

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

50 California Street • Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • www.bcdc.ca.gov

June 3, 2010

TO: Commissioners and Alternates

FROM: Will Travis, Executive Director (415/352-3653 travis@bcdc.ca.gov)
Tim Eichenberg, Chief Legal Counsel (415/352-3655 time@bcdc.ca.gov)
Ming Yeung, Coastal Planning Analyst (415/352-3616 mingy@bcdc.ca.gov)

SUBJECT: Staff Summary for Appeal No. 1-05; Modifications to Marsh Development Permit No. MD 88-09 issued to Potrero Hills Landfill, Inc., for Phase II Landfill Expansion Project
(For Commission consideration on June 17, 2010)

Appeal and Commission Procedures

On September 13, 2005, Solano County modified Marsh Development Permit No. MD-88-09 to authorize an expansion of the existing 320-acre Potrero Hills Landfill onto an additional 167-acres adjacent to the existing landfill footprint, and changes in landfill operations. Ten appeals of the County's permit were filed with the Commission on October 27, 2005, staying the effect of the permit until the Commission takes action on the appeal.

Appeals of marsh development permits are reviewed by the Commission under Sections 29500-29524 of the Suisun Marsh Preservation Act (PRC §§29500-29524) and Sections 11400-11452 of the Commission's regulations (14 CCR §§11400-11452). The Suisun Marsh Preservation Act (Marsh Act) requires the Commission to hear an appeal unless it determines that the appeal raises no substantial issue as to the conformity of the proposed development with the Marsh Act, the Suisun Marsh Protection Plan (SMPP), and Solano County's certified Suisun Marsh Local Protection Program (LPP), if in existence (PRC §29523). The County's LPP was adopted and approved by the Commission on November 4, 1982. On December 1, 2005, the Commission found that the appeal of the County's modification of MD-88-09 raised a substantial issue. Pursuant to the Commission regulations, the appeal stayed the County's marsh development permit pending final action on the appeal by the Commission (14 CCR §11441). Upon finding a substantial issue, the Marsh Act requires the Commission to provide for a de novo public



Making San Francisco Bay Better

hearing within 21 to 42 days. The applicant waived the time limits for Commission review under PRC §29524(d) pending final certification of the Environmental Impact Report (EIR), which was on appeal. Thirteen affirmative votes are needed to approve an appeal and grant a permit, as neither federal representative on the Commission may vote on the permit (PRC §29524(c)).

The public hearing on an appeal is conducted *de novo*, so the Commission is required to consider the project anew, unfettered by Solano County's previous decision (14 CCR §11451). At the *de novo* hearing, the Commission may consider any new information developed since the substantial issue hearing in 2005, including changes to the project since the County's approval, new information presented by independent scientific experts and other resource agencies, and information included in the revised final EIR prepared by the County under the California Environmental Quality Act (CEQA).

This staff summary presents issues for the Commission to consider at the *de novo* hearing. After the hearing, staff will review the public comments, the Commission's comments, and any new information, prepare a staff recommendation, and bring the staff recommendation on the appeal to the Commission for a vote at a subsequent meeting.

The Commission may issue a permit on appeal only if it finds that the proposed development is in conformity with the County's LPP (PRC §§29503 and 29504). Any permit issued may include reasonable terms and conditions to ensure that this requirement is met (PRC §29506).

Project Summary

- Applicant:** Potrero Hills Landfill, Inc., (PHLF)
- Location:** In the secondary management area of the Suisun Marsh, at the end of Potrero Hills Lane and within the Potrero Hills, in an unincorporated area of Solano County, approximately 2 miles southeast of the City of Fairfield (see Exhibits A and B). To the north, State Route (SR-12), runs east-west and connects Interstate 80 and Fairfield/Suisun City to the City of Rio Vista and points further east. Grizzly Island Road, a two lane rural roadway, extends south from SR-12, traversing marsh and grasslands and runs west of the PHLF. Both SR-12 and Grizzly Island Road are County-designated scenic roadways (Solano County 1977).
- Existing Conditions:** PHLF operates a 320-acre landfill under an existing Solano County marsh development permit, MD-88-09 (also known as "Phase I") (see Exhibit C). The Phase I operation consists of 21 landfill cells within which non-hazardous wastes

are disposed to a maximum permitted height of 220 feet above mean sea level (MSL). The operation also includes a sandstone quarry and various landfill-associated facilities, including administrative and service buildings, truck scales, public unloading and recyclables handling area, wood waste and composting processing facility, concrete crushing facility, fueling facilities and washing facilities. The current authorized capacity of the landfill is 21.5 million cubic yards of disposed municipal solid waste. PHLF operates under a peak daily cap of 4,430 tons and a 7-day rolling average of 3,400 tons of received waste per day, and has been operating close to this cap until disposal volumes dropped recently in response to the economic downturn. As of February 2009, PHLF was receiving an average of 3,100 tons per day. Of this average, approximately 700-800 tons per day are generated locally within Solano County, while the remaining approximately 2,300-2,400 tons per day come from jurisdictions outside of Solano County, including Sonoma, Contra Costa and Santa Clara Counties.¹ Based on the current annual volume of material being brought to the landfill, PHLF estimates that the Phase I area is expected to reach capacity by the Year 2016.

The landscape in the area consists of rolling grass-covered terrain known as the Potrero Hills. Rising to elevations between approximately 200 and 400 feet MSL in elevation, the hills are generally configured in a horseshoe-shape (see Exhibit D). The project site, including Phase I and Phase II described below, lie in a shallow valley within this hilly area. Nearby land uses include grazing, dry crop farming, and scattered rural residences (see Exhibit B). To the immediate south, ranch lands owned by the Ahart family abut the lands of PHLF. Lands owned by the Dittmar family abut the western, southwestern and northwestern boundaries of the PHLF lands. Three private residences are located at the base of the northern Potrero Hills ridgeline – the western residence is the Guidotti home and the eastern two residences belong to the Tonneson family. There is a permitted pet cemetery regulated as a disposal facility by the California Regional Water Quality Control Board (RWQCB) located on the Tonneson property. Located approximately 1.5 miles west of the project site in Suisun City. The Lawler Ranch subdivision is the closest residential development to the existing landfill.

To the east of the project site is the former Explosives Technology facility, now operated by Universal Propulsion Company, where explosives testing is conducted, and Travis Air Force Base (AFB) is located northeast of the PHLF facility.

Public parks and open space located in the area include Belden's Landing, which is managed by the Solano County Park and Recreation Department, and the Hill Slough Wildlife Area to the west, and the Grizzly Island Wildlife Area to the south, that are both managed by the California Department of Fish and Game (CDFG). Farther to the west is Rush Ranch, a Solano Land Trust property, and part of the designated San Francisco Bay National Estuarine Research Reserve.

¹ Cnty. of Solano, Recirculated Revised Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project 7 (February 2009). [hereinafter *Recirculated Revised FEIR*]

Project: The proposed Phase II project would increase the landfill footprint an additional 167 acres to the east, and increase the height of the Phase I and Phase II areas 125 feet to a maximum 345 feet MSL (see Exhibits E, F and G). The increased footprint and height would add an additional approximately 61.6 million cubic yards of fill capacity, extending the life of the landfill for approximately 35 more years, based on current received waste volumes (not including the enforcement of Measure E which limits the importation of out-of-county waste and is described further below). In addition to the physical expansion, the Phase II project would involve relocating Spring Branch Creek; constructing various ancillary structures such as a new truck/container washing facility, a landfill gas-to-energy power plant, a visitor center, new power lines and changes to existing PG&E transmission lines, a water pipeline and storage tanks, and new sedimentation basins; and changes to existing roadways, including re-activating an old bypass lane and vacating a County right-of-way easement. The Phase II project would also involve various operational changes including changes to the processing of wastes, increasing operation hours, and additional night-lighting, and continuing bird abatement services. Public access and habitat mitigation are also proposed as further described below.

