

Colorado river pollution assignment



**ASSIGN
BUSTER**

River supplies water to most of the southwestern United States and despite this fact, pollution levels are continually rising and in some cases above acceptable limits. The Colorado River supplies and runs through five states and during some parts of the year to the Mexican border. During the rivers journey various types of pollutants come into contact to with it degrading the water quality downstream. The river water benefits humans in multiple ways the first obvious answer is by drinking it. Farming and other agricultural uses demand 60% and sometimes as much as 90% of its water.

Using polluted water for irrigation passes the contaminants into the crops and ultimately onto our dinner tables. Water is scarce in the southwestern United States and water is essential for human survival. The Colorado River is the primary reason why the southwest can sustain the massive population in the region. Without this “ lifeline??’ of freshwater, we must find another means of supplying water to millions. Desalinating the water from the Pacific Ocean is not yet cost effective enough to handle the demand although about 8% to 10% of the water applied to Southern California comes from desalination plants.

Every year the government allocates more water from the Colorado River that is unrelated to human survival. According to an article in the San Diego Union Tribune “ Oil and natural-gas drilling in Colorado requires so much water that if its annual demand were satisfied all at once, it would be the equivalent of shutting off most of Southern Californians water for five days. ” (Hastener, 2008). During his term, President Bush authorized more drilling in Colorado than at any time since 1984. With these types of policies taking

hold f the river one must ask the question, what is more important energy or life?

The construction of the various dams along the Lower Colorado River system allowed small boomtowns to thrive along the banks of the now tamed river. Small towns and industrial facilities built close to river to take advantage of a good supply of water, and some used the rivers current to carry away pollutants. Of the many pollutants the river absorbs three are worth noting they are nitrates, percolate, and radioactive waste. Nitrates come from excessive human waste; this waste encounters the river wrought the ground when septic tanks become overloaded.

Lake Haves, AZ, is the lake that supplies water for the California Aqueduct; moon tutoring wells routinely test for nitrates and other pollutants. High concentrations of nitrates in drinking water can decrease the oxygen carrying ability of hemoglobin. This intensity of this effect increases in babies; the common term is " blue-baby syndrome". The nitrate levels found in the Lake Haves wells are four times higher the recommended EPA levels. Small town development cannot shoulder the blame for percolate pollution, as it is a chemical found in rocket fuel.

However, lax industrial standards in a small budding town might be the cause for this pollution issue. A factory in Henderson, NV, in the suburbs of Alas Vegas, manufactures rocket fuel for the military. The company that operates the rocket fuel plant has already spent over 80 million dollars to reduce the amount of percolate flowing in Lake Mead. Despite these efforts approximately 400 pounds of percolate flows into the lake daily. The EPA or

FDA has yet to identify acceptable levels of percolate, but the chemical has shown to cause thyroid and hormonal deficiencies.

The next type of pollution is by far the most dangerous, radioactive Waste at any concentration is dangerous. In Mob, UT, along the Colorado River is a former uranium mill; 16 million tons of tailings from this mill have accumulated along the riverbanks. These tailings leach over 1 00, 000 gallons of radioactive water into the river each day. According to the Center for Disease Control (CDC) water containing uranium is usually safe to drink but in elevated amounts can cause kidney defects and some types of cancer.

In 2005, the Arizona Department of Environmental Quality (ADAGE) formed the Clean Colorado River Alliance (The Alliance) under a recommendation from then Governor Janet Neapolitan. The Alliance's first task was to develop recommendations for dealing with current water problems in the Colorado River. Next, address the water quality of the river for human sustainability now and into the future. Lastly develop an action plan for dealing with the pollution issues of the river; The Alliance delivered the final report to Governor Neapolitan in December 2005. The preliminary report outlined a partnership plan modeled after the Chesapeake Bay Program.

Although major differences exist between the Colorado River cleanup project and the Chesapeake Bay reclaim project, the fundamental principles of a successful program are similar. The final report delivered to Governor Neapolitan is a detailed look into the major pollutants contained in the river system. The Alliance detail seven pollutants devoting a chapter to each one, including an action plan for dealing with the pollutant individually. The six

pollutants covered are nutrients, metals, endocrine disrupting compounds, percolate, bacteria and pathogens, salinity/total dissolved solids, and sediments and suspended solids.

The Alliance's report gives a comprehensive action plan for reducing the amount of pollution in and river and improving overall water quality. The well-written report effectively follows the key lessons learned from the Chesapeake Bay Program. However, there is an overabundance of managing entities, too many hands in the pot extends deadlines effectively stalling any effort for actual physical cleanup. Eliminating certain entities from the mix would streamline the process of achieving a noticeable improvement in river water quality.

Determining which entity to remove from the deciding process could be interesting the federal agencies carry more weight but the local agencies are at the frontline of the problem. The following sustained plan takes aim at Colorado River pollution from the source. Target main sources of pollution and develop strategies for elimination. Reduce the amount of water allocations for purposes not related to human survival. Increasing the amount of Water flowing through the river will decrease the concentrations of contaminants in the river.

Lastly educate municipalities about the type of contaminants to look for and educate industrial facilities on how to dispose of polluting materials properly. Action Items Action Steps | Timeline | Target pollution at the source | Using the report from the Clean Colorado River Alliance to determine where the highest concentrations of pollution encounter the river. Eliminating the

source will at least result in a substantial decrease in pollution. | Months 0-6 |
Review Water Allocations | Identify and prioritize water allocations in order of human importance.

Impose stop work penalties on industrial facilities that do not meet the predetermined incineration levels. | Months 6-14 Educational Educate the various state and local governments about what type of contaminants to look for and best practices for removing the pollution. Teach management of local water facilities how to interpret findings from well test reports. Educate industry professionals about how to dispose of hazardous or potentially hazardous materials that affect water quality properly. | Month 14-ongoing |
The benefits of this plan are that it takes a proactive approach to pollution reduction.

We know where pollutants come from but most other sustained Lana attempt to clean already polluted water. This plan targets pollution where it first encounters the river instead of attempting to deal with the aftermath. The amount of water the Colorado River can generate is limited; sending water to where it is needed the most is common sense. This plan proposes not monetary penalties but stop work penalties, when the economy is strong companies are able to pay fines for over pollution and continue degrading the downstream water quality.

Eliminating fines leaves no other alternative but to change destructive work practices that pertain to the river. Education is the key for any issue, and this issue is no exception. Educating local water municipalities will ensure water quality standards set forth by the EPA are met consistently. This plan also

contains numerous challenges, since this river flows through multiple states and affects numerous industries it undoubtedly meet resistance. Targeted polluters would have to change current business practices to eliminate pollution; often a substantial cost would be involved.

Some companies simply do not have the capital for such change and risk going out of business. Water allocations are determined at the federal level through congress, so getting changes in allocations would take costly lobbying and extended legislation. However, one alternative could be to lobby the President to declare the river endangered. Although education is the key, everyone learns differently and developing a curriculum that appeals to everyone is difficult and costly. Society has an obligation to itself to preserve life; with water, a necessity for life the decision to support any type of water sustained plan is eliminated.

The people included in any American society all have the ability to use their voices for change. Elected officials in the federal government hear their voices that in turn develop new laws and regulations. To make any type of sustained plan a successful endeavor requires support from the federal government. The government either controls or at least heavily influences most of the affairs concerning the Colorado River. The fed can only introduce and put new laws into effect the local and state authorities must enforce the laws and regulations. Americanizes. Org named the Colorado River Americas most endangered river.