

# Modular Sludge Treatment System

## Processing Organic Waste for Fertilizer Production in Rural Communities

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### Background

There are 198 First Nations in BC, translating to over 300 First Nations reserves. The vast majority of Indigenous Peoples and their reserves were displaced from cities and live in rural areas across the province, often having to travel long distances for basic amenities. This project focuses on serving these communities specifically.

A 2000 m<sup>3</sup> wastewater lagoon in Atlin, BC has reached its 40 year lifespan and needs decommissioning. We have designed a modular sludge treatment system capable of processing the wastewater and producing fertilizer for community agricultural use.

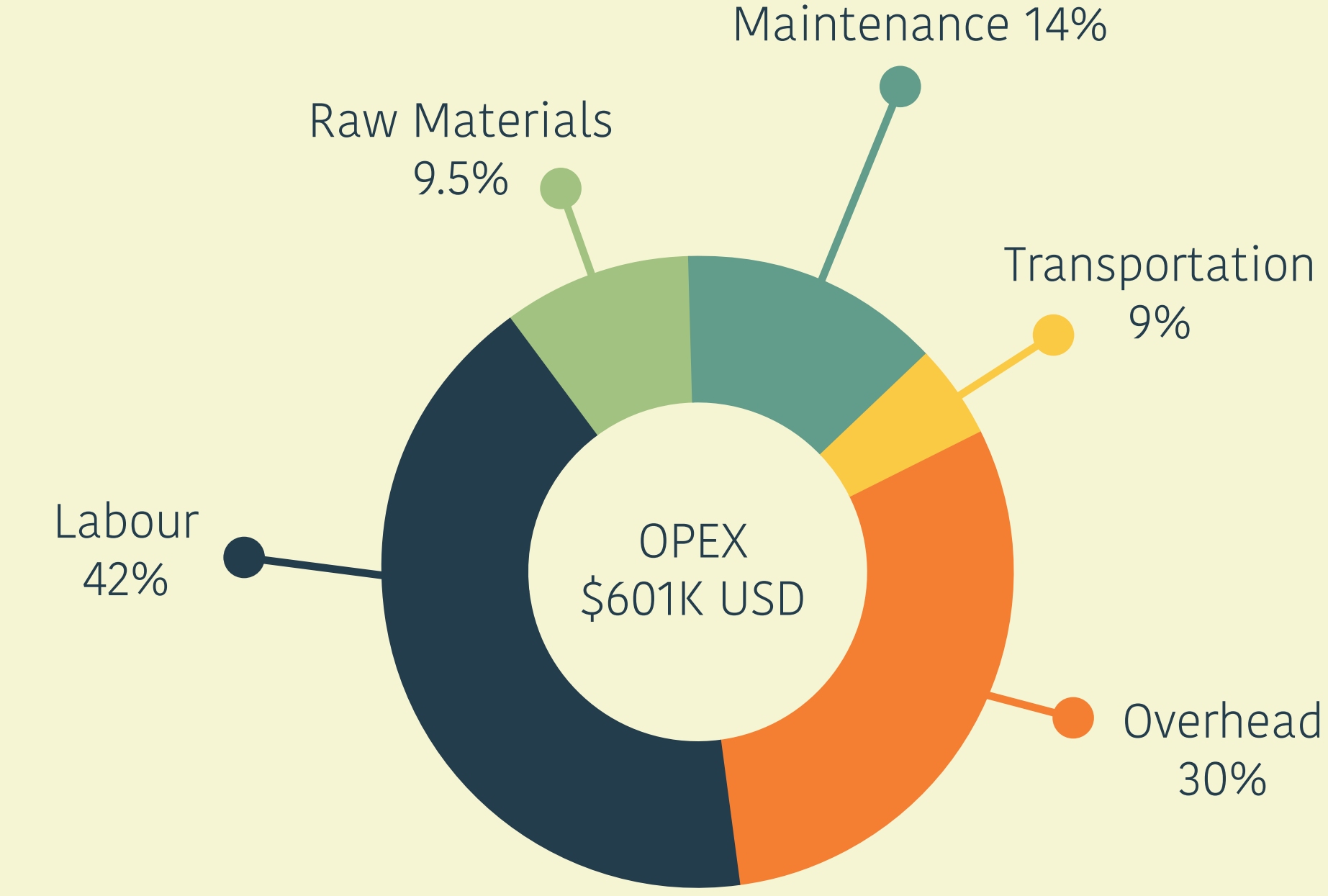
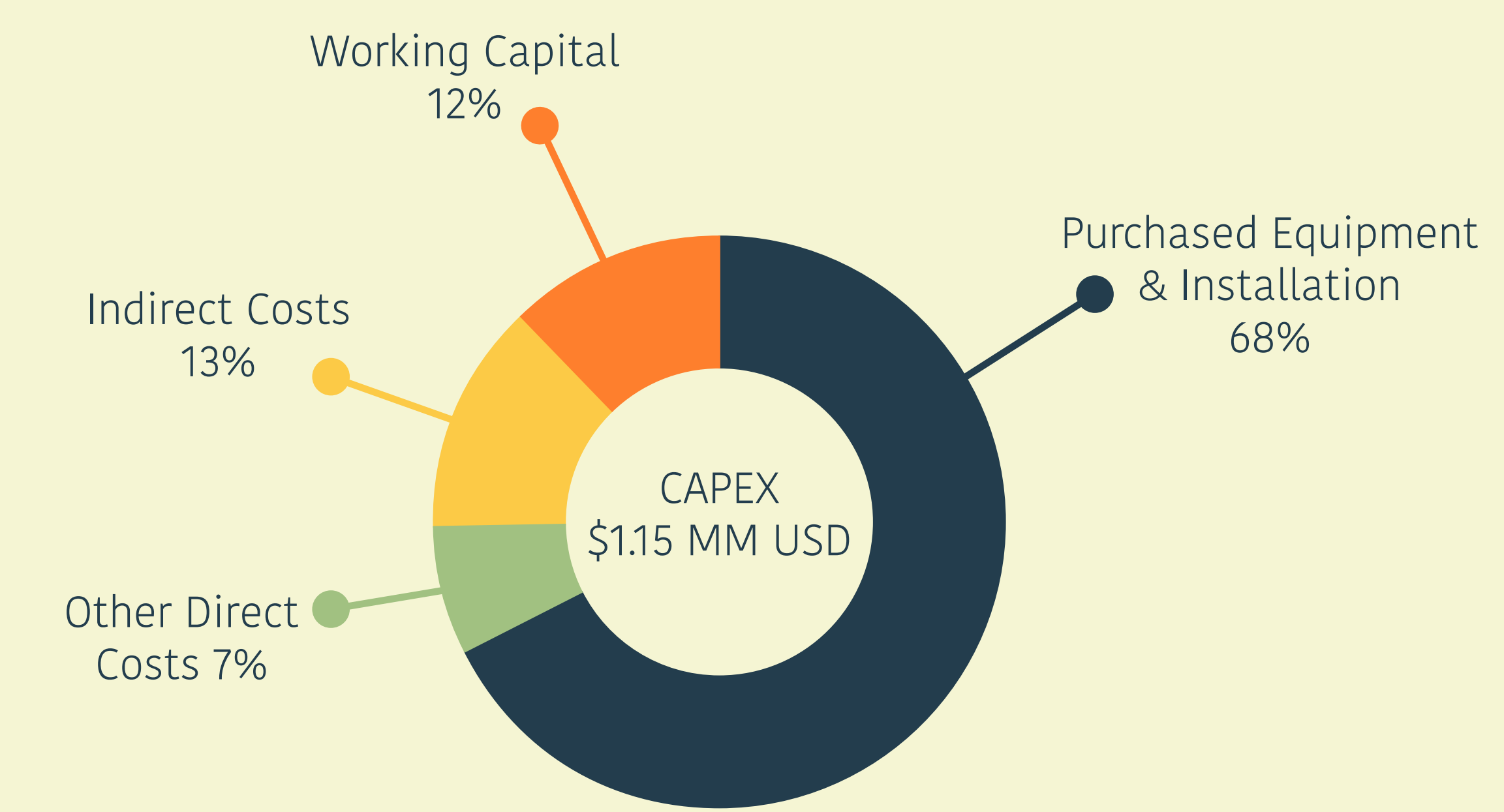