Issues Raised:

The project raises the following issues: (1) whether the project is consistent with policies addressing the landfill and protecting the Marsh and valuable marsh-related wildlife habitats; (2) whether the project would have significant adverse ecological impacts on the Marsh; (3) whether the project would have significant adverse aesthetic impacts on the Marsh; (4) whether the project results in adverse effects on water quality entering the Marsh; (5) whether the project is consistent with policies for new electric lines and new roadways; (6) whether the project is consistent with policies for recreation and marsh access; and (7) whether the project raises issues with respect to the California Environmental Quality Act (CEQA).

Background²

Suisun Marsh Preservation Act and Plan

The Suisun Marsh comprises approximately 85,000 acres of tidal marsh, managed wetlands, and waterways in southern Solano County. It is the largest remaining wetland around San Francisco Bay and includes more than ten percent of California's remaining wetlands. The Marsh is also a wildlife habitat of national importance, playing an important role in providing wintering habitat for waterfowl of the Pacific Flyway.

Recognizing the threats to the Suisun Marsh from potential residential, commercial, and industrial developments, and the need to preserve this unique wildlife resource for future generations, the California Legislature passed and the Governor signed in September 1974, the Nejedly-Badgley-Z'berg Suisun Marsh Preservation Act of 1974. The Act directed BCDC to prepare and deliver to the Governor and Legislature by January 1977, a plan of protection for the Suisun Marsh.

The Suisun Marsh Protection Plan (SMPP) was adopted in December 1976 and the Suisun Marsh Preservation Act (Marsh Act) was enacted in 1977 to incorporate the findings and poli-

² See Table 1 for a summary of the landfill's permit and litigation history.

cies contained in the plan into state law. The SMPP proposed a primary management area consisting of tidal marsh, managed wetlands, adjacent grasslands, and waterways, and a secondary management area of approximately 22,500 acres of primarily upland grasslands. According to the SMPP, the function of the secondary management area is to provide a buffer area insulating the habitats within the primary management area from adverse impacts of urban development and other uses and land practices incompatible with preservation of the Marsh.

In preparing the SMPP, BCDC looked at all existing uses in the Marsh including the Solano Garbage Company landfill located near Highway 12, off Emmington Road, at the head of Hill Slough (see Exhibit B). The site consisted of approximately 70 acres of land, of which approximately 50 acres were landfill and 20 acres remained in a natural condition, primarily lowland grassland and seasonal marsh. The Solano Garbage Company served as a local landfill, receiving waste materials from Travis Air Force Base, the cities of Fairfield, Suisun City, and Green Valley and the surrounding unincorporated areas. In adopting the SMPP, BCDC was mindful of the importance of the existing 70-acre landfill to the local Fairfield-Suisun community. The SMPP therefore, contained the following finding:

Finding 4, Utilities, Facilities and Transportation: "4. There are three solid waste disposal sites in the Suisun Marsh:...[t]he second solid waste disposal site...is operated by the Solano Garbage Company on an approximately 70-acre parcel adjacent to Hill Slough. It has a remaining capacity that will last approximately 20 years. Expansion of the facility to an adjacent 150 acre parcel would involve removal of upland grassland, which is an important habitat for Marsh-related wildlife adjacent to Hill Slough."

BCDC adopted the following policy regarding the Solano Garbage Company landfill in the SMPP:

Policy 7, Utilities, Facilities and Transportation: "7. The Solano Garbage Company should be permitted to continue its existing County approved operation until it reaches capacity. Expansion of this facility or development of a new site in the Potrero Hills for a central waste disposal facility would impact upland grassland areas, including the golden eagle nest site, which provide valuable habitat for Marsh-related wildlife. Therefore, development of these sites for solid waste use appears to be inconsistent with protection of the Marsh and should not be permitted unless it can be shown: (1) that no other practical, reasonably accessible alternative site to Solano County is available and (2) that the construction and operation of such facilities would not have adverse ecological or aesthetic impacts on either the Marsh or adjacent uplands necessary for the protection of the Marsh and Marsh-related wildlife."

The Marsh Act grants direct permitting authority for development within the primary management area to BCDC. Solano County is responsible for administering a local protection program (LPP), consistent with the Act and the SMPP, for the issuance of marsh development permits within the secondary management area of the Suisun Marsh. Marsh development permits issued by the County within the secondary management area may be appealed to BCDC. After preparation and approval of the County's LPP by the Commission, appeals to the BCDC are reviewed under the policies of the LPP, not the Marsh Act or SMPP.

Prior to the Enactment of the Suisun Marsh Preservation Act

When the Marsh Act was enacted in 1977, the commercial operations already in existence in the secondary management area of the Suisun Marsh included the Solano Garbage Company landfill and a sand and gravel quarry operation located in the Potrero Hills where the current PHLF Phase I operations are located (see Exhibit B).

In 1979, Solano County issued Marsh Development Permit No. U-79-08³ to William L. Smith and Delta Associates for an expansion of the existing quarry operation in the Potrero Hills. The marsh development permit was appealed to BCDC (Appeal No. 1-79), and the Commission issued BCDC Permit No. 38-79, which authorized the quarry expansion, but restricted it to a 45.6-acre area within the 160-acre property owned by the quarry.

In 1980, Solano County issued Marsh Development Permit No. MD-80-03 to the Solano Garbage Company for the continued operation of their existing landfill facility, off Emmington Road. This marsh development permit mirrored the authorization granted in 1976 by Solano County in Use Permit U-76-58. Use Permit No. U-76-58 was issued prior to the enactment of the Marsh Act and authorized the Solano Garbage Company to expand its existing landfill from approximately 40 acres to 65 acres. The Solano Garbage Company chose to apply for a marsh development permit rather than pursuing the issue of vested rights with BCDC, and the marsh development permit was appealed to BCDC by two BCDC Commissioners (Appeal No. 1-80). The appeals raised concerns about the landfill's potential adverse impacts on water quality, particularly, the possibility of leachates entering Hill Slough and the Suisun Marsh. However, both appeals were withdrawn on the basis that the conditions in the County permit and the waste discharge requirements of Regional Water Quality Control Board were sufficient to protect the Marsh.

Relocation of the Solano Garbage Company to the Potrero Hills – Phase I

In 1984, Solano County issued Marsh Development Permit No. MD-82-19, authorizing the Solano Garbage Company to close its existing facility and relocate its landfill operation to 190 acres of a new 320-acre site in the Potrero Hills. Both the existing Solano Garbage Company landfill and the new proposed landfill were in the Secondary Management Area of the Suisun Marsh. The landfill owners created a new corporation, Potrero Hills Landfill, Inc., (PHLF) to operate the new landfill. The justifications for relocating the landfill, as stated in the Potrero Hills Landfill Report of Disposal Site Information (July 1983), were as follows: (1) the Potrero Hills site provided an alternative landfill location out of public view, thus improving visual aesthetics along Highway 12; (2) the new site provided greater landfill capacity that could accommodate the expected population growth for the Fairfield-Suisun City area; (3) the new site had improved geological, topographical, and environmental conditions; (4) the new site would relocate the existing landfill operation away from the sensitive marsh habitat adjacent to Hill Slough; and (5) the new site offered the opportunity for joint land use between the existing quarry operation and the future landfill.

The new 320-acre Potrero Hills landfill site included the property on which the expanded Delta Associates quarry operation was located. The landfill and the quarry operations were coordinated; areas excavated for sand and gravel mining were subsequently filled with landfill material. The Potrero Hills landfill was planned to receive only municipal waste and ashes and was to serve the same geographic area and population base as the old Solano Garbage Com-

³ For ease of identification, all marsh development permits issued by Solano County are preceded with an "MD-" and all use permits issued by Solano County are preceded with a "U-". Marsh development permits issued by BCDC (either on appeal or otherwise) are identified with an "(M)" following the permit number (e.g., "6-96(M)").

pany landfill. MD-82-19 authorized the operation of the new landfill within the Potrero Hills for 15 years. This marsh development permit was not appealed to BCDC. However, the Commission amended BCDC Permit No. 38-79 authorizing the expansion of the quarry within the Potrero Hills and reflecting the changes in the quarry operation associated with the landfill. It found that, with the inclusion of a proposed reclamation plan, permit conditions, and mitigation measures, the relocation of the landfill was consistent with the Marsh Act, the SMPP and Solano County's LPP.

