

2012 WPI MQP Subjects/Projects

Stantec Consulting Services Inc. (Lexington, KY)

Renovation of Kentucky River Dam No. 8

Kentucky River Lock and Dam No. 8 was originally constructed between the years of 1898 and 1900, and consists of a 254-foot long rock filled-timber crib structure along with a masonry lock. Numerous repairs have been performed throughout the years to maintain the operability and functionality of the lock and dam. Leakage pathways through nearby karst features have historically been a problem at Lock and Dam No. 8. This leakage has presented both water supply and water quality issues for the City of Nicholasville and the surrounding communities. These issues along with deteriorating conditions of the facilities require a complete renovation of the facilities. The renovation will include the design of a concrete-filled cellular sheet pile dam, abutment structures, and foundation improvements. The project will be in the design phase during the 2012 MQP duration and will include the following disciplines: general civil, geotechnical, environmental, permitting, hydrology and hydraulics, surveying, etc. Specific MQP scope of work will be developed at a later time.