

MEMORANDUM

TO: Water Right File 37-22769

FROM: Daniel Nelson – Analyst 3

DATE: December 23, 2019

SUBJECT: Licensing Review of Water Right 37-22769

The field exam for this right was performed by Certified Field Examiner G. Erick Powell of Brockway Engineering.

In the field report, Mr. Powell recommended diversion to storage (0.07 cfs), aesthetic storage (1.9 af), recreations storage (1.9 af), wildlife storage (1.9 af), and irrigation (0.07 cfs for 3.9 acres) for a total of 0.07 cfs and 15.6 af. In an email dated November 12, 2019, Mr. Powell updated his recommendations to 1.5 af pond capacity, 0.4 af evaporation, 0 af seepage (pond lined), irrigation volume 13.7 af (3.9 acres X 3.5 af/ac) and diversion rate and volume for wildlife, recreation, and aesthetic uses is 0.07 cfs and 34.9 af.

Irrigation Component:

Mr. Powell provided photos showing water being diverted through sprinklers on the acres recommended for irrigation. However, the photos show snow on the nearby mountains and the vegetation still looks like it is still early spring with very little growth. The photos also suggest that plants in the photo are natural vegetation and no additional cultivation or planting has been done. Mr. Powell states the photos were taken in 2016, but there is no provenance that confirms when the photos were taken or the time of year they were taken. There is no aerial imagery available for 2016 that could confirm the irrigation use.

My review of the aerial imagery suggests that there is no significant difference in vegetation growth between 2015 and 2017 aerial imagery, which I would expect to see if the ground was irrigated consistently during the 2016 season. In reality, there appears to be more growth in 2015 than there was in 2017. Even though the 2016 Sentinel satellite imagery doesn't have sufficient definition to determine the irrigated acres for such a small place of use, I feel the Sentinel imagery does show some distinct areas around the ponds that don't appear to be irrigated. Although the Sentinel imagery is not very clear, it does suggest that it is unlikely active irrigation occurred around the pond in 2016. The LanSat imagery is simply not usable due to the definition. This would also affect any metric or other analysis that uses the LanSat imagery.

During my review of the irrigation portion of this permit, I could not find anything that resembles irrigation of these acres except for the photos in the field report that show the sprinklers being operated. I contacted the field examiner on November 13, 2019 to request additional proof of irrigation. Mr. Powell responded on November 15, 2019, and requested a meeting with my supervisors and myself to discuss the irrigation issue.

Angie Grimm and I had a telephonic conference call with the field examiner on November 22, 2019, and it was determined that the Department needed additional information to approve the irrigation component on this right. In the telephonic meeting, the field examiner stated that he did not work for the Department, and that he worked for the permit holder. The field examiner also stated that it was his job to make a recommendation and it was up to the Department to decide if they wanted to follow his recommendation or not. The field examiner was asked to contact his client to provide information that would help us to determine his expectations for the 2016 irrigation season. The field examiner was also informed that it would be helpful if they provide the amount of time and frequency that they irrigated the ground in 2016.

It has been over 30 days since the telephonic meeting with no response from the field examiner or the permit holder. Therefore, I recommend that we move forward with licensing this permit without the irrigation component included. Without a reasonable showing that some form of irrigation with the intention of improving plant growth occurred, I don't feel the photos of the sprinklers being operated in 2016 provided enough evidence of a beneficial use for the irrigation component.

The mitigation for this permit will need to be adjusted, but that mitigation right will not be changed until the preliminary order issuing the license has become a final order. The diversion rates and volumes will be adjusted to allow full coverage of the remaining components of this permit.

Diversion Rate and Volume:

After discussing the need for a volume for the various uses, I believe the field examiner provided the needed information for each use. I agree with the recommendation of 0.07 cfs diversion rate for all uses with a total diversion rate of 0.07 cfs. I also agree with the storage limitation of 1.9 af for each storage component with a total storage volume of 1.9 af.

With the removal of the irrigation component, the volume for the wildlife, recreation, and aesthetic volumes will be adjusted to address the entire volume diverted. The volume would be calculated as follows:

$0.07 \text{ cfs diversion rate} \times 1.9835 = 0.138845 \text{ af/day}$

$0.138845 \text{ af/day} \times 365 \text{ days} = 50.678 \text{ af}$ rounded to 50.7 af total annual volume

$50.7 \text{ af total annual volume} - 1.9 \text{ af storage} = 48.8 \text{ af}$ for wildlife, recreation, and aesthetic uses

I am recommending that the wildlife, recreation, and aesthetic uses should be limited to 48.8 af.

Place of Use, and Point of Diversion:

The field examiner properly located the point of diversion and place of use.

Conditions:

Condition 220 will be altered to match the current pond size, and will be changed to 1.5 af and 0.34 acres surface area. I will also add condition 259, which show that the total storage is for 1.9 af, with 1.5 af of storage capacity and 0.4 af for evaporation. Condition 01J will be changed to R43 which is standard. Condition R05 will also be carried for to licensing. Condition 051 will be changed to condition 933 as is standard.

