CASE STUDY

PROJECT NAME
Berkshire East
Charlemont, MA

SYSTEM SPECIFICATIONS
9,900 GPD subsurface AES combined treatment and dispersal system installed in two 4,743 sqft C33 sand beds at a Massachusetts four-season resort

INFILTRATOR PRODUCTS USED
6,000 linear foot Advanced Enviro-Septic® combined treatment and dispersal system

INSTALLATION DATE
Summer 2022

ENGINEER
Matthew Puntin, P.E.
SK Design Group, Inc.
Pittsfield, MA

CONTRACTOR
Clayton Davenport
CD Davenport Trucking, Inc.
Colrain, MA

INFILTRATOR
water technologies

4 Business Park Road, Old Saybrook, CT 06475
(800) 221-4436 • info@infiltratorwater.com

Advanced Enviro-Septic® Combined Treatment and Dispersal System Provides Reduced Footprint and Cost for Massachusetts Resort

OVERVIEW

Berkshire East is a four-season mountain resort located in Western Massachusetts. This resort features skiing, snowboarding, mountain biking, camping, white water rafting, zip lines, and a mountain coaster. The resort needed to replace an existing septic system serving the main lodge of the mountain that was deemed a failure. Plans for future development of the property required a new system sized to handle larger future flows.

SYSTEM DESIGN

The project engineer, Matthew Puntin, P.E. of SK Design Group, considered several options for the 9,900 GPD system including Infiltrator Chambers and conventional stone and pipe. He ultimately selected an Advanced Enviro-Septic® (AES) combined treatment and dispersal system because of the 25 percent footprint reduction as compared to chambers and the ability to install the system with the existing land contours. The footprint of a stone and pipe system would have had to be 50 percent larger than the selected AES system. In addition, the substantial reduction in footprint also reduced the construction cost.

The AES treatment system removes up to 99 percent of wastewater impurities without using any electricity or replacement media. Highly purified wastewater is released to the soil, recharging the groundwater, preventing soil and groundwater contamination. The 9,900 GPD AES system at Berkshire East includes 6,000 linear feet of AES pipe divided into two-5,000 GPD module beds. The total combined sand bed area for the system is 9,486 sqft with a soil loading rate of 1.233 GPD/sqft. The AES subsurface combined treatment and dispersal system solution enabled the engineer and contractor to accommodate the cross-slope on the site by installing the AES in a stepped configuration to slope the system and reduce the amount of fill needed for the project.

RESULTS

The smaller footprint required for the AES system, the ability to install with the natural contour of the site, and reduced fill and construction costs were all major benefits of choosing the AES system. In addition, the system is very low maintenance and will accommodate the future growth of the resort.

> ***"AES systems are low maintenance needing just annual inspections of the field, the distribution boxes, and the pump chamber. Key benefits are that AES slopes with the land, reduces the system footprint including mound height, and reduces project costs."*** *– Matthew Puntin, P.E., SK Design Group, Inc.*