Water energy resource plan

Business, Industries

Eutrophication is the depletion of oxygen in an aquatic ecosystem. Eutrophication occurs when a body of water enriched with excess nutrients, nitrogen and phosphorus from dead plant material and waste. Nitrogenpollutionlargely derived from agricultural fertilizers and emissions from the combustion of fossil fuels. Phosphorus pollution comes from wastewater treatment and detergents. These elements and compounds make their way to coastal areas through the drainage networks of rivers and streams.

This nutrient and phosphorus mix results in increased algae growth that makes water cloudy and unhealthy. There are two ways for eutrophication to occur; the first is artificial eutrophication through the release of sewage, fertilizers and grey water into natural waterways. The second occurs is naturally occurring over lakes and tributaries that flood and pick up dead vegetation, cattle manure and fertilizer. This can lead to loss of biodiversity, global warming, and pollution of drinking water, fish kills, acid rain, and ozone depletion.

However, the main culprit behind human caused eutrophication is the phosphorus released from sewage, septic systems and fertilizers. This point source pollution enriches the water and causes a buildup of algae and cyanobacteria in the ecosystem. The process of photosynthesis then starts as the begin feeding on the nitrogen and phosphorus enrichedenvironmentleading to murky and hard to see through water this is a sign of eutrophication. My sustainability plan is to educate others on the causes of eutrophication and the effects it has on ecosystems.

Increasing awareness will allow many to pinpoint possible sources and causes of eutrophication in their local ecosystems. My first step is to educate myself on the causes and effects of eutrophication. I will research the internet as well as peers reviewed articles. I will then develop an educational tool such as a PowerPoint Presentation to highlight how humans through artificial eutrophication add to the already naturally occurring process. I will include how eutrophication affects humans, animals, fish and plant life.

I will then schedule a meeting with the community board members and invite local residents to discuss eutrophication. 1) I will spend the first three months studying and learning about the cause and effects of eutrophication on ecosystems. 2) I will use the library to research the topic to find peer reviewed articles. Using the internet to research magazine, newspaper articles, and DOH and EPA websites, I will gather information regarding how phosphorous and nitrogen get into ecosystems what it involves and how to stop them from forming.) I will spend several weeks creating a PowerPoint presentation that explains what eutrophication is how it develops, what cause it, and how to prevent it. 4) In the final month, I will schedule the time and day of the presentation. 5) I will invite the community and homeowners. I will first spend time at home gathering the necessary information and research. I will then incorporate this data together to create a cohesive story involving eutrophication. I will then place all this into speaker notes and find scenes for use as pictures in the presentation.

In order to schedule a meeting with the Homeowners Association I will first create time to introduce myself to the homeowner’s committee. I will use

several friends and associates to make introduction easier. I will then request permission to present information to the committee at the next available meeting. After scheduling the meeting, I will proceed to invite fellow businesses and homeowners to attend. The research will require anywhere from 1-3 months to finish while the PowerPoint presentation will take anywhere from 1-3 weeks.

Scheduling time with the homeowners association will be at the next scheduled meeting. Overall, it will be an ongoing process but should take no more than 5 months to complete altogether. The problems that may occur are that point source pollution is not the only cause of eutrophication. There can be several causes of eutrophication including nonpoint source pollution such as urban runoff. There are areas that have limited supplies of drinking water and count on areas infiltrated by eutrophication.

The local vegetation that live and thrive in this infected ecosystems are choked and killed off. The dead vegetation allows many different species of algae to thrive and form. While the lack of oxygen created from the photosynthesis kills many species of fish. There is an upside to this plan the excess phosphorous taken from these areas can be placed into landfills. There is a shortage of phosphorus on land and this would help revitalize many fields. There are several limitations to the plan the plan would need the community as a whole to effectively combat eutrophication.

This would require not only the cooperation of the local Home Owners Association but every local business in the community. Eutrophication also increases with the rising demand of meats and fossil fuels. Developed

nations and developing nations alike will see a rise in eutrophication. The problem overall would be resources funding an operation to clean up local waterways and make local industry and sewage systems compliable can cost millions of dollars easily many cities and states are cash strapped and tightening their budgets.

References Eisberg, N. (2009, August 10). Getting to the clean point of use. Chemistry & Industry , 11. retrieved from Pheonix University online library website Powersearch . Welch, M. A. (2009). Lake Clean up Plan Panned. Winnepeg Free Press , B. 2. retrieved from Pheonix University online library website Powersearch . Writers, S. (2009). Nutrient Pollution Chokes Marine And Freshwater Ecosystems. Space Daily . retrieved from Pheonix University online library website Powersearch .