

MEMORANDUM

Date: June 17, 2005
To: Water Right File 37-7707
From: eretelle
Re: field evaluation

On June 16, 2005, I conducted a third field evaluation of the system associated with this permit. I was accompanied by Allen Merritt and Nick Treasure from Southern Region.

PoD was located by GPS in the SESW of Section 10, T4N, R18E. Since this location was not included on the application/permit, it will need to be amended. No flow measurements were attempted because the water flows were extremely low at this time. The measurement from the May, 1998 exam will be used as the system capacity since the permit-holder has the ability to divert 100% of the flow using the 2 small dams at the PoD (see photos).

The **uses** covered under the permit are: Diversion to storage
Recreation storage
Aesthetic storage
Irrigation storage
Irrigation from storage
Power

The license will reflect the diversion to storage, storage components and aesthetic flow-through in place of the power use.

The **volume** licensed will be (1) the volume of the ponds (2) the volume of water lost to evaporation from the ponds (3) irrigation volume. The license will be conditioned so that pond #1 can be filled multiple times throughout the irrigation season since the volume of water used for irrigation exceeds the volume of the pond.

- (1) volume of pond #1 (from 1998 field exam) = 3.27 af
volume of pond #2 (from 1998 field exam) = 3.25 af
6.52 af
- (2) surface area of pond #1 = 0.3 acres
surface area of pond #2 = 0.5 acres
0.8 acres

evaporation in area, appx. 30"/yr (IDWR transfer memo #26)
precipitation in area, appx. 19"/yr (<http://www.wrcc.dri.edu/>)
11" evaporation loss

0.8 acres x 11" = 0.73 af evaporation loss/year

- (3) Irrigated **acres** were determined using ArcView and the 1998 field exam map and narrative. The 1998 narrative states that the northern pasture area (about 4 acres) was irrigated by sprinklers, which the permit holder said were in storage. All investigators on the 2005 field evaluation agree that the northern pasture, although fenced, does not appear any more irrigated than the surrounding lands. Furthermore, no sprinklers were found in that area. Also, it seems fairly unlikely that water is, or ever has been, pumped from pond #1 with a 1hp pump up the steep gradient and over the long distance to the northern pasture. The other acres identified as irrigated downstream of the home and ponds are also somewhat questionable, but the possibility remains that they are irrigated with portable sprinklers or hoses that were not in place at the time of our visit. Therefore, the acres recommended on the license include those recommended in the 1998 field exam, less the acres in the northern pasture. 12.4 acres – 4 acres = 8.4 acres (consistent with “red” areas on 1990’s IR photos).

$$8.4 \text{ acres} \times 3.5 \text{ af/a} = 29.4 \text{ af}$$

$$\text{volume} = 0.73 \text{ af} + 6.52 \text{ af} + 29.4 \text{ af} = 36.7 \text{ af}$$

$$\text{Aesthetic volume} = 1.3 \text{ cfs} \times 365 \text{ days} \times 1.98 = 941 \text{ af}$$

