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1. **Future Implications: What is the best solution to both ensure economic prosperity and environmental health for current and future generations? (Should Silverton be designated as a Superfund site? )**

To best possible solution to cleanup the incredible mess that has struck Silverton, the Animas River, and a lot of what is south of the Animas, would be to have Silverton designated as a Superfund site for many reasons. To start, the mines around Silverton have been leaking for years and years, and if Silverton could have gotten a Superfund a long time ago, this massive spill from the Gold King Mine could have possibly been prevented as a whole. Those who are pro-Superfund, believe that there is simply no other way that Silverton can end its messy mining past. According to Travis Stills, a Durango environmentalist lawyer explains, “The problem is too politically entrenched (and expensive) to be handled by state or local authorities alone.” (Langlois, 3). This means that the spill is too catastrophic for officials to handle by themselves, and too expensive to try to clean up without government funding. Miners believe the damage could cost millions of dollars to clean up, then millions each year after that, to keep the cleanup stable. Either way, the cleanup that revolves around the Gold King Mine is going to take a lot of money and time, and the Superfund could make the cleanup a lot less painful and take a lot less time as well.

Another reason why a Superfund designation could benefit Silverton would be to raise property values. Many Silverton residents are afraid that property values could go down, but in fact, they could actually raise within a certain amount of time after the Superfund designation is in place. A study by the Environmental Protection Agency showed, “Residential property values within three miles of Superfund sites increased 18.6 to 24.5 percent after the sites were cleaned up and deleted from the National Priorities List.” (Langlois, 5). To put this data into perspective, many people know of the small, touristy town of Aspen, Colorado. What many people do not know is that the town actually has a Superfund designation, and million dollar homes sit on the hills of Aspen to this day. Tourists are still brought to Aspen every year, and many enjoy the amenities that Aspen has to offer, regardless of the fact that Aspen has a Superfund designation. To conclude, the thought of visiting a Superfund designated town may not be appealing to some, but the thought of visiting a Superfund-qualified town can’t be any better.

**2. Causes of the spill: Could the spill have been prevented and if so how?**

Due to the history of the mines in and around Silverton, the spill could have definitely been prevented. The history goes back to the late 1800’s, when mining was popular in Southwest Colorado. It was very common for miners to dump the drainage into ponds and streams that flows into larger rivers. In fact, some believe that the cause of this specific spill could have been an unremediated mine, and that this is not the first time the Animas has been contaminated. As an example, an author from The Hill stated, “There are 20,000 mines in Southwest Colorado that are under a federal mining statute that encourages excessive mining on sensitive land.” (Mintz 1). Joel Mintz continued to discuss how the mines have been leaking for years, since mining almost started, and the Animas has never been truly as clean and as pure and we believed it to have been. Over the past decades with mining, there have been unfair laws like this one that have created spills like this. In conclusion, if these laws were regulated pushing miners to mine on less sensitive land and show these miners exactly where it is safe to mine, the spill could have been prevented.

**3. Historical Context: How has the history of mining impacted the debate on this issue?**

The history of mining has had an impact on current events, whether they are known to the public or not. Not many have know that for decades mines in the upper animas have leaked acidic water with various metals. In addition, not many know that the laws that have been passed about mining are reaching very susceptible areas, that could burst with toxic water at any time. This, unfortunately, is what happened with the Gold King Mine Spill. The Los Angeles Times posted, “The permissive General Mining Law of 1872, written to encourage mining, is still in force even though the pick, shovel and pan were long ago replaced by giant earthmovers that gouge open pits more than a mile across and thousands of feet deep. Billions of gallons of water are consumed in production, pumped through miles of vulnerable pipelines and stored in open pits of acidifying waste; huge swaths of land are destroyed in the wake of closed, abandoned and inadequately.” (Reynolds 1). This explains how miners have been mining on delicate land for decades, meaning the spills of toxic water are nothing new, and only a showcase for the history of how it’s been treated. So many streams and creeks of this toxic water have been breached over time, only waiting to be opened and create another catastrophe like this one. To end, the history of mining has easily been affecting this issue, and many that are to come.

**4. Ecological Impact: How far reaching will the ecological impacts be and how will they vary based on the region of the spill?**

The ecological impacts vary based on the area that the river has been affected. For years, mine drainage has put a hamper on the aquatic life of the Animas, more towards the North end near Silverton, and less on the South end, in Durango and beyond. The ecological impacts could affect those in the Navajo Nation, approximately 215 miles south of Silverton, but not by much. According to the Denver Post, the state exposed 108 rainbow trout fingerlings to the fouled river water. Only two died. If only two of these fish have died North of the Navajo Nation, then there should be extremely little, to no damage to the fish south of Durango. The high amount of metals that blasted through the water did not put an effect on the fish or plant life because of how little the time was that the large amounts of metals came through. The sediment at the bottom of the river may put a small strain on plant life, though. If the sediment is kicked up, the metals could create long-term impacts that could delay new plant growth. Overall, the ecological impacts do depend on the area, where these impacts could be larger towards Silverton, and less of a burden towards Durango and the Navajo Nation.