Marsh Development Permit MD-88-09

In 1989, Solano County issued Marsh Development Permit No. MD-88-09 to PHLF, authorizing the landfill to accept 88,500 tons of waste per year over a three-year period from Contra Costa County. The permit also authorized changes in the landfill operations, including increasing the maximum daily tonnage received from 400 to 2,500 tons per day, allowing night operations, recycling operations for tires, asphalt, composting, and wood waste, infectious waste and asbestos handling and disposal. The marsh development permit was appealed to BCDC (Appeal No. 1-89). The appeal raised concerns about: (1) the potential hazards to the Marsh from the disposal of infectious waste and asbestos; (2) adverse impacts due to increased traffic to and from the landfill; and (3) the unauthorized construction of a new access road to the landfill through lowland grasslands and a portion of a seasonal marsh within the secondary management area of the Suisun Marsh (what is now Potrero Hills Lane) (see Exhibit C). The Commission found that with the inclusion of permit conditions and mitigation measures, the revised landfill operation was consistent with the Marsh Act, the SMPP and the LPP, and dismissed the appeal on the basis that it raised no substantial issue. The Commission and Solano County determined that a separate marsh development permit was necessary to authorize the unauthorized access road and the landfill operators agreed to seek such after-the-fact authorization.

On June 25, 1996, Solano County issued Marsh Development Permit Nos. MD-90-01 and MD-91-01 to PHLF. Permit No. MD-90-01 authorized the placement of, and improvements to, the already-constructed road (Potrero Hills Lane) that provided new access from Kildeer Road to the Potrero Hills landfill. Permit No. MD-91-01 authorized closure activities at the Solano Garbage Company landfill. The permits were supported by a certified Final Environmental Impact Report (FEIR). Both of these marsh development permits were appealed to BCDC (Appeal No. 1-96). The Commission determined that the appeal of Permit No. MD-91-01 did not raise a substantial issue because the concerns raised in the appeal were not relevant to the project authorized in Permit No. MD-91-01. The Commission found that the appeal of Permit No. MD-90-01 did raise a substantial issue and eventually issued BCDC Permit No. 6-96(M) to authorize the new road, Potrero Hills Lane. BCDC Permit No. 6-96(M) required the removal of an existing road and mitigation, consisting of restoration and permanent protection of various habitats to offset the adverse impact of the new access road on lowland grasslands and seasonal wetlands.

On August 6, 1996, Solano County authorized modifications to Marsh Development Permit No. MD-88-09. The revision involved a reorganization of physical features within the landfill and changes in landfill operations, including an increase in operating hours (allowing nighttime deliveries) and frequency of deliveries to the landfill, and expanding the composting and wood processing operations at the site. The County's permit was supported by a Final Environmental Impact Report (FEIR). This marsh development permit was appealed to BCDC (Appeal

No. 2-96). The Commission determined that, with the adoption of a Mitigation Monitoring and Reporting Program designed to ensure implementation of the mitigation measures recommended by the FEIR, the project would have no adverse environmental impacts on the Suisun Marsh that would not be mitigated to less than significant levels and, therefore, the appeal did not raise a substantial issue.

Current Amendment to MD-88-09 for Phase II

On June 23, 2005, the Solano County Planning Commission considered a FEIR and amendments to the landfill's existing permit MD-88-09, for the Phase II expansion. The Planning Commission denied the certification of the FEIR, concluding that the Draft Environmental Impact Report (DEIR) and the FEIR lacked an adequate analysis and disclosure of the project's potential impacts on the environment, focusing on the inadequacy of the alternatives analysis and the impact of the project on air quality. The Planning Commission also determined that the expansion of the landfill, as currently proposed, was not consistent with the County's LPP, and thus denied the proposed revisions to Marsh Development Permit No. MD-88-09. On July 1, 2005, Potrero Hills Landfill Inc. filed an appeal of the Planning Commission's decision to the Solano County Board of Supervisors.

On September 13, 2005, the Solano County Board of Supervisors certified the FEIR, and concluded that, as conditioned, the landfill expansion would have no significant adverse environmental impacts. On September 13, 2005, the Board also approved modifications to Marsh Development Permit No. MD-88-09 to authorize the Phase II expansion and changes to the landfill operations.

CEQA Lawsuit and Other Legal Challenges

Following certification of the FEIR, a lawsuit was filed in Solano County Superior Court challenging the certification of the FEIR by the Board of Supervisors under CEQA. On February 26, 2007, the Court ruled that the FEIR analysis of impacts on air quality, groundwater, and project alternatives was deficient and ordered the County to vacate its certification. The County's revised the EIR (Recirculated FEIR) was challenged again, and ruled deficient again on October 14, 2008 with regard to the capacity of the Hay Road landfill facility to serve as a feasible project alternative. The County's second revised Recirculated Final EIR was upheld on November 3, 2009 in Protect the Marsh v. County of Solano, et al, Case No. FCS026839, November 3, 2009). That decision has been appealed.

In June 2009, another lawsuit was filed challenging the County's failure to enforce Measure E. Measure E was enacted by Solano County voters in 1984 to prohibit out-of-County solid waste from entering Solano County in excess of 95,000 tons per year, but was not enforced based on a determination by County officials in July 1992 that Measure E was unconstitutional.⁴ On May 12, 2010, the Solano County Superior Court ruled that Measure E was enforceable under state law, without reaching the federal constitutional question of Measure E's constitutionality under the Commerce Clause. The trial court's ruling placed no limits on out-of-state waste that can be disposed of in the County; it only limits the County's receipt of solid waste generated in California from areas outside Solano County. Although the ruling could limit the amount of out-of-County solid waste from entering Solano County, the court did not vacate the County's land use permit for the expansion of the landfill or the certification of the FEIR for the landfill (Northern California Recycling Association v. Solano County, Nos. FCS03387,

⁴ Protect the Marsh v. County of Solano, No. FCS026839, slip. op. at 7 (Cal. Super. Ct. Solano County Feb. 26, 2007).

FCS033700 and FCS034073, May 12, 2010). An appeal of the decision is likely, which could stay the trial court's ruling during the pendency of the appeal.

Project Description

Project

Details:

The applicant, the Potrero Hills Landfill, Inc., describes the project as follows (see Exhibits E, F and G):

1. **Extend Landfill Horizontally.** Extend the landfill footprint onto approximately 167.63 acres of adjacent lands to the east of Phase I (Phase II expansion) for a total operations area of 534 acres and landfill footprint of approximately 357 acres.
2. **Increase Landfill Height.** Increase the height of Phase I and II of the landfill by 125 feet, from a current maximum of 220 feet above mean sea level (MSL), to a proposed maximum of 345 feet MSL.
3. **Relocate Spring Branch Creek Drainage.** Relocate the southern surface water drainage network (Spring Branch Creek and tributaries) by: (a) constructing an approximately 6,500-foot-long pre-cast concrete or similar capacity pipeline (the pipeline would be built in segments of approximately 200-600 feet every three to five years as the landfill expands to the east) along the southern border of the Phase I/Phase II area to carry water from the eastern Potrero Hills Valley to the west, bedded in native soil and overtopped with soil materials up to approximately 75 feet deep; and (b) constructing a surface channel on top of the landfill's soil cover buttress, approximately five feet deep and 30 feet wide to transport runoff from the southern portion of the landfill and buttress fill.
4. **Construct a Truck/Container Washing Facility.** Construct an approximately 10,000-square-foot, concrete-lined, drive-through truck/container washing facility, located near the entrance/exit to the landfill, to remove mud and dirt from vehicles. Water used at the washing facility will be supplied from the on-site domestic water well, from storage reservoirs, and/or from water delivered to the site by tank trucks.
5. **Construct a Landfill Gas to Energy Power Plant.** Construct an approximately 180-foot-long, 80-foot-wide and 25-foot-high power facility building on an approximately 4-acre site, located near the existing gas flare on the Phase I site, to convert landfill gas to up to 10 MW of electricity, and install up to six generating units.
6. **New Power Lines and Changes to Existing Lines.** Install approximately 500 feet of new above-ground power lines supported on 10 new power poles (approximately 18-inch-in-diameter and 40-feet-high), and no less than 6,300 feet of new underground power lines, to connect the new landfill gas-to-energy power plant to existing PG&E power lines located along the northern edge of the landfill site. Replace and upgrade up to 5,200 feet of existing PG&E power lines with thicker conductor wires (from 1/8-inch-in-diameter to 3/8-inch-in-diameter) to carry the new, on-site power plant's high voltage power and 45 existing power poles (approximately 18-inch-in-diameter and

40-feet high) to support the upgraded conductor wires and cables within the northern boundary of the landfill site.

