfer application is not proposing an increase in diversion rate. See attached Part 1 A.2 for a full explanation.

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PART 1A.2***PURPOSE OF TRANSFER:***

This transfer application proposes to add points of diversion to the municipal water rights of the City of Rexburg to maintain system pressure, reduce frictional losses and to increase system efficiency. The transfer application is not proposing an increase in diversion rate.

Municipal systems are not designed to divert all of the water rights from only one well due to well limitations and system efficiencies. Every well contributes a portion to the entire municipal system. No water right will be permanently moved from the original well to another well. Depending on the system demand the original well may be required to divert near the original permitted capacity while the proposed well may only pump minimally. At other times the reverse situation may occur with the proposed well diverting near design capacity while the original well pumps minimally. Demand determines which well or combination of wells will operate to meet the needs of the city residents.

This transfer application proposes to add points of diversion for water rights within the Eastern Snake Plain Aquifer (ESPA) and thus requires the use of the ESPA Spreadsheet Analysis Model to determine depletion to hydraulically connected reaches of the Snake River. The ESPA Spreadsheet Model does not allow for multiple "TO" wells and is limited to only three "FROM" wells and therefore cannot model the existing six "FROM" Wells and three new "TO" Wells for the City of Rexburg municipal system. Also, in moving water from one location to another, the ESPA Spreadsheet analysis requires the reduction of the amount in the original well to be moved to the new location.

In discussion with Shelley Keen, Allan Wylie, and Sean Vincent of the State Office of IDWR, it was suggested that a centroid may best represent the well locations and the nature of the municipal system. A centroid has been located for the proposed wells and one for the existing wells, as depicted in Attachment #9. In determining the location of the existing well centroid, each existing well was weighted based on permitted diversion rate. The centroid for the proposed wells was weighted based on anticipated well capacities. The results in using the permitted diversion rate for the existing wells and the anticipated diversion capacity for the proposed well located the two centroids in adjacent cells.

The transfer processing memorandum indicates that if the application for transfer proposes to move or add a point of diversion within or adjacent to the model cell for which the existing point(s) of diversion are located, the ESPA Spreadsheet analysis is not required. Despite the centroids being in adjacent cells it was decided to include an ESPA Spreadsheet analysis (See Attachment #5) to determine what effects would occur in hydraulically connected reaches of the Snake River, and to determine if a mitigation plan would be needed.

The City of Rexburg has additional ground water rights within the City's service area, however, these rights are used in specific locations only.



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Department of Water Resources
Eastern RegionSTATE OF IDAHO
DEPARTMENT OF WATER RESOURCESAPPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

B. DESCRIPTION OF RIGHT(S) AFTER THE REQUESTED CHANGES. IF THE RIGHTS ARE BEING SPLIT, DESCRIBE PORTIONS TO BE CHANGED AS THEY WOULD APPEAR AFTER THE REQUESTED CHANGES.

1.	Right Number	Amount (cfs/ac-ft)	Nature of Use	Period of Use	Source & Tributary
☒ ☐	22-7074	1.57 cfs	Municipal	1/01 to 12/31	Ground water
☒ ☐	22-7175	5.61 cfs	Municipal	1/01 to 12/31	Ground water
☒ ☐	22-7176	4.68 cfs	Municipal	1/01 to 12/31	Ground water
☒ ☐	22-7617	2.20 cfs	Municipal	1/01 to 12/31	Ground water
☒ ☐	22-7754	2.77 cfs	Municipal	1/01 to 12/31	Ground water
☐ ☐				to	
☐ ☐				to	
☐ ☐				to	
Total Authorized under rights		16.83	cfs and/or		ac-ft

2. Total amount of water being transferred or changed 16.83 cubic feet per second and/or _____ acre-feet per annum.

3. Point(s) of Diversion:

- ☐ No changes to point(s) of diversion are proposed-the following chart is therefore not completed. (Proceed to Item #5)
- ☒ Attach Eastern Snake Plain Aquifer analysis if this transfer proposed to change a point of diversion affecting the ESPA.
Label it Attachment #5.

New ?	Lot	¼	¼	¼	Sec	Twp	Rge	County	Source	Local Name or tag #
YES			SE	NE	35	6N	39E	MADISON	GROUNDWATER	PROPOSED WELL #2
YES			SW	SW	17	6N	40E	MADISON	GROUNDWATER	PROPOSED WELL #1
			SW	SW	17	6N	40E	MADISON	GROUNDWATER	NORTH WELL
			SW	SW	20	6N	40E	MADISON	GROUNDWATER	SMITH WELL
			SW	SW	29	6N	40E	MADISON	GROUNDWATER	WELL 6
			SW	SW	29	6N	40E	MADISON	GROUNDWATER	WELL 1
			SE	NW	30	6N	40E	MADISON	GROUNDWATER	PORTER WELL
YES			NE	SE	31	6N	40E	MADISON	GROUNDWATER	PROPOSED WELL #3
			NE	SE	31	6N	40E	MADISON	GROUNDWATER	WELL 5

4. Place of use: (If irrigation, identify with number of acres irrigated per ¼ ¼ tract.)

- ☒ No changes to place of use are proposed-the following chart is therefore not completed. (Proceed to Item #5)

Twp	Rge	Sec	NE ¼				NW ¼				SW ¼				SE ¼				Acre Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	

Total Acres (for irrigation use) _____

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STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

APPLICATION FOR TRANSFER OF WATER RIGHT
PART 1 Continued

5. General Information:

a. Describe the complete diversion system, including how you will accommodate a measuring device and lockable controlling works should they be required now or in the future: All existing points of diversion are linked to the city water supply system. Proposed wells will also be linked to the same system. Measuring devices are maintained on wells.

