

Rose Ann Rowlett

Dear Arizona Department of Environmental Quality,

I'm writing to urge you to deny South32's Hermosa permit (#AZ0026387) for discharge of mine water into Harshaw and Alum creeks. I find the proposed impacts unacceptable for 2 main reasons: 1) dewatering due to the "cone of depression" that would be created around the mine; and 2) disturbances that would come from dramatically increased flow rates in nearby creeks.

Lowering the groundwater level in an area like this could be highly destructive, possibly permanently drying up natural springs and leading to significant loss of upland trees. The death of surrounding trees will decrease the landscape's overall resilience and could lead to the present ecosystem's radical transformation and potential collapse.

Expected harms from the water discharges are also deeply concerning. Up to 6 million gallons of water per day could be forced down Harshaw Creek and up to 172,000 gallons per day down Alum Creek. These volumes are significantly higher than current, intermittent, base flows. This would lead to severe erosion upstream, excessive sediment downstream, and the burial of several important water sources in Harshaw Creek and Alum Creek. Such springs are unique ecosystems with high biodiversity, and their loss is of particular concern.

Furthermore, such intense flooding would likely lead to reduced tree recruitment for riparian species like cottonwoods and sycamores — over time, altering the landscape. Because the water discharges would be ongoing, the surrounding landscape would be more water-logged--thus reducing their capacity to absorb water during rains. This could result in flash flooding downstream. And finally, the quality of the water being discharged in such high quantities is a concern. Its source will be deep underground in the Hermosa project, and although the mine has promised to treat the water before release, its quality could change unexpectedly over time.

Given the potential harm this project could deliver, I urge you and the Arizona Department of Environmental Quality to deny the permit for this project.

Sincerely,