7. **Water Pipeline System and Storage Tanks.** Construct: (a) approximately 7,160-linear-feet of underground pipeline extending from north of the landfill boundary to the entrance facilities and support area to convey water from an existing water well located on the Griffith Ranch parcel, on the north slope of the Potrero Hills ridgeline (Griffith 6R well); (b) four, approximately 20-foot-in-diameter and 12-foot-tall water tanks to store up to 15,000 gallons of water each, located on the Griffith Ranch parcel, north of the dividing line between Phase I and Phase II for dust control, truck washing and fire suppression; and (c) a 10-foot-high sloped earthen berm to screen the water tanks from the west, north and east.
8. **New Sedimentation Basin.** Construct a new approximately 2-acre silt-control basin located at the easternmost landfill cell. During the development of the landfill expansion, temporary silt-control basins will be used to control stormwater run-off for each active landfill cell.
9. **New Visitor Center.** Install an approximately 24-foot-wide, 60-foot-long, and 14-foot-high double-wide trailer with generator power near the entrance to the landfill for use as an assembly area for visitors and school field trips, and up to two, 12-foot-wide, 40-foot-long and 14-foot-high smaller trailers with generator power scattered throughout the landfill site as remote-area trailers. Parking will be limited to the immediate area around the trailer(s) utilizing existing parking area(s) as needed.
10. **Bypass Lane Parallel to Potrero Hills Lane.** Reactivate an approximately 400-foot-long and 30-foot-wide portion of an old quarry access road parallel to Potrero Hills Lane to use as a bypass lane to the landfill when necessary. The road will accommodate two-way traffic and will be improved with gravel and base material as needed to support the existing landfill vehicle traffic.
11. **Vacate Scally Road Easement.** Vacate the right-of-way easement for County Road No. 279 (Scally Road extension), which has never been built, across the north ridge hills and across the expanded landfill footprint area.
12. **24-Hour Operation.** Increase the landfill's operation hours from 20 hours per day, 7 days a week, to 24 hours per day, Monday through Friday and 20 hours per day on Saturday and Sunday.
13. **Modify Night-Lighting Restrictions.** Remove restrictions on the number of lights used for night lighting at disposal operations and allow flood lamps to be attached to poles from 8 to 15 feet above ground level, that illuminate an area approximately 300 feet from the light source and extend out at an angle of about 60 degrees on each side of the lighting unit for a distance of approximately 200 feet, consistent with a lighting plan.
14. **Bird Abatement Activities.** Continue bird abatement activities at PHLF that includes the use of birds, dogs, balloons, kites, pyrotechnics, and other non-lethal techniques to remove gulls from the landfill and to discourage gulls from settling at the landfill, from eight to 10 hours a day, five days a week.

15. **Conduct an Alternative Daily Cover Demonstration Project.** Within the Phase I landfill footprint, on an approximately 1.1-acre closed landfill area, conduct site-specific demonstrations to study the excavation and storage of new or untested materials for alternative daily cover (ADC). If a demonstration is successful in establishing the suitability of the stored materials as ADC, as determined by the Local Enforcement Agency (LEA) and the Department of Resources Recycling and Recovery/CalRecycle (formerly known as the California Integrated Waste Management Board (CIWMB)), the landfill will apply to include the use of such material as an approved standard operational procedure.
16. **Waste Solidification Facility.** Conduct waste mixing on an approximately 2-acre area on closed portions of the Phase I landfill or on top of one of the landfill's soil stockpiles to mix and blend waste materials with high-moisture content (liquids, muds and sludges) with dry, powdery materials and waste soil to create materials having a moisture content of less than 50 percent for use as ADC materials, foundation layer of the final cover, and/or off-site use.
17. **Exclude Recyclables and Beneficial Re-Use Materials from Daily Tonnage Limit.** Exclude recyclables (such as concrete, demolition debris, and organic compostable materials) and alternative daily cover (ADC) materials that are used to cover the landfill from the calculation of maximum allowable disposal tonnage permitted into the landfill. Limitations on traffic volumes (trips in and out of the landfill) would not be changed.
18. **Add Biosolids and Other Organic Materials to Composting Operation.** Add biosolids and additional food wastes to the composting operation as additional materials that can be composted. Biosolids include wastewater and industrial processed material. This action will require the landfill to upgrade their existing Green Material Composting Permit to a full Composting Facility Permit and adjusting the Report of Composting Site Information. In addition, the handling of biosolids may include the receiving, storage, processing and drying for further beneficial re-use.
19. **Clarify Sludge Limitations.** Include only wet sludges (exceeding 50 percent moisture) disposed of within the landfill, to the sludge quantity limit. For instance, dried sludges or residues or sludges used as ADC will not be counted within the limit.
20. **Sell Landfill-Related Commodities.** Continue sale of landfill-related commodities produced on-site or salvaged in the resource recovery operation, including sandstone rock material, washed rock, sand, landscaping boulders and pavers, decomposed granite, building materials, etc.

Mitigation: The project includes a habitat mitigation proposal consisting of preserving a total of 963.28 acres adjacent to the Phase II expansion area as conservation areas, and that include the following five parcels: (1) the 428.7-acre Southern Hills parcel; (2) the 41.23-acre Pond 5 Buffer Area on the Phase II expansion parcel; (3) the 297.39-acre Eastern Valley parcel; (4) the 112.16-acre portion of the entire 142.7-acre Griffith Ranch parcel; and (5) the 83.8-acre Director's Guild parcel. All five parcels are currently owned by PHLF. A conservation easement and endowment

would be placed on these parcels, establishing these areas as plant and wildlife habitat in perpetuity, held by the Center for Natural Lands Management (CNLM) or another entity approved by the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the California Department of Fish and Game, the California Regional Water Quality Control Board and the Commission. (See Exhibit H).

Within these conservation areas, the following habitats would be preserved and/or created: (1) a total of 884.44 acres of upland grasslands; (2) 4.72 acres of seasonal pond habitat for California Tiger Salamander (CTS) would be preserved and 1.78 acres would be created; (3) 63.89 acres of seasonal wetlands would be preserved and 4.49 acres would be created; and (4) 2.16 acres of swale/channel would be preserved and 1.80 acres would be created (see Table 2 - Proposed Mitigation).

Public

Access:

The proposed public access involves: (1) developing an approximately 57,000-square-foot overlook on the former Solano Garbage Company landfill site with up to six parking spaces, interpretive signage, approximately five benches, a bicycle rack, a trashcan, and a portable toilet; (2) dedicating easements over approximately 12,200-linear feet (2.31 miles) of existing dirt roads and trails on the Southern Hills, for future public access use; and (3) providing a total of \$300,000 to the Solano Land Trust over a period of 25 years, to help fund public access improvements and services at the Rush Ranch site (see Exhibits I, J and K).

**Schedule
and Cost:**

The estimated project cost for the construction of the Phase II expansion elements is approximately \$110 million. Additional costs will be required for annual, on-going operational components of the project. The Phase I site is expected to reach capacity by 2016, based on current waste volumes. The Phase II expansion is expected to extend the life of the landfill another 35 years, based on current received waste volumes.

