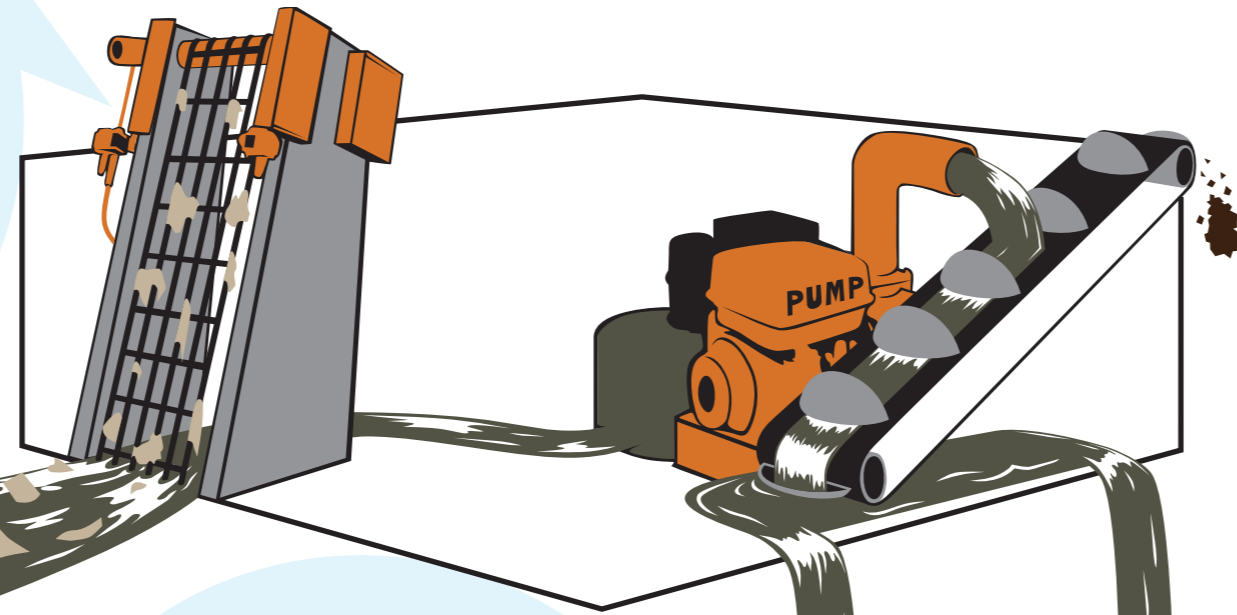


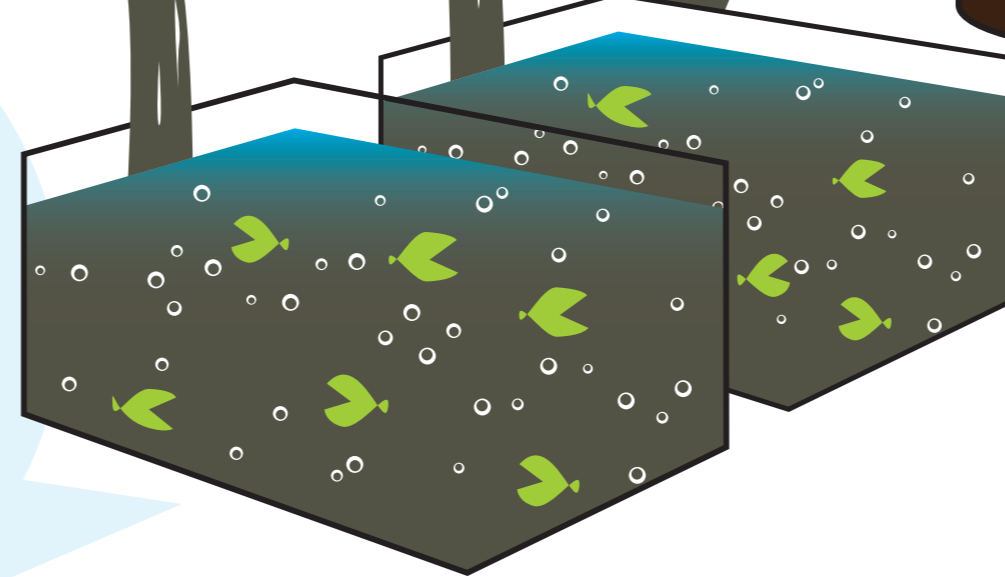
How wastewater is cleaned

Most of the wastewater from our lowcountry communities goes through a complex cleaning process called water reclamation, so that it can be safely returned to our environment.