b. Who owns the property at the point(s) of diversion? Applicant

If other than the applicant, describe the arrangement enabling the applicant to access the property for the diversion system: _____

c. Are the lands from which you propose to transfer the water right subject to any liens, deeds of trust, mortgages, or contracts? No ☒. If yes, ☐ Attach a notarized statement from the holder of the lien, deed of trust, mortgage, or contract agreeing to the proposed changes on official letterhead signed by an authorized representative. Label it **Attachment #6**. List the name of the entity and type of lien: _____

It is the applicant's responsibility to provide notice to lien holder, trustee, mortgagor, or contract holder of the proposed changes that may impact or change the value of the water rights or affected real property. Any misrepresentation of legal encumbrance on this application may result in rejection of the application or cancellation of an approval.

d. Describe the affect on the land now irrigated if the place of use is changed pursuant to this transfer:

No change to the place of use

e. Describe the use of any other water right(s) for the same purpose or land, or the same diversion system as right(s) proposed to be transferred at both the existing and proposed point(s) of diversion and place(s) of use:

All water rights that share the same place of use are included in the transfer. The City of Rexburg has additional ground water rights within the City's service area, however, these rights are used in specific locations only.

f. To your knowledge, has/is any portion of the water right(s) proposed to be changed:

Yes No

- | | | |
|--------------------------|-------------------------------------|---|
| ☐ | ☒ | undergone a period of five or more consecutive years of non-use, |
| ☐ | ☒ | currently leased to the Water Supply Bank, |
| ☐ | ☒ | currently used in a mitigation plan limiting the use of water under the right, or |
| ☐ | ☒ | currently enrolled in a Federal set-aside program limiting the use of water under the rights? |

If yes, describe: _____

PART 2A

WATER RIGHT NO. 22-7074

Owner Type Name and Address

Current Owner CITY OF REXBURG
PO BOX 280
REXBURG, ID 83440
(208)359-3020

Priority Date: 06/19/1973

Basis: Decreed

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

MUNICIPAL 1/01 12/31 1.57 CFS

Total Diversion 1.57 CFS

Location of Point(s) of Diversion:

GROUND WATER SWSW Sec. 20 Township 06N Range 40E MADISON County

Place(s) of use: [Large POU Info](#)

Conditions of Approval:

- This partial decree is subject to such general provisions necessary for the definition of the rights or
1. C18 for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
 2. 124 Place of use is within the service area of the City of Rexburg municipal water supply system as provided for under Idaho Law.
 3. Known as the Smith Park Well

PART 2A

WATER RIGHT NO. 22-7175

Owner Type Name and Address

Current Owner CITY OF REXBURG
PO BOX 280
REXBURG, ID 83440
(208)359-3020

Priority Date: 02/04/1976

Basis: Decreed

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

MUNICIPAL 1/01 12/31 5.61 CFS

Total Diversion 5.61 CFS

Location of Point(s) of Diversion:

GROUND WATER SWSW Sec. 29 Township 06N Range 40E MADISON County

GROUND WATER SWSW Sec. 29 Township 06N Range 40E MADISON County

Place(s) of use: [Large POU Info](#)

Conditions of Approval:

- This partial decree is subject to such general provisions necessary for the definition of the rights or for the
1. C18 efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
 2. 124 Place of use is within the service area of the City of Rexburg municipal water supply system as provided for under Idaho Law.

PART 2A

WATER RIGHT NO. 22-7176

Owner Type Name and Address

Current Owner CITY OF REXBURG
PO BOX 280
REXBURG, ID 83440
(208)359-3020

Priority Date: 02/04/1976

Basis: Decreed

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

MUNICIPAL 1/01 12/31 4.68 CFS

Total Diversion 4.68 CFS

Location of Point(s) of Diversion:

GROUND WATER SENESE Sec. 31 Township 06N Range 40E MADISON County

Place(s) of use: [Large POU Info](#)

Conditions of Approval:

- This partial decree is subject to such general provisions necessary for the definition of the rights or for the
1. C18 efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
 2. 124 Place of use is within the service area of the City of Rexburg municipal water supply system as provided for under Idaho Law.

PART 2A

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WATER RIGHT NO. 22-7617

Owner Type Name and Address

Current Owner CITY OF REXBURG
PO BOX 280
REXBURG, ID 83440
(208)359-3020

Priority Date: 10/31/1950

Basis: Decreed

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

MUNICIPAL 1/01 12/31 2.2 CFS

Total Diversion 2.2 CFS

Location of Point(s) of Diversion:

GROUND WATER NESENW Sec. 30 Township 06N Range 40E MADISON County

Place(s) of use: [Large POU Info](#)

Conditions of Approval:

This partial decree is subject to such general provisions necessary for the definition of the rights or for the

1. C18 efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412(6), Idaho Code.
2. 124 Place of use is within the service area of the City of Rexburg municipal water supply system as provided for under Idaho Law.
3. X59 Point of diversion is located in Porter Park.

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PART 2A

WATER RIGHT NO. 22-7754

Owner Type Name and Address

Current Owner CITY OF REXBURG
PO BOX 280
REXBURG, ID 83440
(208)359-3020

Priority Date: 12/17/1992

Basis: License

Status: Active

Source Tributary

GROUND WATER

Beneficial Use From To Diversion Rate Volume

MUNICIPAL 1/01 12/31 2.77 CFS

Total Diversion 2.77 CFS

Location of Point(s) of Diversion:

GROUND WATER SWSW Sec. 17 Township 06N Range 40E MADISON County

Licensed Diversion Capacity: 2.77

Place(s) of use: No POUs found for this right

Conditions of Approval:

1. 075 Irrigation of large projects such as parks, golf courses, or sports activities fields is not authorized under this right.
2. Place of use is within the city limits of Rexburg.

