

Robertson, Jean

From: Robertson, Jean
Sent: Tuesday, October 27, 2009 3:13 PM
To: 'Zach Latham'
Subject: RE: Here it is...

I found right 36-7267 has already been split into 36-16548 and 36-16549. It looks like I should be using 36-16549, do you agree?

From: Zach Latham [mailto:zach.latham@brockwayeng.com]
Sent: Tuesday, October 27, 2009 3:04 PM
To: Robertson, Jean
Subject: RE: Here it is...

Jeanie-

I prefer we leave the lagoons within the proposed PPU boundary, I don't see any harm in doing so since the total number of acres authorized to be irrigated within the proposed PPU is less than the total area of the PPU including the lagoons. Please let me know what Allen says regarding this topic.

Attached are the model run results for the transfer of 16.1 acres of water right 37-7267 from it's present place of use, to the POD (to serve the new proposed PPU) farthest away from the present place of use, as listed in the amended water right transfer application. The results show no mitigation is needed for the transfer of 64.4 ac-ft of water right 37-7267 as is proposed on the amended water right transfer.

Don't hesitate to give me a call with comments or questions, thanks again for your time.

Zach Latham

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From: Robertson, Jean [mailto:Jean.Robertson@idwr.idaho.gov]
Sent: Tuesday, October 27, 2009 11:46 AM
To: Zach Latham
Subject: RE: Here it is...

One other thing, I am zoomed in on Section 24 where the IYR and W-G border each other. It looks like your shape covers that area where there are lagoons or something on the IYR parcel. Don't you think we should exclude those from irrigation? I also might need to change the boundary to exclude a little more acreage and follow the shape of the green irrigated acres in the SENE of Section 24? What do you think?

From: Zach Latham [mailto:zach.latham@brockwayeng.com]
Sent: Tuesday, October 27, 2009 11:32 AM
To: Robertson, Jean

11/9/2009

Subject: RE: Here it is...

Thanks Jeanie, I will get you the model results for the 16.1 acre transfer this afternoon.

Zach Latham

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From: Robertson, Jean [mailto:Jean.Robertson@idwr.idaho.gov]

Sent: Tuesday, October 27, 2009 11:16 AM

To: Zach Latham

Subject: Here it is...

11/9/2009

Exhibit 1 - Step by Step Process for Evaluating Mitigation Requirements - New Trnsf Memo 24

ESPA Transfer Tool Water Right: 36-7267

	To Cell		From Cell 1	From Cell 2	From Cell 3		
Row	72		79	0	0		
Column	70		68	0	0		
	Pre-Existing*		Proposed - Transient**		Proposed - Stead State***		Increase in Reach Depletion
	ac-ft/tri	ac-ft/yr	ac-ft/tri	ac-ft/yr	ac-ft/tri	ac-ft/yr	ac-ft/tri ac-ft/yr
Ashton to Rexburg:	0.3	0.8	0.3	0.8	0.3	0.8	0.0 0.0
Heise to Shelley:	0.3	0.9	0.3	1.0	0.3	1.0	0.0 0.1
Shelley to Near Blackfoot	2.2	6.7	2.4	7.1	2.4	7.1	0.1 0.4
Near Blackfoot to Neeley:	7.9	23.7	8.3	24.8	8.3	24.8	0.4 1.2
Neeley to Minidoka:	3.3	10.0	2.4	7.3	2.4	7.3	-0.9 -2.8
Devil's Washbowl to Buhl:	3.9	11.7	4.1	12.3	4.1	12.3	0.2 0.6
Buhl to 1000 Springs:	1.5	4.5	1.6	4.7	1.6	4.7	0.1 0.3
1000 Springs:	0.9	2.8	1.0	3.0	1.0	3.0	0.1 0.2
1000 Springs to Malad:	0.1	0.3	0.1	0.3	0.1	0.3	0.0 0.0
Malad:	0.9	2.7	0.9	2.8	0.9	2.8	0.1 0.2
Malad to Bancroft:	0.0	0.1	0.0	0.1	0.0	0.1	0.0 0.0
Sum:	21.4	64.2	21.1	64.2	21.4	64.2	0 0

*Preexisting depletion at time of transfer; value obtained from ESPA Trnsf Model "Total Effect w/out Transfer"

**Maximum model predicted increase in depletion; values obtained from time step w/ largest depletion value in the ESPA Trnsf Model "Total Effect w/ Transfer"

***Model predicted increase in depletion at future steady state condition; values obtained from last time step of the ESPA Trnsf Model "Total Effect w/ Transfer"

Step 1: Check to determine if the maximum increase in depletion to a single reach due to the conditions proposed by the transfer, including increases during the transient state, is no greater than 2 ac-ft/trimester.

