

RCVD 3/24/11

My name is Harriet Hill, I live in Eureka CA . I currently work for Humboldt County Division of Environmental Health, but I previously worked for 10 years at EPA Water Division in the Wetlands Section. I will therefore focus my comments on the GPU BR chart items that concern wetlands.

First, let me briefly illustrate some of the functions and values of wetlands. Historically marshes, swamps and other wetlands were widely considered to be wastelands or disease harbors. It is only fairly recently that scientists have documented the unique worth of these systems as well as the real costs associated with their loss.

What makes wetlands unique and important? Let's imagine someone drains a bottomland wetland near a stream to develop housing which may seem to be a very good use of nice piece of flat land near water.

The first thing we might notice is muddier water in the stream, and more flooding downstream. The wetland would no longer be around to trap sediment and reduce the amount and period of active runoff. Wetlands act like sponges, absorbing rainfall and controlling its flow into streams. If we were observant, after a few years, we might notice some reductions in the fish population of the stream, especially salmonids, who require clean, well-oxygenated waters for spawning. Unlike a wetlands, the residential area would not be so great at transforming nutrients from the runoff from, say, adjacent cow pastures. Nutrients like nitrates and phosphorous will now flow over the impermeable paved surfaces and directly into the stream. This fertilizes the water, which could stimulate algal blooms and rob the water of oxygen. People who had lived near the wetlands for generations might eventually find that their well is less productive or even contaminated with pesticides, since the intact wetland is no longer there to help recharge the aquifer and buffer it from contaminants. Ducks and egrets are sighted less often and no longer nest in the area, many small fish and invertebrates have lost their habitat, contributing to incremental losses of other birds and mammals, and the native plant field trips do not stop by anymore, since the rare plant that had thrived in the wetlands is gone. Finally a decade or two later, as the ocean level slowly rises, seawater inundates more land without the sponge of the wetland to slow its creep. What this shows is that an intact wetlands is a valuable piece of real estate and my comments on the specific elements of the chart will reflect this.

Specific Comments:

BR-P7: I concur that wetlands should be delineated based on the definition used by the US Fish and Wildlife Service and the CA Department of Fish and Game, the agencies who are responsible for fish and wildlife preservation and management.

BR-S4: Seasonal wetland habitats should be considered sensitive habitat if they are not one of the other sensitive habitats listed in the CDFG Natural Diversity Database.

Seasonal wetlands provide many of the same functions as wetlands with permanent standing water, particularly related to flood control, water quality improvement, and species diversity. I recommend that the county consult with DFG on the language.

BR-S10: I concur with the language provided in Alternatives A and B. Wetlands, like streamside areas, are sensitive to disturbance and development, and the maximum buffer width is needed to reduce impacts to the flora and fauna, prevent the spread of invasive species, and maintain its hydrology and water quality functions.

BR-S11: I enthusiastically concur with the language in Alternatives A and B. I know from experience that the U.S. Army Corps of Engineers delineation method which requires the presence of all 3 wetlands parameters instead of any one of them, often excludes fully functional wetlands. Since we have lost more than 90% of our original wetlands in CA, we cannot afford to fill or destroy more wetlands acreage by using an inadequate delineation method.

BR-IM3: I agree with the Alternative A language, that the county should have a trained biologist on staff or on retainer to conduct site visits, work with resource agencies, review reports, and monitor mitigation, etc. The many skills required to carry out these tasks cannot be acquired in "periodic" trainings. To properly assess impacts to and mitigation measures for wetlands, endangered species, and other sensitive resources requires an educational background in biology and a thorough working knowledge of current regulations. Just the initial training for wetlands delineation requires a full week of coursework. Then, extensive field experience is needed to competently assess the work of others.