FRIENDS OF THE SHENANDOAH RIVER

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TOWN OF FRONT ROYAL
PLANNING & ZONING DEPARTMENT

3/04/03

Ms. Brevatta Jordan
Front Royal Zoning Administrator

Dear Ms. Jordan:

The Board of Directors of the Friends of the Shenandoah River (FOTSR) has been asked by a local citizens group to express views as to the advisability of siting a Wal-Mart shopping plaza on the floodplain at the intersection of routes 55 and 340-522 in Front Royal. We do so as a non-confrontational scientific organization dedicated to the preservation and restoration of the aquatic environment of the Shenandoah River and it's tributaries.

A FOTSR committee consisting of a civil engineer, a Ph.D geologic-chemist, a Ph.D biologist, and an economist toured the proposed site and inspected site plans to ascertain the impact construction and use of the plaza might have on water quality and biology of the Shenandoah River. There need be none if the debris and silt are prevented from reaching the river during construction, and if the stormwater detention ponds(used to trap runoff from the 11000 car parking lot0 are cleaned regularly. All toxic compounds in the stormwater – solids, dissolved and floating compounds such as petroleum and heavy metals loss from vehicles , salts from deicing materials etc. must be trapped and disposed properly.

Construction will be on flood plain deposits. However, the underlying bedrock is known to have numerous small sinkholes . Any pollutants escaping the site, including chemicals from the garden shop can quickly be in either the ground water or the river . No mention is made in the plans concerning the level of ground water in the river flood plain, however the bottom of the detention ponds could interface ground water.

The FOTSR committee also considered what effect increased traffic might have on air quality as well as water pollution due to vehicle's gas emissions reaching the river via precipitation. This is a difficult problem to quantify due to unknown climatic conditions. Regionally, air pollution is a problem and locally gas emissions from vehicles could be additionally damaging.

The site designers have chosen the 100 year flood elevation (approximately 500 feet elevation) as the lower elevation for construction areas. The exceptions are the detention ponds with berm top level at 2.5 feet below flood stage. The emergency spillways will be four feet below the 100 year flood elevation.. The projected elevations may not provide a reasonable amount of security for construction in the flood plain in light of the fact that the U.S. Geological Survey records for the gage station at the South Fork Bridge registered high water elevations of 504.2,501.8 and 502.0 feet in 1942,1985 and 1996 respectively. Three times in the past 60 years- and we have experienced erratic weather patterns in recent years. Higher levels may occur in the future as more forested and vegetated areas give way to parking lots and industrial sites.

The Board also believes that the proposed construction will destroy an incalculably valuable asset to Front Royal and the Shenandoah Basin as a whole. That asset is the aesthetic vista of the South Fork as an introduction to our town.

P.O. Box 410, Front Royal, Virginia 22630 • Phone: (540) 636-4948 • Fax: (540) 622-6073
frs@rma.edu