LONG BEACH WATER DEPARTMENT
The Standard in Water Conservation &
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National Seawater Desalination Effort Announces Major Research Initiatives

LONG BEACH, CA - Long Beach Water officials today announced three Phases of major research that will be carried out at the 300,000 gallon-per-day (GPD) Long Beach Seawater Desalination Prototype facility over the next year, in partnership with the United States Department of Interior, Bureau of Reclamation. The Long Beach Seawater Desalination Project is the largest research and development project of its kind in the United States, constructed to conduct large-scale analyses of seawater desalination operations under a variety of different operating conditions, including utilization of innovative new technology.

Research conducted at the Long Beach Desalination Project is focused on optimizing the energy efficiency and environmental issues currently hindering implementation of full-scale, cost effective, seawater desalination operations in the western United States.

Phase 1 of major research activity will test the Long Beach Water Department's patent-pending, dual-pass nano filtration process, comparing this new technology with the more commonly used and energy intensive single-pass reverse osmosis process, in a side-by-side, large-scale comparison, under the same pretreatment and influent water quality conditions. "The objectives of this major study phase are to determine, through extensive water quality monitoring, if the potable water products produced are comparable, and to scientifically determine and compare the energy requirements under each technology," according to Dr. Robert Cheng, Deputy General Manager for Operations.

Phase 2 of the research timeline will focus on optimization of membrane selection and vessel configuration used to further reduce the overall energy requirement, while maintaining high water quality standards.

Phase 3 will test new concepts for disinfection and microbial fouling control of the membranes utilizing ultraviolet light and chlorine dioxide. Phase 3 will also focus on providing resolutions to municipal water distribution system integration challenges.

The Long Beach Water Department and the United States Bureau of Reclamation are also constructing an under ocean floor intake and discharge demonstration system, the first of its kind in the world, to demonstrate a viable alternative to more traditional open ocean intake and discharge practices.

Pictures, videos, reports and other information, including seawater desalination web links, can be viewed at www.lbwater.org.

The Long Beach Water Department is an urban, southern California water supply agency and the standard in water conservation and environmental stewardship.

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