

RI homes can slash water use 40%

New initiative draws praise of White House

By Dennis Wyatt
Executive Editor

Homes built starting next year in River Islands at Lathrop could slash their city water use 40 percent and maintain lush grass and landscaping even in a severe drought without violating mandatory water use reduction orders.

Future homeowners could also cut energy use by as much as 20 percent while saving between \$50 and \$200 a month on water, sewer, and electric bills.

Cambay Group is requiring future homes being built starting with lots sold to homebuilders later this year to have piping in place to allow an easy hook-up of a grey water recycling system. It will allow homeowners to have what has been described as “the world’s first practical home water and energy recycler” produced by Nexus eWater of San Diego installed.



This is what the water recycling system looks like with the cover taken off. It also includes an in-ground storage tank that can hold 250 gallons.

But instead of paying the price tag that runs as high as \$10,000 when one unit is purchased and installed, Reclamation District 2062 that is under Cambay Group’s control is partnering with Nexus eWater. The district will buy the systems in bulk bringing the cost down to \$8,000. The district then installs and leases the system to individual homeowners at a cost of \$20 to \$30 a month.

“It is extremely expensive to put the pipe in place for a grey water system after a home is built because you have to tear out walls and redo plumbing,” River Islands Project Manager Susan Dell’Osso said. “Plus almost all of the homes being built have cement pads.”

The additional pipe work will cost a builder about \$500 per home. Dell’Osso said Cambay Group is making the installation of such pipe mandatory for all future lots sold to builders in a bid to reduce the community’s water use, reduce future homeowner costs, and to allow people — if that want — to plant grass that they can water using in-home recycled water.

Dell’Osso said it could even be used to wash or hose down driveways without running afoul of mandatory water saving requirements.

She is working with builders who have already acquired the next 500 lots to see if they can get them to add the piping as well. If not, more than 10,000 of the 11,000 planned homes in the 5,000-acre planned community will still have the capability to recycle grey water inexpensively.

Partnership praised at Water Summit held by Obama Administration

The Obama Administration during a Water Summit held Tuesday on World Water Day announced the partnership between River Islands in Lathrop and Nexus eWater to develop America’s first master planned community with onsite renewable water and a new form of energy recycling.

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The White House Water Summit aims to catalyze ideas and actions to help build a sustainable and secure water future through innovative science and technology. The partnership in Lathrop is being highlighted as a project that will demonstrate a breakthrough solution to pressing water issues in the United States.

As envisioned, the community will save water and energy at a scale which has up until now been impossible to achieve. More importantly, the project serves as a template for how low-impact development can be carried out affordably in the water-stressed West.

It will also expand wastewater treatment plant capacity significantly as a home using the system would be able to cut the amount of waste water sent to the treatment plant by 70 percent. That means a treatment plant that is designed to handle 10,000 homes would be able to service 17,000 homes if they were all using the recycling system for gray water.

Recycles water from showers, sinks, bathtubs & washing machines

Grey water is “gently used” household drain water from showers, sinks, bathtubs and washing machines. The Nexus system collects this soapy water, then treats it to rigorous NSF/ANSI-350 standards and makes it available for safe reuse in the yard. By using this system, approximately two-thirds of the home’s water will be treated on-site, making it usable for outdoor irrigation. Black water, defined as toilet or kitchen waste water is still treated by a centralized wastewater plant.

The Nexus eWater system reduces the intake of fresh potable water into the home, and can cut each home’s demand for fresh water by up to 40%.

Beyond saving water, the Nexus system can also eliminate the largest source of energy loss in modern homes – by recovering heat energy from the home’s grey water. Instead of going down the drain, embedded heat energy equivalent to about 20% of a home’s entire energy footprint can be used a second time. On-site energy recovery can save as much energy as that produced by a solar roof.

“We are always looking for ways to create a greener future for our community through technological innovation,” Dell’Osso said. “To have the White House recognize our efforts is wonderful support for our project. Homes built with the ability to re-use their own water and energy will help us conserve resources. I hope that by creating a new model for conservation, more home builders and community developers will follow us into adopting this new technology for the good of all.”

The Nexus system is the first to meet California’s state requirements for on-site residential greywater treatment. The Nexus solution can achieve unprecedented water and energy savings in homes by reducing city water into the home by up to 40% and reducing sewage from the home by 70%. Water heating energy can be reduced by 75% and overall home energy use can be reduced by 15 to 25%. The savings per home can range from \$50 to \$200 per month for water, sewer and electric bills.

Home water recycling is the latest effort by Cambay Group to make the 11,000-home planned community as green as possible with the byproduct being reduced living costs for homeowners.

Its 200-year levee system surpasses all previous state standards for flood protection, and its soon-to-be-completed energy substation and water treatment plant will offer the newest methods in conservation and distribution to both residents and future businesses. The community already uses reclaimed and non-potable water for irrigation in common landscaping areas, and many of the new homes are equipped with solar panels.