

## UAA Example

### 3/18/2015

Coal mine facilities in Colorado are permitted through the Colorado Discharge Permit System (CPDS). One facility conducted a Use Attainability Analysis to modify aquatic life standards and use classifications to three small jurisdictional stream segments that these facilities discharge to. Water quality monitoring and biological monitoring focused on four streams to address uncertainty in the appropriate selenium, iron, and temperature standards for protection of aquatic life.

Biological and water quality sampling began in May 2012 and continued through October 2013 and was used in addition to historical water quality sampling results that had been collected since 1979. Due to the intense sampling conducted, contractors had to be hired to assist in water quality sampling field work and consultants were hired to conduct biological sampling. The UAA report was developed by the consultants in March 2014 and was used as the basis for the facility proposal for the triennial review hearing. Legal staff had to be hired for assistance in the UAA development approach and for representation during the triennial review hearing, which ended in August 2014.

Ultimately, the temperature standard modifications were approved as proposed. The aquatic life standards for iron and selenium received temporary modifications, so that work could continue to resolve the uncertainty in the appropriate standard. Extensive water quality and biological sampling continues in 2015 with the intent of finalizing aquatic life standards for selenium and iron based on protection of the resident aquatic life in these stream segments.

UAA Cost (May 2012 - August 2014)	
Water Quality Analytical Laboratory	\$18,000
Consultant Services and Biological Laboratory	\$240,000
Legal	\$63,000
Support Contractors (Field Sampling)	\$5,000
Total	\$326,000
Internal Cost (May 2012 - August 2014)	
Company Personnel (5 staff, 10%-time, \$100K salary avg., 2-yrs.)	\$100,000
2015 Continued Sampling Cost	
Consultant Services and Biological Laboratory	\$81,880
Water Quality Analytical Laboratory	\$10,901
Company Personnel (1 staff 20%-time, \$80K salary avg., 6 months)	\$8,000
Total	\$100,781

This gives a total of **\$526,781** and the process is not complete. These costs are typical for UAAs in Colorado.