

MEMORANDUM

TO: Water Right File 63-33341

FROM: Daniel Nelson – Staff Hydrologist

DATE: August 29, 2017

SUBJECT: Licensing Review of Water Right 63-33341

This field exam was performed by Certified Field Examiner Terry Scanlan of SPF Engineering Inc. Mr. Scanlan reported that 27 acres within a 73 acre permissible place of use were irrigated and limited the diversion rate to 0.54 cfs and 121.5 acre feet of water were used under the irrigation component of this water right. There are a couple of issues that need to be addressed. Each will be addressed below:

Point of Diversion:

The application for permit lists the point of diversion as being located in the SENE of Section 30 in Township 3, Range 3 East. There are two maps with the application, and neither of those maps show the point of diversion Government Lot 8. The Permit describes the point of diversion in Lot 8 (SENE) of Section 30 in Township 3, Range 3 East. I could find nothing in the file where the permit holder actually changed the legal description of the point of diversion, but staff did refer to a May 12, 2011 email that is not included in any of the water right files associated with the park. The permit review includes a Government Plat map that appears to be identical to the Public Land Survey System (PLSS) lines placed on the Department's mapping system. The PLSS in the Department database and the Government Plat Map shows the SENE divided into 3 lots. The northeast lot is Government Lot 8, the middle lot is the old stream channel and has no official government lot designation, and the southern lot is Lot 6. It is clear from the aerial photo that river channel has changed and moved since the government lots were assigned in the 1868 survey of the section.

The field examiner also included the Government Lot 8 description, but his map clearly shows the point of diversion in the old stream channel west of Government Lot 8. According to the Department's current mapping information, the point of diversion is located in the old stream channel of the Boise River and not in Government Lot 8. The point of diversion is approximately 71 feet west of Government Lot 8. The existing decreed water right (63-19098) that uses the same point of diversion describes the point of diversion as being in SENE, and the decree does not describe the point of diversion as being in Government Lot 8. Therefore, we have determined that the point of diversion for this permit should not include the Government Lot 8 description.

An amendment is not necessary, since the permit's advertisement included SENE designation in the point of diversion description. The point of diversion location has not changed, and adding the Government Lot designation was done in error.

Acres and Place of Use:

Mr. Scanlan determined that the number of acres irrigated was 27 acres. I tried to recreate the shape file and came up with 26 acres, but I think that is contributed to rounding issues. I created a single shape file and Mr. Scanlan used multiple shape files, which tends to give a higher acre amount due the rounding of each shape file. Mr. Scanlan's acre amounts are reasonable and I am recommending the 27 acres.

Mr. Scanlan has asked for irrigation for 27 acres within a 73 acre permissible place of use. The permit did have a permissible place of use designation, but this use is reasonably small. It seems highly unlikely that they would dig up asphalt and move the irrigation components around from year to year. I contacted Mr. Scanlan and informed him that we would not consider the permissible place of use for this permit. Mr. Scanlan agreed that a permissible place of use was no longer necessary. Therefore, I am recommending this permit for only the 27 acres without a permissible place of use designation.

Diversion Rate:

Mr. Scanlan's field report states that there is not a measurement device on the point of diversion at the Boise River, and there also isn't a measurement device at the headgate from the settling pond on Walling Ditch. He does mention that there are measurement devices on the irrigation system being pumped from the Williams Pond. Mr. Scanlan provided emails from the watermaster confirming that the watermaster uses the irrigation measurement devices to record the water being diverted by this right into water district records. The water for this permit is diverted from the Boise River through an open ditch to a settling pond, where a second headgate diverts water to the Williams Pond. The water in Williams Pond is then pumped into the irrigation system.

Not having a measurement device at the point of diversion raises a concern that some of the water diverted from the Boise River could be used for other purposes, and/or the water being diverted for irrigation purposes may be coming from the shallow ground water allocated to maintain Williams Pond. In order to ensure that water diverted from the Boise River is the only water being used for irrigation and no Boise River water is being used for any other purpose, a measurement device would need to be installed at the point of diversion at the Boise River and compared to the measurement devices on the irrigation system to ensure that this system is being operated properly. In order to create a measurement system to properly monitor this situation, a measurement plan would be needed that specifically addresses this specific system. Please see the condition section of this memo for additional information.

The water district records show that the irrigation system did divert 0.55 cfs on July 14, 2017, so we can recommend the full diversion rate of 0.54 cfs. This system will be used to supply irrigation water to permit 63-34258, but that portion of the system has yet to be developed. Therefore, I am recommending a diversion rate for this permit 0.54 cfs.

Volume:

Mr. Scanlan provided an annual volume recommendation of 121.5 af. This volume represents the Department standard of 4.5 af per acre. Mr. Scanlan also provided the water district records that show a total volume of 91 af diverted in 2016 and a partial year's worth of data for 2017. This is a surface water irrigation right, so no volume is included on the water right. However, a condition will be added to prevent exceeding the headgate requirement.

Overlapping Water Rights:

SUEZ municipal water overlaps the place of use, but it isn't used for irrigation purposes. The SUEZ municipal water is used for the culinary uses for the park. Water right 63-19098 is diverted at this point of diversion, but apparently it has been used in some time. Water right permit 63-34258 is also diverted from this point of diversion. 63-34258 is for irrigation of the subdivision that doesn't appear to have been developed yet. The park surrounds the subdivision. Permit 63-34258 will be using the same system and the same mitigation right.

Water is diverted into the Walling Ditch from this point of diversion, but it doesn't appear as though anyone uses the water in the ditch other than this permit and permit 63-34258. I have not spoken to the watermaster concerning the water being delivered to the Walling Ditch, so I am assuming that the point of diversion for the Walling Ditch only supplies these two permits.

Mitigation:

Water right 63-243G owned by the South Boise Mutual Irrigation Company, is being used to mitigate this permit. Per an email between Western Region staff and the watermaster in 2012, the diversion into the Bubb Canal/Ditch needed to be limited to 5.16 cfs. A review of the records in 2016 and 2017 show that not more than 3.30 cfs was diverted into the Bubb Canal/Ditch during that time period. Therefore, it appears as though the mitigation is still in place and being maintained.

Conditions:

Conditions 1 (26A), 4 (X27), and 7 (206) will need to be removed at licensing. Conditions X27 and 206 are for water rights with a permissible place of use, and are no longer needed for this permit. Please see the place of use portion of this memo for further discussion on this issue. Conditions 2 (R05), 5 (170), 6 (R65), 8 (004), 9 (X59), and 10 (X60) should be carried forward to licensing. It should be noted that condition 5 (170) should not be altered at licensing, since the mitigation requirement has not changed. Condition 3 (01J) should be changed to condition R43 as is standard.

As discussed earlier in this memo, a measurement plan may be needed to properly measure this diversion. The watermaster has approved the current measurement protocol, but there could be issues later on that may make the current measurement protocol inadequate. Therefore, we should add a condition that address the possible need for a measurement plan in the future. The following condition or one similar should be added at licensing:

When notified by the Department or the watermaster, the right holder shall provide a plan approved by the Department and watermaster to ensure all water diverted from the Boise River in connection with this right is not being diverted for any purpose other than the irrigation use allocated by this right.

Licensing Review Map – Permit 63-33341

The aerial photo below show the place of use in a yellow border and the point of diversion with a yellow dot. The blue areas are the ponds covered by water right license 63-34258.



[illegible]

A close-up of a handwritten manuscript page showing a graph with a grid. The graph has several points connected by lines. The points are labeled with handwritten numbers: 20.20, 21.50, 30, and 44.00. There are also some red markings and a wavy line at the top right.