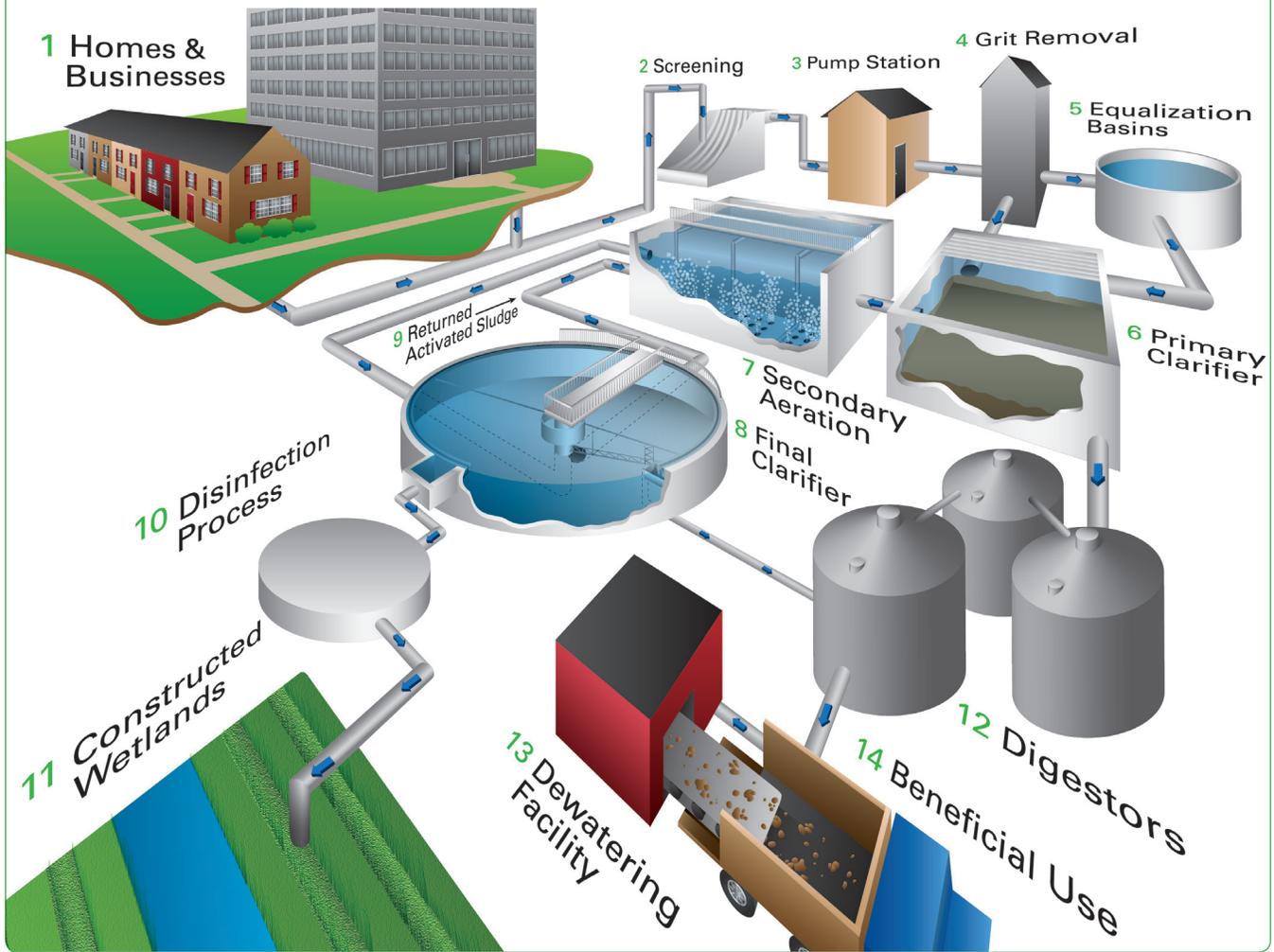


## J.B. MESSERLY WATER POLLUTION CONTROL PLANT (WPCP)



## HOW A WATER POLLUTION CONTROL PLANT WORKS

- 1. HOMES AND BUSINESSES:** Produce wastewater.
- 2. SCREENING:** Removes large debris.
- 3. PUMP STATION:** Lifts wastewater.
- 4. GRIT REMOVAL:** Removes heavy inorganic particles.
- 5. EQUALIZATION BASINS:** Hold excess wastewater.
- 6. PRIMARY CLARIFIER:** Removes heavy organic and floatable materials.
- 7. SECONDARY AERATION:** Microorganisms decompose organic material in wastewater and absorb unwanted nutrients using the Modified Ludzack-Ettinger process.
- 8. FINAL CLARIFIER:** Removes microorganisms for return to secondary aeration.
- 9. RETURNED ACTIVATED SLUDGE:** Returns active microorganisms to secondary aeration.
- 10. DISINFECTION PROCESS:** Removes remaining harmful bacteria.
- 11. CONSTRUCTED WETLANDS:** Further treat water before reaching the Savannah River to ensure meeting water quality standards.
- 12. DIGESTORS:** Treat wastewater solids to reduce volume and odor, and destroy harmful organisms.
- 13. DEWATERING FACILITY:** Removes excess water and prepares solids for beneficial use.
- 14. BENEFICIAL USE:** Solids transported for use as fertilizer or safely discarded.