

# WASTEWATER INFRASTRUCTURE PRIORITIES

*Presented by:*

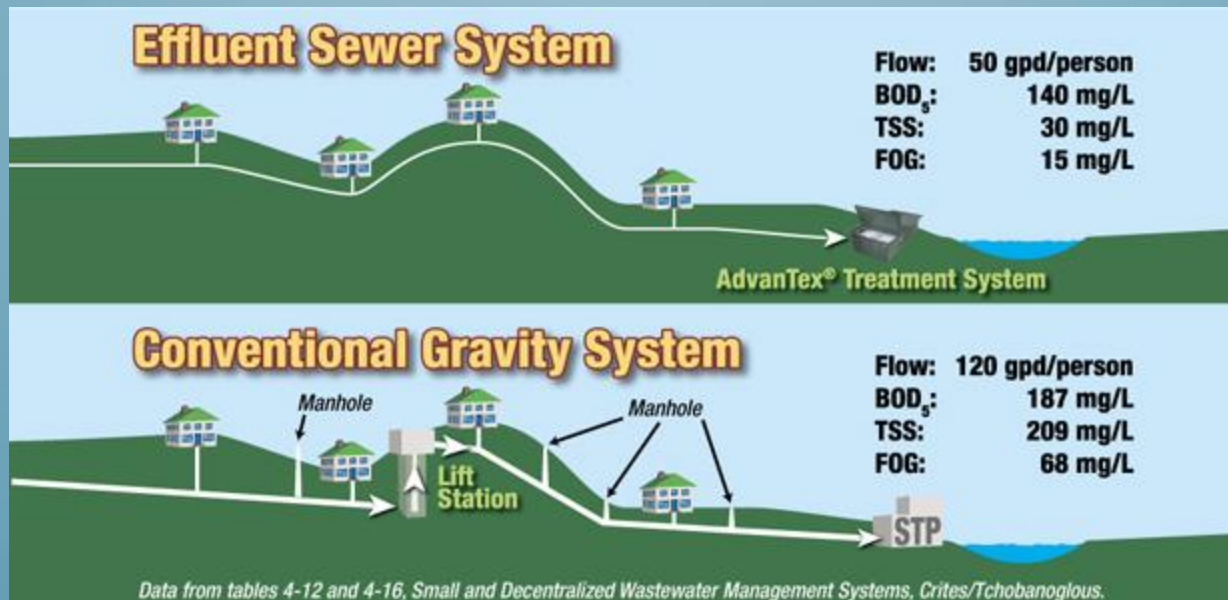
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**PRESENTATION  
FORMAT**

**FOCUS:  
WASTEWATER**

- *Challenges Ahead for CUC*
- *Potential Growth  
Limitations for Existing  
Infrastructure*
- *Capital Program Planning  
Agenda*
- *Critical Capital Projects*



## CHALLENGES AHEAD FOR CUC:

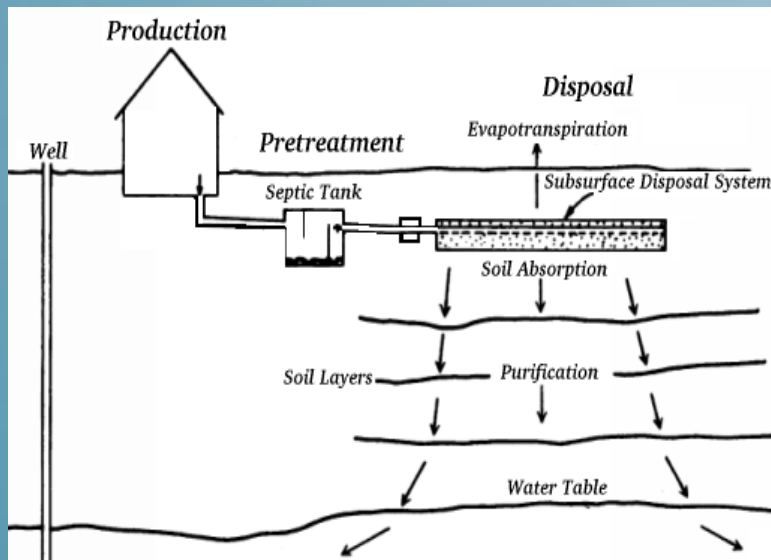
### WASTEWATER



- **Existing Concerns: Wastewater**
  - **Sadog Tasi WWTP – 4.8 MGD capacity**
    - **Status: modified from original design**
      - **Operationally inefficient**
      - **Lacks headworks/grit removal**
      - **Sludge handling inefficient**
      - **Plans: Rebuild to original design**
  - **Agingan WWTP – 3 MGD capacity**
    - **Status: original design**
      - **Needs upgrades**
      - **Lacks headworks/grit removal**
      - **Sludge handling inefficient**
  - **Kagman Area Septics**
    - **Status: Nitrate concentrations rising**
  - **Implementation of a Comprehensive training regimen**
    - **Status: In development, partial roll out started, need funding**

## CHALLENGES AHEAD FOR CUC:

### WASTEWATER



- Aged and Failing Collection System (40 + years old)
  - Asbestos Cement pipe
  - Manholes covered by Asphalt
- Lift Stations being updated
  - Installed VFD's, need SCADA
- No Island Master Plan
  - Difficult to determine growth plans
  - No standards for pipe/IT installations
- Septic Systems not functioning optimally
  - Gradually influencing aquifer
- CUC needs to extend collection mains into neighborhoods to require connection
  - CUC R&R require if within 200 feet
  - Challenge on cost to connect
  - No funding to extend
  - Best timed with road improvements to keep cost down