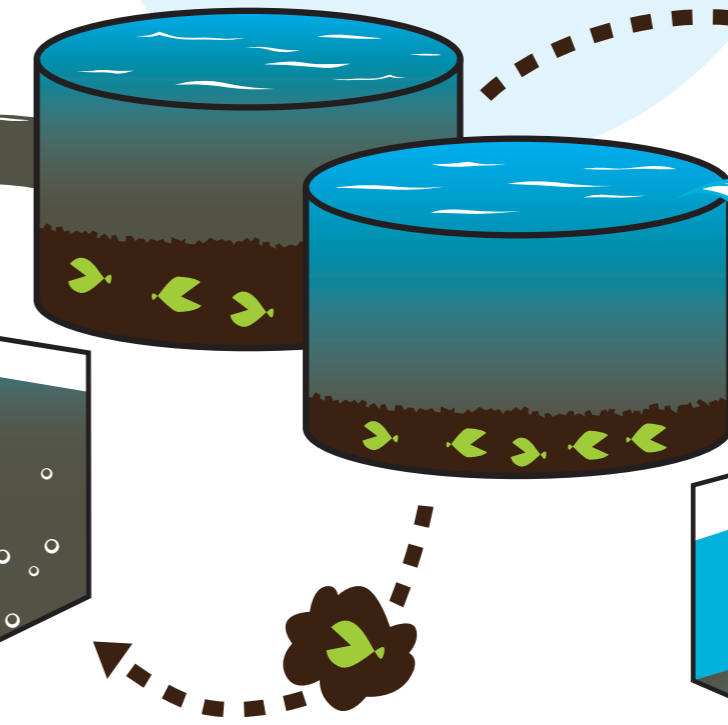
1 When wastewater first arrives at a water reclamation facility, it enters a building called the headworks. Here the wastewater flows through a bar screen that filters out solid materials, such as paper and other trash. Then it goes through a grit separator that removes small particles, such as dirt and sand.



2 From the headworks, wastewater goes into a large container. Here tiny bacteria, called microorganisms, eat the organic waste that is still left in the water. Oxygen is added to make microorganisms grow fast in the wastewater. Adding oxygen is called aeration - the containers are called aeration basins.

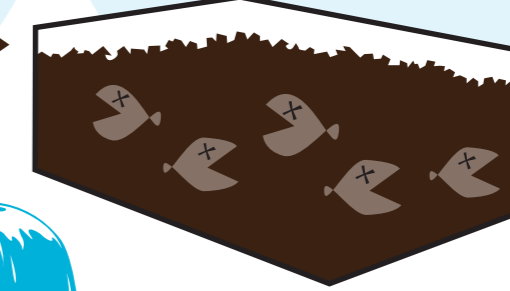


3 The wastewater flows from the aeration basins into clarifying tanks, where the microorganisms settle to the bottom, creating mud-like stuff called biosolids. Biosolids are the only solid materials left after the wastewater is cleaned.

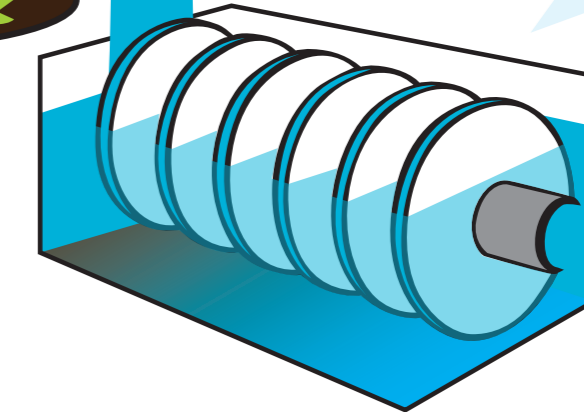


Some biosolids are sent back into the aeration basins to help the microorganisms grow.

