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DESALINATION PLANT IN L.B. CHRISTENED

EVENT: Project to purify ocean water has already gotten wide attention

By Jason Gewirtz
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Saturday, October 1, 2005 - LONG BEACH — The city christened its new desalination research plant Friday, but officials didn't shatter a bottle of water across the pipes.

Instead, the Long Beach Water Department invited a slate of visitors to celebrate the start of what the city hopes will be something big in the world of desalination

The project should produce "results that we think will impact the future of seawater desalination not only here in Long Beach, but throughout California and throughout the nation," said Kevin Wattier, the Water Department's general manager.

For the next four years, the city will study a newly patented method to extract salt from seawater using less energy at less cost.

The process proved successful in an earlier, and considerably smaller, prototype the department began studying in 2001.

The $8 million plant unveiled Friday at the Haynes Generation Station grounds in East Long Beach will produce 300,000 gallons of desalinated water per day for research purposes. The plant was paid for by a mix of federal and local funding.

If the research pans out, the city will consider building a desalination plant capable of handling 10 million gallons per day – enough to support 10 to 15 percent of the municipal water supply.

U.S. Rep. Dana Rohrabacher, R-Huntington Beach, said that the impacts of recent hurricanes in the Gulf Coast underscore the need for diverse water supplies such as the Long Beach desalination experiment.

"It should be clear to all of us that we need to be prepared," he said.

The technology to be used at the research plant was invented by Diem Vuong, a retired Long Beach Water Department engineer and administrator.

Traditional desalination methods push seawater through a membrane at high pressure to extract the salt. Vuong's technology, dubbed "The Long Beach Method," uses a second

filter and less water pressure. Preliminary results show that the method uses less energy to produce drinking water at a reduced cost.

To prove the city's method, the research plant will collect seawater and extract the salt using both the traditional and Long Beach methods. City officials hope that the results will prove their method is more efficient, Wattier said.

The next 18 months will be spent studying the plant's effectiveness. Afterward, the city anticipates another 12 months of further research to study disinfection and additional water quality issues.

Research is expected to be finished in 2009.

But the method is catching interest elsewhere. Even before a larger plant is built, the Metropolitan Water District of Southern California has agreed to pay Long Beach $62.5 million over 20 years to receive desalinated water from a potential full-scale plant.

The technology is attracting attention nationwide, said Michael Gabaldon, the director of technical resources for the federal Bureau of Reclamation. Gabaldon attended Friday's event from Denver.

"I think the buzz about it is it's more of a new process rather than a new membrane," he said.