

Lake Montclair Resource Protection Areas

Many Montclair residents enjoy the beaches, picnic areas, swimming, boating and fishing opportunities that the lake provides to our community. Maintaining good water quality in the lake makes all of these activities possible. The biggest threats to the water quality of Lake Montclair are no different than the threats to the Chesapeake Bay as a whole, specifically sedimentation and an over abundance of nutrients.

Fortunately Montclair has a dredging program that addresses some of the sedimentation issues. The last dredging was completed in 2014. The rate of sedimentation will continue to be monitored and recommendations to dredge will be on an as needed basis. Of course, it would be better to prevent the silt from entering the lake in the first place. Prince William County Public Works is becoming more effective at controlling runoff from construction projects upstream from Lake Montclair resulting in less sediment coming into the lake.

Reducing nutrients flowing into the water is a harder problem and requires the whole community to participate in the solution. All of the storm drains in Montclair lead to the lake and/or Powells Creek. This means that every household has an impact on the water quality of Lake Montclair's fragile ecosystem, as well as on the Chesapeake Bay.

Excess nutrients, such as phosphorus and nitrogen and chemical herbicides and pesticides, can lead to many changes in the ecology of the water. Too much phosphorus and nitrogen contributes to an overabundance of algae. The algal blooms consume oxygen and nutrients that could have been used by other organisms and may release toxins that are directly harmful to other aquatic life. The increase in algae also diminishes the amount of light available to submerged aquatic vegetation for photosynthesis. As the algae die the excess amount of decaying organic matter consumes oxygen so that it is not available for other organisms. A cycle of uncontrolled algae blooms would severely impact the recreational opportunities the Lake provides.

Runoff from turfgrass and impervious areas are the principles sources of nutrients. Too much fertilizer is as bad as too little. A soil test before busting out that spreader would be the right approach. If necessary, fertilize in September or October. Applying more fertilizer than a lawn can absorb means the excess runoffs into the lake and Powells Creek. When lawn fertilizer reaches the water, it helps the algae grow.

Of course this is not just a local problem. The Chesapeake Bay Preservation Act (Bay Act) was enacted by the Virginia General Assembly in 1988 as a critical element of Virginia's non-point source management program. The purpose of the Bay Act is to protect and improve the water quality of the Chesapeake Bay, its tributaries and other state waters by minimizing the impacts of human activity on the waters. The Bay Act Regulations establish the Resource Protection Areas (RPA) as a 100-foot wide buffer area of environmentally sensitive land that lie alongside or near the shorelines of streams, rivers and other waterways which drain into the Potomac River and eventually into the Chesapeake Bay. All land within 100 feet of Lake Montclair is a RPA.

RPAs are the last line of defense for water quality. Vegetated buffers stabilize shorelines and streams banks, filter pollutants, reduce the amount of storm water runoff, provide critical habitat for aquatic species and wildlife. Bare soil allows sediments, nutrients, and pesticides to be washed into the lake. The amount of runoff and erosion on slopes can be reduced by planting ground covers, shrubs and trees.

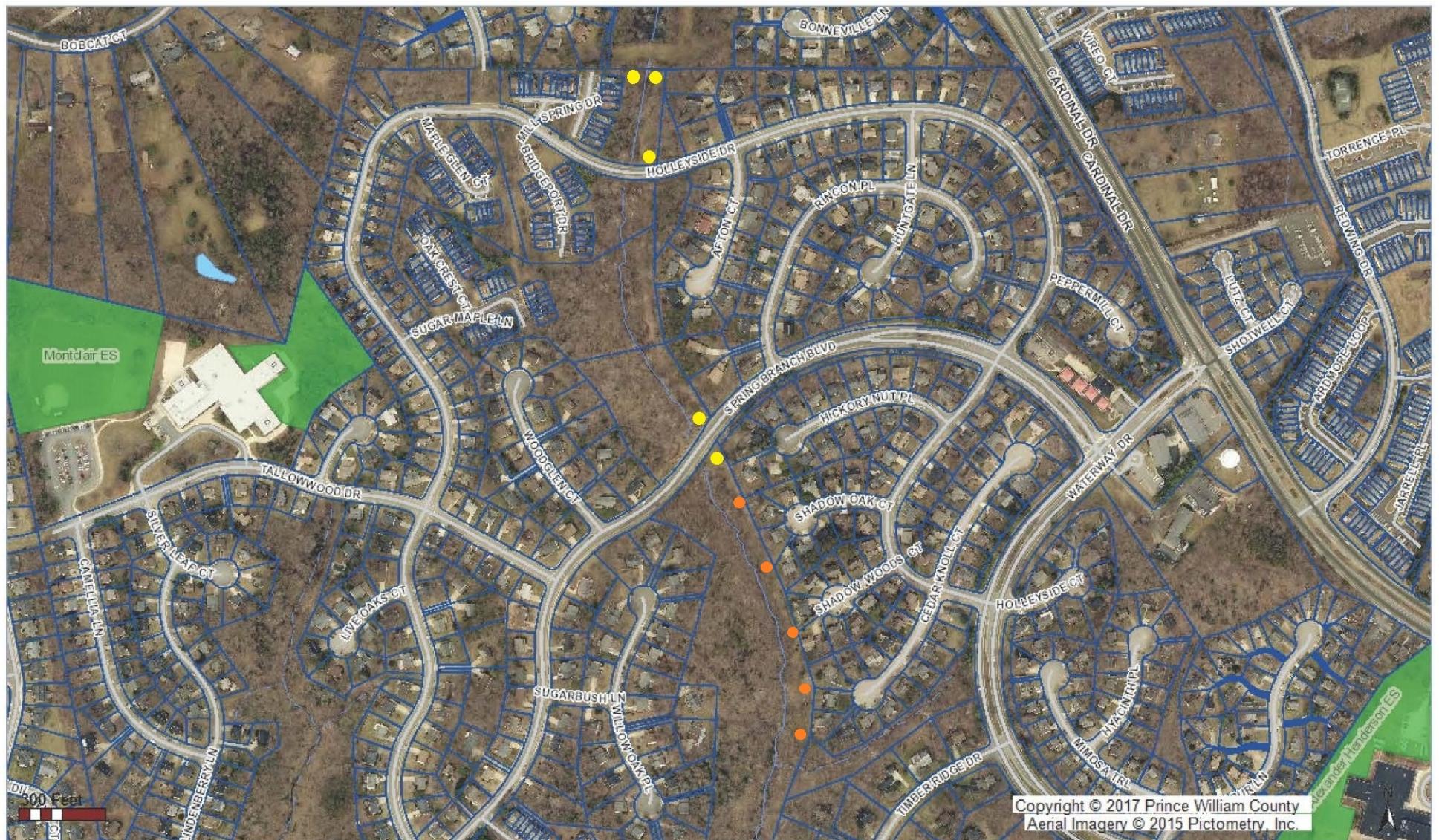
Lake Montclair enhances our quality of life by giving us a visual and recreational treasure. The lake also supports a wide variety of plants, animals and aquatic life. Think about the lake's water quality when maintaining your lawn and remember that everyone can contribute to maintaining good water quality in Lake Montclair.

For more info about RPAs visit Prince William County Public Works Environmental Services.

<http://www.pwcgov.org/government/dept/publicworks/environment/pages/resource-protection-area-requirements.aspx>

-Buck Arvin

Timber Ridge Forebay RPA



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