# State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF THE EXECUTIVE DIRECTOR

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director

168 North 1950 West
P.O. Box 144810
Salt Lake City, Utah 84114-4810
(801) 536-4400
(801) 536-4401 Fax
(801) 536-4414 T.D.D.


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RE: Sluicing of Diversion Structures

Dear Water User:

Sluicing or the flushing of trapped sediment and organic matter from diversion structures is a common practice among water users and is a necessary maintenance procedure. However, if done improperly, sluicing can adversely impact the aquatic environment downstream of the structures. Usually, there are not serious water quality problems downstream, but aquatic habitat degradation and, at times, fish kills from the increased levels of total suspended solids, or turbidity, can occur as a result of sluicing. Last year there were two such incidents, on the Logan River and the Jordan River, where sluicing caused the death of a substantial number of fish.

Concern about the possibility of a widespread problem was expressed by several groups and the issue was brought to the Environmental Coordinating Council (ECC). The ECC consists of, among others, the Executive Directors of the Utah Departments of Natural Resources, Agriculture, Health, and Environmental Quality. An ad hoc committee was created to review the situation and develop ways to address the problem if necessary. The committee felt that an effort to inform you concerning the potential impacts and consequences of improper sluicing would be beneficial. This letter is part of that educational effort.

Several sections of the state and local laws and the administrative rules of several state agencies indicate that it is unlawful to "cause pollution which constitutes a menace to public health and welfare, or is harmful to wildlife, fish or aquatic life, or impairs domestic, agricultural, industrial, recreational, or other beneficial uses of water." Under the Utah Wildlife Code, 23-15-6, "It is unlawful for any person to pollute any waters deemed necessary by the Wildlife Board for wildlife purposes or any waters containing protected aquatic wildlife and stoneflies (Plecopters), mayflies (Ephemeroptera), dragonflies and damselflies (Odonata), water bugs (Hemiptera), caddis flies (Trichoptera), spongilla flies (Neuroptera), and crustaceans." The U.S. Army Corps of Engineers has stated that they may become more active in regulating this activity (sluicing) as a point source discharge of dredged material. However, this is not an activity that is easily regulated and the committee felt that the best approach would be to encourage better management of diversion structures to avoid downstream impacts.

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This letter is to inform you of the issue and to suggest steps which might be taken to avoid the violation of water quality standards and resultant aquatic resource impacts. The following suggestions should be considered before any sluicing or flushing operation:

1. Develop an operation and maintenance plan for the diversion structure. There are several state and federal agencies which might be able to give technical assistance in developing operation and maintenance plans which would help to avoid sluicing problems.

2. Sluice on a regular and frequent basis to keep the build up of sediment or organic material behind the structure to a minimum.

3. Do not sluice during low streamflow conditions.

4. If possible, dredge the accumulated sediment or organic material instead of flushing it downstream. If the structure is due for repair or renovation, consider including structural modifications which will allow dredging or the frequent or continuous flushing of accumulated material.

As you may recall this topic was presented at the Utah Water Users Workshop in St. George on March 10, 1993. Any input or recommendations on this issue are still welcomed. Specific recommendations of best management practices should be sent to Mike Reichert, Department of Environmental Quality or George Hopkin, Utah Department of Agriculture.

Best regards,

Dianne R. Nielson, Ph.D.
Executive Director

Ted Stewart, Executive Director,
Department of Natural Resources

Cary G. Peterson, Commissioner,
Utah Department of Agriculture

cc: Earl Staker, Executive Director
Utah Water Users Association

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I:Sluicing.ltr