


## ADMINISTRATOR'S MEMORANDUM

To: Regional Offices,  
Water Allocation Bureau

Application Processing No. 73  
Licensing No. 12  
Transfer Processing No. 28

From: Jeff Peppersack 

Re: **UTILIZATION OF THE 24-HOUR FILL ALLOWANCE FOR IMPOUNDMENTS**

Date: April 18, 2013

Department practices and policies have recognized the use of the 24-hour fill allowance (aka the "24-hour rule") in establishing the maximum impoundment volume allowed in association with a water right permit, license, or decree, for which a storage component identified as an element of the water right is not required (AP Memo 67<sup>1</sup>). The Department has not provided additional guidance for implementation of this policy; consequently, the 24-hour fill allowance has been implemented by staff in a variety of ways. Additional guidance is necessary to avoid a proliferation of ponds on new or existing water diversion systems that may result in additional consumptive use and lack of control of the water to the detriment of other water users. It is important to note that this memo does not represent promulgated rules, but is instead a statement of the policy and practical implementation of the 24-hour fill allowance that has historically been used by the Department.

The guidance provided in this memo is intended to provide clarity, consistency, and detail in the implementation and use of the 24-hour fill allowance for ponds constructed or proposed to be constructed after the date of this memorandum and to changes in use of existing ponds, where the change in use occurs or is proposed to occur after the date of this memorandum. It is not intended to direct Department staff to initiate investigative or regulatory action for ponds existing prior to the date of this memorandum, that otherwise met past interpretations of the 24-hour fill allowance, or to address the need for a claim to be filed in an ongoing adjudication of water rights. If a written complaint is filed with the Department showing probable injury to an existing water right where the injury is alleged to be related to the use of a pond developed prior to the date of this memorandum, staff is instructed to forward the complaint to the division administrator for case-by-case guidance.

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<sup>1</sup> Application Processing Memorandum No. 67 Permitting Requirements for Ponds, signed by Norm Young on February 28, 2003, states in part "A water right permit is not required to construct and use a pond or ponds that are part of a system used to distribute and use water in accordance with a valid water right if the pond or ponds do not impound a larger volume of water than authorized for diversion within a 24-hour period under the water right or rights associated with the project."

Historic utilization of the 24-hour fill allowance came about as recognition that many diversion structures will incidentally impound a certain amount of water to either raise the water level or otherwise facilitate diversion into a canal or other conveyance or distribution system, or to provide for short-term detention (24-hours) to facilitate operation of the distribution system for the purpose of use authorized under the water right. An example of the first case is creation of a small pool of water to ensure proper submergence of the suction piping in a pumping system. An example of the second case is detention of water in a small pond to provide a delayed, adjusted rate of diversion for night-time irrigation of a golf course or other facility where continuous irrigation during the day is not practical. Recognition of the 24-hour fill allowance for such uses is beneficial to the Department and water users because it eliminates the need to describe a storage component on a large number of water rights, allowing for faster processing of water right applications.

Further application of the 24-hour fill allowance by Department staff over time included its use for aesthetic, wildlife and/or recreation ponds. However, such application goes beyond the original intent of the 24-hour fill allowance because the pond is the end use of the water and the water right should include a storage component to properly describe the use. A storage component as part of the water right is necessary for such uses to ensure that the Department can address consumptive use associated with the pond and to describe any quantities, period of use or conditions necessary to limit the use to avoid injury to other water users.

Due to the lack of formal resources addressing the 24-hour fill allowance, questions are often raised by Department staff regarding its implementation. The following explanation and scenarios are intended to illustrate proper use of the 24-hour fill allowance and to prevent future misunderstandings of the policy by Department staff and water users.

#### **DIVERSION RATE USED TO CALCULATE THE 24-HOUR FILL ALLOWANCE**

The volume of water provided under the 24-hour fill allowance is calculated by multiplying the diversion rate by a 24-hour time period. As a simple example, if a water right recognizes a diversion rate of 1 cfs for irrigation, an impoundment volume less than or equal to 1.98 ac-ft used to facilitate pumping would not require a storage component on the water right.<sup>2</sup> Conversely, for the same water right, an impoundment volume greater than 1.98 ac-ft would require that the water right contain an element describing the entire storage component consistent with Water Appropriation Rule 35.03 (b) iv and v (*IDAPA 37.03.08*).