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

Transfer No. _____

City of Rexburg

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MINIMUM REQUIREMENTS CHECKLIST
TO BE SUBMITTED WITH APPLICATION FOR TRANSFER

An application for transfer must be prepared in accordance with the minimum requirements listed below to be acceptable for processing by the Department. Incomplete applications will be returned. The instructions, fee schedule, Part 2A reports and additional Part 2B forms are available from any Department office or on the Department's website at <http://www.idwr.idaho.gov/>.

Check whether each item below is attached (Yes) or not applicable (N/A) for the proposed transfer.

- Yes N/A** * Means the item is always required and must be included with the application.
- ☒ * Completed Application for Transfer of Water Right form, Part 1.
 - ☒ * Signature of applicant(s) or applicant's authorized representative on Application for Transfer Part 1. Include evidence of authority labeled Attachment #3 (see below) if signed by representative.
 - ☒ * Application for Transfer Part 2A. Attach a Part 2A report describing each water right in the transfer as currently recorded.
 - ☐ ☒ Complete and attach an Application for Transfer Part 2B for each water right for which only a portion is proposed to be changed through this transfer application
 - ☒ * Application for Transfer Part 3A is always required (see Attachment #7a below); Parts 3B and 3C must be completed for transfer applications proposing to change the nature of use of the water right(s) or proposing changes to supplemental right(s).
 - ☒ * Correct fee submitted with transfer application form. (Fee schedule is on website and instructions for application for transfer.)

Attachments to Application - Label each attachment with the corresponding number shown below as Attachment #1-9.

- ☐ ☒ #1 If the applicant is a business, partnership, organization, or association, and not currently registered in the State of Idaho as a business entity, attach documentation identifying officers authorized to sign or act on behalf of right holder. (See Part 1.)
- ☐ ☒ #2a Water Right ownership documentation if Dept. records do not show the transfer applicant as the current water right owner.
- ☐ ☒ #2b If the ownership of the water right will change as a result of the proposed transfer to a new place of use, attach documentation showing land and water right ownership at the new place of use. Include documentation for all affected land and owner(s).
- ☐ ☒ #3 Documentation of authority to make the change if the applicant is not the water right owner.
- ☐ ☒ #4 Power of Attorney or documentation providing authority to sign or act on the applicant's behalf. (See Part 1.)
- ☒ ☐ #5 If the transfer application proposes to change the point of diversion for a water right affecting the Eastern Snake Plain Aquifer (ESPA), attach the results of an ESPA analysis and a detailed mitigation plan to offset any depletions to hydraulically connected reaches of the Snake River. ESPA transfer spreadsheet and model grid labeled cells are available on the Department's website at <http://www.idwr.idaho.gov/water/rights/>.
- ☐ ☒ #6 Notarized statement of agreement or a statement on official letterhead signed by an authorized representative from each lien holder or other entity with financial interest in the water right(s) or land affected by the proposed transfer. (See Part 1.5.c.)
- ☒ * #7a Attach a map identifying the proposed point(s) of diversion, place(s) of use, and water diversion and distribution system details as described on the application. Include legal description labels. If only a portion of the right is proposed to be changed, identify the current location of the part of the existing right(s) proposed to be changed. (See Part 3A.)
- ☐ ☒ #7b If the transfer application proposes to change the place or purpose of use of an irrigation right attach a Geographic Information System (GIS) shape file, or an aerial photo or other image clearly delineating the location and extent of existing acres and changes to the place of use.
- ☐ ☒ #8a If the transfer application proposes to change the nature of use or period of use for one or more rights, provide documentation describing the extent of historic beneficial use for the water rights proposed to be transferred and document how enlargement will be avoided. (See Part 3B.)
- ☐ ☒ #8b If the transfer application proposes to change the place of use of a supplemental irrigation right, provide documentation regarding the historic use of the supplemental right(s) and availability or reliability of the primary right(s) being supplemented, both before and after the proposed change. (See Part 3C.)
- ☒ ☐ #9 Other. Please describe: ESPA Model Grid - Existing Wells Centroid & Proposed Wells Centroid

ESPA Ground Water Rights Transfer Spreadsheet Data Summary

TRANSFER NO: PREPARED BY: **Rocky Mountain Environmental Associates - Keith C. Wilson**

TRANSFER NAME: City of Rexburg

DATE: March 4, 2010

Transfer Tool Version Version 3.1

WATER RIGHTS INVOLVED:

Group 1 Transfer Rights		Group 2 Add. Mitigation Rights	
Right No.	Priority Date	Right No.	Priority Date
22-7617	10/31/1950		
22-7074	6/19/1973		
22-7175	2/4/1976		
22-7176	2/4/1976		
22-7754	12/17/1992		

HISTORIC BENEFICIAL USE:

Trans/Mit. Rights (group no.)	Acres to Dry Up (ac)	Beneficial Use (afa/yr)	Total (af/yr)
1	0		530.9
1	0		378.9
1	0		1353.8
1	0		1129.4
1	0		668.5

MODEL CELL LOCATIONS:

	TO WELL	FROM1 WELL	FROM2 WELL	FROM3 WELL
ROW	60	60	0	0
COLUMN	183	182	0	0

	Start Date		End Date		Water Use		Acres Authorized (acres)
	Season	Year	Season	Year	Annual (af/yr)	Trimester (af/trimester)	
TO Well (Projected Use)	Spring	2010	Spring	2100	12184.5	4061.5	0.0
FROM1 Well (With Transfer)	Summer	1950	Winter	1972	1592.8	530.9	0.0
	Spring	1973	Summer	1975	2729.4	909.8	0.0
	Winter	1975	Summer	1992	10179.1	3393.0	0.0
	Winter	1992	Winter	2009	12184.5	4061.5	0.0
	Spring	2010	Spring	2100	0	0.0	0.0
FROM1 Well (W/O Transfer)	Summer	1950	Winter	1972	1592.8	530.9	0.0
	Spring	1973	Summer	1975	2729.4	909.8	0.0
	Winter	1975	Summer	1992	10179.1	3393.0	0.0
	Winter	1992	Spring	2100	12184.5	4061.5	0.0
FROM2 Well (With Transfer)							
FROM2 Well (W/O Transfer)							
FROM3 Well (With Transfer)							
FROM3 Well (W/O Transfer)							

City of Rexburg

ESPA Analysis

Attachment #5 (Pg 2 of 7)

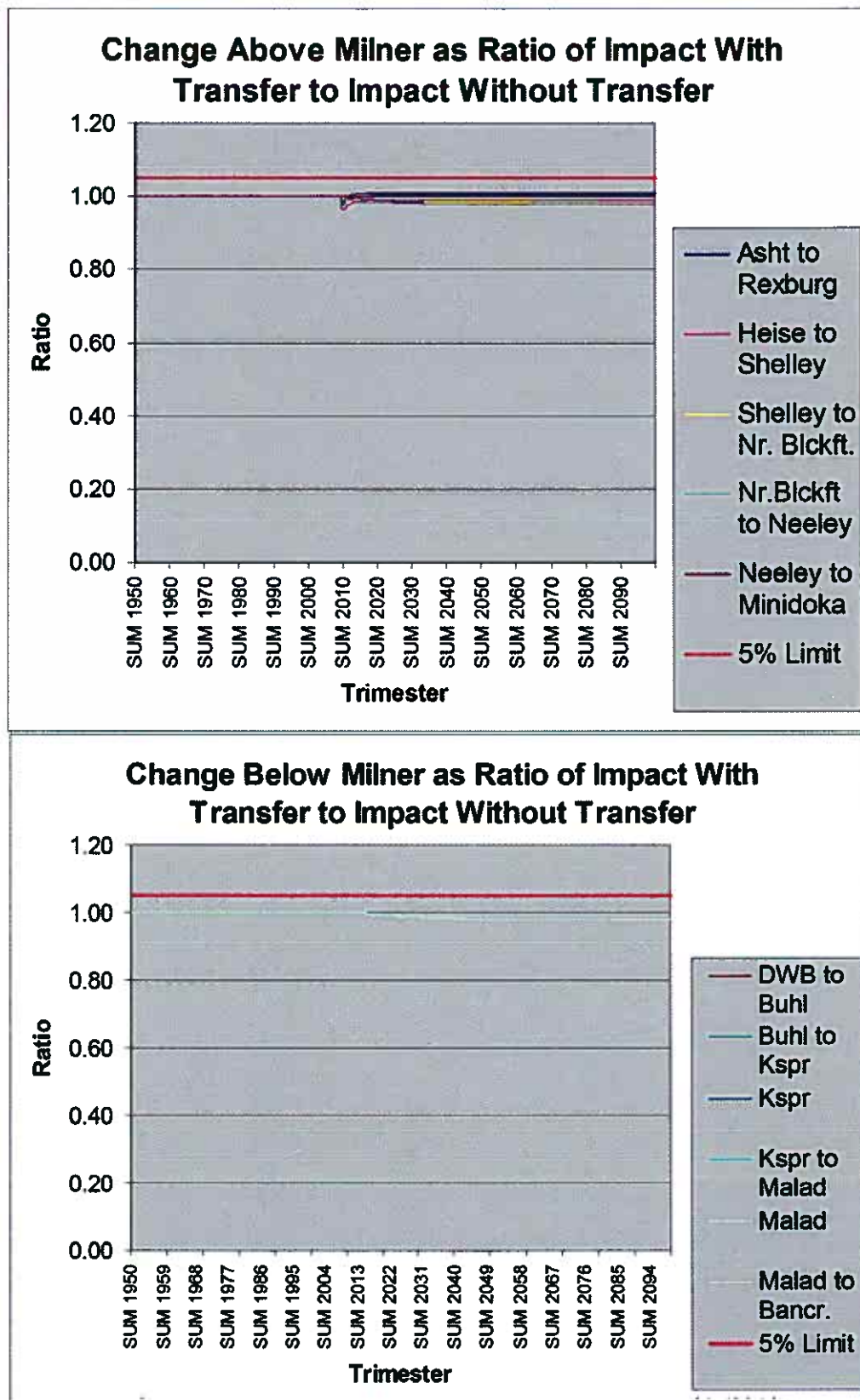
Data Entry Sheet:

ENHANCED GROUND-WATER RIGHTS TRANSFER SPREADSHEET							
UNIVERSITY OF IDAHO - IDAHO WATER RESOURCES RESEARCH INSTITUTE							
IDAHO DEPARTMENT OF WATER RESOURCES							
ENTER STARTING DATE FOR SIMULATION. THEN PUSH "UPDATE DATES" BUTTON		TRANSFER NO:					
YEAR	1950	TRANSFER NAME:		City of Rexburg			
SEASON	Summer						
ENTER CELL LOCATIONS:		'FROM1' CELL		'FROM2' CELL		'FROM3' CELL	
'TO' CELL							
ROW	60	60		0		0	
COLUMN	183	182		0		0	
TRIMESTER OF ACTIVITY	TO WELL	FROM1 WELL		FROM2 WELL		FROM3 WELL	
	<i>Projected Use</i>	<i>With Transfer</i>	<i>With w/o Transfer</i>	<i>With Transfer</i>	<i>Without Transfer</i>	<i>With Transfer</i>	<i>Without Transfer</i>
	AF/TRIMESTER	AF/TRIMESTER	AF/TRIMESTER	AF/TRIMESTER	AF/TRIMESTER	AF/TRIMESTER	AF/TRIMESTER
SUM 1950	0	531	531	0	0	0	0
WIN 1950	0	531	531	0	0	0	0
SPR 1951	0	531	531	0	0	0	0
SUM 1951	0	531	531	0	0	0	0
WIN 1951	0	531	531	0	0	0	0
SPR 1972	0	531	531	0	0	0	0
SUM 1972	0	531	531	0	0	0	0
WIN 1972	0	531	531	0	0	0	0
SPR 1973	0	910	910	0	0	0	0
SUM 1973	0	910	910	0	0	0	0
WIN 1973	0	910	910	0	0	0	0
SPR 1975	0	910	910	0	0	0	0
SUM 1975	0	910	910	0	0	0	0
WIN 1975	0	3,393	3,393	0	0	0	0
SPR 1976	0	3,393	3,393	0	0	0	0
SUM 1976	0	3,393	3,393	0	0	0	0
WIN 1976	0	3,393	3,393	0	0	0	0
SPR 1992	0	3,393	3,393	0	0	0	0
SUM 1992	0	3,393	3,393	0	0	0	0
WIN 1992	0	4,062	4,062	0	0	0	0
SPR 1993	0	4,062	4,062	0	0	0	0
SUM 1993	0	4,062	4,062	0	0	0	0
WIN 1993	0	4,062	4,062	0	0	0	0
SPR 2009	0	4,062	4,062	0	0	0	0
SUM 2009	0	4,062	4,062	0	0	0	0
WIN 2009	0	4,062	4,062	0	0	0	0
SPR 2010	4,062	0	4,062	0	0	0	0
SUM 2010	4,062	0	4,062	0	0	0	0
WIN 2010	4,062	0	4,062	0	0	0	0
SPR 2099	4,062	0	4,062	0	0	0	0
SUM 2099	4,062	0	4,062	0	0	0	0
WIN 2099	4,062	0	4,062	0	0	0	0
SPR 2100	4,062	0	4,062	0	0	0	0

Change Ratio Table:**Change Ratio of Impact with & without Transfer**

Period	Asht to Rex	Heise to Shelley	Shelley to Nr. Blckft.	Nr. Blckft to Neeley	Neeley to Minidoka	DWB to Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancr.
SPR 2009	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SUM 2009	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
WIN 2009	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SPR 2010	0.98	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SUM 2010	0.98	0.96	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
WIN 2010	0.99	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SPR 2011	0.99	0.97	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SUM 2011	1.00	0.97	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
WIN 2011	1.00	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SPR 2012	1.00	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SUM 2012	1.00	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
WIN 2012	1.00	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SPR 2013	1.01	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	100.0%
SUM 2013	1.01	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	99.9%
WIN 2013	1.01	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	99.9%
SPR 2093	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2093	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2093	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2094	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2094	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2094	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2095	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2095	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2095	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2096	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2096	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2096	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2097	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2097	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2097	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2098	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2098	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2098	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2099	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SUM 2099	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
WIN 2099	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%
SPR 2100	1.01	0.99	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	97.8%

A Change Ratio of 1.00 reflects no change or depletion with a Change Ratio greater than 1.00 representing depletion and a value less than 1.00 representing a net positive effect as a reduction in depletion.

Change Ratio Graphs:

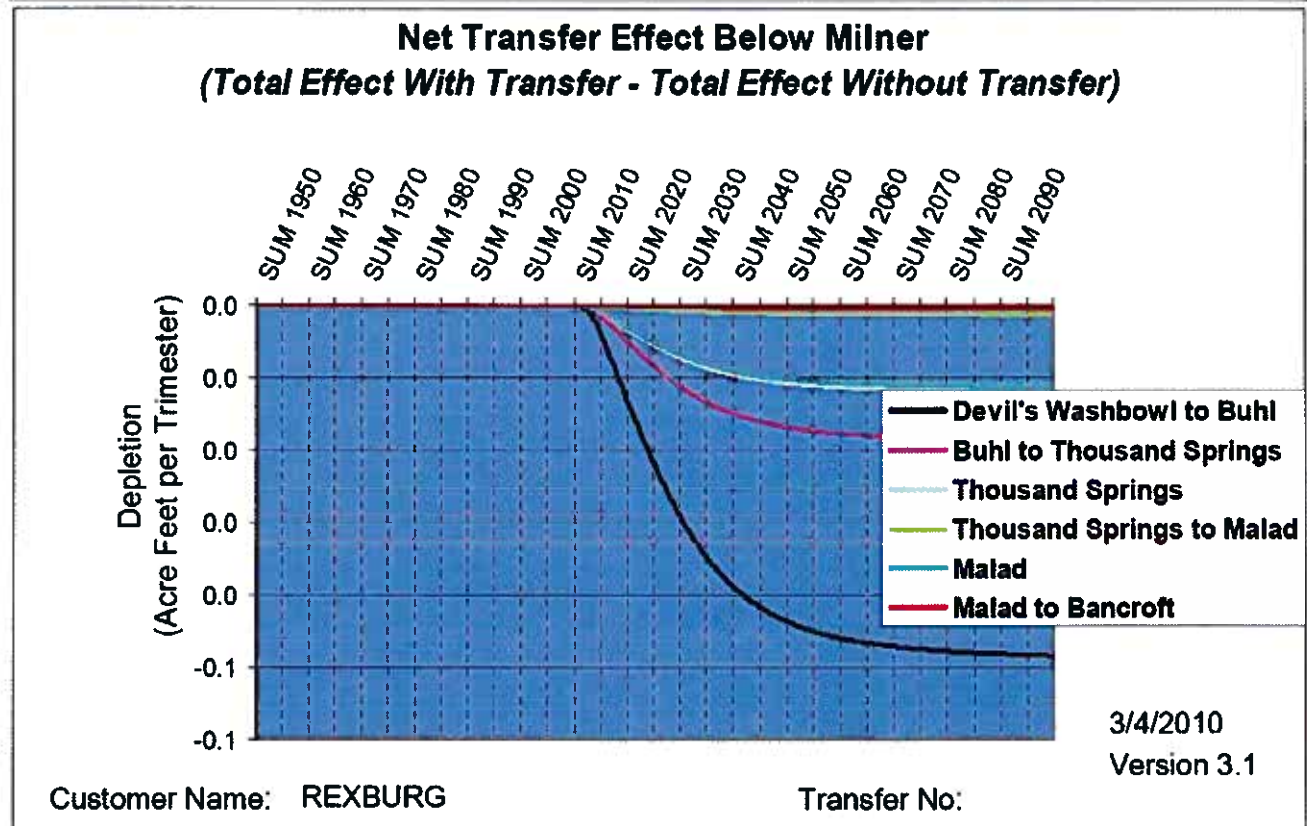
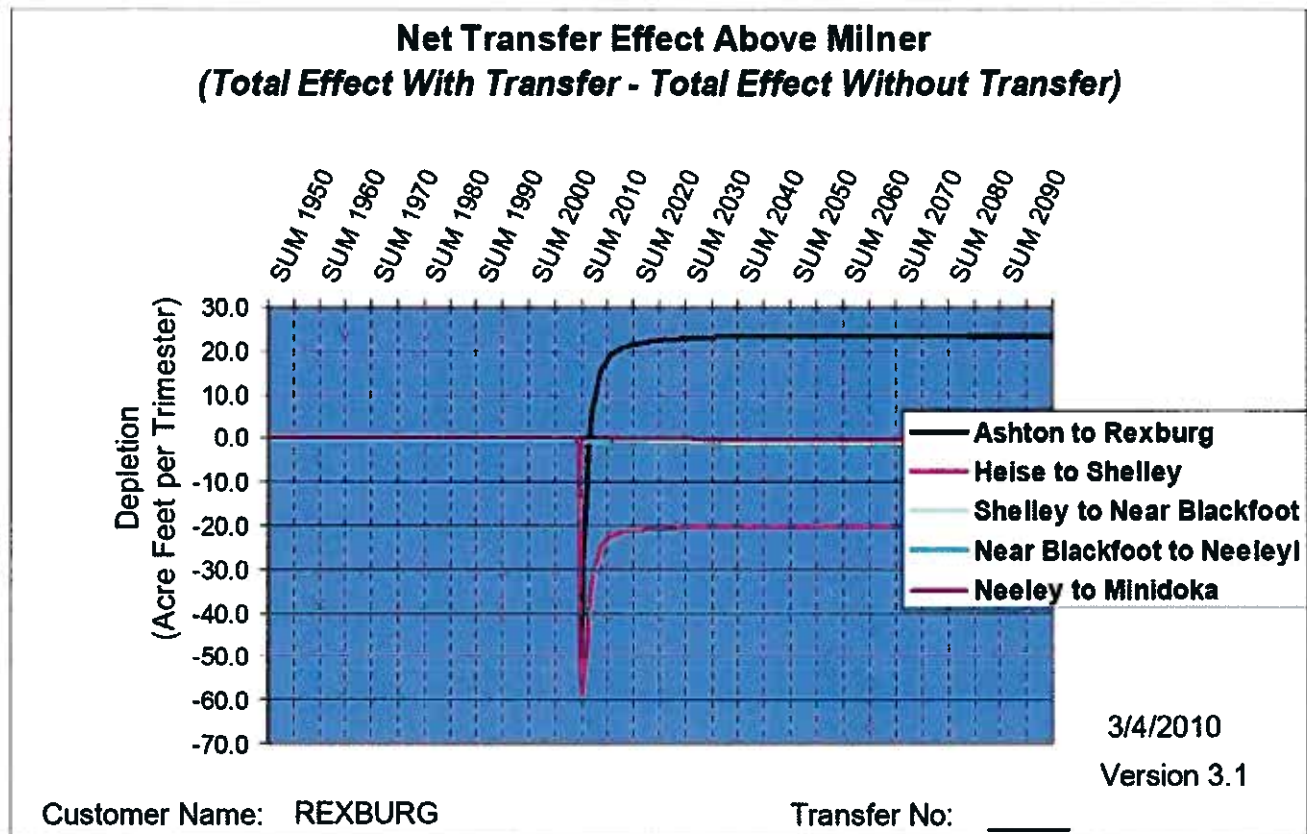
City of Rexburg