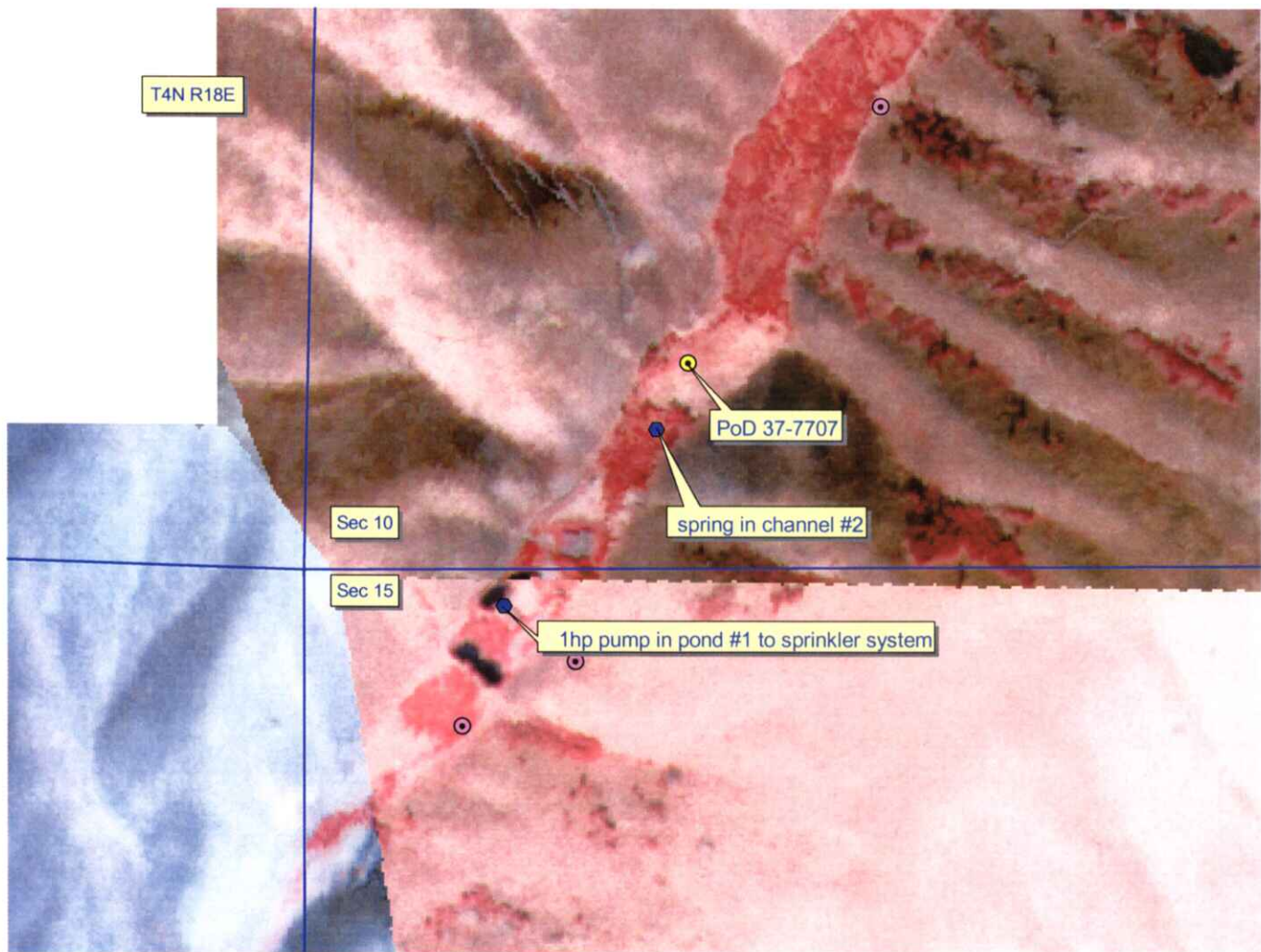
Irrigation from pond #1 only.

Irrigation season adjusted to standard.

Water District 37. Measuring device required on permit. No measuring device found during field examinations. The watermaster communicated to me by phone that Parker Gulch is considered to be a dry stream and it was not typically regulated. An order will be prepared removing the measuring device requirement.

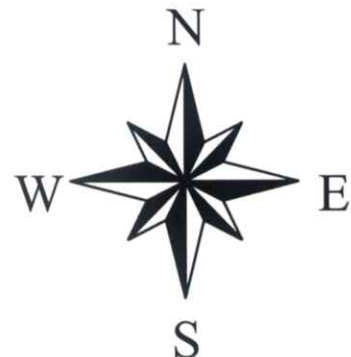
The 20 photographs taken on June 16th are attached.

