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DEPARTMENT OF
WATER RESOURCES

January 5, 2009

Matthew Weaver, PE
Idaho Department of Water Resources
322 East Front Street
PO Box 83720
Boise, Idaho 83720-0098

Re: Permit No. 72-16625 (Firstfruits Foundation)

Dear Mr. Weaver:

Thank you for your letter of October 31, 2008, providing a thorough review of the beneficial use examination report and mitigation plan for Permit No. 72-16625. You are correct that Mr. James has tried to meet the requirements of the permit and, if he has not properly interpreted the requirements, he fully intends to do so. Although the amount of water diverted and used in the pond is small and even a smaller amount of water is consumed, the water amenity is an asset to the conference center that Mr. James wants to protect for continued use by complying with the permit conditions.

Before responding to your specific comments and suggestions, I would like to describe my understanding of Permit No. 72-16625 and its conditions of approval.

DIVERSION RATE. On the face of the permit, the authorized diversion rate is 0.4 cfs, but Condition of Approval No. 3 limits the diversion rate to 0.2 cfs. Condition of Approval No. 7 provides:

“The permit does not constitute a new appropriation of water from Garden Creek and instead authorizes an additional use to be made of water ... under the applicants (sic) existing water rights provided the applicant mitigates the evaporative loss from the pond.”

This condition recognizes the pond as part of the conveyance system for Water Rights Nos. 72-106J, 72-109J, 72-4174C and 72-10486C. These rights now total 1.49 cfs for irrigation purposes (Ref: Findings of Fact Nos. 25 and 26 of the order approving Permit No. 72-16625). The reduced diversion rate offered in the mitigation plan for the pond limits the diversion rate for irrigation under these rights to 1.45 cfs. Although the irrigation system has been revised so that water currently is not diverted through the pond, a mitigation plan approved in accordance with the conditions of the permit should provide for irrigation rights to be routed through the pond at the discretion of the right holder.

Based upon the above conditions of approval, flow through the pond is allowed as follows:

- a. Up to 1.45 cfs can be routed through the pond when the existing rights are in priority and the water is used for irrigation in accordance with the rights (if evaporative losses from the pond are mitigated).
- b. Diversion of up to 0.4 cfs through the pond when the existing rights are in priority, but the water routed through the pond is not being used for irrigation (if evaporative losses from the pond are mitigated).
- c. Diversion of up to 0.2 cfs through the pond when the existing rights are not in priority (if mitigation is provided to protect the flow available for existing rights held by other water users from Garden Creek).

MITIGATION REQUIREMENT. Legal counsel for Mr. James asked IDWR (letters dated May 8 and May 19, 2006) for clarification of the need for a mitigation plan and the factors that needed to be considered. He ultimately was advised by IDWR to have a technical consultant prepare a mitigation plan. The mitigation plan submitted attempts to clearly set forth two phases of mitigation in an attempt to be responsive to the permit requirements.

Four conditions of approval refer, using various terms, to a mitigation plan or plans:

- Condition No. 3 requires a plan to “mitigate losses attributable to diversion and use of water under the aesthetic use.”
- Condition No. 7 reserves jurisdiction for IDWR to “require a determination of the actual rate of loss within the system and may require additional mitigation for all system losses.”
- Condition No. 8 authorizes aesthetic use as an additional use under existing water rights “provided that the applicant mitigates the evaporative loss from the pond.”
- Condition No. 9 prohibits diversion of water to the pond when the existing irrigation rights are not being delivered unless “the applicant provides suitable mitigation to compensate for system losses.” (emphasis added)

The mitigation plan submitted with the proof of beneficial use report assumes that the mitigation requirement is more stringent when certain conditions exist. The least stringent phase relates to diversions through the pond when the existing irrigation rights are deliverable. In this phase, evaporative losses from the pond are mitigated by retiring an equal area of land irrigated under the rights (Ref: Letter in Permit No. 72-16625 file from Jeff Peppersack to Kent Foster dated May 15, 2006). The next phase relates to when diversion to the pond occurs at a time that the irrigation rights are not deliverable. In this phase, the plan proposes to compensate for system losses by insuring that inflow to the pond is not greater than outflow from the pond. The final phase occurs if IDWR requires in accordance with Condition No. 7 a determination of the actual loss and requires mitigation for all system losses. When IDWR gives notice of this additional requirement, the right holder will amend the plan to provide additional measurement and mitigation as determined necessary to protect prior rights.

MEASURING DEVICE REQUIREMENT. Measuring devices are required at the points of diversion, and the right holder has complied. Parshall flumes have been properly installed and are being maintained at both points of diversion that are "...adequate to determine the rate of diversion from Garden Creek ...". In my experience, the devices that have been installed by Mr. James meet or exceed the requirements of IDWR for watermaster regulation purposes. Condition of Approval No. 2 also requires measuring devices "... to quantify losses associated with the aesthetic use of water in the right holder's pond." The Parshall flume installed in the outlet ditch from the pond is a response to this requirement. Because of IDWR's reservation of jurisdiction to require "in the future" a determination of actual losses in the system, it does not seem that a precise determination of the losses in the pond are required at this time.

RESPONSES TO SPECIFIC QUESTIONS AND SUGGESTIONS IN YOUR LETTER

Mitigation Plan:

1. A copy of the guidelines referenced in the mitigation plan is enclosed.
2. My understanding is that bentonite was used to reduce leakage from the pond was minimized when it was deepened. The need to deepen the pond was minimized by raising the sides of the pond a few feet above the prevailing land surface. Two french drains, each approximately 25 feet long and up to 30-inches deep, were constructed just south and southeast of the pond to return seepage directly to the creek. The exit channel of the pond is lined with as it crosses over the French drains. The success in sealing the pond is evident from measurements reported in the field examination showing little or no measurable loss between the lower diversion and the ditch below the pond outlet. In addition, Mr. James has observed that the pond level does not decline rapidly during times that flow is not routed to the pond.