ESPA Analysis

Attachment #5 (Pg 5 of 7)

Calculated Net Effects Table:**Net transfer Effect (AF/four months)**

Period	Asht to Rex	Heise to Shelley	Shelley to Nr. Blckft.	Nr. Blckft to Neeley	Neeley to Minidoka	DWB to Buhl	Buhl to Kspr	Kspr	Kspr to Malad	Malad	Malad to Bancr.
SPR 2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2010	-56.2	-50.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2010	-42.0	-58.7	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2010	-25.8	-54.7	-0.3	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2011	-14.4	-48.5	-0.4	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2011	-6.3	-42.9	-0.5	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2011	-0.5	-38.4	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2012	3.8	-34.8	-0.6	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2012	7.1	-31.9	-0.7	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2012	9.6	-29.8	-0.7	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2013	11.7	-28.1	-0.7	-0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2013	13.3	-26.7	-0.7	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2013	14.6	-25.7	-0.7	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2014	15.7	-24.9	-0.7	-0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2014	16.6	-24.2	-0.7	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2014	17.3	-23.7	-0.7	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2051	23.4	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2051	23.4	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2051	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2052	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2052	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2052	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2053	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2053	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2053	23.5	-20.3	-1.1	-1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2095	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2095	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2095	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2096	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2096	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2096	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2097	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2097	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2097	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2098	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2098	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2098	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2099	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SUM 2099	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WIN 2099	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPR 2100	23.5	-20.3	-1.1	-1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Net Transfer Effect Graphs:

Analysis / Summary

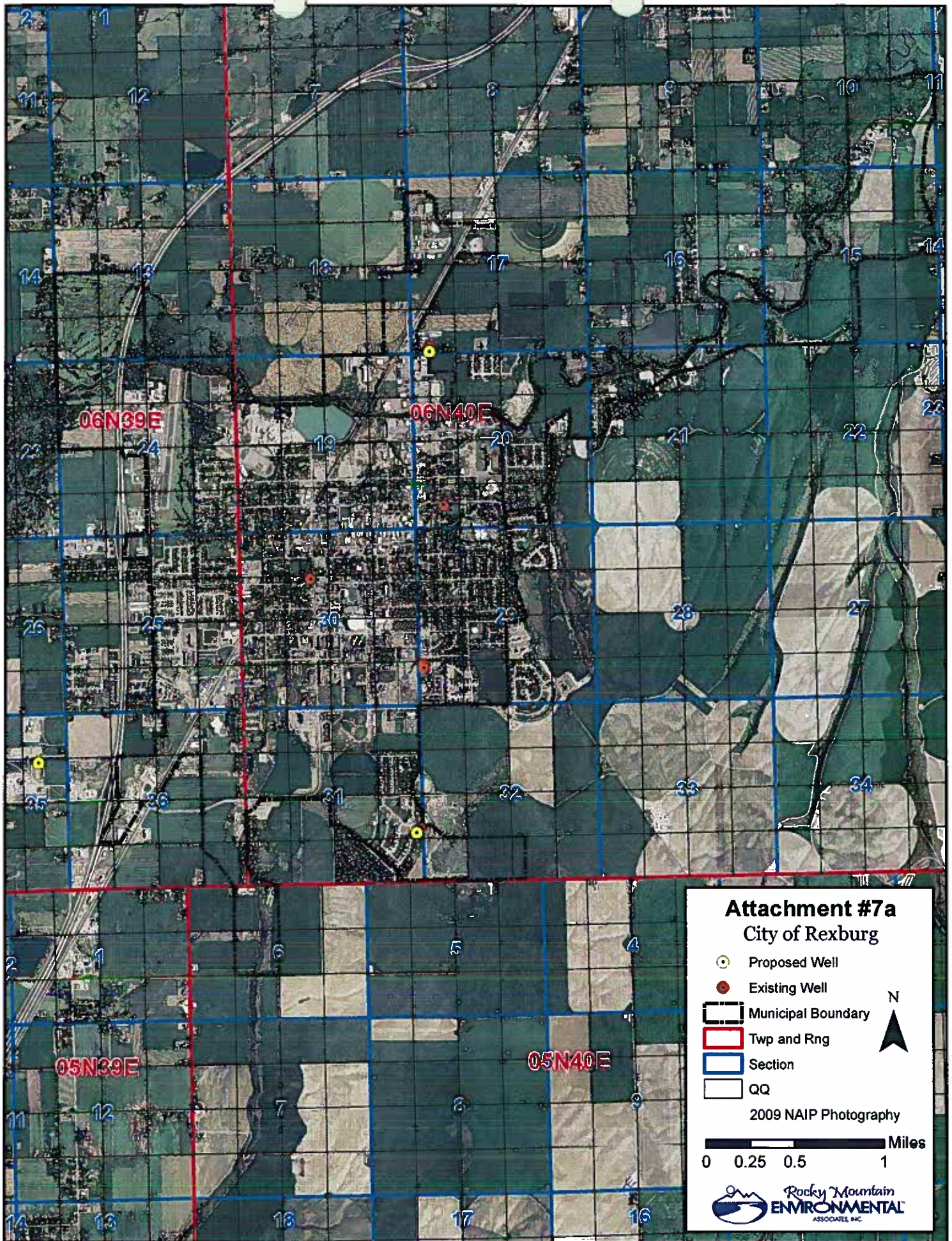
Based on a discussion with Shelley Keen, Allan Wylie, and Sean Vincent of the State Office of IDWR, it was suggested that a centroid may best represent the well locations and the nature of the municipal system. Based on that discussion this ESPA Spreadsheet analysis used two centroids with one centroid for the proposed wells and one for the existing wells. The results located the two centroids in adjacent cells as seen in Figure 1.

