

MEMORANDUM

Date: January 22, 2008
To: Water Right File 37-22250 and 37-22251
From: medl
Re: license review

This appropriation for groundwater is intended to supplement the existing surface water rights. The table below is summary of the adjudication recommendations for those existing rights. Using a place of use comparison, I found that the same 180-acre shape applies to all of them.

Adjudication Recommendations for Spring Canyon Ranch

Water Right	Acres	Rate (cfs)
37-548	180	3.6 ~~3.3~~
37-549	180	4.0
37-1222	180	0.4
37-2142	180	1.5
37-4440	180	0.31
		9.81
		<u>10.39</u> sum

The field exam for the parent right 37-8659 assumed the two wells and pumps were one, interconnected system. In a conversation between the ranch manager and Brockway Engineering personnel, the manager explained that it was his original intent to connect the two systems but that he never has. Therefore right 37-8659 is being split into two rights, one for each well.

A place-of-use shape file for the parent right was created by Brockway Engineering personnel and emailed to me. I compared the Brockway parent shape with the IDWR archive of aerial photography for this area. I was not able to confirm that all of the proposed acreage areas had been irrigated prior to the time Proof of Beneficial Use was submitted. I eliminated those unsubstantiated areas from the place-of-use for the parent water right. The remaining area is still larger than the permitted acreage and I approved creation of a permissible place of use for the parent right. I split the Brockway shape into areas that could be reached by each pump. Water right 37-22250 is associated with Well # 2. Water right 37-22251 is associated with Well #3.

Several POD locations were identified in the permit for the parent right, but Well #2, the well associated with license 37-22250, was not correctly located in the permit. It is actually located in SW1/4 of SE1/4 of section 18. An amendment to license 37-22250 will be needed.

Although each of the well and pump systems can divert more than 0.02 cfs, the parent permit limits the diversion rate to 0.02 cfs per acre.

Based on an ArcView overlap of the adjudication recommended shape for the surface water rights with the ground water PPU shape I created by reducing Brockway Engineering s shape, there are 39.5 acres of primary ground water irrigation and all of these acres fall within the area serviced by Well #3.

A summary of the split calculations is on the following page

Spring Canyon Ranch

Parent WR#	37-8659
PPU acres	198.5
Permitted acres	125
Permitted cfs	0.02

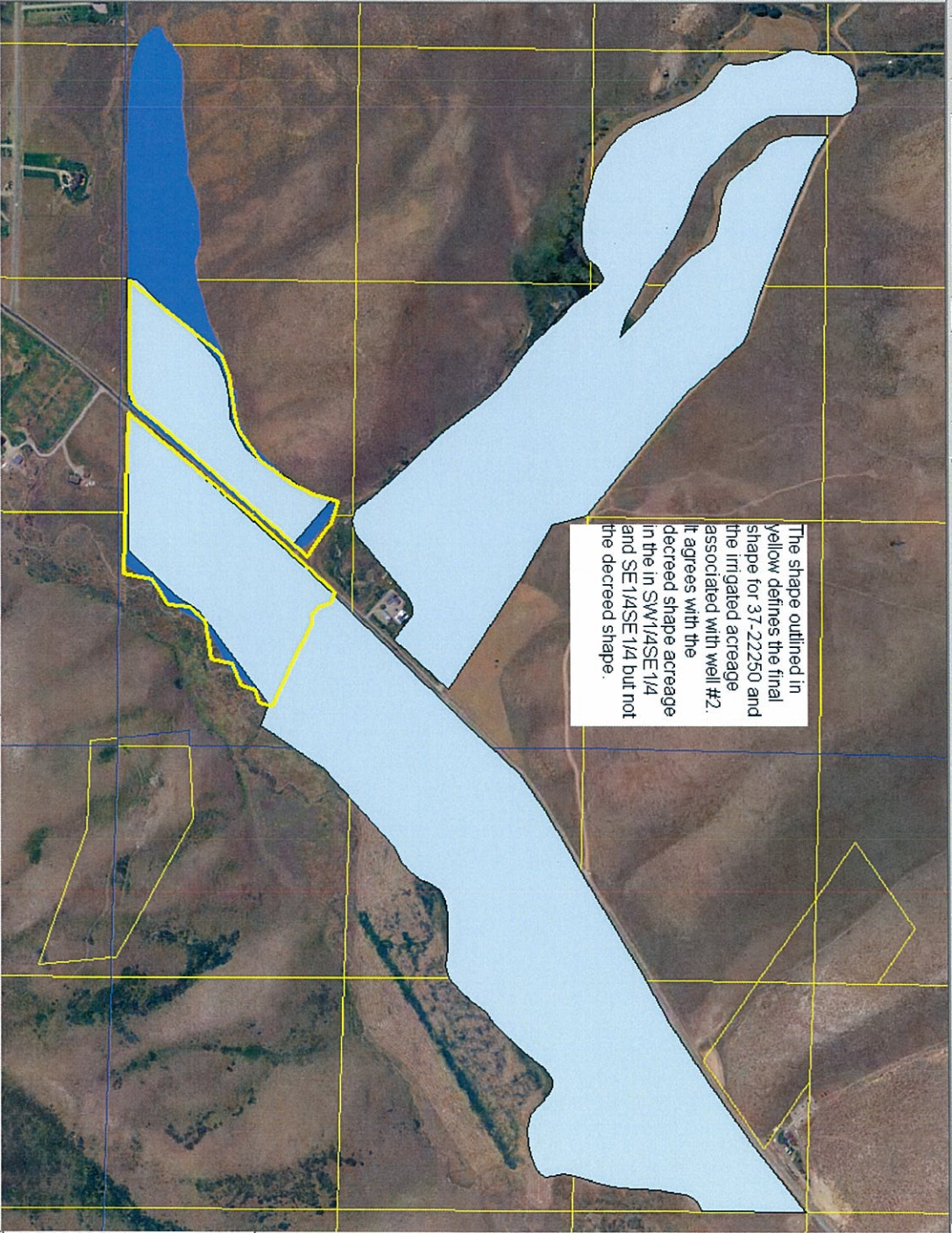
Well 2 WR#	37-22250
PPU	34
Permitted acres	34
max diversion volume (AF)	119 $=34 * 3.5$
max diversion rate (cfs)	0.68 $=34 * 0.02$
primary ground water acres	0

