

## MEMORANDUM

TO: Water Right File 37-8859

FROM: Daniel Nelson – Analyst 3

DATE: January 17, 2018

SUBJECT: Licensing Review of Water Right 37-8859

This field exams for these rights were performed by Certified Field Examiner Greg Sullivan of Brockway Engineering. Mr. Sullivan recommended a diversion rate for this system of 1.06 cfs for all of the uses, 416 af for the wildlife and aesthetic uses, and 3.6 af for the wildlife storage and aesthetic storage. Mr. Sullivan's field report and recommendations appear to be based on sound field examination practices.

However, I was concerned that the place of use for the wildlife and aesthetic uses were reduced from the entire length of the supply ditch to just the ponds. Another concern was that no seepage rate was considered in the recommendation for the volume. I contacted Mr. Sullivan by email on January 17, 2018, to make sure these recommendations were correct. I gave Mr. Sullivan 14 days to respond, and he responded stating he wanted to keep the 3.9 af and the wildlife place of use to include the entire ditch. Therefore, I am altering the place of use shape and conditioning the license accordingly.

I attempted to double check the annual volumes with the water district records, but there doesn't appear to be a record for this particular point of diversion in the district's database. The records in this area appear to be a bit hit or miss at this time. Water rights 37-368B, 37-2076A, and 37-2076B are diverted at the same location, and water rights 37-268B, 37-409B, and 37-2076B are used on the same field, but it doesn't appear as though any of those rights have been used for some time. There could have been some irrigation use of the golf course area in 2006 and 2009, but the irrigation use seems very spotty.

Therefore, I am recommending that the permit be licensed per Mr. Sullivan's recommendations.

## Permit 37-8859 – Licensing Review Map

The following map is a 2003 aerial photo of the place of use. This appears to be the last time the ponds were full.



## Nelson, Dan

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**From:** Nelson, Dan  
**Sent:** Friday, January 26, 2018 3:10 PM  
**To:** 'Greg Sullivan'  
**Subject:** RE: Permit 37-8859 Field Report

Thank you for your response Greg. I will continue working to complete the licensing process as soon as possible.

Dan Nelson

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**From:** Greg Sullivan [mailto:[greg.sullivan@brockwayeng.com](mailto:greg.sullivan@brockwayeng.com)]  
**Sent:** Friday, January 26, 2018 1:59 PM  
**To:** Nelson, Dan <[Dan.Nelson@idwr.idaho.gov](mailto:Dan.Nelson@idwr.idaho.gov)>  
**Subject:** RE: Permit 37-8859 Field Report

Dan,

1. Please include aesthetic and wildlife uses for the entire ditch.
2. Please increase the total storage to 3.9 af.

Those to changes are acceptable.

Greg Sullivan  
Brockway Engineering  
2016 North Washington Street, Suite 4  
Twin Falls, Idaho 83301  
208-736-8543

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**From:** Nelson, Dan [mailto:[Dan.Nelson@idwr.idaho.gov](mailto:Dan.Nelson@idwr.idaho.gov)]  
**Sent:** Wednesday, January 17, 2018 9:19 AM  
**To:** Greg Sullivan <[greg.sullivan@brockwayeng.com](mailto:greg.sullivan@brockwayeng.com)>  
**Subject:** Permit 37-8859 Field Report

Hello Greg,

To begin with, I want you to know that your field report for permit 37-8859 was very well done. I really appreciate the work that you did for this field exam. There are a couple of your recommendations that I wanted to confirm before I moved forward with licensing.

- 1.) The permit showed the place of use for the wildlife and aesthetic uses included the ponds and the entire ditch, but your field exam report only describes the ponds for the place of use for the wildlife and aesthetic use. I wanted to make sure this is correct before I move forward with licensing. All I need from you is an email confirming the place of use of the wildlife and aesthetic uses.
- 2.) The permit and the field report don't include any storage use for seepage from the ponds. I have attached a PDF of the total storage using the Department's spreadsheet, and it looks as though 0.9 af seeps from the pond. You recommended 3.6 af for storage including evaporation, so we could license the permit for the full 3.9 af and

attribute the additional 0.3 af to seepage. All I need from you is confirmation that it is alright to increase the storage from 3.6 af to 3.9 af. If you would like to run your numbers through our spreadsheet, you can find our "Storage: Pond Loss Calculation" spreadsheet at <http://www.idwr.idaho.gov/forms/water-rights.html>.

Those are the only two things that I wanted to run by you to ensure that we give the permit holder what they need for this water use. If you have any further questions, please don't hesitate to contact me. If I don't hear back from you within the next 14 days, I will move forward with licensing the permit as you recommended.

Respectfully,

Daniel Nelson  
Water Right Analyst 3  
Idaho Department of Water Resources  
Telephone (208) 287-4856  
Fax (208) 287-6700 (attn: Dan Nelson)



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## Total Storage Calculations

|             |            |
|-------------|------------|
| FILE NUMBER | 37-8859    |
| REVIEWER    | Dan Nelson |
| DATE        | 1/17/2018  |

This spreadsheet has been designed by Idaho Department of Water Resources to estimate the total seepage, evaporation and fill capacity required for a pond.

|                      |
|----------------------|
| User Input           |
| Calculated value     |
| Formula Explanations |

|                                                                                              |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surface Area (AC.)                                                                           | 0.8 | "Surface Area" is automatically carried over from the "Seepage Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Average Pond Depth (FT.)                                                                     | 2.9 | "Average Pond Depth" depicts the actual depth of the pond either measured or estimated. Note: If you know the maximum depth and not the average depth, the Field Examiner's Handbook suggests multiplying the maximum depth by 0.4 to get the average depth, or you can use any method that seems reasonable to attain average depth.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pond Capacity (AF)                                                                           | 2.3 | Pond Capacity is calculated by multiplying the Pond Surface Area by the Average Pond Depth. If you know the capacity, divide the capacity by surface area and enter the average pond depth in the space above.<br><b>Note: If pond capacity is determined using a method shown on the "Pond Capacity" sheet, the user may need to modify the value of "Pond Capacity" (cell B9) manually. Note that if the value is modified manually, the formula will be altered for future use.</b>                                                                                                                                                                                                                                                                                                                                                                                         |
| Multiple Fill Volume Above Initial Fill to Fulfill From Storage Needs- "Multiple Fills" (AF) | 0   | The "Multiple Fill Volume Above Initial Fill" is the acre-feet of water required to meet a <i>from storage</i> component if the <i>from storage</i> component exceeds a one time fill. This section should not include the amount of water needed to fill the pond initially or the amount of water needed to maintain the pond level due to evaporation or seepage. For example: if a pond has a capacity of 5 acre feet and 2.5 acre feet of seepage and evaporation, but the pond is used for irrigation that requires 10 acre feet of from storage for the irrigation use, then you would insert 5 acre feet into this location (10 acre feet needed - 5 acre feet from the initial fill = 5 acre feet of additional storage needed).<br><b>Note: You must have a "From Storage" component exceeding the initial fill on the permit to include a volume in this space.</b> |
| Estimated Seepage Loss (AF)                                                                  | 0.9 | The "Estimated Seepage Loss" is automatically carried over from the "Seepage Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Estimated Evaporation Loss (AF)                                                              | 1.7 | The "Estimated Evaporation Loss" is automatically carried over from the "Evaporation Loss" sheet.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Total Volume Required (AF)                                                                   | 4.9 | The "Total Volume Required" is calculated by adding the Pond Capacity, Multiple Fills, Seepage Loss, and Evaporation Loss amounts to determine the total amount of storage required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |