Appendix C2. Vegetation Resources and Grazing Management

April 29, 2007

To: Jennifer Feinberg, BCDC
Dan Airola

From: Pam Muick, Ph.D.
Scientific Review Panel: Vegetation & Grazing Management

RE: Response to BCDC Comments on the Scientific Review of Biological Resources Impacts and Proposed Mitigation for the Potrero Hills Landfill Phase II Expansion (BCDC Permit No. MD88-09)

BCDC PANEL QUESTIONS

1. *There were several specific details of the proposed project that were not available for your review prior to writing the draft report. These project details are as follows: (a) the installation of a 3,000-square-foot, 30-foot-tall power plant structure within the Griffith Ranch parcel; (b) the placement of 26,000 cubic yards of material to create a screening berm for the power plant over a 280,000-square-foot (6.5 acre) area within the Griffith Ranch parcel; (c) the installation of 7,000-foot-long, above- ground power line from the power plant west to the entrance of the landfill; (d) the installation of a 400-foot-long, above-ground power line from the power plant in a southeasterly direction to the existing PG&E line; (e) the installation of a new road (dimensions still unknown) across the Griffith Ranch parcel to provide access the power plant; (f) the use of Scally Road by vehicles to access the power plant location during and after construction of the facility; and (g) the installation of a new sedimentation control basin, water well, water conveyance line, water tanks, and screening berms to hide the water tanks (dimensions of all components still unknown) on the Griffith Ranch parcel. A revised site plan depicting most of these features is being provided with this letter.*

   Given that these project details were missing during your original review, do you believe it is necessary to conduct additional fieldwork or analyses to evaluate the impacts of these project components on the expansion and mitigation areas? Do you need any additional information from Potrero Hills Landfill, Inc. to adequately evaluate the impacts of the project?

Muick response to BCDC #1:

My understanding is that the power plant has been relocated from the Griffith Ranch to a site within the existing landfill footprint. For this reason, Question #1 is moot.

I recommend that, when additional substantial changes are made to PHLF Phase II, the panel should be convened for a site visit to review the final plan.

2. *Site visits and surveys conducted by each of you at the expansion and mitigation areas were limited to a few months this summer. Do you believe it is important to survey the Potrero Hills during winter and spring months for an adequate understanding of the value of the botanic resources, ecology, and animal species and of the project impacts? Or, do you believe the review you have undertaken adequately assess the values and project impacts?*

Muick response to BCDC #2:

Initially, I thought that the 2006 site visits and surveys conducted during a few months in summer 2006 were adequate to assess the vegetation and grazing portions of the PHLF Phase II plan. In 2007, after receiving the "Assessment of Ecological Value of Spring Branch Creek in and near the Potrero Hills Landfill," by Swanson Hydrology + Geomorphology (March 4, 2005), I realized that my 2006 site visits were inadequate to evaluate the Swanson assessment and that additional field time was required. For this reason, in early April 2007, I visited the PHLF Phase II area. The field visit was necessary to evaluate the new Swanson assessment information.

Therefore, for the purpose of the PHLF Phase II expansion plan, I recommend that as significant new reports or data are added to the record BCDC should organize a panel site visit to panel members, as appropriate. Not all new information would trigger the need for site visits. For example, after reviewing "PHLF Grassland Management Plan for Mitigation Areas revised February 5, 2007," I decided that an additional site visit was not required to assess the document.

3. Can you identify for us those pieces of information, recommendations, and conclusions that you have provided that are new and were not provided or identified in the certified EIR?

Muick response to BCDC #3:

My analyses and recommendations are additional to those submitted by EDAW in the certified EIR. The key analyses, findings, and recommendations are presented below.

Finding #1. As proposed, the Phase II expansion eliminates much of Spring Branch Creek. The information in the EIR is inadequate to evaluate the effects of the loss of the creek on the lower watershed, including effects on First Mallard Slough. First Mallard Slough is where Spring Branch Creek enters Suisun Marsh. According to Dr. Peter Moyle (UC Davis), who has been sampling fish in the First Mallard Slough area for decades, First Mallard Slough provides highly important habitat to native fish.

Recommendation: Conduct an analysis of the effects of Phase II on the Spring Branch Creek's lower watershed and First Mallard Slough.

Finding #2. The mitigation proposed for the Phase II expansion lies outside the Spring Branch Creek/First Mallard Slough watershed and within the Hill Slough watershed. Even though Spring Branch Creek watershed mitigation opportunities exist, PHLF has not provided a basis for its decision to mitigate within the Hill Slough watershed.

Recommendation: Conduct an analysis and comparison of costs and benefits of mitigation within these two watersheds.

Finding #3. The project EIR and additional documents do not provide an ecologically based vegetation restoration plan for the capped landfills.

Phase II will create a long-term change for several decades while as many as 100+ acres at one time of bare soil will cap the unvegetated landfill cells. Current and historical air

photos of the landfill strongly suggest that large areas of the landfill have supported bare soil for decades. The language in the EIR states that the bare soils of the landfill will be left to revegetate "naturally." This will result in additional losses, including permanent change to the native annual and perennial vegetation located on site.