Property

Ownership:

PHLF owns six parcels in the surrounding areas, including approximately: (1) the 320-acre Phase I site; (2) the 260-acre proposed Phase II site; (3) the 297-acre Eastern Valley parcel; (4) the 428-acre Southern Hills parcel; (5) the 83-acre Director's Guild parcel; and (6) the 142.7-acre Griffith Ranch parcel. PHLF shares an easement with neighboring parcels to Potrero Hills Lane, a private road that was authorized pursuant to Marsh Development Permit No. 6-96(M), to gain access to the landfill site, and a lease over the former Solano County Garbage Company site for public access.

Issues Raised

The staff believes that the project raises the following issues with respect to consistency with the Marsh Act and Solano County's LPP: (1) whether the project is consistent with policies addressing the landfill and protecting the Marsh and valuable marsh-related wildlife habitats; (2) whether the project would have significant adverse ecological impacts on the Marsh; (3) whether the project would have significant adverse aesthetic impacts on the Marsh; (4) whether the project results in adverse effects on water quality entering the Marsh;

- (5) whether the project is consistent with policies for new electric lines and new roadways;
- (6) whether the project is consistent with policies for recreation and marsh access; and
- (7) whether the project raises issues with respect to CEQA.

I. Consistency with Policies Addressing the Landfill and Protecting the Marsh

The Suisun Marsh Preservation Act (Marsh Act) of 1974 was passed by the legislature with the intent of preserving and protecting valuable marsh habitat and upland grasslands within the Suisun Marsh.

Section 29002 of the Act states that: "... the Suisun Marsh represents a unique and irreplaceable resource to the people of the state and nation; that future residential, commercial, and industrial developments could adversely affect the wildlife value of the area; and that it is the policy of the state to preserve and protect the resources of this nature for the enjoyment of the current and succeeding generations."

Consistent with the Marsh Act, the policies of Solano County's LPP call for the preservation and enhancement of the diversity of habitats in the Suisun Marsh and existing agricultural uses as a valuable buffer in the secondary management area.

Policy 1 of the Wildlife Habitat Management and Preservation section states: "The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource."

Policy 2 of the Agriculture section states, "Agricultural uses consistent with protection of the Marsh, such as grazing and grain production, should be maintained in the secondary management area. In the event such uses become infeasible, other uses compatible with protection of the Marsh should be permitted. The value of the upland grassland and cultivated lands as habitats for Marsh-related wildlife should be maintained and enhanced where possible by planting or encouraging valuable wildlife food or cover plant species."

Policy 3 of the Agricultural and Open Space section states: "Existing uses should continue in the upland grasslands and cultivated areas surrounding the critical habitats of the Suisun Marsh in order to protect the Marsh and preserve valuable marsh-related wildlife habitats. Where feasible, the value of upland grasslands and cultivated lands as habitat for marsh-related wildlife should be enhanced."

In addition to these policies, the LPP contains specific policies that address landfill operations and other existing non-agricultural uses within agriculturally designated areas in the Marsh and secondary management area.

Policy 3 of the Agriculture section of the LPP states, "Existing non-agricultural uses, such as Solano Garbage Company, Pacific Reclamation and Disposal Inc., and Explosive Technology Corporation, on sites within the secondary management area should be allowed to continue if they are conducted so that they will not cause adverse impacts on the Suisun Marsh. Any future change in uses of these sites should be compatible with the preservation of the Suisun Marsh and its wildlife resources."

The Marsh Act carved out an exception to the possible development of a new solid waste

disposal site in the Potrero Hills because it was thought that this new site could provide a better alternative to any expansion at the Solano Garbage Company site, which was adjacent to the sensitive areas of the primary management area and Hill Slough.

Section 29409 of the Marsh Act states, “Notwithstanding the policies of the protection plan, the local protection program may not preclude the future development of a new solid waste disposal site in the Potrero Hills if it can be demonstrated that the construction and operation of solid waste facilities at that site would not have significant, adverse ecological or aesthetic impacts on the marsh.”

Consistent with this language in the Marsh Act, the LPP includes the following policy which governs the construction of a new landfill site in the Potrero Hills:

Policy 4 of the Utilities, Facilities, and Transportation section of the LPP states “The Solano Garbage Company should be permitted to continue its existing County approved operation until it reaches capacity. Expansion of this facility or development of a new site in the Potrero Hills should be permitted if it can be shown that the construction and operation of such facilities will not have significant adverse ecological impacts or aesthetic impacts on the Marsh...”

The former Solano Garbage Company had several years of available operating capacity at its former site in 1984. However, the County approved its move to the Potrero Hills because the new site provided an alternate location out of public view (hidden by the Potrero Hills), it had improved geological, topographical and environmental conditions and was farther from the sensitive habitat of the primary management area and the wetlands of Hills Slough, it provided an opportunity for joint land use between the existing quarry operation within the Potrero Hills and the future landfill, and it allowed for a greater landfill capacity to accommodate the expected population growth of the Fairfield-Suisun City area.

When the Potrero Hills Landfill first opened in 1986 at its new site within the Potrero Hills, it brought in on average between 225 to 324 tons of waste per day, from the local central Solano County tributary area – Fairfield, Suisun City, Travis Air Force Base, Rio Vista and the Green Valley unincorporated areas.⁵ Solano County voters passed Measure E in 1984 limiting the importation of out-of-County wastes to 95,000 tons per year, or about 300 tons per day. However, the County determined this measure was unconstitutional and has not enforced it. Over time, the various marsh development permits for PHLF have been expanded to allow wastes from other counties to be received at the Potrero Hills site, to its current maximum allowance of 3,400 tons per day on a 7-day rolling average, approximately 2,300-2,400 tons of which comes from out-of-County.

The proposed Phase II expansion project would increase the landfill footprint an additional 167.63 acres to the east of the existing Phase I site, converting the habitat from primarily non-native upland grassland to active landfill. The expansion would allow the landfill to increase its capacity to approximately 83 million cubic yards, tripling its current authorized capacity of 21.5 million cubic yards, to accommodate wastes from up to 28 counties including the Sierra foothill counties and Alameda, Contra Costa, Marin, Mendocino, Napa, Sacramento, Santa Clara, San Mateo, Solano and Yolo counties.

⁵ Solano Cnty. Dep’t. of Env’tl. Mgmt., Draft Environmental Impact Report for the Potrero Hills Landfill Expansion Project 3-1 (2003) [hereinafter *DEIR*]; email from Jim Dunbar.

Approximately 215-acres of upland grassland habitat would be affected by the proposed expansion.⁶ The aquatic habitats on the expansion site that would be affected include an approximately 0.44-acre portion of Spring Branch Creek and its tributaries, several seasonal wetlands, and the filling of Ponds 1 and 4. According to the U.S. Army Corps of Engineers (Corps), this would result in impacts to approximately 2.42 acres of Section 404-jurisdictional wetlands and other waters of the United States, 0.076 acre of isolated waters of the State of California, and 0.61 acre of non-jurisdictional pond habitat.⁷ PHLF's project proposes to mitigate impacts to these areas by preserving and enhancing five parcels of land located adjacent to the Phase II expansion area consisting of approximately 963.28 acres of land in the secondary management area. Of this total, 884.44 acres are existing upland grasslands, 78.77 acres are preserved water features, and 8.07 acres would be newly created water features.

The Commission should determine whether the proposed project as mitigated is compatible with the preservation of the Suisun Marsh and its wildlife resources and consistent with the policies of the LPP which call for: (1) preserving a diversity of habitats in the Marsh and surrounding area; (2) maintaining agricultural uses in the secondary management area or, if infeasible, permitting other uses "compatible with protection of the Marsh"; (3) continuing existing uses in the upland grasslands to protect the Marsh and preserve valuable marsh-related habitat; and (4) ensuring that continuing existing non-agricultural uses (such as the landfill) "will not cause adverse impacts on the Suisun Marsh" and that future changes in such uses are "compatible with the preservation of the Suisun Marsh and its wildlife resources."

