

**RESPONSE TO THE SCIENTIFIC PANEL REVIEW REPORT**

**POTRERO HILLS LANDFILL PHASE II EXPANSION  
SOLANO COUNTY, CALIFORNIA**

Submitted to:

San Francisco Bay Conservation and Development Commission

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**RESPONSE TO THE SCIENTIFIC PANEL REVIEW REPORT**

**Chapter 1**

**EXECUTIVE SUMMARY**

**POTRERO HILLS LANDFILL PHASE II EXPANSION  
SOLANO COUNTY, CALIFORNIA**

Submitted to:

San Francisco Bay Conservation and Development Commission

Prepared for:

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## 1.0 INTRODUCTION

The Bay Conservation and Development Commission (BCDC) has, by agreement with the Potrero Hills Landfill, Inc. (PHLF), authorized a panel of biologists to assist the Commission staff in evaluating potential biological effects of and efficacy of biological mitigation measures proposed for the Potrero Hills Phase II Landfill Expansion Project (Project). The specific purpose of this review process is to provide BCDC with additional information for its consideration of a Marsh Development Permit for the Project.

PHLF proposed the creation of the panel review process in response to BCDC's consideration of Solano County Marsh Development Permit No. MD 88-09 in January 2006. BCDC identified and recruited the scientific panel members, and PHLF agreed to provide the funding to facilitate this assignment. PHLF also agreed to provide the panel of biologists with access to the project area and project-related scientific and engineering data and analyses developed by the PHLF team.

PHLF appreciates the opportunity to consider the observations and insights of the scientific panel and has carefully reviewed the draft and final reports. We concur with many of the suggestions and observations provided by the scientific panel and have incorporated a number of these ideas into the project design and the format and content of the mitigation plan for the PHLF project.

We have, however, identified shortcomings and disagreements with a number of the analyses and conclusions contained in the scientific panel's report. PHLF is therefore offering corrections and clarifications to BCDC to ensure that the Commission's consideration of the panel's conclusions is grounded in a clear definition of the panel's assignment, together with a discussion of areas demonstrating the panel's misunderstanding and areas of disagreement amongst experts. The shortcomings are discussed briefly below, and are addressed in detail in the specific responses provided to each panelist's report.

The scientific review panel report lacked a clear, unified presentation. Each of the technical chapters of the report presents the observations of individual authors with a great degree of overlap and some contradiction as different chapters address the same subjects. We had hoped that the scientific panel would have utilized a "round table" discussion of ideas and observations to forge a single set of conclusions and recommendations, rather than the somewhat disjointed presentation contained in the final report(s).

In addition (and perhaps more importantly), the panel reports – individually and taken as a whole – lack a fundamental scientific framework that describes how the analyses were conducted and how the resulting conclusions were reached. The reports do not recite or rely upon recognized standards of significance or specific permitting standards of BCDC in assessing Project effects as described in the reports. Rather, the reports are observations and findings of panelists in areas of specialty, but without reference to specific statutory or regulatory standards applicable to the

Project. As such, although informative in many respects, the reports do not provide a necessary component of analysis and conclusion that is relevant to CEQA thresholds of significance or BCDC permitting requirements under the Local Plan of Protection (LPP) adopted by Solano County. The LPP standards are the specific standards governing the issuance of a Marsh Development by BCDC.

Our comments on the scientific panel's final report are provided in Chapter 1 provides our general observations and a short summary of key ideas and issues that are defined in detail in the specific comments that follow this introductory chapter of our response to the scientific panel report.

## 2.0 OVERVIEW

### 2.1 PHLF RESPONSES TO THE RESULTS OF THE SCIENTIFIC REVIEW PANEL REPORT

PHLF has worked with the scientific review panel and BCDC staff members to identify Project design and operation modifications that could minimize potential impacts to the environment and ensure that the Project is consistent with the Suisun Marsh LPP.

The following discussion summarizes PHLF's project modifications based on consultation with the scientific review panel and BCDC staff members.

- **Reduction of Project Impacts:** Redesign of PHLF's northern drainage and sedimentation basin system and the relocation of the power facility site into the Phase I facility or the Phase II expansion area were requested by BCDC staff and agreed to by the applicant. This consolidation of project features results in a smaller footprint area that reduces the area of project impact from 241.9 acres to 167.63 acres (Figure 1).
- **Mitigation Plan Modifications:** Since the preparation of the 2006 Mitigation and Monitoring Plan (MMP), PHLF has added additional areas that will be incorporated into the mitigation for the Project. The MMP now includes:
  - o Preservation of upland habitat totaling 565.29 acres;
  - o Preservation of 0.79 acre of existing California tiger salamander (CTS) breeding pond and 8.83 acres of potential breeding pond habitat (9.62 acres total);
  - o Creation of an additional 1.08 acres of CTS breeding pond and restoration of 0.42 acre of potential breeding pond habitat;
  - o Preservation of 58.62 acres of seasonal wetlands;
  - o Creation of 4.07 acres of seasonal wetlands;
  - o Preservation of 1.86 acres of waters of the U.S., and
  - o Creation of 1.80 acres of waters of the U.S.
- **Grassland Management Plan:** PHLF has prepared a Grassland Management Plan (GMP) that addresses management of grasslands and grazing within the PHLF mitigation areas. The GMP, as modified in response to comments and suggestions

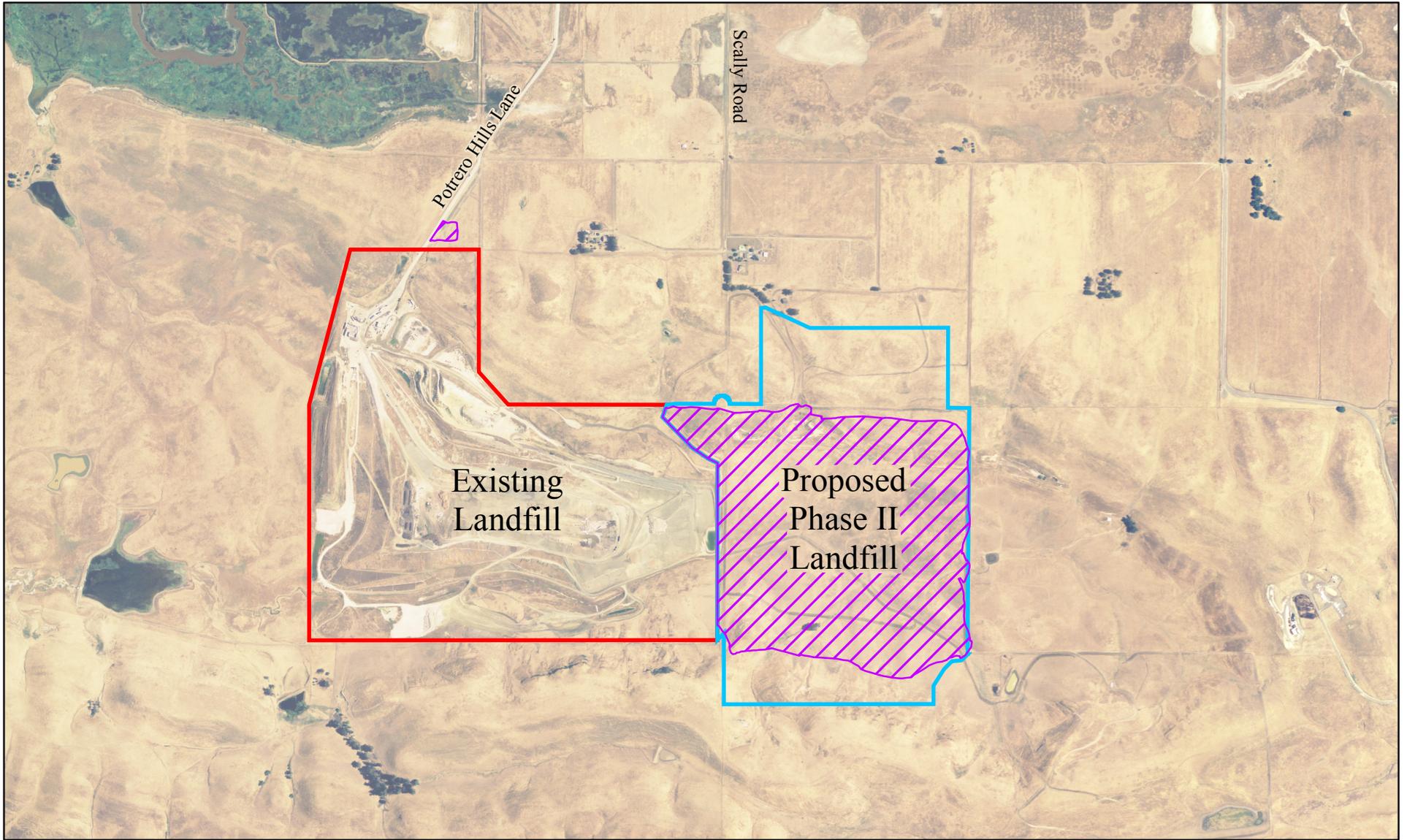
provided by the scientific review panel, describes livestock grazing operations and non-grazing management activities for the long-term conservation of grassland habitats and associated aquatic resources, and special-status species habitats on the property.

