References

A gray water filter provides operational reliability and ecology for Lake Ruuhijärvi



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At the end of autumn 2013, Uponor's new product, Uponor Gray Water Filter Home, was installed in Ruuhijärvi, Nastola.

Project Facts:

Location	Completion
Ruuhijärvi, Nastola, Finland	2013
Building Type	Product systems
Single family home	Sewer, waste water treatment
Project Type	
Renovation	

The autumn morning brightens in Ruuhijärvi, Nastola. The weather is rainy gray, but the mood of the house owner, Markku Hietala, is high. The Gray Water Filter Home, launched by Uponor in the summer, was installed on Hietalas site a few weeks ago. ‘‘With wastewater renovation, there is one less concern. In addition, we have been very satisfied with the operation of the filter. ’’ says Hietala.

Gray water filter Home is a gray water treatment system designed for detached houses and holiday homes. A greywater filter that works on the same principle is available for cottages. The greywater filter is suitable for sites with double drainage. This

means that toilet water and other water, i.e. gray water, come out of the house along separate sewer pipes. Paired with a greywater filter the house needs a settling tank, as well as a closed tank or dry toilet for toilet water.

Small excavations and security of supply play a key role

Uponor's new solution suited Hietala's needs very well: ‘‘Our house had an old concrete settling pit for gray water as a wastewater treatment system, as well as a closed tank for toilet water. Now, with the tightening of the wastewater regulation, precipitation wells alone were no longer enough. A gray water filter was a suitable choice as the soil is clayey and there are a lot of trees on the plot so absorption into the soil would not have been an issue. The gray water filter was suitable for a small space and did not require the construction of a large field. ’’ says Hietala.

Another reason for choosing the greywater filter was its reliability and ease of maintenance. ‘‘The gray water filter needs no electricity, no chemicals. This is a very good thing, because here on earth electricity can sometimes be cut off for long periods due to storms.’’ says Hietala. For maintenance of the system, it is sufficient to empty the settling tank as needed and to change the filter peat every five years.

Hietala says that the old concrete wells were used in the installation: ‘‘The gray water filter discharges water into a 5 m deep bottom well. There, the water stays until the surface rises about 35 cm, at which point the pump pumps it to the next well, where the water exits along the old outlet pipe to the discharge site. So the old wells act as a kind of delay pool. ’’ Hietala's house did not have the sewer ventilation required for the Gray Water Filter on the roof, but the matter was resolved by installing a t-branch and ventilation pipe in the piping before the settling tank.

Positive comments almost immediately

The rain that occurred during the installation brought its own challenges to the installation of the system, but Hietala is satisfied with the progress of the work. The filter has now been in use for a few weeks and positive things have immediately been noticed in its operation: "I couldn't be happier.’’

The yard is still bare after the installation, but not for long: ‘‘Didn’t that wife come up with new berry bushes next spring to replace the old ones? Let the winter come in between.’’ Hietala says. The gray water filter did not require large excavation work, so renovating the yard is easy. "There are electric cables going underground in the yard, so you had to be careful with the digging and the small digging area was an absolute advantage."

Based on a few weeks of use, Hietala is very pleased with his choice: ‘‘It was interesting to install this system as it had only just come on the market. Uponor was also really excited to hear my experiences with the product. It's great to be involved in giving feedback for future product development.’’