

## Response to Economic Impact Analysis

The Department of Conservation and Recreation (DCR) has reviewed the economic impact analysis (EIA) of the Virginia Soil and Water Conservation Board's proposed amendments to the Virginia Impounding Structure Regulations prepared by the Department of Planning and Budget (DPB) and is in concurrence with the information provided with the following qualifications:

First, DCR appreciates the recognition by DPB of the importance of these regulations in the protection of public safety.

Second, DPB noted that "one of the significant potential costs associated with the board's proposed amendments include: ...B) development of an emergency action plan or emergency preparedness plan..." Although stated in the EIA, DCR would like to point out that emergency action plans (EAPs) for regulated dams are already an existing requirement. Any additional costs associated with engineering expenses incurred in developing EAPs will be solely due to the dam owner choosing to enlist the services of an engineer as a matter of convenience.

Third, with regard to the development of dam break inundation zone maps, DPB stated that "DCR estimates that 465 dams would require mapping; thus the estimated total cost associated with the proposed requirement for inundation zone maps is \$7,633,905." However, DCR would like to point out that the following considerations must be taken into account when reviewing these figures:

- 1) A number of dam owners already have partial modeling information available to complete the mapping, which should reduce preparation costs.
- 2) The required maps will be good for 6 years unless circumstances change below the dam, prompting revisions to the maps.
- 3) Updates to the vast majority of maps will routinely be much less costly in subsequent years. If no development has occurred, no updates will be necessary.

Fourth, DPB states that the "estimated total required spillway design upgrade costs would be \$248,954,375." However, DCR estimates that approximately 50 percent of the 166 dams that are projected to require spillway upgrades as a result of the proposed regulatory changes may pursue, for the first time, an "incremental damage assessment" that may reduce or eliminate the need to upgrade the dam's spillway. Under existing regulations, which have been in place since 1989, the incremental damage assessment has been available to a limited number of dam owners. This would be a significant change. Consequently, it is likely that a significant number of dams will not be found to require a spillway upgrade, thus reducing the overall estimated cost of these proposed regulatory amendments.

Fifth, DPB states, "If local governments must spend multiple millions of extra dollars on dams, then there will be significant spending reductions in other areas such as education, public safety, and health care". DCR respectfully takes exception to this statement. Dam safety is a significant component to public safety and is increasingly being recognized as such across the nation.

Virginia has historically experienced a large number of storms and hurricane events, which have resulted in threats to several dams and downstream lives and property. As pointed out in a presentation to the regulatory Technical Advisory Committee, nine of the top 15 storms in recorded U.S. history have occurred in or near Virginia as well as 3 of the top 5 most intense 12-hour storms in the United States. The aging dam inventory in the Commonwealth, along with increased proximity of development also places more of the public in potential harm's way unless these dams are properly structured and maintained. DCR also notes that by virtue of localities investing in dam upgrades, they may avoid the catastrophic impacts and costs associated with a dam failure during a future storm event. Further, DCR notes that localities may be eligible for low-interest financing from the Virginia Resources Authority to assist with repair costs, thus reducing local fiscal impacts.

Finally, DCR reiterates that the proposed amendments to Virginia's dam safety regulations will substantially improve the Commonwealth's means of protecting the public from dam failures, which can be devastating to dam owners and especially to downstream communities and property. The economic impact of such failures to property can range from thousands to billions of dollars, while no price can be placed on the lives that may be lost.