



[SHPeople] Water pressure update

1 message

Phéna Proxima via People <people@lists.sawyerhill.org>

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Reply-to: Phéna Proxima <adam@phenaproxima.net>

To: people involved with Sawyer Hill EcoVillage <people@sawyerhill.org>

I have spoken to our SWSS operator on site and, with the help of certain residents (you know who you are, thank you!), we have observed the issue and arrived at a reasonable diagnosis/theory about the water pressure dips.

The short explanation, for humans:

The pressure pumps are basically operational, but the overall system pressure is set a little on the low side, so we're bumping it in the hopes that the water pressure will remain at usable levels, even if the pumps' performance fluctuates.

The long and technical explanation, for geeks and nerds:

There are two pumps that are responsible for boosting the pressure in our system to usable levels. They are known, appropriately enough, as the booster pumps. Either one of them can bring the pressure to a usable level -- which is about 55 to 60 psi -- but to keep the wear and tear down, the system will alternate between booster 1 and booster 2. Both pumps are the same model, and each one takes a few seconds to spin up from idle. The system is programmed to start one of the pumps when the overall line pressure reaches 45 psi, which is pretty low.

Now, for some reason, booster 1 is a little "slower" to spin up than booster 2 is. It's in good working order, but it's slower. It's like it's dragging its feet.

So what seems to be happening is that the line pressure is falling into the low 40 psi or high 30 psi range -- that's unusably low, and in periods of high demand, you notice it sooner (since there's more water moving through the system) -- and then booster 1 spins on, taking a good 20 to 30 seconds to reach the proper pressure of 50 psi before it shuts off again.

Since the booster pumps are both working fine, and replacing booster 1 would be pricey, the thing we decided to do is simply raise the activation point of the system. In other words, rather than waiting until the line pressure falls to 45 psi or lower, the system will instead wait until the pressure falls to about 50, which is a usable level, before kicking the pump on.

What this means for you is that there may still be pressure dips when booster 1 is on deck, but the pressure should stay high enough to be usable for showers and so forth, while the pumps gets up to speed.

Happy to talk about this further if you have questions.

Adam

People mailing list

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