If increase is greater than 2 ac-ft/trimester mitigation may be required. If increase is less than 2 ac-ft/trimester then mitigation will not be required for the reach in question.

$$\text{Eqn 1: Increase} = (D_{\text{transf, max}} - D_{\text{pre}}) / 3$$

If Increase > 2 ac-ft then 'mitigate' (1), else 'no mitigation' (0)

	Value*	Check 1 - 2 ac-ft/trimester Mitigation Req'd?	
Ashton to Rexburg:	0.0	NO MITIGATION	0
Heise to Shelley:	0.0	NO MITIGATION	0
Shelley to Near Blackfoot	0.1	NO MITIGATION	0
Near Blackfoot to Neeley:	0.4	NO MITIGATION	0
Neeley to Minidoka:	-0.9	NO MITIGATION	0
Devil's Washbowl to Buhl:	0.2	NO MITIGATION	0
Buhl to 1000 Springs:	0.1	NO MITIGATION	0
1000 Springs:	0.1	NO MITIGATION	0
1000 Springs to Malad:	0.0	NO MITIGATION	0
Malad:	0.1	NO MITIGATION	0
Malad to Bancroft:	0.0	NO MITIGATION	0

*Obtained by using Eqn. 1

Step 2: Check to determine if the maximum increase in depletion to a single reach due to the conditions proposed by the transfer, at the steady state condition, is greater than the preexisting condition by 10.0%.

If increase is greater than 10% mitigation may be required. If increase is less than 10% then mitigation will not be required for the reach in question.

$$\text{Eqn 2: \% Increase} = 100 * (D_{\text{transf, ss}} / D_{\text{pre}} - 1)$$

If % Increase > 10% of Preexisting then 'mitigate' (1) else 'no mitigation' (0)

	Value*	Check 2 - 10% Dep. Increase Mitigation Req'd?	
Ashton to Rexburg:	6%	NO MITIGATION	0
Heise to Shelley:	6%	NO MITIGATION	0
Shelley to Near Blackfoot	6%	NO MITIGATION	0
Near Blackfoot to Neeley:	5%	NO MITIGATION	0
Neeley to Minidoka:	0%	NO MITIGATION	0
Devil's Washbowl to Buhl:	5%	NO MITIGATION	0
Buhl to 1000 Springs:	6%	NO MITIGATION	0
1000 Springs:	6%	NO MITIGATION	0
1000 Springs to Malad:	6%	NO MITIGATION	0
Malad:	6%	NO MITIGATION	0
Malad to Bancroft:	6%	NO MITIGATION	0

*Obtained by using Eqn. 2

Step 3: Check to determine if the depletion to a single reach due to the conditions proposed by the transfer, at the steady state condition, is greater than 10% of the total anticipated depletions to the Snake River.

If increase in depletions to the reach in question is greater than 10% of the total depletions to the River, mitigation may be required. If increase is less than 10% of the total, then mitigation will not be required for the reach in question.

$$\text{Eqn 3: \% Increase} = 100 * (D_{\text{transf, ss}} / \sum D_{\text{transf, ss}})$$

If Increase to Reach > 10% of Total Increase Then 'mitigate' (1), else 'no mitigation' (0)

	Value*	Check 3 - 10% of Total Dep. Mitigation Req'd?	
Ashton to Rexburg:	1.3%	NO MITIGATION	0
Heise to Shelley:	1.5%	NO MITIGATION	0
Shelley to Near Blackfoot	11.1%	MITIGATION	1
Near Blackfoot to Neeley:	38.7%	MITIGATION	1
Neeley to Minidoka:	11.3%	MITIGATION	1
Devil's Washbowl to Buhl:	19.1%	MITIGATION	1
Buhl to 1000 Springs:	7.4%	NO MITIGATION	0
1000 Springs:	4.7%	NO MITIGATION	0
1000 Springs to Malad:	0.5%	NO MITIGATION	0
Malad:	4.4%	NO MITIGATION	0
Malad to Bancroft:	0.2%	NO MITIGATION	0

*Obtained by using Eqn. 3

Step 4: If each check (checks 1 - 3) determined that mitigation is required than the applicant is required to mitigate for the full value of increased depletion to the reach in question, as determined by the model.

If any of the checks (checks 1 - 3) determine that mitigation is not required, than the applicant is not required to mitigate.

If sum of mitigation check indicators = 3 Then 'mitigation required', else 'no mitigation required'

Ashton to Rexburg:	No Mitigation Required
Heise to Shelley:	No Mitigation Required
Shelley to Near Blackfoot	No Mitigation Required
Near Blackfoot to Neeley:	No Mitigation Required
Neeley to Minidoka:	No Mitigation Required
Devil's Washbowl to Buhl:	No Mitigation Required
Buhl to 1000 Springs:	No Mitigation Required
1000 Springs:	No Mitigation Required
1000 Springs to Malad:	No Mitigation Required
Malad:	No Mitigation Required
Malad to Bancroft:	No Mitigation Required