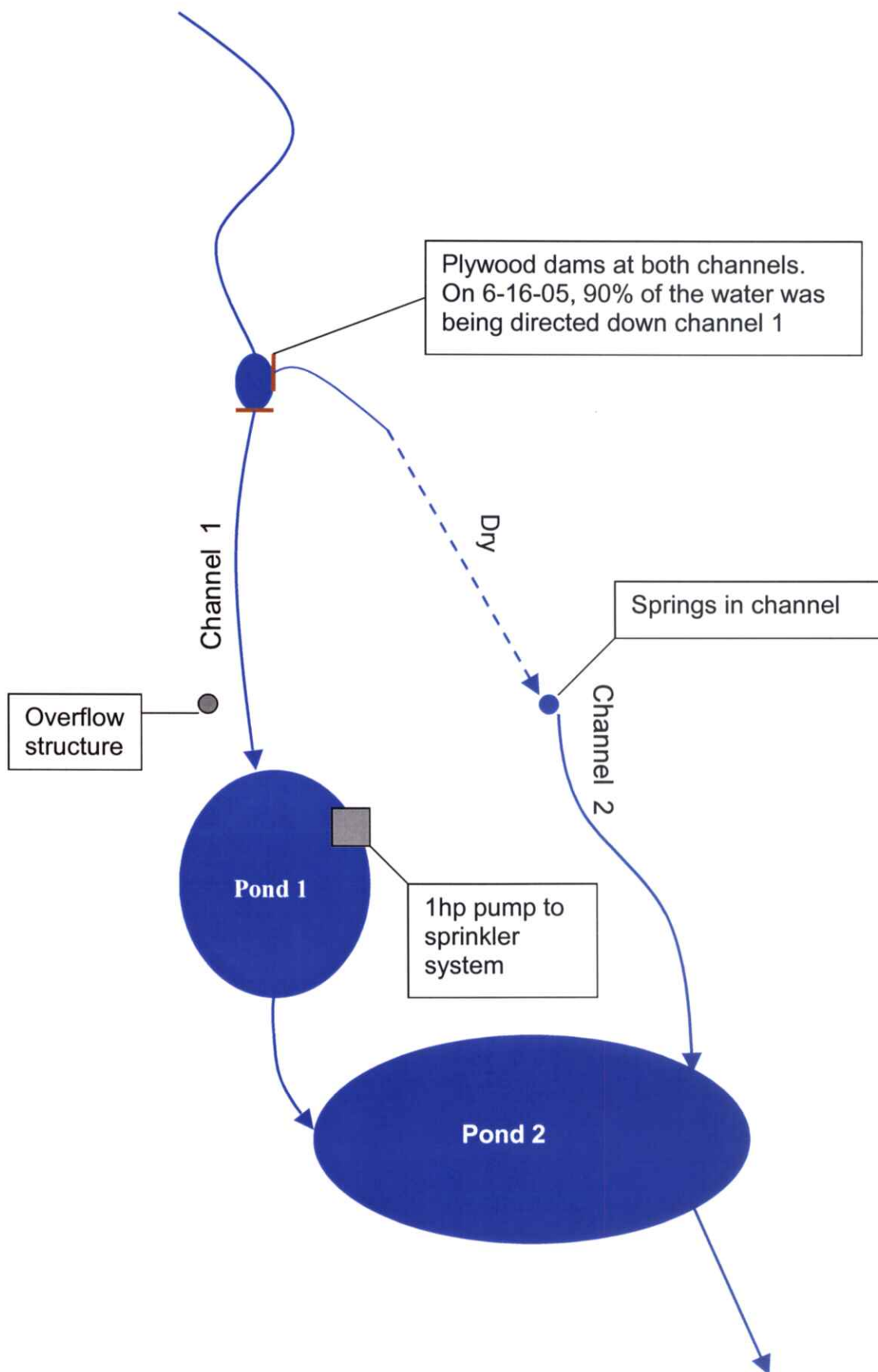
37-7707



0.2 0 0.2 0.4 Miles

- Right POD
- Gps 6-16-05.shp
- Administrative BasinsAdminbas.shp
- Township/Range
- Sections







Looking SE from near road into PoU. Land on far side of fence is supposedly irrigated by sprinklers (absent at time of last 2 field exams) attached to pump in pond #1. Land on near side of fence is supposedly not irrigated.