II. Ecological Impacts on the Marsh

The Draft Environmental Impact Report (DEIR) for the project identifies approximately 24 significant adverse impacts from the proposed landfill expansion, including impacts to wildlife, habitats and aesthetic resources (see Table 3 – Summary of Impacts and Mitigation Measures, DEIR). The DEIR concluded, however, that with mitigation, each impact could be reduced to less than significant levels.

Following the certification of the original FEIR and the Commission's finding of a substantial issue for appeal, BCDC staff established an independent scientific panel to assist the Commission in evaluating whether the proposed project complies with the relevant Solano County LPP policies. The panelists were charged with analyzing the potential environmental impacts of the proposed expansion on habitat and associated wildlife at the project site, and with reviewing the appropriateness and adequacy of the proposed mitigation. The scientific panel concluded their findings on four key biological resource areas: botanical and wetland resources, land and habitat management, California tiger salamander, and birds, in a report submitted to BCDC staff in August 2007.⁸ At the time the scientific panel report was issued, the 297.39-acre Eastern Valley parcel had not been included in the mitigation proposal. In December 2007, PHLF prepared a report to respond to the scientific panelists'

⁶ This includes both the 167-acre landfill footprint and the related operations on the Phase II parcel.

⁷ A more recent delineation of jurisdiction wetlands and Waters of the United States conducted in 2010 by the U.S. Army Corps of Engineers has determined that the actual acreage numbers may be slightly lower; however the amount of mitigation proposed by PHLF will not change.

⁸ Bay Conservation and Dev. Comm'n., Scientific Panel Review of Biological Resources Impacts and Proposed Mitigation for the Potrero Hills Phase II Expansion (2007) [hereinafter *Scientific Panel Report*].

findings.⁹ Both the scientific panel's findings and the PHLF's response are discussed below.

On April 1, 2010, the USFWS issued a draft Biological Opinion on the potential effects of the proposed project to federally-listed threatened and endangered species and their habitats. In its draft Biological Opinion, the USFWS determined that the level of anticipated take is not likely to result in jeopardy to these listed species with the implementation of certain measures, including the proposed conservation of approximately 963.28¹⁰ acres of lands, outlined in the proposed mitigation plan.¹¹ In addition, the USFWS found that the proposed project would not adversely modify or destroy critical habitat for these listed species because the effects are anticipated to be of a temporary nature and will be beneficial in the long-term by creating more aquatic habitat for these species. In particular, the USFWS states that, "the conservation measures will improve and create habitat for these listed species on habitat adjacent to the project area."¹²

The California Endangered Species Act (CESA) allows for a permitting process to obtain state incidental take authorization if such take is already authorized under Federal Endangered Species Act. This process, known as a "consistency determination", requires the California Department of Fish and Game (CDFG) to review the federal authorization to determine whether it is "consistent" with CESA (Fish and Game Code 2080.1). CDFG is currently working with the USFWS to ensure that the draft Biological Opinion addresses take avoidance and impact minimization measures for species protected under CESA. The proposed Phase II project will require a consistency determination or, if CDFG determines that additional conditions beyond those defined by the final federal Biological Opinion are necessary, a California Endangered Species Act incidental take permit (Fish and Game Code 2081(B) and (C)) will be required to address potential impacts to CTS.

A. **Special-Status and Other Species.** The proposed Phase II expansion area is located in the valley surrounded by the horseshoe-shaped Potrero Hills. According to the project's DEIR, the expansion area is a broad valley bounded on the north, south, and east by rolling, grassy hills. The western end of the valley opens toward the primary management area of the Suisun Marsh and the valley is dominated by non-native annual grasslands that have been used for years for cattle grazing. The DEIR notes that despite the dominance of non-native plants, a number of native plant species occur on the project site.¹³ Many common wildlife species forage in the proposed expansion area, including songbird species, common raptor species, great horned owls and golden eagles. Additional wildlife species that could use the project site include the California ground squirrel, deer mouse, coyote, gopher snake, and common kingsnake.¹⁴

Within the Phase II expansion area, a total of 2.42 acres of water features are subject to jurisdiction under Section 404 of the Clean Water Act and include Spring Branch Creek and its tributary drainages, as well as 11 wetlands north and south of the creek. Two stock ponds (Pond 1 - 0.39 acre; and Pond 4 - 0.22 acre) in the Phase II expansion area as well as a number of small wetlands were determined not to be subject to jurisdiction

⁹ Potrero Hills Landfill, Response to the Scientific Panel Review Report (2007).

¹⁰ The draft Biological Opinion has listed 963.12 acres but the correct number is 963.28 acres.

¹¹ U.S. Fish and Wildlife Service, Draft Biological Opinion on the Proposed Potrero Hills Landfill Phase II Expansion Project 59-60 (2010) [hereinafter *Draft Biological Opinion*].

¹² *Id.* at 57.

¹³ DEIR, *supra* note 5 at 4.2-2.

¹⁴ *Id.* at 4.2-3.

under Section 404 of the Clean Water Act by the U.S. Army Corps of Engineers.¹⁵

The 2003 DEIR identified a total of 13 special-status plants and 21 special-status species that are known or have the potential to occur in the expansion and surrounding area (see Table 4 – Special-Status Species Potentially Occurring in the Potrero Hills Landfill Expansion Area, DEIR).¹⁶ According to the DEIR, all of the special-status plants occur in grasslands or vernal pools and most of them are restricted to alkaline soils. Of the 21 special-status species identified, seven are listed as state and/or federal Threatened or Endangered species and include: vernal pool fairy shrimp, conservancy fairy shrimp, vernal pool tadpole shrimp, valley elderberry longhorn beetle, California red-legged frog, Swainson’s hawk, and peregrine falcon. Since the time of the DEIR preparation, the USFWS and the CDFG have listed the California tiger salamander (CTS) as a Threatened species. The remaining 13 wildlife species are considered Species of Special Concern by the CDFG and/or Federal Species of Concern by the USFWS. The USFWS draft Biological Opinion (2010) determined that the proposed Phase II project (with the proposed Mitigation and Monitoring Plan and Grassland Management Plan) would not adversely affect federally-listed species.

1. **Plants.** The DEIR concluded that the project would result in no impacts to special-status plants because no special-status plant species were observed in the expansion area during the protocol-level surveys of the site.¹⁷ Although two small populations of San Joaquin spearscale were observed in the proposed expansion area during a 1998 reconnaissance survey, this species was not identified at the site during plant surveys conducted in 2003-2004, and therefore it was assumed to no longer be present.¹⁸

The USFWS, in their draft Biological Opinion, found that, based on rare plant surveys conducted by the landfill’s consultant and accepted by USFWS, Solano grass, San Joaquin Valley Orcutt grass, and Colusa grass were not found in the project area and therefore, the proposed project is not likely to adversely affect these species.¹⁹ The USFWS also determined that Contra Costa goldfields occur within the project area, particularly on the Director’s Guild parcel, and critical habitat for this species occurs in the seasonal wetlands of the Griffith Ranch and Director’s Guild parcels (proposed project mitigation sites). The USFWS determined however, that the proposed project is not expected to appreciably diminish the value of critical habitat for the Contra Costa goldfields, or prevent the critical habitat from sustaining its role in the conservation and recovery of the species.²⁰ The USFWS requires the following avoidance and conservation measures for the Contra Costa goldfields: (1) training on Contra Costa goldfields by a USFWS-approved biologist for all construction personnel prior to any construction; and (2) fencing of the goldfield area prior to construction activity.

Rare plant surveys conducted by the landfill’s consultant identified the presence of two sensitive plant species: San Joaquin saltbush and crownscale. The independent

¹⁵ Potrero Landfill, Inc., Mitigation and Monitoring Plan 7 (2009).

¹⁶ DEIR, *supra* note 5 at 4.2-4.

¹⁷ *Id.* at 4.2-18

¹⁸ *Id.*

¹⁹ Draft Biological Opinion, *supra* note 11 at 1.