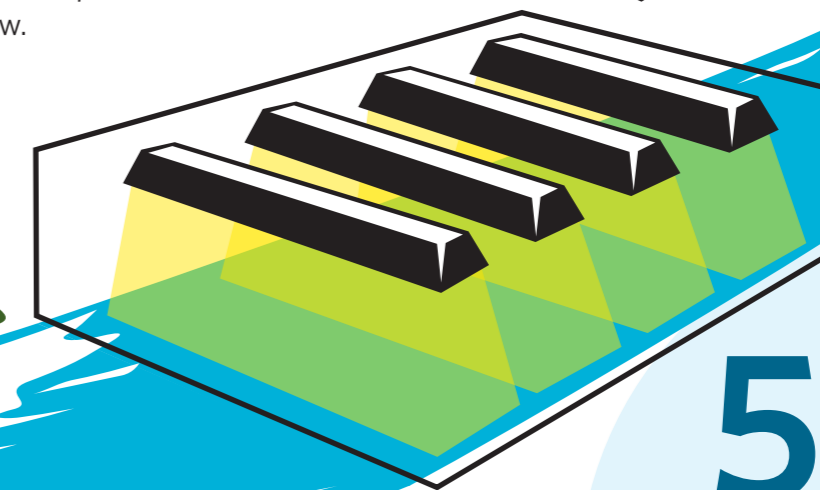
Most biosolids are collected in large tanks called digesters, where harmful microorganisms are destroyed. After the digesters do their work, the water is pressed out of the biosolids to make it more crumbly, like dirt, and it can be used to cover landfills.



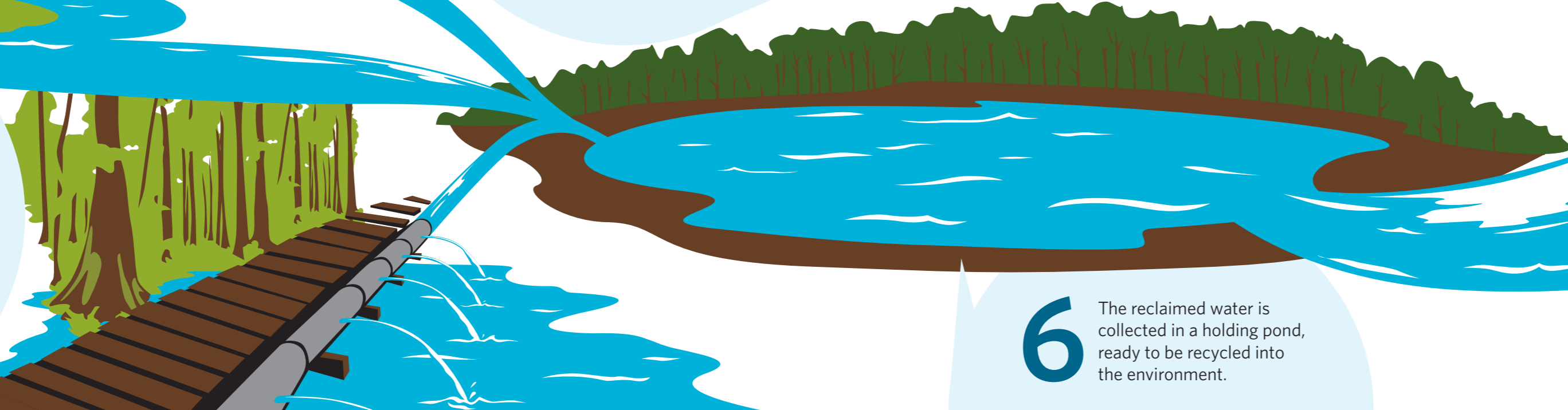
4 The clear water in the clarifying tanks overflows into a filtration system, which is another large container with many round cloth filters mounted to a center tube. As the water flows through the filters, even the smallest particles are removed. The tube moves the filtered wastewater out of the tank.



5 The filtered water flows into a chamber where ultraviolet lights destroy any bacteria that is left. When this is done, 99.5% of the pollutants have been removed from the wastewater that was delivered to the reclamation facility. Now it is no longer wastewater, but safe, clean, reclaimed water.



6 The reclaimed water is collected in a holding pond, ready to be recycled into the environment.



7 BJWSA sends much of the reclaimed water from the Cherry Point and Port Royal Water Reclamation Facilities (WRF) to local golf courses for irrigation.

Our Port Royal Island Water Reclamation Facility safely recycles reclaimed water that is not needed for irrigation into the Beaufort River. Reclaimed water from the Cherry Point WRF that is not needed by the golf courses is released safely into a 500-acre area of the Great Swamp.