Looking toward the SE down channel #2 from the PoD. Channel goes dry about at those branches.



(1hp) pump in
pond #1 to
sprinkler system



Looking toward the NE up
channel #2, which is dry above
the springs.



Looking SE from near road into PoU. Land on far side of fence is supposedly irrigated by sprinklers (absent at time of last 2 field exams) attached to pump in pond #1. Land on near side of fence is supposedly not irrigated.



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Where spring-fed channel #2 feeds into pond #2. Arrow shows outlet from pond #2.



Outflow from
Pond #2. Arrow
shows direction of
flow.



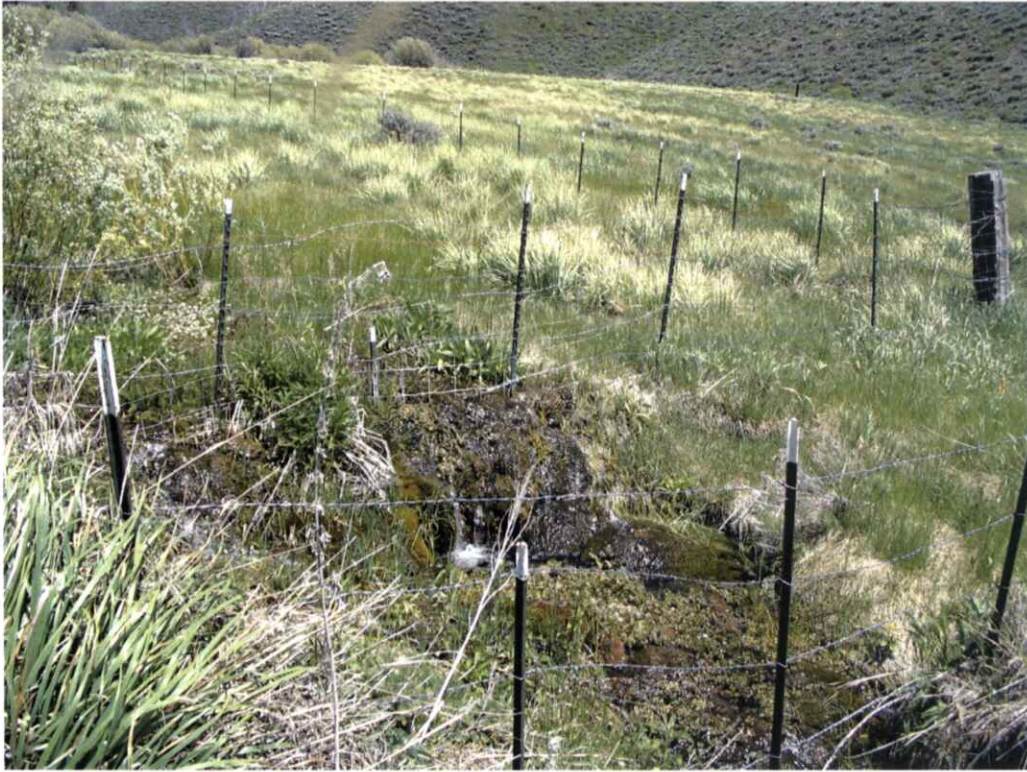
Overflow
structure directly
adjacent to
channel #1 just
upstream of falls
to pond #1. Pipe
in structure to
unknown
location.



Parker Gulch
Creek flowing to
PoD.



Parker Gulch
Creek flowing to
PoD.



Parker Gulch
Creek flowing in
channel 1 toward
pond #1



PoD. White
arrow into
channel 1. 95%
of (very low)
flow was being
diverted this
direction on June
16, 2005. Blue
arrow into
channel #2. A
small amount of
water was
getting into
channel #2 –
probably not on
purpose, dam is
sort of leaky.



Spring in bed of
channel #2.



PoD looking NW from channel 2.



Looking SW down
side of road at land
SW of ponds
which is
supposedly
irrigated.



Spring in bed of channel 2.