NASA/U.S. Army Gray Water Recycling System

- Contained in a tricon
- Continuous operation of the system
- Operated by 1 soldier (startup/shutdown)
- Able to treat 4500 gallons/day
- Recovery rate: 80% or higher
- Energy use: less than 20 watts/gallon

These specifications can be customized to meet different parameters/standards
SYNTHETIC BIOLOGICAL MEMBRANE

Feed Side of Membrane
Sacrificial Organic Molecule Biofilm
Lipid Bilayer Membrane
Porous Membrane Support
Osmotic Agent Solution that Contains Engineered Organisms that Hyper-express organic molecules

Genetically Engineered Organism
Jaione Romero Mangado
jaione.romeromangado@nasa.gov