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State of Utah
DEPARTMENT OF NATURAL RESOURCES
Division of Water Rights

MICHAEL R. STYLER
Executive Director

JERRY D. OLDS
State Engineer/Division Director

Phil Pace
President
Torrey Irrigation Company
P.O. Box 9
Torrey, Utah 84775

Re: Headgate Notice SEAA #1117, Peden Cut Re-diversion structure

Dear Mr. Pace

The State Engineer has received and considered your letter describing the unusual circumstances related to the Torrey Irrigation Company's Peden Cut re-diversion and the requirement to have a functional headgate installed. Please excuse the timing on the issuance of the letter, however it was initiated during an inspection of the Lower Fremont system on March 29, 2006. During the inspection and tour it was determined that a suitable headgate control did not exist on the re-diversion and flashboards are currently being used. This office would like to address points made in each paragraph of your letter regarding this matter, in that an agreement towards installation of the headgates and the completion of this work may be completed within a suitable time frame.

Paragraph One: is addressed by the paragraph above.

Paragraph Two: The State Engineer understands there is currently water in the canal, however during our initial inspection, there was no water running. We agree that installation of a new headgate would be easier to accomplish without water running. During a second visit and inspection on May 2, 2006, water was running above the anchor points along the inside of the concrete re- diversion structure. This would make it difficult to anchor new guides into the concrete for a gate. Similarly, it would be difficult for a water master or water commissioner to make adjustments using flashboards as needed to control flows.

Paragraph Three: The State Engineer does not intend to put the irrigation company through the expense of extensive engineering to develop a design for a headgate. However if that is your preference, funding and design is the responsibility of Torrey Irrigation Company. If you anticipate that the design needs to incorporate provisions for a flash flood, that is the Company's responsibility. A qualified welder should be able to construct a simple gate system on site within a day or two, a gate (or gates) that can control both outlet sides of the diversion would be worthwhile. Cost would be limited to the welders' time and materials. Yes, it is still possible to measure the water using the downstream flume however the issue is not the measurement of water but control of flows. Using flashboards in the re-diversion to control water is both unsafe for the commissioner and local water masters and adjustments cannot be made in a reasonable fashion and in timely manner. We do not anticipate that the headgate will need to be locked

unless tampering becomes a problem, multiple keys for the lock can be made available to water masters involved in the regulation of the gate. Flow changes can be made, provided the Water Commissioner is notified.

Paragraph Four: Having a headgate mechanism installed may alleviate the issue you raise regarding flash floods. Water and mud would be scoured from the structure if it was allowed to run under a gate, instead of the effect cause by using flashboards, which creates a stilling effect in the structure and contributes to mud and siltation build up behind the flashboards. Your description of a water master having to turn water back to the river actually involves moving flashboards; this can become a very dangerous proposition during a high flow condition. Whereas operating a headgate would be safer and easier to accomplish during a flash flood, they would simply raise a gate to adjust flows. Turning flows back to the river would not be the sole responsibility of the water commissioner, a water master could also do this as you suggest, provided they advised the commissioner of their activity. Flooding of the control structure canal in the Peden Cut area would happen regardless if flashboards or a gate is used during a high flow condition. However, this area is in a channel to start with, excessive flows would normally remain in the channel and return to the river, in essence a higher flow condition would still be controlled by the channel itself and bypass around and over the diversion structure and flume. The inspection conducted on May 2, 2006 of the surrounding area indicates that potential for flooding beyond the Peden Cut area would be the same whether a gate or flashboards are used. A potential flash flood that exceeds the capacity of the current Peden Cut canal would be widespread and not solely the fault of a low gate in a re-diversion structure located in the bottom of a canal. Adjustments and returns flows to the river would be easier and safer to accomplish using gates instead of flashboards. Torrey Irrigation Company should advise Property Owners in low-lying areas of the potential for floods and contingencies to address this situation.

Paragraph Five: Although previous commissioners have waived a proper control gate, this has not negated the requirement in the State of Utah Water Law to have such device. We are aware of the issues. Simply having a gate in place facilitates the control of the diversion and increases the safety in doing so. Locking a gate is only necessary tampering becomes a problem. A headgate device is paramount, the ability to lock it is secondary. This requirement exists for all water users on all the distribution systems in the State of Utah. The current Water Commissioner and The State Engineer's office has not specifically waived this requirement for your system.

Paragraph Six: Sluicing the diversion to clean it can be facilitated with a headgate device. Currently to sluice you must remove flashboards that lie under debris. A controllable headgate can enable this. First sluicing would occur normal to the operation since water would flow under the gate not over a flashboard. The sluice effect could be enhanced for a clean out by simply raising the device further to clean sand and sediment from the bottom first. The need to clean willows and other debris sill remains the same and is a part of regular inspection and maintenance that should be done on frequent basis by the Torrey Irrigation Company.

Paragraph Seven: The requirement for a lockable headgate device still stands as per the earlier SEAA #1117 . However, in consideration points made in your letter, we are granting an extension as requested to April 1, 2007. In the meantime, please make suitable flashboards available for use by the water commissioner. When the commissioner uses flashboards to adjust flows and these adjustments are changed or tampered by either the Torrey Irrigation Company, their users and/or or other parties, this extension will be rescinded and the company will be required to install a lockable control gate immediately. If this requires that the company stop the waterflow for the installation, that issue will be between the company and the users. Considering this stipulation, it is in the company's best interest respect the water commissioner's settings, advise users and monitor for tampering. Changes to the commission's settings should not be made unless unusual circumstances warrant and timely notification is made soon afterward.

We appreciate Torrey Irrigation Company willingness to comply with the State Engineer's request and encourage you to proceed to complete this project. Please contact Mike Silva by phone at 801-538-7430 or Email: MikeSilva@utah.gov to apprise of status. Thank you in advance for your cooperation in attending to this matter in a timely fashion.

Dated this 9th day of MAY, 2006

Mike Silva

Mike Silva
Distribution Engineer

cc: Kirk Forbush, Regional Engineer
Becky Taft, Water Commissioner