²⁰ *Id.* at 56.

scientific panel concurred that the Phase II expansion area provides suitable habitat for these species that could be impacted and should be mitigated.²¹ The scientific panel report recommends planting seeds and monitoring populations of these special-status species on appropriate habitats within the mitigation properties. In addition to special-status species, the scientific panel focused on the loss of upland grasslands that would result from the expansion, and particularly the loss of native species. The scientific panel report found that the Phase II expansion area provides habitat for 148 species of plants (including subspecies and varieties), among which 68 (46%) are natives and 80 (54%) are introduced species. According to the scientific panel, this represents a high number of native plant species and only the Southern Hills parcel contains more native species than the Phase II expansion area (83 species).²²

The scientific panel report recommends restoring and improving native vegetation on the mitigation sites according to specific ratios, using other tools to enhance natives, and using measures to reduce exotic species.²³ Although the landfill proposes to re-establish grasslands on closed landfill cells, the scientific panel found that there is no evidence to support the conclusion that the re-vegetated surface of the landfill would provide habitat of equal value to the areas that are lost. The scientific panel report states that, "Even if re-vegetation efforts are successful, the habitat will have different geology, hydrology, and soils. My observations from other landfills indicate that non-native rather than native species tend to re-establish on re-vegetated landfill surfaces. Consequently, the loss of natural habitat should be considered permanent."²⁴

In response to the scientific panel report, PHLF modified the proposed project to consolidate the project features into a smaller footprint (from 241.9 acres originally proposed to the currently proposed 167.63 acres), including redesigning the northern drainage and sedimentation basin system and relocating the power facility site into the Phase I facility. In addition, PHLF added additional mitigation areas and modified its Grassland Management Plan to address the management of grasslands and grazing within the PHLF mitigation areas. The Grassland Management Plan describes livestock grazing operations and non-grazing management activities for the long-term conservation of grassland habitats, associated aquatic resources, and special-status species habitats on the property.

2. **Invertebrates.** The DEIR concluded that the project would result in less-than-significant impacts to invertebrates such as the valley elderberry longhorn beetle and callippe silverspot butterfly.²⁵ The USFWS, in their draft Biological Opinion also concluded that the proposed project is not likely to adversely affect the Delta ground beetle, elderberry longhorn beetle, and the callippe silverspot butterfly.²⁶

However, the DEIR concluded that the project would result in significant impacts to vernal pool fairy shrimp and vernal pool tadpole shrimp and that Ponds 1, 4 and 5,

²¹ Scientific Panel Report, *supra* note 8 at 2-5.

²² *Id.* at 2-4.

²³ *Id.* at 2-7 – 2-9.

²⁴ *Id.* at 2-5.

²⁵ DEIR, *supra* note 5 at 4.2-20

²⁶ Draft Biological Opinion, *supra* note 11 at 2.

which provide suitable habitat for these species, would be lost as a result of the landfill expansion.²⁷ (Pond 5 was later withdrawn from the project expansion area and is proposed to be preserved).

In its draft Biological Opinion, the USFWS determined that conservancy fairy shrimp, vernal pool tadpole shrimp, and vernal pool fairy shrimp and each of their respective critical habitats, could be adversely affected by the proposed project, and that incidental take of these species may occur.²⁸ In particular, the USFWS determined that despite the fact that vernal pool fairy shrimp,²⁹ vernal pool tadpole shrimp,³⁰ and conservancy fairy shrimp³¹ have never been found to occur within the Phase II project area, the proposed Phase II expansion project is located entirely within the vernal pool fairy shrimp critical habitat unit 16A,³² vernal pool tadpole shrimp critical habitat Unit 11D,³³ and conservancy fairy shrimp critical habitat Unit 3.³⁴ With respect to the critical habitat for these species, the USFWS found that the proposed project, as mitigated, is not expected to appreciably diminish the value of critical habitat for the vernal pool fairy shrimp, the vernal pool tadpole shrimp, and the conservancy fairy shrimp, or prevent the critical habitat from sustaining its role in the conservation and recovery of the species.³⁵ The proposed project would also result in the take of all vernal pool fairy shrimp, vernal pool tadpole shrimp and conservancy shrimp inhabiting 0.42 acre of playa pool habitat in the project's Director's Guild mitigation area, but that the level of anticipated take is not likely to result in jeopardy to these species.³⁶

The draft Biological Opinion concludes that the conservation measures will improve and create habitat for these listed species. In particular, the conservation parcels will preserve 963.28 acres of habitat for all listed species; 63.89 acres of seasonal wetlands for conservancy fairy shrimp, vernal pool tadpole shrimp, vernal pool fairy shrimp (and Contra Costa goldfields); and 4.49 acres of seasonal wetlands for conservancy fairy shrimp, vernal pool fairy shrimp (and Contra Costa goldfields). In addition, 1.80 acres of swale/channel habitat for conservancy fairy shrimp, vernal pool tadpole shrimp, vernal pool fairy shrimp (and Contra Costa goldfields) will be created.³⁷ The draft Biological Opinion also proposes the following conservation measures:

“(1) The Corps should assist the [USFWS] in implementing recovery actions identified in the *Recovery Plan Vernal Pool Ecosystems of California and Southern Oregon* (Service 2005); (2) Encourage or require the use of appropriate California native species in revegetation and habitat enhancement efforts associated with projects authorized by the Corps; and (3) Sightings of any listed or sensitive species should

²⁷ DEIR, *supra* note 5 at 4.2-19.

²⁸ Draft Biological Opinion, *supra* note 11 at 2.

²⁹ *Id.* at 36.

³⁰ *Id.* at 40.

³¹ *Id.* at 44.

³² *Id.* at 37.

³³ *Id.* at 41.

³⁴ *Id.* at 44.

³⁵ *Id.* at 54, 55.

³⁶ *Id.* at 59.

³⁷ *Id.* at 57.

be reported to the California Natural Diversity Database of the [CDFG]. A copy of the reporting form and a topographic map clearly marked with the location the species were observed also should be provided to the [USFWS].”³⁸

3. **Amphibians – California Red-legged Frog and California Tiger Salamander.** The DEIR concluded that California red-legged frog is not expected to occur in the proposed expansion area and therefore, the project would result in less-than-significant impacts to this species.³⁹ The USFWS did not identify the red-legged frog as a species for comment.

The DEIR concluded that the project would result in significant impacts to the California tiger salamander (CTS), a listed species by the USFWS and now currently listed by the CDFG.⁴⁰ Although larval CTS develop in vernal pools and ponds in which they are born, they are otherwise terrestrial salamanders that spend most of their post-metamorphic lives in widely dispersed underground retreats. Sub-adult and adult CTS spend the dry summer and fall months of the year in the burrows of small mammals such as the California ground squirrels, which provide protection from the sun and wind that can cause drying out of amphibian skin.⁴¹ According to the DEIR, all ponds in the proposed expansion area showed evidence of use as breeding sites either by the presence of larvae in the ponds, the presence of adult CTS during the breeding season, and/or the presence of egg masses. Adult CTS were also observed fairly regularly in the uplands during the breeding season, at distances ranging from a few feet to over 2,000 feet from the nearest breeding pond.⁴²

The independent scientific panel also found that the Phase II expansion would result in direct impacts to CTS with the loss of aquatic breeding habitat (from the filling of Ponds 1 and 4, and the loss of terrestrial habitat.) The scientific panel concluded that, “The effect of loss from Phase II is severe. Nearly two-thirds of that loss is due to the elimination of two breeding sites, ponds 1 and 4.”⁴³ The scientific panel concluded that CTS move to and from breeding sites in straight lines and the Phase II expansion would block all movements north and south of the site. Of the parcels that were included in the mitigation proposal at the time of the scientific panel’s review, the report found that only the Southern Hills provide mitigation for the loss of Ponds 1 and 4 and that the Director’s Guild property and the Griffith Ranch site do not provide mitigation since these parcels are isolated and do not contain any known CTS breeding sites. The scientific panel recommended that a 3:1 mitigation ratio be adopted for the loss of CTS habitat but also concludes that a 2:1 ratio would be adequate if the USFWS felt that was reasonable. The scientific panel also recommended adding the Eastern Valley parcel to the mitigation proposal, eliminating ground squirrel population control on all mitigation areas, requiring long-term monitoring of the CTS for the life of the landfill project, and constructing

³⁸ *Id.* at 61.

