

Integrated **WATER** Services, Inc.

IWS Completes Successful Wastewater Design-Build Project for Colorado School District

Monte Vista, CO – Sargent Schools is based in South Central Colorado (approximately 50 miles north of the New Mexico border) and services K-12 students from rural Rio Grande County. The Neenan Company was contracted to Design-Build school improvements including the addition of a new building to serve the high school. The Neenan Company selected IWS to join the project team to design, permit, and construct the wastewater treatment system for the school district.

The project site is not located near any potential surface water disposal locations so this required IWS to design the wastewater treatment system to meet the Colorado Department of Public Health and Environment (CDPHE) subsurface discharge requirements of less than 10 mg/l total nitrogen. CDPHE had not previously permitted an



The two center tanks are the IWS Upflow Filters



Treatment system being installed

Advantex treatment system for subsurface dispersal that would meet these low nitrogen requirements. IWS worked closely with the regulators to introduce them to the innovative Denitrification Upflow Filter to be used in conjunction with the Advantex AX-100 pods.

Design of the treatment system included the following components: a) 15,000 septic tank and 10,000 anoxic tank; b) a 15,000 gallon recirculation tank; c) six, AX-100 Advantex pods; d) two, 8,000 gallon denitrification upflow filter tanks; e) 6,000 gallon dosing tank; and f) a 40,000 ft² drain field. The Xerxes tanks and Advantex AX-100 pods were supplied by Roger Shafer of SCG Enterprises (Conifer, CO).

The IWS Denitrification upflow filter was installed with the intent to be a pilot program for the new technologies program under Colorado Department of Public Health and Environment Water Quality Division. IWS designed the system to treat up to 100 mg/L TKN influent to meet the groundwater discharge requirements of 10mg/L. The end goal is to add the Upflow Filter to the approved technologies list for the CDPHE following the pilot study. In January 2015 the Upflow Filter, now part of ENR Technologies, LLC. (ENR), was approved as an Alternate Technology for use in Domestic Wastewater Works in Colorado by the Colorado Department of Public Health and Environment.

The IWS team included Jamie Miller, PE (Project Engineer), Ron Seale (Project Manager), and John



View of the completed treatment system

Catterall (Superintendent). IWS worked closely with Mike King and Greg Kushner (Project Managers) of The Neenan Company.

Greg Kushner of The Neenan Company said, "This is the second project we have worked on with IWS and the first where they have delivered a completed onsite wastewater treatment system on a design-build basis. We are very pleased with their performance and professionalism, and are looking forward to working with them in the future"

For More Information Contact

West, Northeast Regions Peter C. Balas (pcbalas@integratedwaterservices.com) Tel: 925-895-3895
Jay Alman (jalman@integratedwaterservices.com) Tel: 707-291-5283

Southwest, Midwest, Southeast Regions Jeff Thomas (jthomas@integratedwaterservices.com) Tel: 720-221-4366
Environmental Services (PES, LLC) Jonathan R. Bonser (jrbonser@pescontractors.com) Tel: 970-669-2277