

## **MAYOR MARVIN'S COLUMN**

As we do the post mortem on Hurricane Irene, many causes for the flooding and solutions for mitigation have been proffered by residents. To their points, I want to share what we know at Village Hall to date.

Residents have speculated that water was released from the Kensico Dam during the storm thereby increasing the volume of water in the Bronx River. We have no evidence of this but we know that the New York City Department of Environmental Protection must have a record if water was released since there is a reporting requirement. Senator Jeff Klein is helping us to retrieve any pertinent information.

Another postulate was that the check or “flapper” valves in the Village pipes malfunctioned, causing an increase in flooding. The system actually worked as designed. In a nutshell, the valves keep the Bronx River flood waters from backing up on school property which would cause even greater damage than what resulted. However, even though the Bronx River does not back up at the school, all of the water from the Midland Avenue water basin collects at the school since it is the lowest point in the Village.

Some residents are concerned that the school’s turf field exacerbates flooding in adjacent residential areas. The Village is not privy to the field’s engineering design of the sub-surface drainage but our engineers tell us that as a general rule, turf fields drain very well with their sand and rubber infill combined with stone storage beds.

Other residents pointed to the mammoth Ridge Hill project in Yonkers as a contributing factor due to the amount of permeable surface that was lost to development. It is tough to point a finger at Ridge Hill in particular but we do know that the unchecked development along the twenty three miles adjacent to the Bronx River upstream from the Village has definitely exacerbated flooding in the last decade.

Unlike the Ridge Hill project which had to adhere to current State storm water mitigation requirements including on site water retention systems, older developments simply covered drainage areas with buildings, permanently decreasing the amount of permeable surface. In addition, every mature tree cut during construction results in a net loss of 1,000 gallons of water retention.

In the past, all Westchester communities were slow to understand the need for a ratio/balance between drainable space and home improvements. As a result, driveways, patios and home additions were routinely encouraged without anticipating the flood exacerbation factor. Currently, the Village has rules in place requiring dry wells and a ratio of expansion to open space for home additions.

The Village’s engineering consultants have quantified rainfall rates over the years and it is true that storms have increased in both frequency and intensity. In the past, a storm that produced 7.0 inches of rain in a 24 hour period was considered a 100 year storm. The measure now is 7.8 inches which is a huge differential. During Hurricane Irene, water raced down the Bronx River at the rate of 2,500 cubic feet per second and in the storm of 2007, the rate was an astounding 3,500 cubic feet per second.

So what can we do to mitigate the flooding?

The Village has applied for every grant for which we could meet the qualifications. We are in the “final round” for a Federal grant that would allow us to build a system of retention basins and pumps to mitigate problems at the school and nearby homes. However, last week we learned that there is “no time table for decision making.” We learned we were not successful in winning County monies because we did not have a “County asset” such as a sewage intercepted or water plant that our grant would protect. In addition, we have applied for grants to mitigate specific issues in the Parkway Road/Paxton Avenue area, Field Court/Willow Road environs, Sussex Avenue at Hamilton Avenue and Garden Avenue at Meadow Avenue, all to no avail. But, we will keep trying. We understand that the small pool of State money (\$18 million) will be directed to the Margaretville area in the Catskills.

It is our understanding that at least the pools and lakes, if not the entire Bronx River, were dredged up until 1979. We are still not clear what occurred at that juncture to discontinue the dredging. However, after talking to many State and County officials, dredging seems to be off the table. The reasons given include the cost of removing the contaminated silt and debris as well as no location to deposit it. Environmental and historic preservation factors are also at play.

One of my colleagues upstream recently encouraged all communities to clean the debris out of the river in their jurisdictions. Though a good idea, this can only help if every community participates. For example, if communities up river remove debris, the water will actually arrive in Bronxville faster and if those downstream of us do not clear the river, the water could then further pool in Bronxville, causing a greater back-up.

We continue to consult with engineers and pursue viable options such as petitioning the State to put drains on the only State controlled road in our Village, Route 22, and trying to devise a system to divert water from the Midland drainage basin away from the school, mindful that FEMA will not approve any project that has even the potential to increase flooding in neighboring communities.

We estimate conservatively that the damage from the last two major storms has cost the Village residents and school upwards of \$35 million and this simply cannot continue. Unfortunately, it seems governmental agencies have precious little funds to help any of us.