

City's \$5.4 million UV plant moves forward

City officials hope to bring plant online by September 2010

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MIDDLETOWN — City officials are set to move forward with a \$5.4 million plan to build a cutting edge disinfection system to increase the quality of water that runs from the moat at Memorial Boulevard into Easton's Beach.

At a city council workshop Thursday, representatives from the Department of Utilities and Fuss & O'Neill, an environmental engineering consulting firm based out of Providence, said the project will go a long way toward increasing water quality. It's been

a long time coming, they said.

This is the fourth major step in the project that began in September 2006 when Fuss & O'Neill was hired to conduct the Easton Pond Dam and Moat Study, which researched and reviewed, among other issues, multiple solutions for preventing contaminated water from entering Easton Beach.

According to the study, about 80 percent of the contaminated water entering into the beach comes from storm-water runoff from the moat. As rain events occur in Newport, storm water sheers off pollutants and bacteria from the streets and forces them into storm drains. Most of that contaminated water ends up in the moat where it is eventually

pushed out in the beach's water which often results in the closing of Easton Beach.

The team has concluded that the best way to protect the beach is by treating the contaminated water before it enters the shoreline. The most effective and reliable process to do this, they believe, is by using ultraviolet disinfection, a process that uses UV light to inactivate pathogenic bacteria from water.

"This will reduce 99 percent of the bacteria loadings from the water," said Dean Audet, a Fuss & O'Neill consultant. "The beach

water quality will significantly improve."

In September through October 2007, the team conducted a pilot study to prove the findings of their initial research. A temporary disinfection system set up in a truck near the moat confirmed that UV successfully treats the moat discharge.

Over the next two years, the team continued sampling and testing in effort to attain even more supplemental data. All of their research has continued to point to UV as the most effective and efficient way to treat the contaminated water.

In October 2008, Fuss & O'Neill presented their first, preliminary

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design for a permanent UV system for the moat. On Thursday, they presented their finalized plan.

Their presentation included engineering plans, as well as a structured capital funding and cost analysis. The estimated cost for the plant is \$5.4 million and about half of those costs are

already covered by RIDEM Grants and an Earmark through USEPA. Additional costs could be covered by ARRA funding from the national stimulus plan.

At the time of the meeting, the team had acquired all but two of the permits needed to begin the next stage of the project, which is finding a suitable contractor to build the plant. It is essential that a contract be in place by February

17, 2010 because that is the deadline for receiving ARRA funding.

If all goes according to plan, the plant will be up and running by September 2010. At that time, the team will continue to analyze and research the plant's results in effort to develop an even more efficient and cost effective process for providing quality water to shoreline of Easton Beach.