

"Federation Corner" column  
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### **Proper maintenance of Lake Needwood long overdue**

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For several days last week, thousands of county residents were evacuated from their homes after county officials became alarmed at water seeping through Lake Needwood's dam. Although this emergency is over for now, this is the right time to look more closely at other problems at Lake Needwood. This July 20th will mark the 50th anniversary of the 1956 flooding that killed six county residents and sparked the drive to help prevent such future killing floods by building flood control dams on Rock Creek.

The drive to build the dams, led by an activist citizens group known as the Rock Creek Watershed Association, also included a demand by the group to change zoning and soil conservation laws. These citizens wanted to prevent people from building in flood plains, wanted to limit additional impervious surfaces and resulting stormwater runoff, and wanted to minimize the amount of sediment washing into Upper Rock Creek, the lakes behind the dams, and the lower Rock Creek. Construction of the dams that created Lake Needwood and Lake Bernard Frank began in October 1964 and were completed within 2 years with federal funding through the PL-566 program. Lake Needwood was built to provide both flood control and recreational facilities.

It is ironic that the biggest flood threat this time was the fear that the dam holding back Lake Needwood might fail. The 1988 dam inspection report states: "Overall, this is one of the best maintained PL-566 dams in state..." The first specific mention of seepage through the Lake Needwood dam was in 1993. The 1997 report, from the Maryland Department of the Environment (MDE), notes that "The seepage area at the bottom of the downstream slope is not as evident as last year probably due to a dry weather condition over this summer. However, you should continue monitoring the area for any signs of seepage as you have been doing so far. With the installation observation wells (hopefully by our next inspection) we will obtain the data necessary to evaluate the seriousness of the seepage problem at the dam." Elsewhere, the report stated: "Wet spot on dam was dry. [MNCPPC employee] will continue to monitor weekly." The 1998 report states: "The seepage area on the downstream slope spotted during previous inspections was not evident this time. However, you should continue monitoring the area for any signs of seepage, depressions, etc." The inspector also asked when the installation observation wells would be installed. The wells were installed in 1999. In the 2000 reports, the most recent I have seen, Lake Bernard Frank was described as a "structure in excellent condition." The last time that comment was made about Lake Needwood was in 1994.

I have no way of knowing if MNCPPC, the owner of both lakes, has done the best possible job of maintaining the safety of this dam or if the MDE has provided the best possible oversight. However, I also have no reason to doubt that this is the case, and I assume that the latest plans to do further investigation and testing of the dam, thirteen years after seepage was first noted, is both timely and appropriate. Unfortunately, there is one issue related to Lake Needwood that causes me to wonder if all is as it should be. This is because Lake Needwood has not been dredged for 16 years, since 1990. Lake Needwood was designed to impound flood waters and to provide recreation. It was also designed to catch sediment in order to protect Rock Creek below the dam from the negative effects of sediment that kills streams and can bury park playgrounds and block roads in floods.

However, it is necessary to dredge Lake Needwood every few years to ensure that the lake won't fill up with sediment. Lake Needwood has special structures known as forebays which help slow down water as it enters the lake so that the sediment collects in specific areas which are designed to be dredged. These forebays had to be modified in the '70s to better collect sediment and keep it from reentering the stream.

Dredging was regularly done until 1990, when MNCPPC was no longer able to find parts for the dredging machine that it owned. Instead of buying a new machine or otherwise arranging for dredging by outside contractors, nothing has been done because of "budgetary impacts."

Last fall, one park official stated that at least 90,000 cubic yards of sediment now needs to be dredged, at a cost of \$1.7 million, from both the forebays and the rest of the lake. In late 1971, after only 5 years of operation, half as much sediment was dredged from the lake. I cannot help but wonder if much more than the stated amount needs to be dredged this time, except that "budgetary impacts" continue to limit maintenance for Lake Needwood. The park official concluded: "As the lake silts in, fish habitat is also negatively impacted... My responsibility is to simply provide a facility to the public that they can enjoy. Unfortunately, this enjoyment decreases a little bit each year, along with the usable surface area of Lake Needwood." It is highly likely that even as the sediment increases in the lake and harms its recreational value, too much of it also ends up in the stream below the dam because the structures that catch the sediment are too full to function properly.

MNCPPC, as well as county government, has recently acknowledged the backlog of maintenance on buildings as well as other infrastructure, and have begun to take steps to catch up. Thus, Lake Needwood's environmental and recreational maintenance needs have to compete with all other park facilities. However, I assert that Lake Needwood is a special circumstance that deserves top priority. The best way to restore confidence about how Lake Needwood has been and will be maintained is to change everything related to this facility. This includes better monitoring, testing, and perhaps repairs to the dam itself, but also better care for the lake through dredging. Lake Needwood needs to become a very visible showcase about how Montgomery County can return to being the best, instead of perhaps becoming a symbol of what is wrong with this county. When this dam was built, it was the first of its kind in the nation, thanks to a partnership of an activist organization and a reform-minded government. It's time to renew that partnership, whether to better maintain this dam, write a stronger Clean Water permit, or require the highest of green building standards.