



The Avalon Home and Land Owners Association

DAVE MARINO, NEW JERSEY AMERICAN WATER COMPANY

SEPTEMBER 2008

Avalon contracted out the operation of the water, sewers, and storm water control to New Jersey American. The company is there to respond to Borough needs and emergencies.

Avalon is in the coastal plain aquifer and draws water from the 800-foot aquifer, layers of which extend out into the ocean. In drawing water from this, or any other depth, one has to be concerned about the 'cone of influence' since the more water pumped the hole the wider the cone, and hence the greater the possibility of salt water intrusion.

All water is 'owned' by the NJ DEP and is allocated based the number of customers and the demand. Permits are issued on a ten-year basis. The annual water allocation for Avalon is 354 million gallons, with a maximum monthly allowance of 76.8 million gallons. This translates into 0.23 million gallons per day with a summer maximum of 2.3 million gallons. There is a fine of \$5000 for each day the quota is exceeded.

In July of 2007 the demand was 15% over that in 2006. The distribution system was checked for leaks – none were found. Conservation efforts were put in place for the rest of the year. The annual quota was exceeded by 24 million gallons; the maximum daily usage was 3.1 million gallons on July 5. September and October 2007 also saw high water usage.

In 2008 after reviewing the projected water demand the even/odd water use restrictions were implemented. In July water usage was 0.7 million gallons below permit, with the maximum usage on July 4th. In August the quota was exceeded by 1.5 million gallons.

Fifty percent of Avalon's water allocation is used in July and August. The number of homes has not increased, but the size has. Annual consumption has increased in the period 2000 – 2007.

The permit is due for renewal in 2008.

Possible supply solutions are:

- File for an additional water source, i.e., a new well
- File to review the existing system
- Purchase water from neighbors
- Extend a pipeline out Avalon Boulevard to NJ American Water on Route 9
- Desalinization. By desalinizing sea water one loses up to 80% of the intake water.
- Investigate re-use opportunities on ball fields, island gardens. This would require installing the necessary infrastructure.

Conservation:

- The difference between restrictions and conservation is the difference between no use and wise use
- Techniques can help lower peak day demand; there is no more water available
- Wise water use requires a behavior change on the part of the user and should not be triggered by an event



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- The dynamics of a changing audience makes communication about conservation measures more difficult. There has to be better communication to alert users.

Special Projects:

- Installation of continuous chlorine analyzers at every point of entry into the distribution system (pump stations). These are required by EPA/NJDEP regulations and can shut down the system in the event of an over or under feed.
- Rehab of the sewer lift stations at 74th and 58th Streets
- Painting the elevated storage tank at 13th Street. There is a 12Kv tank near the tank so the lines in front of the tank will be deadened while the outside is worked on. There will be no loss of power in the neighborhood.
- Painting the storage tank at 38th Street. This tank has lead paint on it and will require special precautions.

In answer to questions:

- Of the 350 million gallons of water used about 20 million is used by the Borough to water the playing fields and the islands;
- If a limit is put on the amount of water that can be used by pools, according to DEP 900 gallons per day per house for pool use, the Borough would need to address a limit on pools;
- Enforcement and monitoring of pool/irrigation systems with a potential charge per gallon over the threshold;
- The Avalon infrastructure is in good condition;
- Salt intrusion has been tracked from Wildwood to the Bay. It is not a concern in Avalon at this time. The 800-foot aquifer is a saturated aquifer so water is plentiful.