

Rochakaton

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Our Team

We are... The Sustainables



| Innovation Department | Research Department | Project Design Department |
|---|---|---|
| <ul style="list-style-type: none">• Marceau• Maxence | <ul style="list-style-type: none">• Tom• Maxime• Paul | <ul style="list-style-type: none">• Taha• Nelson |

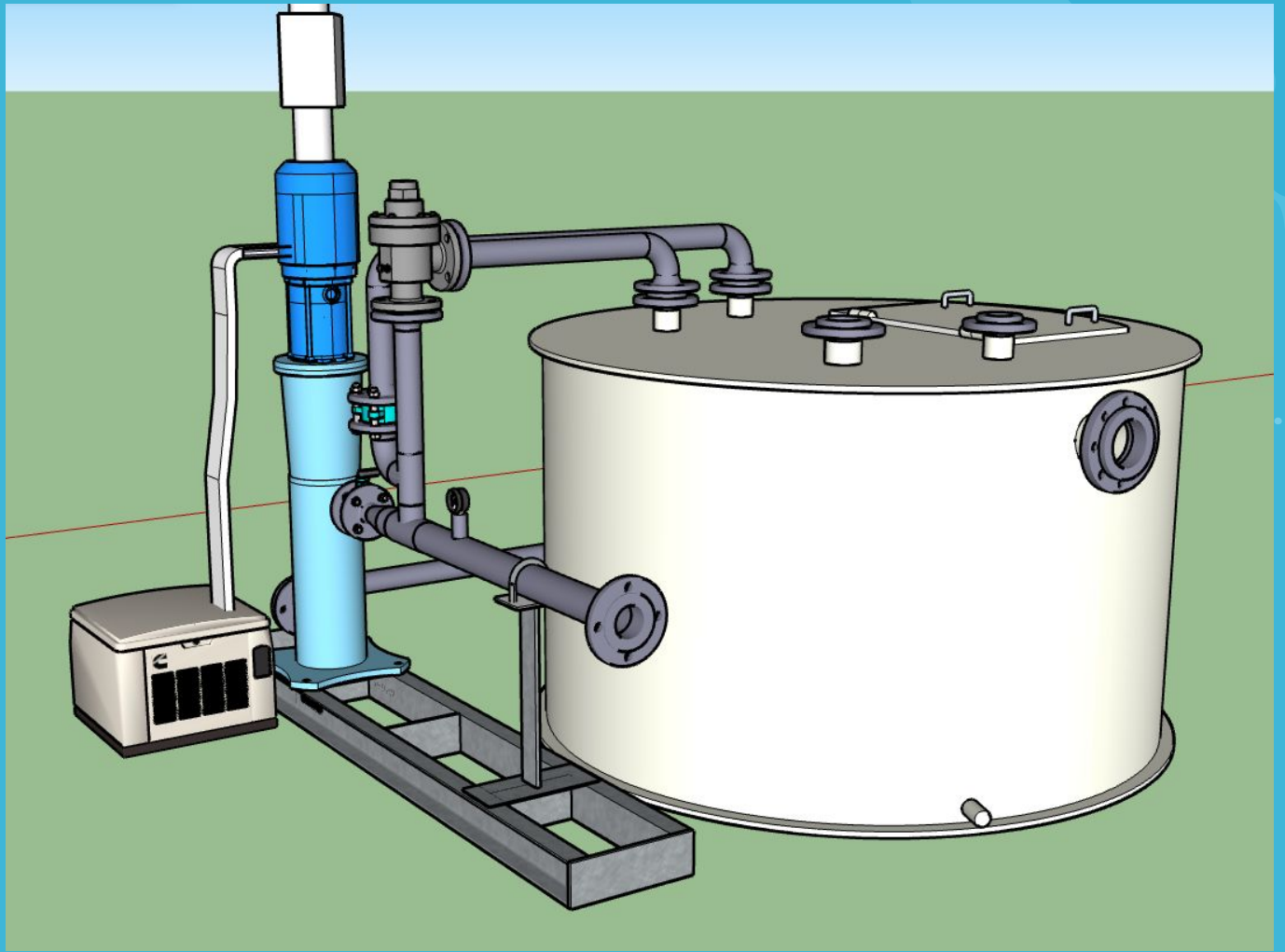
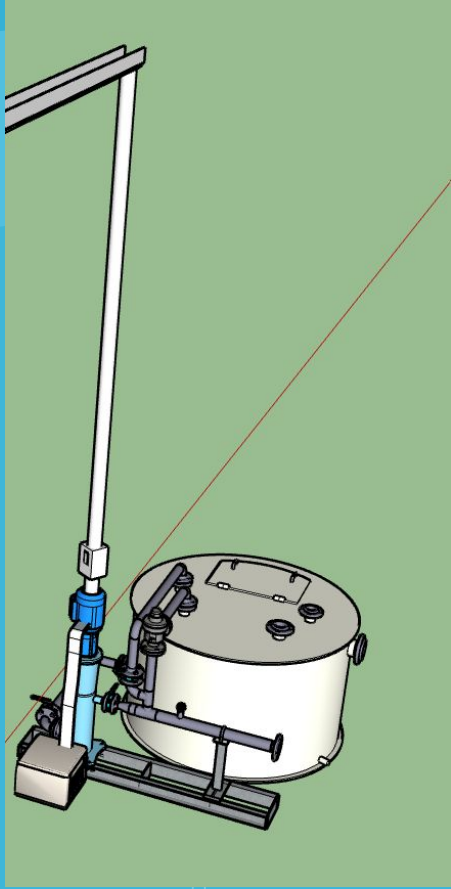