# POTENTIAL GROWTH LIMITATIONS WITH EXISTING INFRASTRUCTURE

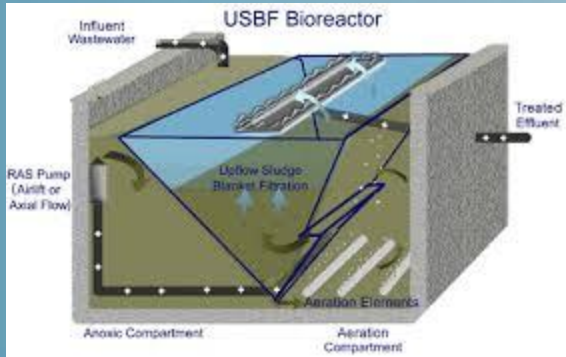
## WASTEWATER

- *Wastewater capacity at Sadog Tasi WWTP projected to reach 80% within three years*
  - *6,000 new rooms planned*
  - *BSI plans for large water park in Marpi area*
- *Current design of Sadog Tasi WWTP may be limited to 80% capacity (3.4 mgd)*
  - *Designed as a sequential treatment system*
  - *Plant modified to eliminate fine bubbler system for surface aeration*
  - *With projected higher flows, need original plant design*
  - *Need grit removal system*
  - *Need Centrifuge sludge drying system*
- *BSI plans will drive need for new WWTP or expanded plant at Sadog Tasi*
- *Embedded training program*

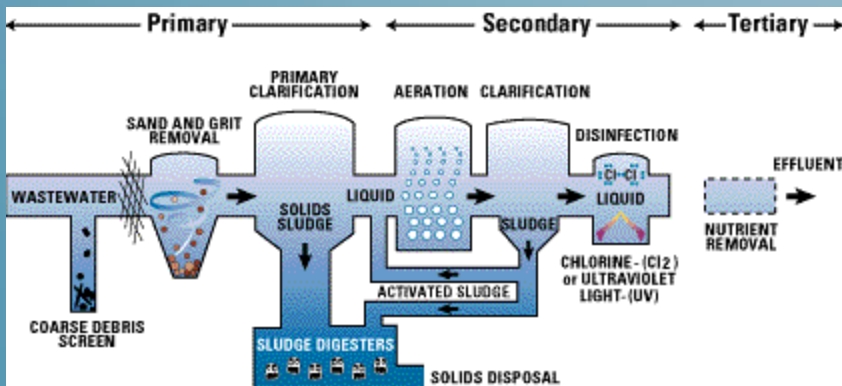


# CAPITAL PROGRAM PLANNING AGENDA

## WASTEWATER

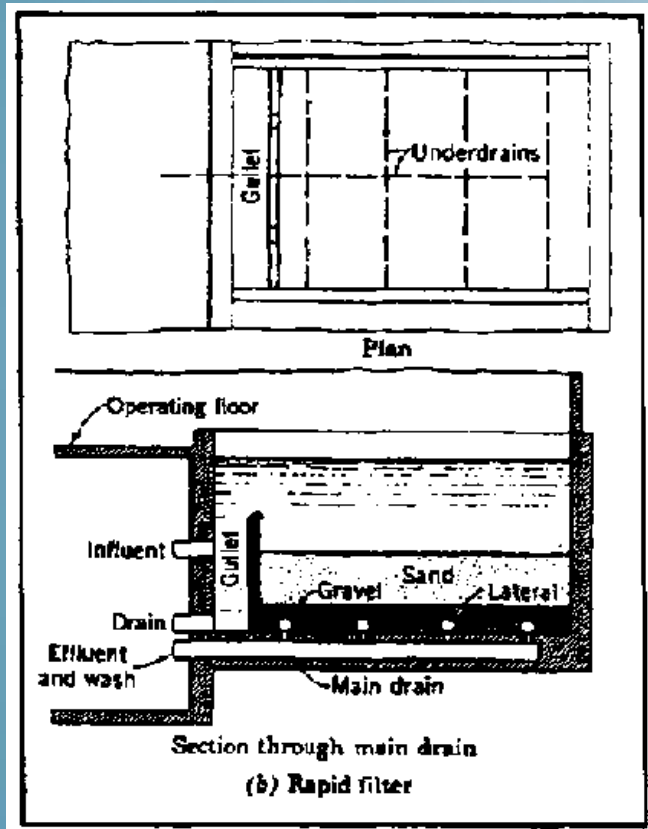


- Asking for 2% increase on Development tax assigned to CUC for expansion requirements
- Funding would support:
  - New WWTP in Marpi area (10 mgd)
  - Upgraded Sadog Tasi WWTP (rebuilt to original design)
  - Upgraded expanded Agingan WWTP (3 mgd to 4 mgd) with reuse addition
  - New Kagman area WWTP with collection system



- Reuse capabilities for agriculture irrigation or
- Additional/recharge water supply source

# CRITICAL CAPITAL PROJECTS



- Establishing a FOG program to administer CRM approved grease trap installations, monitor, fine, recapture CUC costs
- Leverage EPA funding with CUC generated funds to implement larger more cost effective collection system projects
  - \$4 million
- Upgrading Sadog Tasi WWTP
  - \$4,000,000
- Upgrading Agingan WWTP to reuse
  - \$5,000,000
- Certification Program for Water/Wastewater Employees
  - \$105,000
- Planning/engineering/Construction funds for Beach Road
  - \$3,000,000
- Rate Study for rate modification
  - \$1,000,000
- Design/Construct WWTP with reuse in Kagman area
  - \$2,500,000