Despite the centroids being in adjacent cells this ESPA Spreadsheet analysis was completed to determine what effects would occur in hydraulically connected reaches of the Snake River, and to determine if a mitigation plan would be needed.

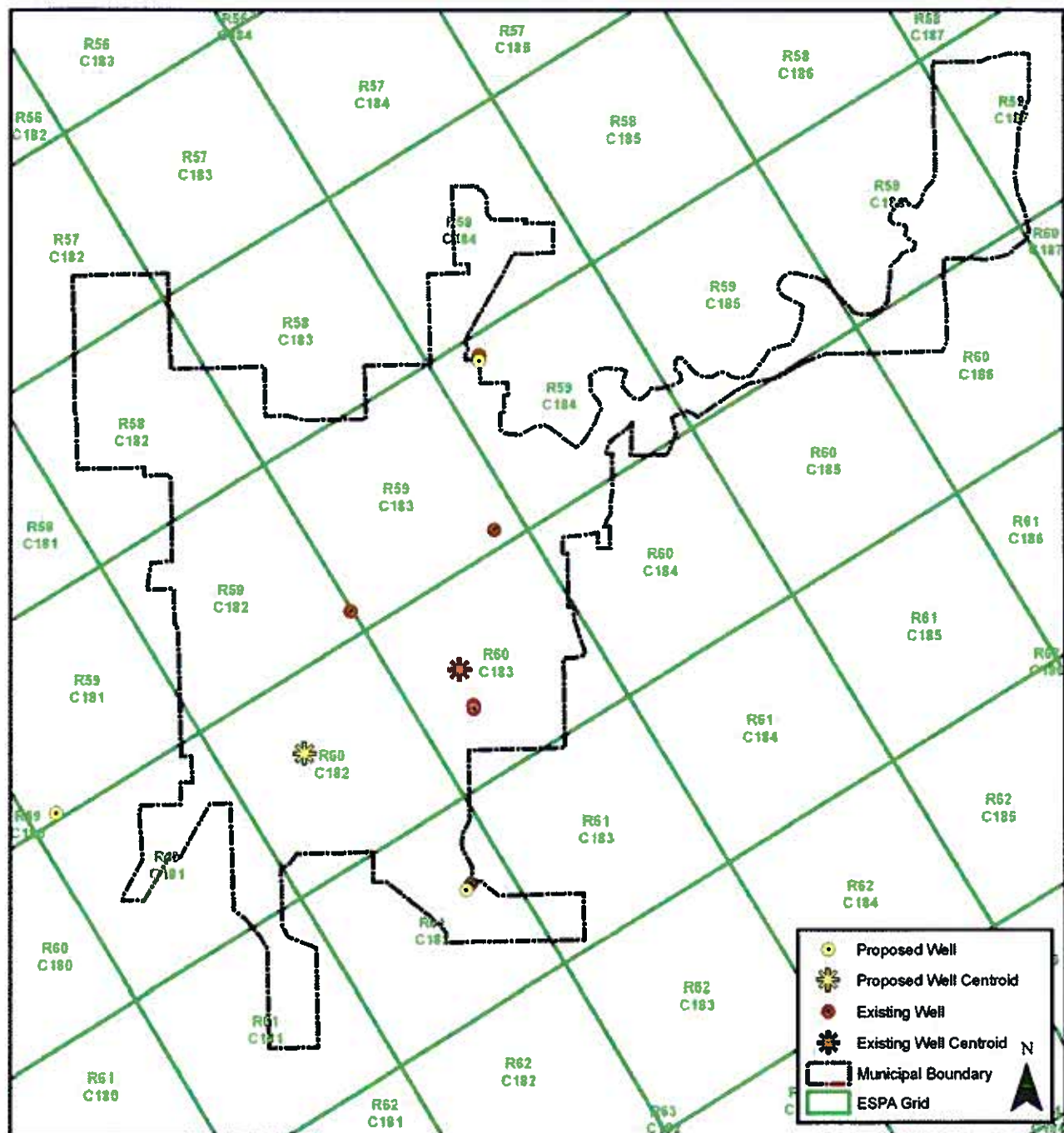
Results of this ESPA Spreadsheet analysis indicates that the Ashton to Rexburg Reach is the most affected reach. The Net Effect for the Ashton to Rexburg Reach at steady state has a depletion effect of 23.5 ac-ft/trimester and is attained in the Winter Trimester of 2051 (Page 5). All other reaches in the ESPA Spreadsheet analysis show a decrease in depletion or accretion. The Change Ratio at steady state for the Ashton to Rexburg Reach is 1.01 or 1% and is attained in the Spring Trimester of 2013 (Page 3).

Increased depletions in any reach are considered insignificant if the reach at transient to steady-state conditions either does not exceed 2.0 ac-ft/trimester, or if, at steady-state, any reach will not be depleted by an amount greater than 10% of total depletion to all reaches caused by the diversion under the proposed transfer.

Based on this ESPA Spreadsheet Analysis using the two centroid method the proposed transfer does not require mitigation as the increase in total depletions are less than 10% and are considered insignificant.



ESPA Model Grid - Existing Wells Centroid & Proposed Wells Centroid



Map showing existing and proposed wells for the City of Rexburg in relation to the ESPA Model Grid cells.