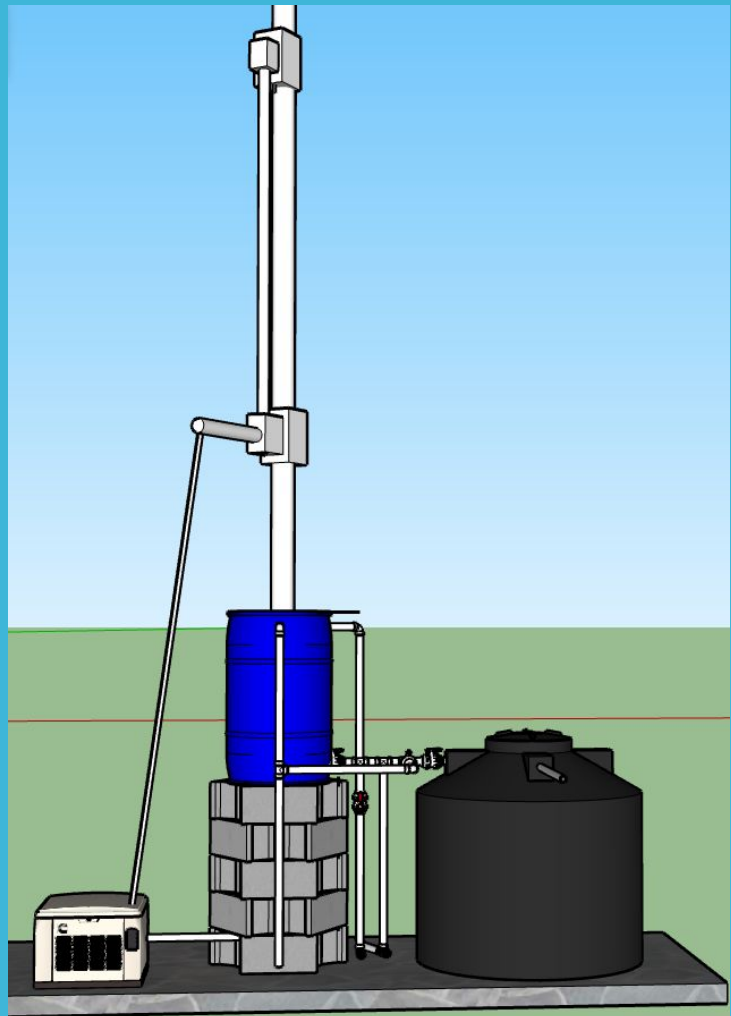
Unsanitized water, a major problem in Maryland?

- **Public health and safety risks**
 - EWG (2019) : 1,000 water services exceed drinking water quality standards
 - 1.1 million residents at risk (nitrates, arsenic, trihalomethanes)
 - These contaminants can cause health problems (cancer, infections...)
- **Citizen's response**
 - Trend: Mass purchase of bottled water
 - Impact: Ecologically problematic
 - Maryland among the largest consumers of plastic bottles (Plastic Pollution Tracker, 2022)
- **Plastic Consumption:**
 - Annually, approximately 5.2 billion bottles are sold in Maryland (CRI)
 - Stat: Only 20% of plastic bottles recycled (EPA, 2021)
 - The rest ends up in landfills, oceans or incinerators

Guiding Question

In what ways can rainwater be used to solve the clean water crisis, while simultaneously reducing energy consumption as well as pollution?





System operation



- Flowing water = inertia
- Inertia -> Spins turbine
- Mechanical energy
->Converted into electrical energy
- Powers filter
- Lifespan: 1 million liter

Positive Effects

- Reduction of 2 million plastic bottles
- Conservation of natural resources
 - Aquifers
 - Extraction of resources
- Completely sustainable
- Guaranteed clean and sanitized water



Conclusion

The background is a solid blue color with white, wavy, organic shapes that resemble water or clouds. Scattered throughout the background are numerous small white circles of varying sizes, some solid and some hollow, creating a bubbly or starry effect.

Thank You