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Public housing high rises in Bellingham get new toilets, lights

\$9.9 million project to encourage green living

KIE RELYEA - THE BELLINGHAM HERALD

BELLINGHAM - Old toilets and lights in three high-rise buildings that serve as public housing are being pulled out and replaced with new ones that use less water and electricity as part of a green makeover.

A little over \$9.9 million in federal stimulus money is paying for that work and other renovations at Lincoln Square, Washington Square and Chuckanut Square, which have a total of 396 units in Bellingham.

All are properties of Bellingham Whatcom County Housing Authorities, and were built from 1969 to 1971. They provide housing for seniors and disabled people, and are among the tallest buildings in the city.



Dubbed Green Communities, the project to make all three buildings more water- and energy-efficient began in October and is expected to be completed by September 2012.

It is about 20 percent done now, according to Todd Nelson, development manager for Bellingham Whatcom County Housing Authorities.

"We're looking forward to the updates of the buildings," said John Harmon, executive director/CEO of the housing authorities.

The money for the overall project was part of \$300 million in federal Recovery Act competitive grants given to 36 public housing authorities nationwide for projects that reduce energy costs and encourage healthier lifestyles for residents.

Switching out lights and toilets is the beginning of larger changes, which will include an educational piece to help change residents' behavior.

That's necessary because as much as 50 percent of a building's energy performance is linked to the behavior of occupants or management, according to Sustainable Connections, which is helping with the educational component.

The focus will be on "green living as a whole," according to Mariah Ross, the sustainable business development manager at the nonprofit Sustainable Connections.

Residents will learn about topics that include buying local, recycling, public transit, gardening, and using materials such as baking soda and vinegar to clean, according to Ross.

As for the three buildings, a lot of work is going on there as well.

"They're doing some amazing cutting-edge stuff in these buildings," Ross said.

The overall project also will include improving insulation and ventilation, as well as the installation of gardens for residents to grow their own vegetables.

Local firms RMC Architects and Dawson Construction are involved in the overall renovation project.

Other features involve:

- Installing a total of 220 solar panels on the roofs of all three buildings to convert solar energy into electricity, which will be directed into the power grid for purchase by Puget Sound Energy.
- Putting in a geothermal heat pump system at Washington Square to pull heat from the constant temperature in the ground. That will be used to preheat water. "We save energy by using less gas to heat the water the rest of the way," Nelson explained.

- Turning a concrete courtyard at Lincoln Square into a green roof that still will be accessible to residents. The project will include rainwater harvesting to irrigate landscape.
- Replacing obsolete boilers in all three buildings with energy-efficient ones.
- Installing a daylighting system in a community room at Lincoln Square, which will use natural lighting and automatically turn off lights to save on lighting costs.

Nelson said that part of the grant funding for the project required the reduction of the project's waste stream.

To that extent, hundreds of old electrical light fixtures are being taken apart to separate the bulbs, ballasts, copper and steel parts for recycling.

But what to do with the 400 old toilets was, at first, a puzzle.

"We're not supposed to be throwing them into landfills," Nelson said, adding there isn't much of a market for old toilets that use three to four gallons of water a flush.

The new dual-flush models are expected to save more than 2 gallons per flush on average. Combined, the new toilets will save more than 1.6 million gallons of water a year.

After talking to Freeman Anthony at the city's Department of Public Works, the idea was hit upon to grind up the toilets to see whether the crushed porcelain could be part of a concrete mixture.

Depending on results, that mixture would be used in the Meador/Kansas/Ellis segment of the Whatcom Creek Trail this summer.

Whatcom County firms RMC Architects, Dawson Construction and 360 Analytics are involved in the overall renovation project, which includes a management and maintenance building.

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Read more: <http://www.bellinghamherald.com/2011/03/13/1911797/99-million-project-to-renovate.html#ixzz1GbjN1JpQ>