- **Positive Cumulative Effect on Solano County Habitats:** Based on the habitat values presented in the Draft Solano Habitat Conservation Plan (HCP), the Phase II expansion represents approximately 1 percent of the cumulative habitat loss from projected development within the County over the next 30 years. The project also contributes to the cumulative preservation and enhancement of valuable habitats in the County within this same period. The proposed mitigation represents a 4.1 to 4.6 percent increase in the total amount of preserved habitat projected to occur under the Draft HCP.

## 2.2 CRITIQUE OF THE SCIENTIFIC REVIEW PANEL REPORT

The following discussion identifies the shortcomings of the scientific panel report. These include a lack of compliance with the stated direction of BCDC staff (as defined by BCDC’s authorization to conduct the analyses [see Review p. 1-3]), the absence of a factual basis for many of the conclusions offered and the use of unproven and unverified models to assess impacts and the efficacy of mitigation measures:

- **CEQA Evaluation/Impact Analyses Adequacy:** BCDC directed the panelists not to “evaluate the specific determinations of the Project EIR”; however, Chapter 3 of the scientific panel review report specifically calls out its critique of the EIR in Table 3-1. The scientific panel report critiques the biological, hydrological and water quality environmental impact analyses previously found to be adequate and in compliance with CEQA by the County of Solano and Judge Beeman of the Solano County Superior Court.
- **Absence of Factual Basis for Analysis:** The scientific panel’s recommendations were requested by BCDC staff to provide “an independent evaluation of project impacts and the proposed mitigation program” with BCDC’s stated intent to obtain scientific information not to be “bounded by legal determinations of CEQA or other laws and regulations”; as a result of this direction, the panel’s assessments of biological effects and the adequacy of proposed mitigation lack foundation and have no clear legal basis or framework for conclusions reached. The panel’s report, in many cases, promotes opinions that are not grounded in clearly stated, legally applicable thresholds of significance that differentiate significant impacts from insignificant impacts.



