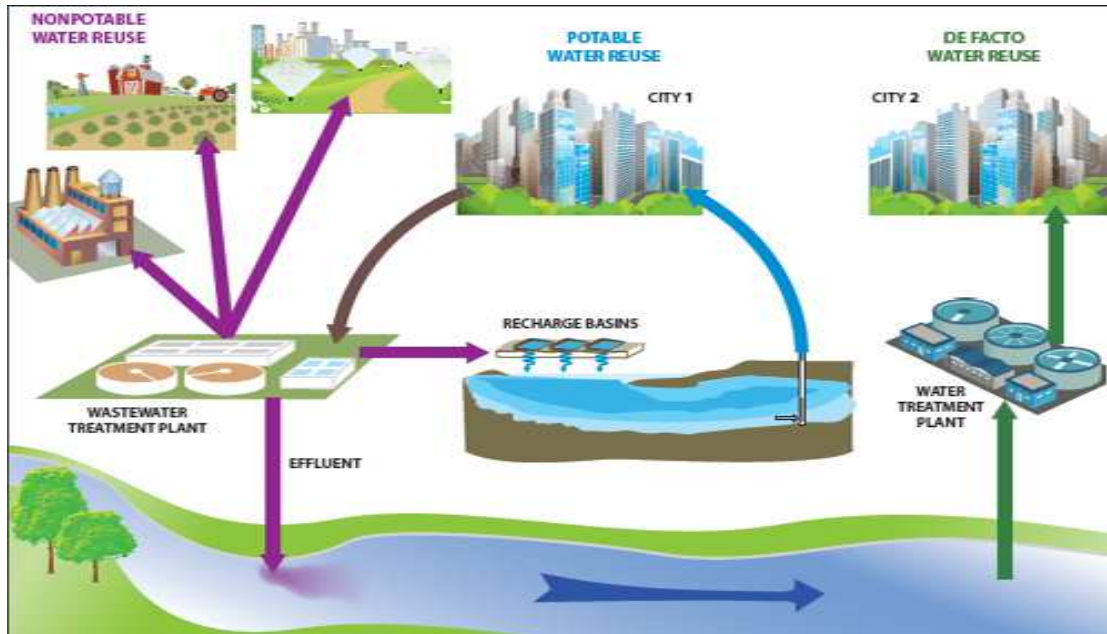


CONCERNS ABOUT REUSE OF SEWAGE EFFLUENT

Thousands of chemicals and pathogens are released daily into sewage plants from homes, medical facilities, businesses and industries. These pollutants can transform into new and sometimes more toxic contaminants.

Sewage plants separate sewage into solids and liquids, often for reuse. The liquids are called “sewage effluent”. Effluent is typically released into surface water bodies or “reclaimed” for irrigation or fertilizing crops. Some states allow municipalities to develop and request approval for programs to use it as potable water.



Concerns about reusing the effluent for potable water and soil amendments are the basis of the Sierra Club national policy:

Effluent from sewage treatment facilities should never be considered for reuse as reclaimed waters. There are too many pathogens and other contaminants in such waters that could impact human health, wildlife, and the overall ecosystem viability. (1)

There are no advanced treatments that remove all contaminants to make effluent safe for use as “potable” drinking water and for crop irrigation purposes. The existing 1974 Safe Drinking Water Act standards are out-of-date. They do not address many harmful emerging contaminants, such as the “forever chemical” PFAS found in drinking water and linked to kidney and testicular cancers, lower fertility in women, higher rates of diabetes, liver damage and problems with immune systems.

WHAT CAN CONSUMERS DO?

Ask municipalities promoting potable use of sewage effluent for technical information about how effluent is treated and analyzed to ensure contaminants and pathogens are removed.

Ask what farmers use to fertilize their crops and grow forage for their animals. Contaminants such as PFAS have been found in crops, meat and milk produced on soils where sewage effluent and solids had been applied.

Buy organic products. “Certified organic” growers are not allowed to use sewage effluent or any sewage waste to fertilize crops.

Call for labeling of foods fertilized with effluent and sewage-based fertilizers.

SUGGESTED READING

(1) Sierra Club Climate Resilience Policy (adopted by the Board of Directors March 6, 2020), pg. 35.

(2) Crop Uptake. “Vegetables irrigated with treated wastewater expose consumers to drugs”

<https://www.sciencedaily.com/releases/2016/04/160418120339.htm>

(3) Microplastics, small [plastic particles](#) less than 5.0 mm in diameter, entering the sewage treatment plants are often released, via effluent, into freshwater systems. Microplastics have been found inside the bodies of fish, birds, and mammals and travel up the food chain. <https://phys.org/news/2018-02-microplastics-fish-lake-winnipeg.html>

(4) Effluent-based beverages. This investigation reveals troubling amounts of anthropogenic debris in global tap water, North American beer, and internationally sourced (but US purchased) sea salt. Particles were found in 81% of tap water samples, as well as in 12 brands of beer and in different sea salts.

<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0194970>

Sierra Club Grassroots Network Wastewater Residuals Team

<https://content.sierraclub.org/grassrootsnetwork/teams/wastewater-residuals>