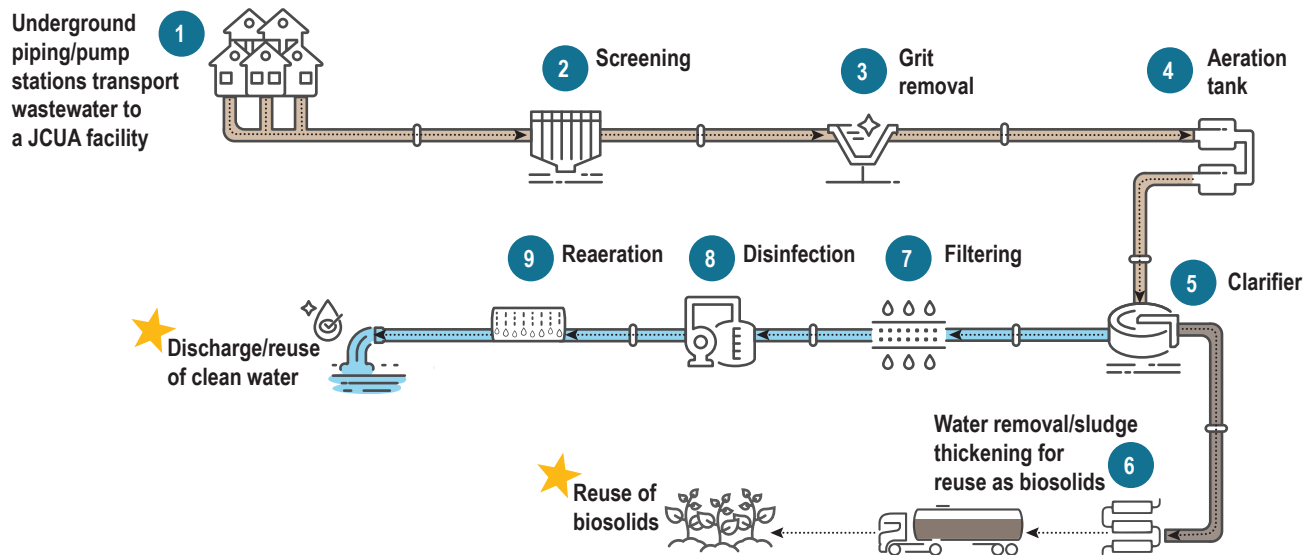


EJCCWRF Operations: Inside a Water Reclamation Facility

The Jackson County Utility Authority (JCUA) needs to upgrade our water reclamation / wastewater treatment systems. In response, JCUA is partnering with a team of engineers and other experts to plan the design of a new East Jackson County Consolidated Water Reclamation Facility, or EJCCWRF. The new facility will provide for the expanded treatment capacity necessary to effectively support growth in our community and meet our future wastewater needs, and include a series of technological advances and innovative elements that will provide critical benefits.

Wastewater reclamation is essentially an “invisible” process many of us don’t think about after we flush our toilets or run the faucet, but managing wastewater properly is important to the health of our community and our ecological resources. The graphic below summarizes what typically happens to each drop of wastewater that travels from our homes and businesses, through JCUA’s underground infrastructure, into a multistep treatment process at our facilities, and ending with discharge and beneficial reuse of byproducts. For a closer look at the processes, view the series of videos from inside a JCUA facility.



- 1 Wastewater travels through underground piping with the aid of pumps and gravity piping to a JCUA facility
- 2 Large trash items such as rags, diapers, or sticks are removed
- 3 Finer materials like sand and grit are removed through settling or mechanical separation
- 4 Air and microorganisms are mixed into the water to break down organic materials and kill bacteria
- 5 The clarifier separates microorganisms (biosolids) from the treated wastewater
- 6 The separated biosolids are dewatered or thickened for reuse offsite as fertilizer or soil enhancement
- 7 Treated wastewater is filtered to remove fine particles
- 8 A final disinfection step kills disease-causing organisms in the treated water
- 9 More air is mixed in to make sure the oxygen content in the treated water is right for final use

★ Clean water can be discharged to local rivers or, in the case of the EJCCWRF, reused by local industry. Currently, the Class B biosolids are used by both JCUA and local farmers as fertilizer, and detailed tracking and reporting is required. The new facility will produce Class A biosolids that can be used by anyone without any tracking or reporting. Read the [Innovating to Reduce Impacts](#) information sheet for more information on both these topics.