



# NextGen Community Septic

## With Septigen™ Technology

### HOW IT WORKS

Introducing the neighborhood wastewater treatment system that recharges the local water supply with decontaminated water that can be used to beautify the community through irrigation.

Three stage system includes

1. Individual collection units. 20 gallon, in-ground tanks, placed throughout the community, collect sewage and wastewater from each house. When a unit reaches capacity, the contents are transported to the community treatment system using vacuum pumps located at the collection tank.
  - The two-compartment concrete collection tank serves to 1) collect influent from individual units, and 2) break down organic materials through simultaneous aerobic and anoxic treatment using waving biomedia and high-capacity aeration.
  - The Septigen treatment unit consists of a stainless steel tank with pumps, aerator unit, and ceramic membrane to treat water, removing harmful contaminants, including E.coli, fecal coliforms, nitrogen and phosphorous.
  - The ozone generating system provides final disinfection of the treated water.
2. Community treatment system. The NextGen treatment system consists of a collection tank and the Septigen™ treatment unit.
  - The two-compartment concrete collection tank serves to 1) collect influent from individual units, and 2) break down organic materials through simultaneous aerobic and anoxic treatment using waving biomedia and high-capacity aeration.
  - The Septigen treatment unit consists of a stainless steel tank with pumps, aerator unit, and ceramic membrane to treat water, removing harmful contaminants, including E.coli, fecal coliforms, nitrogen and phosphorous.
  - The ozone generating system provides final disinfection of the treated water.
3. Treated water dispersal. A second precast concrete tank stores treated water and disperses in one of two ways.
  - Reuse of water for irrigation of community homes and common areas.
  - Release into the ground at a controlled rate based on measured average water percolation rate of the designated soil dispersal area.





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### SYSTEM ADVANTAGES

#### Economical

- Less expensive to install vs. sewer hook-ups or individual ATUs
- Scalable system design
- Low maintenance costs

#### Eco-friendly

- Removes up to 99% of nitrogen and phosphorous before water released to field
- Replenishes and protects local water supply
- Saves water through reuse

#### Clean Water Output

Treated water meets or exceeds water quality standards for graywater treatment.

Water Quality Parameter	Measure	Average Influent	Average Effluent: Standard Septic	Average Effluent: NextGen Septic	EPA Graywater Standard
cBOD <sub>5</sub>	mg/L	220	100-350	<9	130-180
Turbidity	NTU	68	47	0.02	50-100
Total Organic Carbon	mg/L	178	123	3.7	50-100
Total Nitrogen	mg/L	32	25	<4.5	3-5
Total Phosphorous	mg/L	10-27	13	<1	1-3
TSS	mg/L	69	28	Undetectable	80-160
Fecal Coliform	CFU/100 mL	7.4 x 10 <sup>6</sup>	3.7 x 10 <sup>6</sup>	<10	<10,000

#### Community Benefits

- Small backyard footprint—no individual drain fields
- More attractive than lagoon systems
- Non-intrusive, quiet operation
- Water reuse for community green spaces
- Removes nitrates and phosphorous
- Reduces health risks vs. traditional systems

**CONTACT US TODAY**  
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