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FEET

-  REVISED PROJECT BOUNDARY
-  ORIGINAL PROJECT BOUNDARY
-  PHASE I LANDFILL

FIGURE 1

*Potrero Hills Landfill  
Phase II Expansion*

Revised Project Boundaries

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- **Conclusions on Resources Issues Beyond the Area of Panelists’ Purview:** The scientific review panel’s authors and editor included broad and unsubstantiated statements made by investigators who lack expertise in the areas of comment. For example, the panel’s rangeland scientist states that a fishery should be created as a mitigation site in the upper Spring Branch Creek drainage area, where no fish or fish habitat have historically existed. This discussion also references undefined fisheries impacts that are perceived to occur miles downstream of the project area, without any factual basis for the assertions.
- **Use of Unproven Models to Assess Impacts and Define Mitigation Requirements:** The CTS analysis prepared by Dr. Shaffer (panelist) and Mr. Searcy (graduate student) relies on a model based largely on trapping data from a single site that is a still-developing, yet unapproved tool, for evaluating habitat impacts and mitigation measures. The applicable standards for evaluation of CTS impacts utilized by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG) are acknowledged by the authors, but not used as the primary measure of impact assessment or mitigation adequacy. This model has not yet been published in a peer reviewed scientific journal nor tested for its broad applicability over the variety of habitats occupied by CTS. Further, the model relies on a number of assumptions that are not supported by observations of CTS movements and their use of their habitat.
- The nascent model’s usage as the basis for the panel report’s CTS chapter is both premature and ill-advised. The model’s authors have created a model that at the same time is both mathematically complex in its assumptions of CTS behavior, while overly simplistic with respect to the adjacent land uses and the Federal Endangered Species Act. Further, its singular focus on a single species could have unintended consequences that would negatively impact other extant, rare, threatened, and endangered species that occur adjacent to the PHLF project area. For example:
  - o Created ponds are an essential component of the MMP, but are not considered to provide compensation habitat by the CTS Chapter’s authors. Creating mitigation ponds for CTS breeding is not an experimental mitigation method; therefore, the model’s authors should have included the proposed mitigation ponds in their model calculations. Mitigation ponds were proposed in the MMP, including size and location. It is important to note that all of the currently occupied CTS breeding ponds including those that will be impacted by the PHLF project are human-created (stock) ponds.
  - o The model analysis is conducted in a “vacuum” as it does not provide a landscape perspective. The model does not consider the presence of CTS breeding ponds (also protected by the Endangered Species Act) on adjacent parcels and the value that the proposed mitigation lands have in relation to those ponds.

- o The model contains a number of assumptions that artificially constrain habitat values and inflate impacts. A partial list of these assumptions include the following:
  - The authors assume that CTS can and will only travel in a straight line and will cease to exist when reaching an impediment. This simplistic assumption makes modeling calculations easier, but ignores documented CTS movement patterns: CTS do not always follow straight lines and have the proven ability to move along and around barriers. The fallacy of this assumption is demonstrated by the USFWS-approved method for collecting CTS: animals are intercepted by barriers and will then travel along the barriers for collection in buckets.
  - The authors claim that the CTS populations within the PHLF project and mitigation areas are at carrying capacity, without presenting any empirical data to support this assumption.
- o The model authors suggest that values that already include multiplied values should be further multiplied in order to arrive at an appropriate mitigation value. The model's stated purpose is to provide a method to determine full compensation for impacts to CTS – the replacement of lost habitat values. The rationale for typical mitigation ratios or multipliers used by regulatory agencies such as 2:1 or 3:1 are founded on a similar assumption – the ability to increase the value of a specified piece of land through preservation and management actions to replace lost habitat values or populations of target species. Multipliers of the model values, as recommended by the model authors, would result in a far greater mitigation ratio being applied to this project than has been approved by the USFWS for any other project. The multipliers are already included in the basic execution of the model; no additional multiplier should be used in the analysis of CTS in the PHLF project area.
- o The model's authors have confused the process of providing compensation for impacts under the Federal Endangered Species Act and the development of mitigation banks, as created and administered by the Corps of Engineers and other Federal agencies.
- **The Scientific Panel Report Does Not Provide a Unified Set of Analyses and Recommendations:** The scientific panel report provides many very valuable insights and recommendations that have been incorporated into the mitigation proposal (as noted above) that is currently being reviewed by USFWS. It does not, however, provide BCDC with a unified set of recommendations that can be used as a viable decision-making tool. The lack of a summary that defines a single recommended course of action leaves the reader with a disjointed, overlapping set of individual analyses.

PHLF had hoped that the process defined by BCDC for the panel analysis, including the “round table session,” could have yielded a single, viable set of scientific recommendations. While the panel’s work has resulted in refinements of the PHLF project that have reduced impacts and improved impact mitigation measures, the absence of a unified report that considers both the benefits *and costs* of the panel’s individual assessments of impacts and mitigation recommendations undermines the reliability of this report in BCDC’s consideration of Marsh Development Permit No. MD 88-09.

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### **3.0 FORMAT OF PHLF RESPONSES AND COMMENTS**

The following chapters of this document present detailed analyses and responses to the scientific panel's report. Chapters 2 (Botanical Resources), 3 (Vegetation Resources and Grazing Management), 4 (California Tiger Salamander) and 5 (Birds) of this document provide detailed responses, comments, corrections and discussions of professional disagreement to Chapters 2, 3, 4 and 5 of the scientific review panel report, respectively.

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