
How do I know reclaimed water is safe to be around?

Public health protection is our highest priority for the development, distribution, and use of reclaimed water.

In the draft rule, we require high levels of treatment, treatment reliability, and process redundancy for every reclaimed water project design and constructed plant. We are so confident in “Class A” reclaimed water quality that we allow its use where human contact may occur.

Reclaimed water treatment and delivery follow the federal Safe Drinking Water Act overall principle of “multiple protective barriers” -- including source protection, treatment, monitoring, and operations and maintenance by well-trained and certified operators. Our draft rule incorporates treatment technologies and processes long used by drinking water systems for treatment of surface water sources and distribution of the 'product' to customers.

Safeguards in the reclamation plant will prevent incompletely treated water from being sent to users. If a treatment step fails, the water will be automatically diverted to a sewage discharge, storage, or redirected to the start of the treatment process.

Can I drink reclaimed water?

Reclaimed water isn't approved as a drinking water source in Washington, so we cannot advise drinking it. Our draft rule states that an entity can request that the Washington State Board of Health consider approving “Class A+” reclaimed water as safe and reliable enough for drinking water use. We haven't included Class A+ treatment standards in the rule; our Office of Drinking Water will help determine them on a case-by-case basis, if needed. No one is proposing this reuse option at this time.

Some states have used this kind of pathway for demonstration projects like producing high quality reclaimed water for use by craft brewers to make small lots of beer. Some we know about: Portland's Pure Water Brew, Idaho's Spud Lite, Florida's Hillsborough County New Water Brew, and San Diego's Stone Full Circle Pale Ale.

What is direct potable reuse (DPR)?

DPR happens when reclaimed water is used for drinking water without passing through the environment. “Class A+” reclaimed water, if approved, wouldn't have to be injected into groundwater or surface water, or put in a wetland -- and collected later. This reclaimed water could be:

- Put into a drinking water distribution system without further treatment.
- Mixed with other drinking water sources before being sent to water customers.
- Given additional treatment by a water purveyor or combined with other drinking water sources to receive additional treatment before being sent to water customers.

Luckily, we still have enough drinking water in our state. Water managers currently address near term potential shortfalls through system savings, such as repairing pipe leaks, issuing special requests for customer conservation -- and using reclaimed water instead of drinking water for irrigation and in other ways we've approved it for.

What about pharmaceuticals and other such compounds in reclaimed water?

Trace amounts of these have been detected in surface water, groundwater, wastewater, reclaimed water, and sediments throughout Washington.

Though we can detect minute amounts of many organic and chemical compounds in wastewater and reclaimed water, we don't yet know of any human health effects from them. Typical wastewater treatment isn't designed to remove these microscopic particles, so they may exist in the source water for reclaimed water treatment plants. According to recent testing, reclamation treatment does reduce or remove a number of compounds. The Environmental Protection Agency hasn't yet determined "safe" levels of exposure for these trace chemicals. There are many studies in progress looking at advanced treatment and removal techniques, and whether anything is harmful to us.

What's the risk for my children playing soccer on a field watered with reclaimed water?

Reclaimed water used for irrigation in parks and other public areas is highly treated -- and safe for you and your kids to be in contact with. Treatment removes and inactivates harmful bacteria, viruses, and other pathogens. As an added precaution, irrigators must water when there's minimal public activity, such as at night. We're more worried about your risk from dogs doing their business -- and other contaminating activities we can't control.

How do Health and Ecology work together?

The draft rule establishes one as the lead agency, with the other being the non-lead agency, based on which one issues a permit for the wastewater treatment portion. We may jointly agree to transfer the roles in some cases.

Although Department of Ecology will issue most reclaimed water operating permits, it must and may consult with Health at certain design points, and when public health questions arise. Ecology always reviews water right impairment analyses and decides if there is impairment.

Department of Health reviews, approves, and permits reclaimed water plants when the initial wastewater treatment occurs in an on-site sewage system with a design flow of up to and including 100,000 gallons/day. Health must and may consult with Ecology during our review.

What is Department of Health's overall role in reclaimed water?

We aim to protect public health and to protect water quality of aquifers and surface waters, our future water supplies. We also want to assure adequate long term supplies for public water systems by encouraging reclaimed water use to reduce drinking water demands where it makes sense, such as for irrigation or replenishing aquifers.

Draft rule requirements that protect public health include:

- Cross-connection control (protecting higher quality from lower quality);
- High level of treatment for uses with public contact;
- Reliability and redundancy safeguards during generation of reclaimed water;
- Employing Health-certified operators (distribution system, cross-connection control, backflow assembly testing, treatment plant operator), where applicable, in addition to Ecology-certified wastewater operators;
- Pipe separation distances (such as 10 foot separation from drinking water pipes, and pipe crossing safeguards) and distinctive color (“purple pipe” means reclaimed water) so that the delivery systems stay separate. Drinking water and reclaimed water do not share pipes;
- Maintaining reclaimed water quality to user sites;
- Protecting drinking water supply sources (physical and water quality) near facilities and use sites;
- Involving drinking water suppliers at an early stage of a new or modified generation project;
- Defining direct potable reuse water quality, if proposed;
- Provisions for Ecology, when lead agency, to consult with Health during project review.

Are there already permitted facilities producing reclaimed water?

Yes. Ecology has issued permits to 28 generators who are producing water for reuse. Health co-reviewed their submittals.

Initially, the legislature directed Ecology and Health to develop standards for review and approval, with the help of water treatment experts (consultants, professors, and others). That’s our still-current document, [Water Reclamation and Reuse Standards, September 1997](#). A 2014 map of generator locations with approved uses is [here](#). The Standards were intended to be used to allow the agencies to permit projects while we were drafting the Reclaimed Water Rule. We’ve included most of the Standards’ requirements in the draft rule.

For more information please contact:

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