Condition 7 is unnumbered. The condition will be altered to reflect the last sentence of the condition which states:

If the pond is depleted for maintenance or other reason the right holder shall seek a separate authorization, such as a Water Supply Bank rental, to re-fill the pond.

Condition 140 should also be carried forward to the license, since it was on the permit. Condition 139 usually accompanies condition 140 on water rights, but this permit has a mitigation built into it, so condition 139 is not necessary.

Since the irrigation use is not being carried forward to licensing, condition 170 will need to be changed to the following:

To mitigate for the depletion of water resulting from the use of water under this right and to prevent injury to senior water right holders, the right holder shall cease diverting and using water as authorized by the following water rights for the purposes and amounts specified below. Moreover, the official record for the following water right will be changed to show that diversion and use of water is not authorized because the rights, or portion thereof, are being dedicated to mitigation purposes.

Right No.	Use Changed to Mitigation	Mitigation Rate (cfs)	Mitigation Acres
37-21386	Irrigation	0.01 cfs	0.4
37-21793	Irrigation	0.02 cfs	0.4

The land that will no longer be irrigated under this right is located within the NENW, Section 32, Township 4N, Range 19E.

If the specified mitigation right, or portion thereof, is sold, transferred, leased, used on any place of use, or is not deliverable due to a shortage of water or a priority call, then the amount of water authorized for diversion under this right approval shall be reduced by the same proportion as the reduction to the mitigation rights.

Water rights 37-21386 and 37-21793 will need to be changed to match this change in the mitigation. It has been decided to give the permit holder the opportunity to petition this license for reconsideration before making the actual changes to these water rights.

License Review for Permit 37-22769 – Irrigation Review

The 2015 aerial photo shows the irrigation place of use recommended by the field examiner for the irrigation use. As you can see there is very little sign of irrigation.

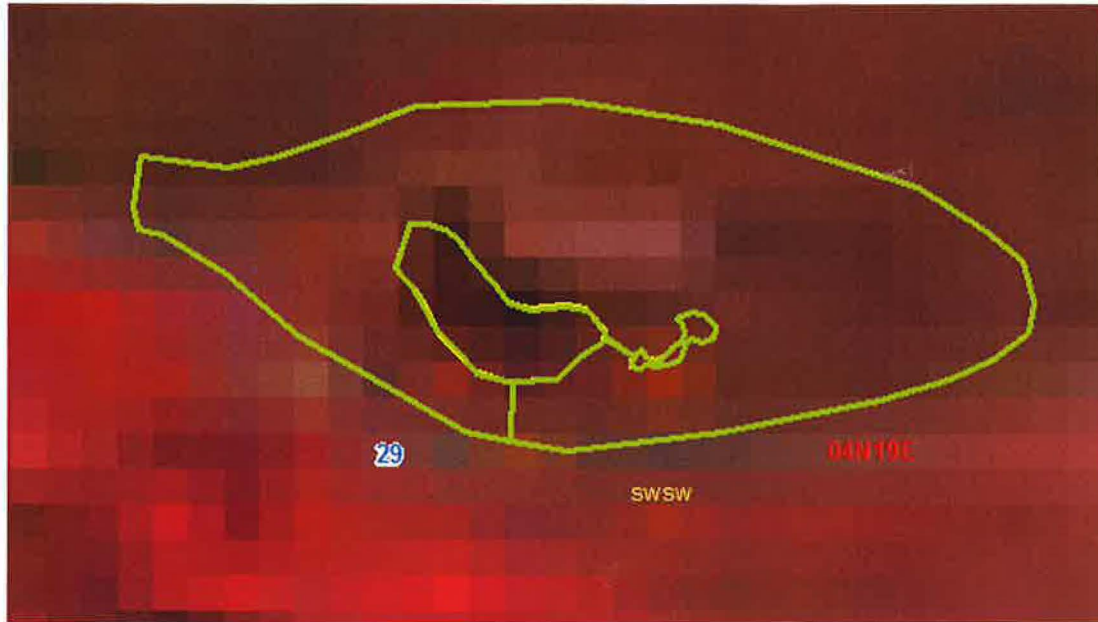


The 2017 aerial imagery shown below show similar if not less vegetative growth than the 2015 aerial imagery shown above.



License Review for Permit 37-22769 – Irrigation Review

The June 18, 2016 Sentinel Imagery doesn't show significant irrigation, and it appears as though the area just north of the pond is still the bare dirt shown in the 2015 and 2017 aerial imagery. It must also be noted that the resolution in this imagery doesn't provide the quality needed to confirm irrigation or not.



The imagery below is the same June 18, 2016, Sentinel image at a different scale. This image shows that the supposed irrigated area looks very similar to the unirrigated hillside to the north in the NWSW and NESW.

