

# YOUR VINTAGE OAKS WASTEWATER TREATMENT SYSTEM

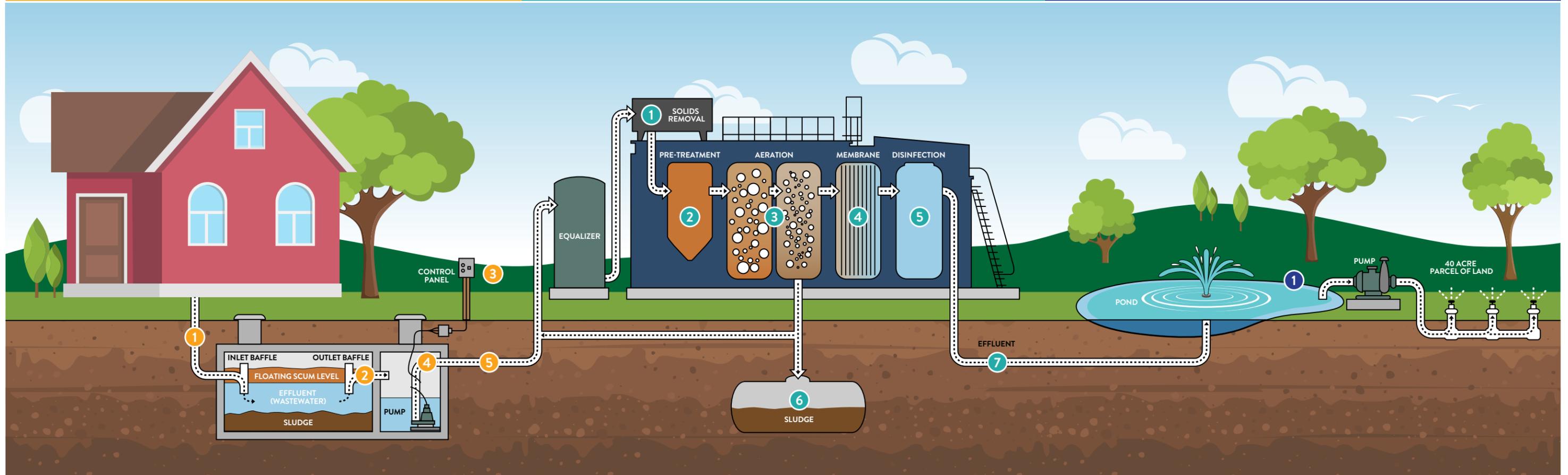
To deliver quality service to you while protecting the environment, The Texas Water Company has implemented the latest technology in the Vintage Oaks area. The system uses multiple stages of treatment to enable the final product to be used for irrigation.



## STEP COLLECTION SYSTEM

## MEMBRANE BIO-REACTOR TREATMENT SYSTEM

## HOLDING POND



### STEP COLLECTION SYSTEM

- 1 Wastewater flows from your house into an underground tank. There, it settles into three layers – sludge on the bottom, scum on the top, and clear effluent in the middle. In this case, effluent is simply clear liquid sewage.
- 2 The effluent is pumped (or flows by gravity) through a filter.
- 3 A control panel operates the pump and ensures the system operates efficiently.
- 4 The filtered effluent (and only the effluent) flows through service lines to a main line.
- 5 The effluent in the main line flows to a treatment system.

### MEMBRANE BIO-REACTOR TREATMENT SYSTEM

- 1 Effluent enters a Membrane Bio-Reactor (MBR) treatment system, and solids are removed.
- 2 Primary Treatment takes place, during which additional solids are removed and sent to a holding tank for disposal.
- 3 The remaining effluent is aerated to speed decomposition.
- 4 Effluent is moved through a membrane that filters any remaining sludge and sends it to the holding tank for disposal.

- 5 Water is treated for pharmaceuticals, hormones, pesticides, and endocrine disruptors and passes through a UV disinfection process, alleviating the need for harmful chemicals in treatment.
- 6 Sludge is held for disposal.
- 7 Fully-treated and environmentally-friendly water is pumped into a holding pond.

### POND

- 1 Water is pumped from the holding pond onto a 40-acre parcel of land.