

Products Highlight

BioCoir®

AeroCell®

Puralinity®

Quick Facts

Application:
Commercial

Products:
BioCoir, AeroCell, Puralinity

Engineer/Designer:
Mike Fugate, PE

Installer:
Tim Haas, Earth Quest LLC

Location:
Globe, AZ

Building Blocks Approach Solves Animal Control Wastewater Challenges

Situation

In April 2020, Gila County Arizona commissioned the construction of a new animal control facility. The large facility is in a remote location outside of Globe and thus required a decentralized wastewater treatment system. The new system needed to fit in a small footprint and handle the waste from a busy animal control facility. Anua was able to provide the best holistic treatment plan and meet the county's tight budget.



Solution

The project was challenging due to the site and soil constraints coupled with the fact that the animal and human wastewater sources are commingled. Anua utilized a "building blocks" approach combining several different process technologies to handle the dual waste streams and provide operational flexibility.

The combined system treats 1,710 GPD. The dog kennel washdown is 1,260 GPD and the office complex contributes 450 GPD. Wastewater from the dog kennel flows through a hair interceptor and then into a series of Infiltrator septic tanks followed by a dosing tank with a Quanics simplex pumping system. Effluent is timed dosed to a single BioCoir coconut fiber biofilter pod. The BioCoir treated effluent then combines with the wastewater from the office portion of the facility. The office wastewater flows through a series of Infiltrator septic tanks with a 1/32" commercial effluent filter followed by a dosing tank with a Quanics duplex pumping system. The combined flows are then timed dosed to three AeroCell open cell foam pods, which provide advanced treatment. The effluent is dispersed by a Geoflow subsurface drip irrigation system.

Technical Details

Products Used:

- (1) BioCoir Pod
- (3) AeroCell Pods
- (1) Puralinity 26" dia basin

Influent:

- Hydraulic – 1,710 gpd combined:
 - Kennel: 1,260 gpd
 - Office Building: 450 gpd

Effluent:

- BOD₅ – 15 mg/l
- TSS – 15 mg/l

Tank Sizes:

- Kennel
 - Primary – 2,500 gal
 - Dosing Tank – 1,000 gal

Office Building

- Primary – 1,000 gal
- Combined Dosing Tank – 2,000 gal

Results

Jake Garrett, P.E., Wastewater Division Manager, Gila County Community Development stated:

"Anua's RFP response addressed the county's concerns about providing a solution that addressed the unique wastewater characteristics, high peak flows, and disinfection chemicals associated with kennel cleaning. Anua was also able to address the county's desire to partner with a group that could provide a robust solution coupled with installation and operational training for all Gila County Animal Control staff. Anua has done a great job and been very responsive to all requests."

Everyone involved in the process worked together to achieve the ideal treatment solution for the Gila County Animal Control facility. Anua's staff was there every step of the way to ensure that the project went smoothly and was completed on time. The system is fully operational and exceeding expectations.

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