Animas River - Spring Runoff 2016

Gold King Mine impacts

The Animas River is 126 miles long and begins in the San Juan Mountains outside of Silverton, Colorado. Elevations in the Animas River system range from more than 13,000 feet in headwater areas to 6,000 feet where the Animas River leaves Colorado and flows into New Mexico and joins the San Juan River.

EPA estimated that approximately 182,000 lbs. of metals were released into Cement Creek and the Animas River from the Gold King Mine spill. The majority of this load was in particulate form (not dissolved) and was deposited as sediment on the river bottom and along the banks of Cement Creek and the Animas River. Particulate metals are less toxic than dissolved metals. A substantial amount of this material was deposited into the Animas River just below the confluence with Cement Creek and as far down as Baker's Bridge.

With unseasonably warm weather throughout the month of February and forecasted into March, snow has begun melting at lower elevations in the San Juan Mountains. This has increased river flows throughout the Animas River watershed. As water levels rise, sediments deposited during the Gold King Mine Incident as well as sediment deposited over the course of many decades will be stirred up from the riverbed causing turbidity (a cloudy, murky appearance), and a possible change in color.

Every spring, Cement Creek and the Animas River experiences runoff with naturally occurring sediments. Many of these sediments originate in the Upper Animas Mining District and are naturally high in certain heavy metals. The Gold King Mine incident transported additional sediment, some of which accumulated along the banks and bed of Cement Creek and the Animas River within Colorado. Sediment left behind from the Gold King Mine has a noticeable yellow-orange color but is otherwise similar to the naturally occurring sediment that is present every spring as water levels rise. Exposure to both water and sediment is not expected to harm human health during typical recreational exposure.

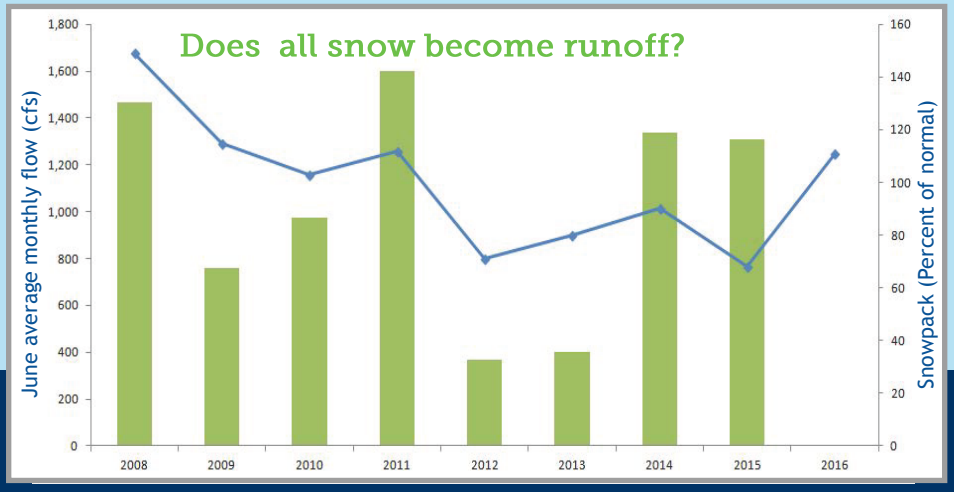
WQCD will monitor the Animas River throughout spring to assess potential impacts from the Gold King Mine spill.

What is spring runoff?

Mountain snow fields act as natural reservoirs, storing precipitation from the winter when most precipitation falls, until spring and summer when most (or all) snowpack melts into rivers.

Average snowfall in the headwaters of the Animas River is 153 inches. For comparison, average snowfall in Durango is 65 inches.

Runoff in the Animas River typically begins in April and continues through July, depending on local temperatures and precipitation. Flows in the Animas River below Silverton increase from approximately 50-100 cubic feet per second in January up to 3,000 cubic feet per second during spring/summer snowmelt season.



This graph compares snowpack and runoff amounts from 2008-2015. Snowpack is shown in blue and measured as percentage of normal snow received (i.e. more than 100% is an above average year for snow). Runoff is shown in green and cubic feet per second.

Safety Reminders
Animas River - Spring Runoff 2016

Tips for river users

- It is always a good public health practice to wash with soap and water after exposure to untreated river water or sediment.
- As a precautionary measure, it is recommended that river users avoid extended contact with visibly discolored sediment or river water.
- Because children sometimes ingest water and soil when playing in or around the river, they should be supervised closely to limit their exposure to untreated water or sediments.
- When using any river or stream as water source be sure to properly treat water before consumption.
- Rinsing fishing and boating equipment after each use is always a good practice.

The public should avoid areas with orange sediment or discolored standing water. Further, anyone coming in contact with any orange sediment or discolored standing water should wash with soap and water. Regular monitoring of river conditions will occur throughout the spring.

COLORADO
Water Quality Control Division
Department of Public Health & Environment

www.colorado.gov/cdphe/wqcd
Phone: 303.692.3500

SAN JUAN BASIN HEALTH DEPARTMENT

www.sjbhd.org
Phone: 970.247.5702

SAN JUAN COUNTY PUBLIC HEALTH SERVICE
preventive health at its peak

www.sanjuancountycolorado.us/public-health
Phone: 970.387.0242