



CITY OF GAINESVILLE

Parks, Recreation & Cultural Affairs

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Frequently Asked Questions about the Geo-Thermal Heaters at Dwight H. Hunter (Northeast) Municipal Pool

Gainesville, Florida – The City of Gainesville has recently completed the installation of new geo-thermal heaters to Dwight H. Hunter (Northeast) Pool. Due to the new heaters, and the technology used, many citizens have expressed an interest in knowing more about the geo-thermal heaters. Below are frequently asked questions that the City has received:

Why did the City heat the pool with geo-thermal heaters instead of the other systems available? The City chose a geo-thermal system because these systems heat like gas at a fraction of the cost (typically 70%-90% cheaper to operate than gas). They are approximately 30% cheaper to operate than heat pumps, with much better performance. Geo-thermal heating units last twice as long (15-20 year serviceable life expectancy compared to 5-10 years with other heating applications). Geo-thermal units can cool the pool in the summer, as well as heating it in the winter. This system is environmentally friendly.

What is a geo-thermal heat pump, and how does it work? They are water source heat pumps. Like any heat pump, they transfer heat from one place to another. Geo-thermal systems transfer heat from the source water (well, lake, etc) to the pool water. The two bodies of water never mix. The great thing about geo-thermal units is that they are not creating heat, but simply transferring heat that already exists in nature.

Why don't we just use the pool as the source instead of wells? We are transferring heat. We cannot transfer heat from the pool to heat the pool. The heat has to come from somewhere else. We are using nature's free heat!

Well temperatures in Florida average about 72-75 degrees F. How do we get the pool warmer than 75 degrees? The geo-thermal units are capable of heating the pool to your desired temperature. The system is not limited to the temperature of the heat source.

Through the use of technology, the geo-thermal units can transfer heat from a colder place to a warmer place. The geo-thermal units can heat a pool up to 85 degrees or warmer. The City's desired temperature range is 80-82 degrees, well within the temperatures that geo-thermal units can produce.

Do geo-thermal units heat as well as gas heaters? Geo-thermal units can heat as well as gas. It is all in the sizing of the system. A gas heater has a constant BTU output. So does a geo-thermal unit. As long as enough geo-thermal units are installed, they can match or even exceed the output of gas heaters, at a fraction of the cost. We did this at the Dwight Hunter Pool. Eight geo-thermal heating units would have been able to handle the heating needs of the pool. We installed ten units, which provides more heat, better performance and saves a ton of money over gas units.

How big are the units, and how much space does the system take up? Each geo-thermal heating unit is 3-ft wide, 2-ft high, and 2-ft deep. We have ten units at the Dwight H. Hunter Pool. During pool renovations in 2006, we re-designed the pump room to accommodate future installation of heating units. The new footprint of the pump room was able to accommodate new pumps, new state-of-the-art hi-rate sand filters, and heating units without taking up additional park space, encroaching on the football fields behind the pool, or shrinking the size of the pool deck. All of the equipment used in pool operations is hidden from public view, and most patrons will never see or even realize additional equipment was installed, other than being able to feel the warm water in the winter and the cool water in the summer.

Where is the City getting the source water from to transfer heat to the pool water? The City is using two wells that use water from deep in the Florida Aquifer. The first well removes water from the aquifer, and the second well puts the water back. Remember, the source water (from the well) never touches the pool water, so the water that is put back into the ground is the same water that was removed. In essence, we are recycling the water we use. In addition, we will be putting back into the ground cleaner water than we take out, as the water must be filtered to remove harmful elements before cycling through the heat exchangers.

If this is a heating system, how can it cool the pool in the summer? This is the benefit of using the geo-thermal system and its technology. The process that is used to heat the pool in the winter is simply reversed in the summer to cool the pool. In the winter, heat is extracted from the source water and transferred to the pool water. In the summer, heat is extracted from the pool water and transferred to the source water. With a geo-thermal system, we can maintain a constant temperature all year round. In this case, the City has set 80-degrees as the temperature we want to achieve throughout the year at the pool.

How is the City paying for the geo-thermal system, and how can the City afford to operate it in a down economy? The installation of the geo-thermal system was funded through the Wild Spaces Public Places sales tax initiative that Alachua County voters approved in November of 2008. This was one of the first projects to get started after the new sales tax initiative was approved. We are fortunate in Gainesville that we have a very large and active swimming community, and this group of citizens joined together to support the City's efforts to heat the pool and expand to a year-round operation. Each of the aquatic user groups that utilize the Dwight Hunter pool have entered into agreements with the City to help offset the operational cost of using the heaters, by committing to use the pool during the winter for training, practices, meets, special events and fundraisers. In addition, the way the sales tax initiative was structured allows the City to tap into the sales tax revenues for the next five years to partially offset operating costs. This, coupled with the increased revenue from the aquatic user groups, allows the City to expand pool operations during a tight economy.

Will the public be able to use the pool in the winter, or is it only open to aquatic user groups? The pool will be open all year to the public, even in the winter time! We have already received numerous calls from citizens who are excited about being able to swim year-round. In addition to aquatic user groups and recreational swim times for the public, we are also excited to pursue additional programs at the pool in the winter time! Several instructors have expressed interest in teaching water aerobics classes throughout the year, and we have also heard from local health practitioners about establishing rehabilitative and therapy classes in the warm pool water during the winter months.

The Dwight H. Hunter (Northeast) Pool opens for the year on Saturday, May 1, 2010, at noon. The spring pool hours will be as follows: 4-7pm Monday through Friday; 12-6pm on Saturdays; and 12-5pm on Sundays. These hours will be in effect until public school lets out for the summer on June 11, 2010. After that time, expanded summer hours will be offered! For more information about the geo-thermal heaters, or for more information on the City's aquatic programs and events, please call (352) 334-5067.

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