When applying the 24-hour fill allowance to calculate the maximum volume of a pond, series of ponds, reservoir, or series of reservoirs (henceforth referred to as a pond) associated with a specific water right, the diversion rate used in the calculation is limited to the authorized diversion rate associated with the water right and is further limited by the available water supply or the capacity of the works at the inlet to the pond. Regardless of availability of water, diversion rates in excess of that authorized on the water right

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<sup>2</sup> 1.98 ac-ft = (1 ft<sup>3</sup>/s)\*(86,400 s/day)\*(1 ac/43,560 ft<sup>2</sup>). This conversion is simplified as 1.984 ac-ft per cfs per day.

or rights, specifically utilizing the pond in question, are inappropriate for use in the 24-hour fill allowance calculation.

An example of inappropriate diversion rate includes a natural stream flow rate for an on-stream pond—an extreme variant of this is relying on the peak stream flow rate for analysis and pond sizing. This can be encountered when reviewing on-stream hydropower water rights. In such instances, the 24-hour fill allowance should be limited to the volume derived from the authorized diversion rate of the water right, and consideration of any excess available natural flow rates associated with the stream channel is inappropriate. Another example of a diversion rate that is inappropriate for consideration includes a diversion rate in a delivery system associated with other unrelated water rights for which the pond does not facilitate operation. This may include downstream water rights that use the system for conveyance (e.g. downstream irrigators), or water rights with additional beneficial uses that are not facilitated by the pond (e.g. stockwater used above the irrigation works in the system).

The appropriate diversion rate used to calculate the 24-hour fill allowance volume cannot exceed the fully authorized diversion rate associated with a specific water right; however, oftentimes the actual diverted (measured) rate is something less than the fully authorized rate. In these instances it is the rate that is actually being diverted, not the authorized diversion rate, that should be used in the calculation to determine the 24-hour fill allowance volume. For example, if an irrigation water right authorizes 5 cfs of diversion, but in actuality only 3 cfs of the total rate is conveyed into a part of the system incorporating the pond under consideration, and the remaining diversion rate is used in a separate part of the system, then the 24-hour fill allowance calculation is limited to a diversion rate of 3 cfs.

#### Combination of Beneficial Uses and/or Multiple Water Rights

It has been the Department's practice to allow for a combined pond volume based on the 24-hour fill allowance calculation of multiple beneficial uses under the same water right, and/or multiple water rights associated with the same system. As an example of the first case, if a golf course resort plans to develop a water right that includes a pond to facilitate a golf course irrigation component (2.5 cfs) and a commercial (equipment washing) component (1.2 cfs for two hours), the appropriate combined 24-hour fill allowance volume is 5.16 ac-ft.<sup>3</sup> As an example of the second case, if an irrigation system includes a pond and has two water rights associated with the system for 2 cfs and 3 cfs respectively, then the appropriate combined 24-hour fill allowance volume is 9.92 ac-ft.<sup>4</sup> Note, both examples are contingent upon the diversion or operation being facilitated by the pond.

#### Seepage & Evaporation in Conjunction with the 24-Hour Fill Allowance

When calculating the 24-hour fill allowance volume, no consideration should be given to gains and losses to the pond volume associated with precipitation, evaporation, or seepage. The volume calculation is based solely on the product of the appropriate diversion rate associated with the water right and a 24-hour diversion period. No adjustments up or down should be made to the diversion rate or allowable pond volume to reflect actual water balance conditions.