### Environmental Assessment

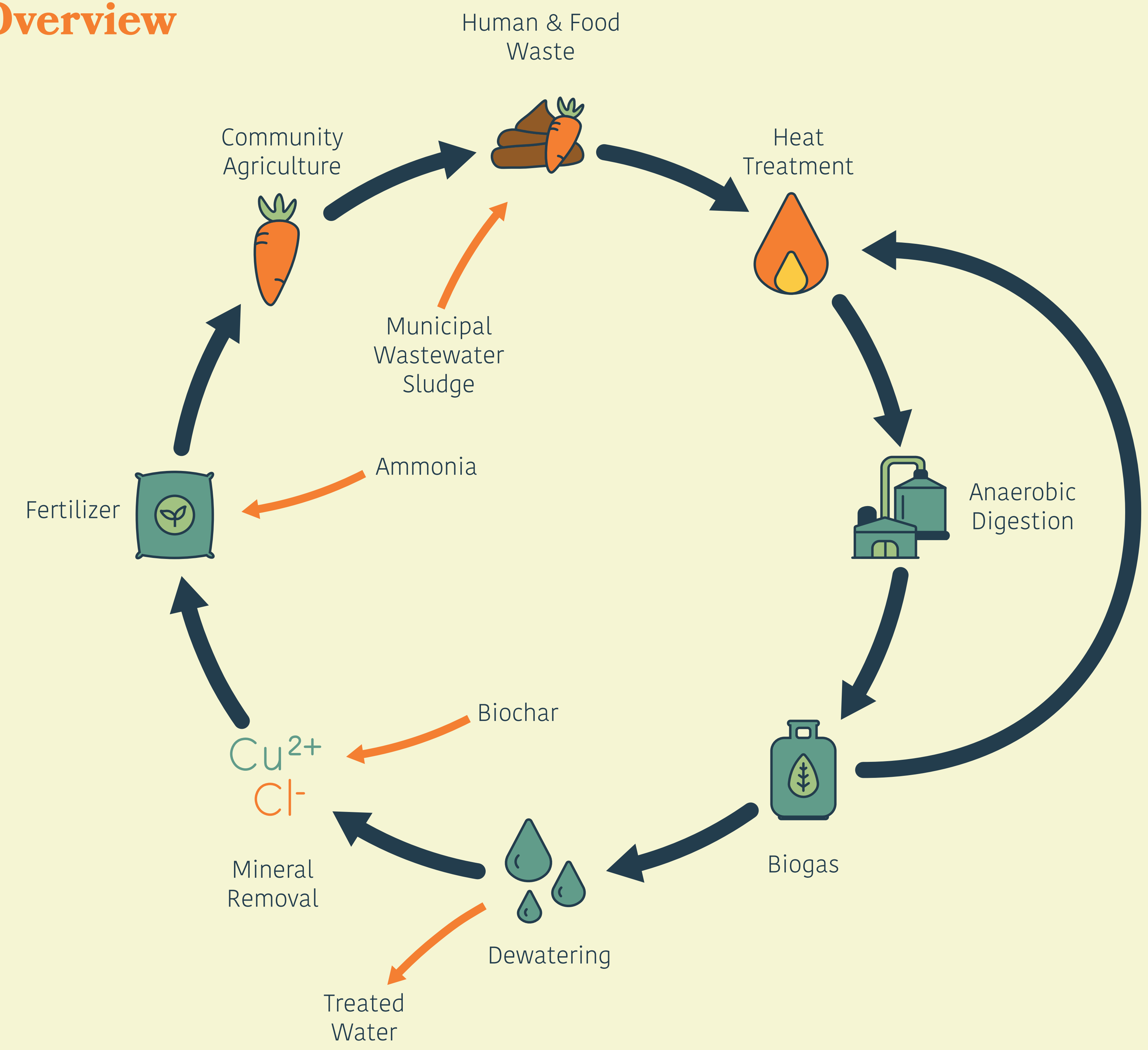
Over its 20 year operational lifetime, our system results in:



### Economic Analysis

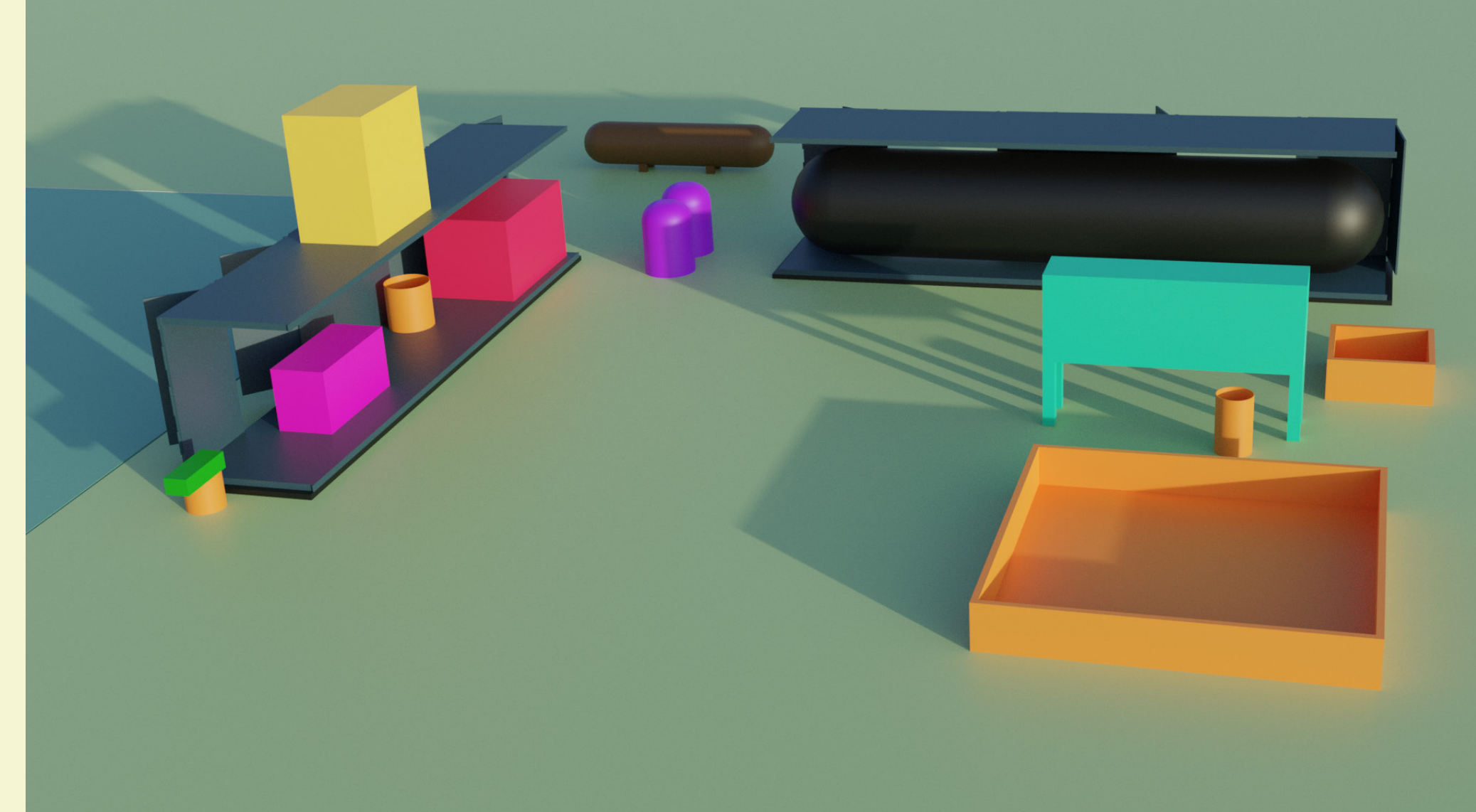


### Process Overview



### Plant Layout

- Grinder
- Spiral Heat Exchanger
- Tanks
- Finned Heat Exchanger
- Heater
- Propane Bullet
- Iron Oxide Filters
- Anaerobic Digester
- Screw Press



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