

Wetland project is underway at ultra-green home in Bend

By Rachael Rees / *The Bulletin*

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Editor's note: Tom Elliott and Barbara Scott invited The Bulletin to follow their attempt to build the ultimate green home in Bend and document the project from start to finish.

Construction on a 600-square-foot wetland to purify wastewater has begun at Desert Rain on Northwest Shasta Place.

"All the fun started Monday morning," said Tom Elliott, who's been waiting years to build the wetland in an effort to meet the Living Building Challenge, the environmental standards he's following with his wife, Barbara Scott.

"No water leaves the site that arrives on the site," he said, referring to the requirement that wastewater be processed on-site.

Last month, the couple became the first in Oregon to receive state and city approval to treat and reuse residential wastewater from sinks, showers and laundry, called graywater. And part of that process is having graywater seep through a constructed wetland.

The wetland will be divided into two sections, separated by a dam, Elliott said. The wastewater will enter the first chamber. As it fills, water slips over the 3-foot dam into the second chamber to help slow the filtration process. It takes the water about seven days to percolate through the wetland. During that time, it is purified by the bacteria that live on the rocks and plants within the wetland.

Then it flows into a reclaimed water tank, where it is either stored or used for irrigation and water features.

The nearly 4-foot-deep wetland will treat all the water except for toilet waste, said James Fagan, co-owner of Timberline Construction and Desert Rain project manager.

Fagan expects the project to be 90 percent complete today, and finished early next week.

In addition to the building of the wetland, Fagan said, landscaping has started.



Dean Guernsey/The Bulletin

McKernan Enterprises employees spread a fabric liner along the bottom of the wastewater treatment wetland at Desert Rain.



Patios, pavers, walkways and driveways are being installed, and then native plants will be put in place.

"It's always fun to clean the site up and climb out of the dirt," he said.

— Reporter: 541-617-7818, rrees@bendbulletin.com

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