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<sup>3</sup> 5.16 ac-ft = (2.5 cfs)\*(1.984 ac-ft/cfs/day) + (1.2 cfs)\*(2 hrs)/(24 hrs/day)\*(1.984 ac-ft/cfs/day)

<sup>4</sup> 9.92 ac-ft = (2 + 3 cfs)\*(1.984 ac-ft/cfs/day)

## TYPES OF IMPOUNDMENTS

### Off-Stream Impoundments to Facilitate Diversion or Operation of the Distribution System

Application of the 24-hour fill allowance to address off-stream impoundments is appropriate when the impoundment is used to facilitate the diversion of water or operation of a distribution system for the authorized purpose of use. Such impoundments may include sumps for pumping systems or short-term detention ponds for irrigation systems.

### Off-Stream Impoundments for Recreation, Wildlife and Aesthetic Uses

As a general rule, it is not appropriate to utilize the 24-hour fill allowance for off-stream impoundments where the impoundment represents the end use of the water such as aesthetics, recreation and or wildlife uses.<sup>5</sup> Such impoundments, which may include wide meanders and/or pools within the conveyance channel, must include a storage component as part of the water right authorizing the use.

### On-Stream Impoundments to Facilitate Diversion or Operation of the Distribution System

Application of the 24-hour fill allowance to address on-stream impoundments is limited to impoundments that facilitate diversion of water or operation of a distribution system for the authorized purpose of use. Such impoundments may include use for on-stream hydropower facilities or on-stream diversions for authorized off-stream water uses.

In regards to run-of-the-river (ROR) hydroelectric water uses, application of the 24-hour fill allowance to support incidental on-stream impoundment is an acceptable application. ROR hydroelectric projects are those with small or no reservoir capacity. In the strictest sense of the definition, this implies that water passing through the facility must be used at that moment, or must be allowed to bypass the dam. Oftentimes in practice ROR facilities are actually operated in a “load following” manner. Load following indicates a practice where power output is adjusted to meet the fluctuating demand throughout a 24-hour period. Load following requires that a small amount of storage occur upstream of the dam to provide water releases to meet the peak daily demand for electrical generation. The Lower Salmon Falls Hydroelectric facility is one such example. Traditionally the Department has not required a storage water right in association with ROR facilities if the volume of water impounded upstream of the dam in support of a load following operation satisfies the 24-hour fill allowance calculation. Note that conditions of a hydropower water right, or conditions of other permits associated with the use (e.g. a FERC license) may preclude such practice.

### On-Stream Impoundments for Recreation, Wildlife and Aesthetic Uses

Similar to off-stream impoundments for such uses, it is not appropriate to utilize the 24-hour fill allowance for on-stream impoundments where the impoundment represents the end use of the water such as aesthetics, recreation and or wildlife uses. Furthermore, such use would constitute a minimum in-stream

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<sup>5</sup> A storage component may not be necessary if the total use falls within the statutory definition of a domestic or stockwater right.

flow because the water right quantity would be described as a flow rate, and consistent with Idaho Code Title 42, Chapter 15, Minimum Stream Flow, only the Idaho Water Resource Board (IWRB) can file an application and hold a minimum stream flow water right.

## **OTHER CONSIDERATIONS**

### Water Tanks

Many water users incorporate tanks or cisterns in their distribution system. Such features are generally not considered storage and are not required to be covered under a specific storage water right. Some circumstances, especially where a tank or cistern is added to an established non-municipal water right, may raise injury and/or enlargement concerns and may require a storage component.

### Timing of Fill

The diversion of water to a pond where impoundment is only allowed by implementation of the 24-hour fill allowance, and where no storage component is identified on the water right, can only occur during the season of use described on the water right. As an example, if an irrigation water right includes a pond with a volume established by the 24-hour fill allowance, diversion of water to fill that pond can occur no earlier than the first day of the irrigation season of use. It would be an illegal diversion of water if the pond were filled when the water right is out of season, to take advantage of water availability (i.e. early season runoff).

### Drainage of Pond

Once diverted, water impounded to facilitate diversion or operation is considered beneficially used and water users are not expected to drain the pond or return the water to the source at the end of the season or when the water is off due to a priority cut. However, significant amounts of water routinely held at the end of the period of use may raise questions regarding the intent of the pond or impoundment and may result in the need for a water right for an alternate use such as aesthetics or recreation storage.