From: Holly Rogers
Sent: Tuesday, September 15, 2009 8:40 PM
To: Weyman Lee
Subject: Calpine Power Plant/Russell City
Dear Weyman Lee;

I have a few questions and concerns that I would appreciate your comments on. They are as follows:

"Acid rain causes a cascade of effects that harm or kill individual fish, reduce fish population numbers, completely eliminate fish species from waterbody, and decreases biodiversity. As acid rain flows through soils in a watershed, aluminum is release from soils into the lakes and streams located in that watershed. So, as pH in a lake or stream decreases, aluminum levels increase. Both low pH and increased aluminum levels are directly toxic to fish. In addition, low pH and increased aluminum levels cause chronic stress that may not kill individual fish, but leads to lower body weight and smaller size and makes fish less able to compete for food and habitat....some types of plants and animals are able to tolerate acidic waters. Others, however, are acid sensitive and will be lost as the pH declines. Generally, the young of most species are more sensitive to environmental conditions than adults. At pH 5, most fish eggs cannot hatch. At lower pH levels, some adult fish di! e....Together, biological organisms and the environment in which they live are called an ecosystem. The plants and animals living within an ecosystem are highly interdependent. For example, frogs may tolerate relatively high levels of acidity, but if they eat insects like the mayfly, they may be affected because part of their food supply may disappear. Because of the connections between the many fish, plants, and other organisms living in an aquatic ecosystem, changes in pH or aluminum levels affect biodiversity as well. Thus, as lakes and streams become more acidic, the numbers and types of fish and other aquatic plants and animals that live in these waters decrease." USEPA

Since acid rain is of primary concern to many, the following questions have to do with acid disposition.
1. What plants, animals and insects located adjacent to the proposed power plant are susceptible to pH decrease and aluminum increase? Which ones will eventually die and which ones will survive?
2. What is the main food source of the lizard living adjacent to the proposed plant? Will the food source survive? Also, what feeds off the lizard? If the lizard does not survive, what will the food source be for the specie dependent on the lizard?
3. Since chemicals from this plant travel with the winds, what are the cumulative effects on Yosemite?
4. Since we have acid rain disposition recorded in the bay area from China, what are the cumulative effects of the plant emissions and the acid clouds from China on our environment here?
4. Please explain the relationship between chemicals emitted from the proposed power plant and the wetlands adjacent to the plant. I am concerned that the acid precipitation will decrease the PH and increase the aluminum concentrations. Do the soils surrounding the proposed power plant have the ability to neutralize acidic compounds and act as a buffering capacity?
5. Since we live in a fog belt, what happens to the chemical concentration levels emitted from the plant on a day when there is a heavy cloud ceiling?
6. On a very hot day with a temperature of 99 degrees with no wind, what is the chemical concentration level in the surrounding area?
7. Often we have prevailing winds and often concentrated pollutants are trapped in the valley, Dublin San Ramon area, what are the additional effects of pollution in those areas?
8. The central valley is an area with heavy concentration of contaminated air, how will the pollutants from the power plant add to the poor air quality and the affect on our food source?

Thank you for taking the time to answer these questions.
Sincerely,
Holly Rogers