

## PONDS & BASINS



Over the last decade, they have become part of the suburban landscape and are increasing in number at a phenomenal rate. No, we are not talking about resident Canadian geese; we are talking about storm water management basin. As part of a large, growing family of “best management practices” or “BMP’s” to control impact of stormwater runoff, stormwater management basins help prevent flooding and improve water quality by controlling the rate water is released into streams and wetlands.

### WHY DO WE HAVE BASINS AND PONDS?

Before an area is developed, rainwater can readily soak into soil, be absorbed by trees and other plants, evaporate into the air, or travel over land to a receiving stream, lake, or wetland. The component of rainwater that travels over land is known as runoff. When an area is developed with driveways, buildings, roads and parking lots, more water runs off these impervious surfaces and reaches the watershed much more quickly. Stormwater basins are built to temporarily hold this water and slowly release it to the waterway, mimicking the natural runoff rate before development. Without stormwater management basins, a huge peak of water would enter a stream at once, causing flooding and bank erosion.

For flood control, engineers must design basins and ponds to handle the runoff rate and volume of water produced by certain sized storms known as the 2, 10, 25 and 100-year storms. As runoff travels across a development, it picks up pollutants, either physically (land and dirt) or in dissolved form (nitrates and phosphorus from fertilizers). Faster moving water can carry more pollutants. Our stormwater management basins and ponds intercept the runoff and slow it down causing many pollutants, like construction residue (nails, screws, and shavings), sediment and heavy metals, to settle out.

Here at Greenbriar, we have twenty-nine ponds and basins (10 retention basins also called wet ponds and nineteen detention basins, which hold water for only a short time). They form a network of protection, by handling our stormwater and pollutants by directing one to another throughout our neighborhood. Since we are in the Barnegat Bay watershed, the basins and ponds have a direct role in not only protecting us from floods, but they also protect our bay from pollution.

### WHAT CAN WE DO AS RESIDENTS?

Since many “water moving” parts have been installed in our basins and ponds, trash and debris can block drainage areas. Be sure to follow guidelines for trash pickup and never dispose of any grass clippings, leaves or trash in or near a basin or pond. Never enter a pond or basin when it contains water. Since many of the ponds and basins border our golf course, never drive a golf cart into a basin. Not only is this prohibited, but it can cause soil compaction which prevents soil from absorbing water quickly, preventing proper operation of the basin. Be sure to pick up after your pets to prevent pollution. Also remember, all

chemicals that you apply to your yard will eventually enter our basins and ponds and perhaps the bay. If you notice anything strange, like broken pipes, etc., be sure to report them to our Community Manager.