Recommendation. Develop, test, and implement an ecologically based vegetation restoration methodology for the capped landfills, with special attention to the native annual and perennial species (and site-specific germplasm) currently growing on site.

Finding #4. The expansion of the Phase II landfill, without simultaneous placement of conservation easements on adjacent parcels to constrain future landfill development, increases the potential for future landfill expansion.

Recommendation: Require conservation easements on adjacent lands to constrain landfill expansion.

Finding #5. The mitigation does not set any standards for the conservation easement holder of the mitigation lands (for example, the Director's Guild) to have a track record for conservation easement stewardship. This is a significant legal requirement to maintain the value of conservation easements. The conservation easement holder proposed in the PHLF documents does not have a good track record locally for conservation easement monitoring.

Recommendation: Require that conservation easement(s) be held by an entity with a proven track record of regular monitoring, easement stewardship, and enforcement.

Finding #6. Evaluation of Grazing Management Plan. PHLF has incorporated most of the technical recommendations in my 2006 draft report assessing the "Potrero Hills Landfill Mitigation Site Grazing Management Plan." I have reviewed and made comments on the "2007 Potrero Hills Landfill Grassland Management Plan for Mitigation Areas." ESP has assured me that they will incorporate my recent comments into the final Grassland Management Plan.

Recommendation: Implement the 2007 Potrero Hills Landfill Grassland Management Plan for Mitigation Areas.

SPECIFIC QUESTIONS

1. *You state that the mitigation for impacts to Spring Branch Creek is outside of its existing watershed. Is this because the mitigation involves improvements outside the valley on the Director's Guild and Griffith Ranch parcels? Please explain.*

Muick response to specific question #1:

According to the project EIR, mitigation for the loss of Spring Branch Creek will occur outside of the Spring Branch Creek watershed. The Swanson assessment concludes that Spring Branch Creek is not a creek and has low ecological value.

In the Swanson assessment, the watershed within the Phase II expansion area is defined as the 2.3 square miles (1,472 acres) drained by Spring Branch Creek, its tributaries, and its corridor to the Marsh. Spring Branch Creek flows west through adjacent properties and enters Suisun Marsh at First Mallard Slough.

The mitigation for the Phase II landfill expansion is proposed for properties owned by PHLF. Two of these, Griffith Ranch and Director's Guild, are located within the Hill Slough watershed. Hill Slough is located in a northerly section of Suisun Marsh, more than 2 miles from the point where Spring Branch Creek enters First Mallard Slough.

Specifically, the Director's Guild property drains through a northwestern drainage system to Hill Slough within Suisun Marsh. All of Griffith Ranch, with the exception of a small acreage along the southern ridgeline, also drains to the north and flows into the Director's Guild on its way to Hill Slough and the Marsh.

ESP's comment to my recommendation to mitigate within Spring Branch Creek watershed was that all the water from Phase II eventually ends up in Suisun Marsh. This comment ignores the specific ecological values of the Spring Branch Creek watershed and First Mallard Slough; neither of which was addressed in the EIR or supplemental documents provided to date.

The ecological and economic values of Suisun Marsh cannot be overstated. It is the largest contiguous brackish water marsh remaining on the west coast of North America and encompasses 116,000 acres: 52,000 acres of managed wetlands, 27,700 acres of upland grasses, 6,300 acres of tidal wetlands, and 30,000 acres of bays and sloughs. The ESP comment, implying basically that all watersheds are alike, ignores fundamental ecosystem principles, current research within Suisun Marsh, and the specific complexity and value of Suisun Marsh and its network of wetlands and sloughs.

While preparing this report, I learned that opportunities exist to make improvements within the Spring Branch Slough/First Mallard Slough watershed. My response to ESP comment (VR9) recommended that PHLF prepare a detailed analysis, comparing the values of mitigation improvements within the Spring Branch Creek watershed with proposed out-of-kind mitigation on Director's Guild and Griffith Ranch. This comparison would provide information with which to critically compare and evaluate the merits of mitigation within Spring Branch Creek /First Mallard Slough watershed to mitigation opportunities outside the watershed (e.g., Hill Slough).

2. *Will grazing and the movement of livestock across the mitigation parcels have an adverse impact on these habitats and thus the value of the mitigation?*

<u>Muick response to specific question #2:</u>

Based on the 2007 "Potrero Hills Landfill Grassland Management Plan for Mitigation Areas" and prior experience managing similar and nearby properties in Solano County, I believe that most adverse impacts from livestock can be avoided through careful livestock management and monitoring. Carefully managed and monitored livestock grazing has the potential to maintain the current habitat values. If the 2007 grassland management

plan is followed, livestock grazing along with other management activities such as weed and debris removal, fencing, water improvements and others should result in improvement to the mitigation values of Southern Hills, Griffith Ranch, and Director's Guild.

In summary, the primary benefits of carefully managed and monitored livestock grazing include removal and management of noxious invasive weeds and thatch, increases in populations of native plant species, and protection of wet meadows and other sensitive areas through fencing and seasonal use. Overall, these activities will enhance the value of the proposed the mitigation program.