When the pond was deepened the water table was encountered at approximately 4 feet below land surface. Information from test holes for evaluations of suitability for use of septic tanks indicate that the water table is less than 5 feet below land surface at a location some 50 to 100 feet away from the pond in the flat area to the northwest before the slopes up another 10 feet to Appaloosa and Bayhorse buildings. The full pool elevation of the pond is an estimated 10-feet above the water surface in Garden Creek, located within about 50 feet from the southern edge of the pond. IDWR's finding of an interconnection between shallow ground water and surface water streams in the area is not disputed.

These observations support the conclusion that leakage is not a significant factor because of its small amount and immediate return to the stream. However, even if this is not an accurate conclusion, downstream rights would not be injured. The mitigation plan puts the burden on the right holder to either stop diverting under the permit when his irrigation rights are not in priority or to supply mitigation water to the extent that losses (evaporation and seepage) do occur. In addition, in accordance with the acknowledged hydraulic connection, seepage

will return to the stream, and whether immediate or delayed, will be available for diversion by prior rights.

3. My understanding is that the fountain is not used when stream flows have declined so that the right holder's irrigation rights are not in priority (Ref: Letter in Permit No. 72-16625 file from Mark Bryan dated June 22, 2004). Diversions then are only through the lower diversion point. Measurements at the lower diversion and at the pond outlet are all that is needed to determine the loss through the pond and this is needed only during times that mitigation is required in accordance with the second component of the proposed plan. A second measuring device to the pipeline supplying water to the fountain is not needed if the fountain is only used when operating in accordance with the first component of the proposed plan. With your concurrence, I will clarify the proposed plan to emphasize this point.

The existing measuring devices, identical and installed in accordance with standard requirements, are adequate to observe relative changes in the flow through the pond. However, if required as a condition of approval for the mitigation plan, small V-notch weirs or flumes with 6-inch or narrower throats will be installed at the lower diversion and below the pond to allow the flow rates to be accurately determined using standard tables for the devices. These smaller devices will either be installed in alternate channels or placed within the existing channel whenever the flow is limited to 0.2 cfs. As an alternative, water level changes in the pond can be tracked using a permanently installed staff gauge.

As presently constructed, elevation of water in the pond can only be adjusted by changing the crest height of the overflow section (shifting rocks). A control valve will be added if the right holder elects to draft the reservoir rather than curtail the 0.2 cfs flow allowed when this component of the mitigation plan is operative.

Prior concurrence with IDWR on the mitigation plan, the measuring devices and the pond outlet control will help the right holder to design and install any needed changes to his system and reduce the risk of having to redo these changes.

4. The general connection between ground water and surface water in the Garden Creek drainage is recognized and addressed by the first component in the proposed mitigation plan.

The extra mitigation required for Permit No. 72-16625 relates to protection of other water rights in "real time" when Mr. James's irrigation rights are not in priority and is addressed by the second component of the proposed plan. This component recognizes that regulation in Water District 72B uses the "futile call" principal. During the field exam in 2007, I observed that the flow of this small

spring was not then reaching Garden Creek. Upon approval of the application, the watermaster, as in all futile call situations, will determine that the flow is not then reaching the creek when left in its channel. Permit No. 72-16625 could then be used to deliver the spring flow directly to the pond or stream to offset losses in the pond when the irrigation rights are not in priority.

When a permit is issued to use water from the spring to offset losses, it would be used in preference to drafting water from the pond, whenever mitigation was needed and a futile call existed. The pending application for permit to divert water from this spring will be amended to list "aesthetics" as the purpose of use in accordance with IDWR's preference concerning the nature of use element. A measuring device acceptable to IDWR will be installed to monitor diversions from the spring upon approval of the application.

5. Your proposal to add a condition to the license to memorialize the mitigation requirement is acceptable whether or not the mitigation provisions are addressed in a transfer. The pending transfer needs to be processed, anyway, because it includes other changes to these rights in addition to those addressing mitigation for the pond.

Field Examination

1. Need for a measuring device on flow routed from the upper diversion to the pond. As discussed previously in this letter, it is my understanding that an additional measuring device is not needed to administer in accordance with the proposed mitigation plan. When flow routed through the pond is limited to 0.2 cfs and water loss in the pond is a factor, only the lower diversion is used. At this time, the lower diversion serves only the pond.
2. Excessive diversion through the pond. As previously discussed, it is my understanding that the flow allowed through the pond is not always limited to 0.2 cfs. The diversions for this permit are under the year-round supervision of the watermaster regulating Garden Creek. The right holder will continue to cooperate with him to identify and comply with the rate allowed to pass through the pond in accordance with the permit/license conditions.

The last paragraph of your letter suggests that a supplemental field exam and a revised mitigation plan be filed to allow use of the pond to continue next spring. I will be happy to provide the suggested documents with the needed changes and to prepare an amended application for permit, but would like your reaction to this letter before doing so. I plan to call you in about two weeks to arrange to meet with you.

Sincerely,

A handwritten signature in dark ink, appearing to read "Norm C. Young". The signature is fluid and cursive, with a large, sweeping "Y" at the end.

Norman C. Young, P.E.

Enc. Guideline downloaded from Internet.

cc: Christopher James