



Northern Palm Beach County Improvement District
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Why the Lake Water Level Fluctuates in Eastpointe

Palm Beach Gardens, FL - February 2, 2007 – The Northern Palm Beach County Improvement District (Northern) receives numerous phone calls from residents of Eastpointe during this time of year regarding the fluctuating lake levels. The lake system within the Eastpointe development is primarily designed for **storm-water management and flood protection**. To begin, there are several agencies involved and various permit criteria that must be followed. The lake system within Eastpointe was designed, permitted and constructed in accordance with criteria established by the South Florida Water Management District (SFWMD). This is a very complex system and is under the influence of many dynamic mechanisms.

The lake system within Eastpointe is discharged through Old Marsh, Mirasol and then re-pumped back into the Preserve via a pump station owned and operated by Northern. Eastpointe also has a number of recharge wells which pump ground water into the lakes and are maintained and operated by the Golf Course through an inter-local agreement with Northern. There are two types of water which are combined as part of the Eastpointe water management system. The reclaimed, or irrigation quality “IQ” water received from Seacoast Utilities is used for the golf courses and the ground water from the recharge wells is used for watering the common areas. Eastpointe is located in close proximity to a Seacoast Utility production well-field. Seacoast Utility withdraws water from the shallow aquifer for the treatment and distribution of potable water to it’s customers. The withdraw rate for the well-field is permitted by SFWMD.

The soils in the Eastpointe development are typical of soils found in Southeast Florida and are composed of fine sand. This sand acts as a sponge with respect to ground water and provides a natural filtration process for storm-water as it percolates into the ground-water system. During dry weather periods individuals tend to use more water for irrigation than normal. Many rely on the potable water system for their irrigation which in turn creates additional demand on the treatment plant and thus higher withdraws from the well-field. As water is extracted from the wells, the ground water table is lowered within the well-field zone, this is referred to as, “draw-down”. The ground water within areas that are closer to the well are affected more than those areas that are further away. The proximity of the wells to Eastpointe is such that the draw-down has a direct effect on the lake water levels. The water level in the lakes is essentially the same elevation as the ground water table and is influenced by many factors such as rainfall, adjacent wetlands and or large water bodies. The recent rainfall will only temporarily recharge the lakes, and with this being the sixth driest rainfall year on record, noticeable lower lake levels are present.

In addition to the Seacoast well-fields, the lake water levels are also impacted by direct withdraw from the lakes for the irrigation of the golf courses. Typically, golf courses can utilize between one and two million gallons of water per day depending on the time of year. Other withdraws from the lakes for irrigation include common areas, roadway medians, parks and individual homeowners. When combined with extended dry season periods, these withdrawals coupled with the affects from the well-field result in fluctuating lake water levels.

Northern continues to work with SFWMD, Seacoast Utilities and the residents of Eastpointe to provide flood protection and drainage and will endeavor to supply the highest level of service. You may contact Kenneth Roundtree, Director of Operations at (561) 624-7830 for more information.

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The Northern Palm Beach County Improvement District is an independent special district created by the Florida Legislature in 1959. Its role is to provide services related to water management and infrastructure for properties in northern Palm Beach County.