Well 3 WR#	37-22251
PPU	164.5 $=198.5 - 34$
Permitted acres	91 $=125 - 34$
max diversion volume (AF)	318.5 $=91 * 3.5$
max diversion rate (cfs)	1.82 $=91 * 0.02$
primary ground water acres	39.5 $=164.5 - 125$

Layers

- ☐ Right POD
- ☒ new37-22250
- ☐ Spatial Data
- ☒ 37-549 rec
- ☒ 37-8659b1
- ☐ Right POU
- ☐ Taxlots
- ☒ Administrative Basins
- ☒ PLSS
- ☒ Township/Range
- ☐ Sections
- ☐ DRG
- ☐ Imagery
- ☐ 1987
- ☐ 1992 DOQQ
- ☐ 2006 2 meter
- ☐ 2006 1 meter
- ☒ 2004

The shape outlined in yellow defines the final shape for 37-22250 and the irrigated acreage associated with well #2. It agrees with the decreed shape acreage in the in SW1/4SE1/4 and SE1/4SE1/4 but not the decreed shape.



Display Source Selection

Drawing

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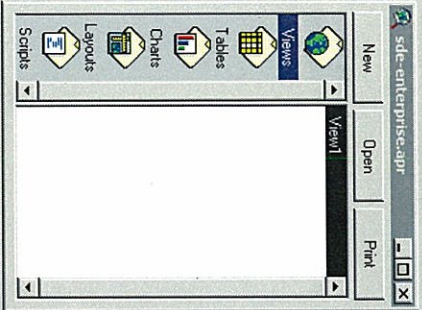
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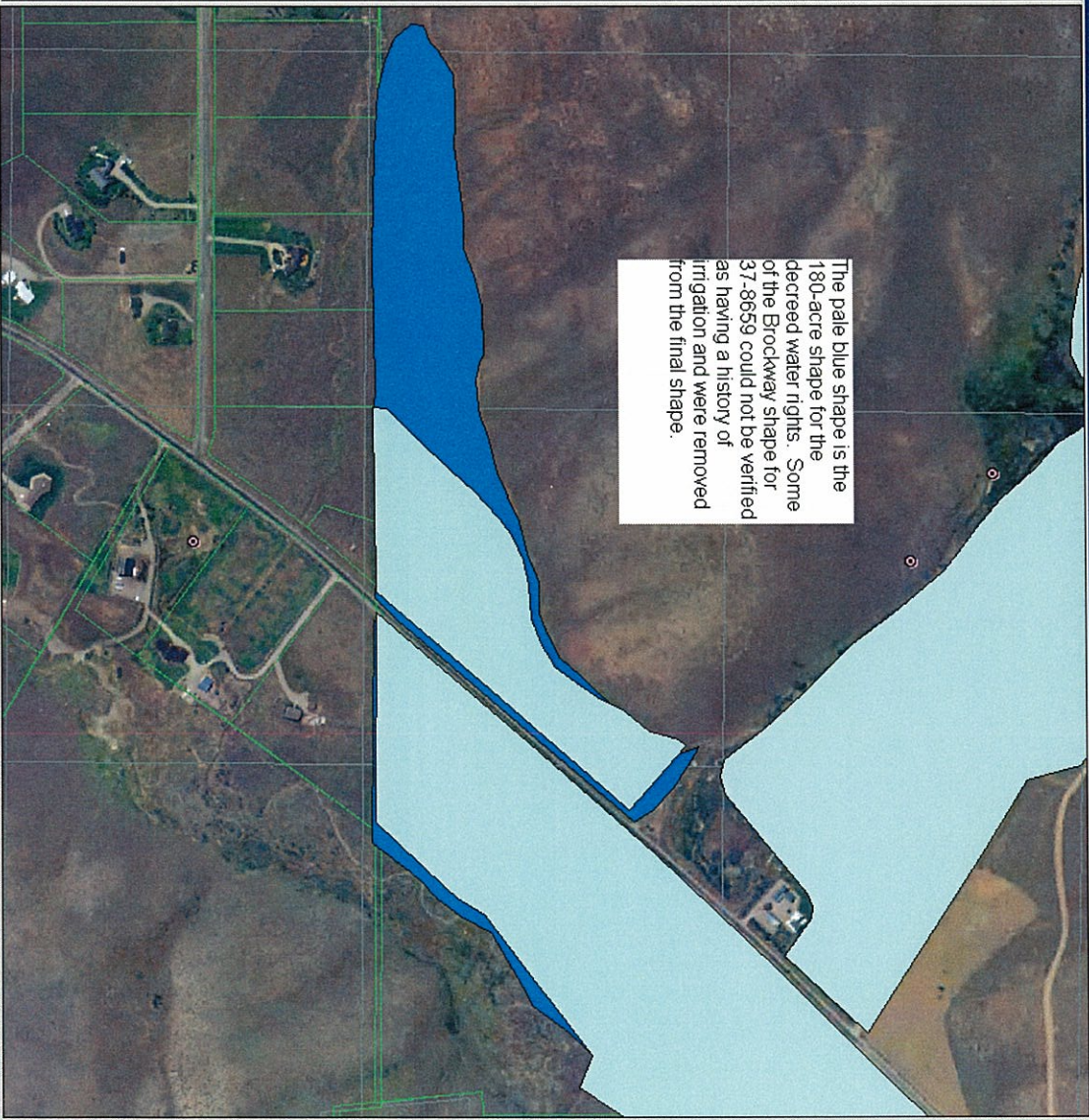
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Scale 1:15,500 2,471,739.87 1,366,103.15



The pale blue shape is the 180-acre shape for the decreed water rights. Some of the Brockway shape for 37-8659 could not be verified as having a history of irrigation and were removed from the final shape.



New Open Print

Views View1

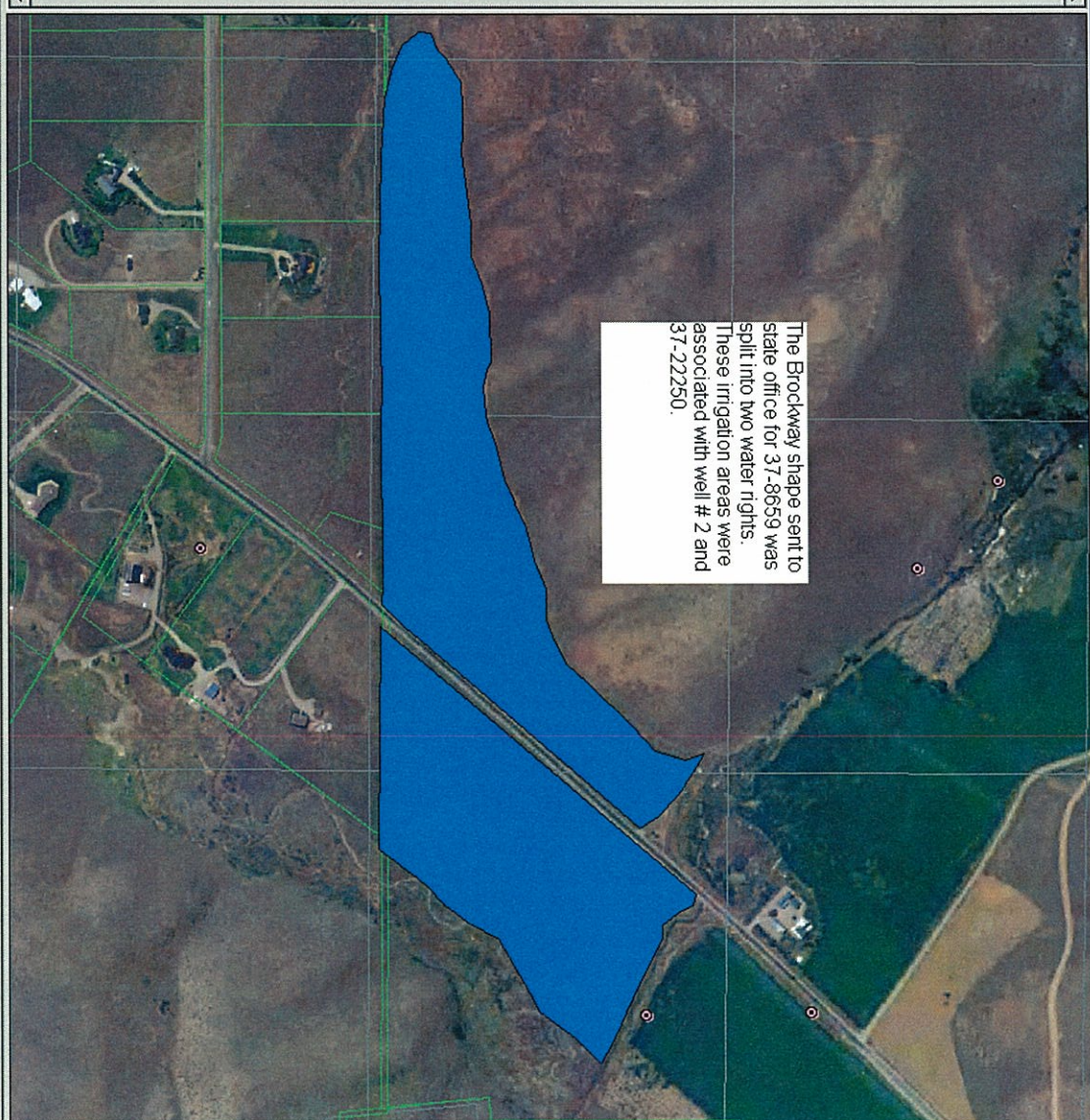
Tables

Charts

Layouts

Scripts

- 37-8659 b1.shp
- Blaine taxlots
- 02N-18E G.C.D.B.
- 02N-18E G.C.D.B.
- Right POU
- Right POU
- Administrative
- Administrative
- Township Range
- Sections
- DO
- Spill data
- SUNV NAIP 2004
- FAIR NAIP 2004
- X74 Quad
- X74 SW 1992_S I
- X74 NW 1992_S I



The Brockway shape sent to state office for 37-8659 was split into two water rights. These irrigation areas were associated with well # 2 and 37-22250.

Type	WR #	Owner	Source	TRS	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	Total
Rec	37 1222	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E17					3.4	22	8.2	26	0.9				21	19	16	22	60.5
Rec	37 1222	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E18					1.1					25	0.4						119.5
Rec	37 2142	SPRING CANYON RANCH LLC,	HOT SPRINGS GULCH CREEK	02N18E17					3.4	22	8.2	26	0.9				21	19	16	22	119.5
Rec	37 2142	SPRING CANYON RANCH LLC,	HOT SPRINGS GULCH CREEK	02N18E18					1.1					25	0.4						60.5
Rec	37 548	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E17					3.4	22	8.2	26	0.9				21	19	16	22	60.5
TClaim	37 548	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E17					3.4	22	8.2	26	0.9				21	19	16	22	119.5
Rec	37 548	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E18					1.1					25	0.4						119.5
Tclaim	37 548	SPRING CANYON RANCH LLC,	DEMOCRAT GULCH CREEK	02N18E18					1.1					25	0.4		21	19	16	22	119.5
Rec	37 549	SPRING CANYON RANCH LLC,	CROY CREEK	02N18E17					3.4	22	8.2	26	0.9				21	19	16	22	60.5
Rec	37 549	SPRING CANYON RANCH LLC,	CROY CREEK	02N18E18					1.1					25	0.4						119.5

[illegible]