³⁹ DEIR, *supra* note 5 at 4.2-20.

⁴⁰ *Id.* at 4.2-21, 4.2-28

⁴¹ Draft Biological Opinion, *supra* note 11 at 23-24.

⁴² DEIR, *supra* note 5 at 4.2-21.

⁴³ Scientific Panel Report, *supra* note 8 at 4-13.

a solid and permanent, 2- to 3-foot-tall concrete “salamander-proof barrier”.⁴⁴

In its draft Biological Opinion, the USFWS determined that CTS could be adversely affected by the proposed project.⁴⁵ Individual animals may be directly injured, killed, harmed and harassed by activities that disturb breeding, migration, dispersal and aestivation habitat. Individuals exposed during excavations likely will be crushed and killed or injured by construction-related activities, or salamanders could fall into trenches, pits, or other excavations, and then be directly killed or unable to escape and be killed due to desiccation, entombment, or starvation. The increased landfill size and increased hours of operation would lead to higher levels of vehicle traffic which would result in higher numbers of CTS killed during their movements between their upland habitat and breeding ponds. The USFWS concluded that the Phase II expansion would result in the permanent loss of approximately 167.63 acres of CTS upland habitat and the permanent loss of 0.61 acre of CTS breeding habitat due to the loss of Pond 1 (0.39 acre) and Pond 4 (0.22 acre).

In addition to the effects of the increased landfill footprint, the USFWS concluded that the proposed powerline extension would result in 0.01 acre of temporary effects to CTS upland habitat from new poles and the installation of a buried pipe line system and four troughs⁴⁶ would temporarily affect 0.027 acre and permanently affect 0.002 acre of upland CTS habitat on the Southern Hills parcel. The USFWS also determined that the increase in night lighting at the landfill could disrupt CTS physiology and interrupt migration of larval CTS that could reduce the size at metamorphosis or survival.

Since the release of the DEIR and the scientific panel report, the landfill has revised its mitigation proposal to include the 297.67-acre Eastern Valley parcel (see Exhibit K and Table 2 – Proposed Mitigation). PHLF has also provided additional enhancement measures to increase the viability of two CTS breeding ponds (GR1 and GR2) that are to be constructed on the Griffith Ranch site. Both of these ponds are expected to function as CTS breeding ponds, as both ponds will be located within movement distance of Pond 1, a documented CTS breeding pond. Pond 1, located just 200 feet south of Griffith Ranch, with no impassable barriers between the two parcels, has been reliably producing CTS for approximately ten years. This pond will be preserved for the first five years after the expansion begins on the Phase II parcel in order to provide a source of juvenile salamanders that can eventually breed in the new ponds and find burrows in the uplands around the ponds.

The USFWS has incorporated this mitigation proposal in their draft Biological Opinion and has concluded that the restoration and management of the five mitigation parcels will protect CTS and its upland and aquatic habitat.⁴⁷

In contrast to the scientific panel’s analysis, the USFWS has included both the Griffith Ranch and Director’s Guild parcels as mitigation for impacts to CTS. The

⁴⁴ *Id.* at 4-18.

⁴⁵ Draft Biological Opinion, *supra* note 11 at 2.

⁴⁶ This project component was included and evaluated in the USFWS’s draft Biological Opinion but is not included in the project description for this appeal as it was not included in the project descriptions provided to BCDC staff and has not yet been designed. Approval for this work would require separate review and a permit amendment.

⁴⁷ Draft Biological Opinion, *supra* note 11 at 14.

inclusion of all five parcels results in mitigation of upland habitat at a ratio of 5.3:1, preserved CTS seasonal pond habitat at a ratio of 7.7:1, and created CTS seasonal pond habitat at a ratio of 2.9:1.

According to the draft Biological Opinion, direct effects from the expansion will be minimized by a pre-construction CTS salvage plan during the dry season. Pre-construction surveys for CTS and relocating individuals may reduce injury or mortality. The landfill proposes to transport and relocate CTS just outside the construction area by use of a qualified biologist. Potential risks of relocation of CTS include the spread of disease, outbreeding depression, maladaptation, and disruptions to the existing population. According to the USFWS, these risks outweigh the potential benefits for relocation of CTS from Pond 1 to existing or created ponds on the adjacent landfill parcels. Created sites adjacent to occupied habitat are likely to be colonized naturally over a few years if there are no barriers to animal movement. The proposed new ponds (GR1, GR2, EV1, and SH1) are close enough that they should be colonized naturally by CTS. The USFWS also determined that failure to adequately revegetate disturbed areas with appropriate native vegetation would facilitate the invasion and establishment by non-native plant and animal species that could reduce habitat quality for the CTS. One problematic species in particular is the yellow star thistle.

The USFWS states that the effects of increased lighting on CTS will be minimized by using a small number of lights in a manner that avoids off-site reflection and glare, with a maximum of seven construction light plants. According to the draft Biological Opinion, the nearest landfill operation to Pond 5 would be about 800 feet away and the nearest landfill operation to Pond 3 would be 300 feet away.⁴⁸

CDFG has informed staff that it is working with the USFWS to make the draft Biological Opinion consistent under CESA as part of PHLF's proposed request for a Consistency Determination under Fish and Game Code Section 2080.1 for take authorization for CTS. CDFG is concerned that loss of the most productive breeding pond for CTS (Pond 1) may result in loss of a "source" population and reduce potential for CTS dispersal. According to survey results submitted to CDFG, Pond 5, which is proposed for preservation, appears to be a relatively productive pond and CTS could potentially disperse from this pond and colonize the two created ponds (EV1 and SH1). However, according to survey results conducted within the project area, existing Ponds 2, 3, 6 and 7 appear to have lower productivity than Ponds 1 and 5. Habitat enhancement is proposed at Pond 7 by increasing water depth.

The Mitigation and Monitoring Plan for the project includes establishing performance criteria to measure the effectiveness of the created CTS ponds as mitigation. Based on informal discussions with CDFG, CDFG staff has indicated that they may recommend that additional habitat enhancement at other ponds be examined if factors resulting in low breeding success rates can be identified. In addition, CDFG may recommend additional monitoring of CTS success rates. According to CDFG,

⁴⁸ *Id.* at 52.

long-term evidence of successful reproduction (e.g., presence of juveniles) and survivorship into different age classes provides a good indication of stability, persistence, and population resilience.

4. **Birds.** The DEIR concluded that the project would result in less-than-significant impacts to the long-billed curlew, loggerhead shrike, and tricolored blackbird⁴⁹ and potentially significant impacts to burrowing owls and other raptors, but that these impacts would be mitigated to less than significant levels.⁵⁰ These species are species of concern for the USFWS and CDFG.

The DEIR includes the following mitigation measures to address impacts to burrowing owls: (1) conducting pre-construction surveys prior to construction activity where suitable habitat is present within 75 meters of the construction areas, no less than 14 days and no more than 30 days prior to commencement of construction activities, pursuant to CDFG protocol; (2) if no burrows are found, a letter report would be submitted to CDFG for review and approval and no further mitigation is required; (3) if burrows are found, disturbance would be avoided by providing a buffer of 50 meters during non-breeding season (September 1 through January 31) or 75 meters during breeding season (February 1 through August 31) and, in addition to these buffers, a minimum of 6.5 acres of foraging habitat would be preserved contiguous with each occupied burrow; and (4) if impacts to occupied burrows are unavoidable due to their location within the landfill footprint, onsite passive relocation techniques approved by CDFG would be used to encourage owls to move to alternative burrows in the local vicinity.

To mitigate for potential impacts to other raptors at the site, the DEIR recommended including the following mitigation measures: (1) conducting pre-construction surveys in areas of suitable nesting habitat within 500 feet of the project activity if construction would commence during the raptor nesting season (February 15 to September 15), no less than 14 days and no more than 30 days prior to commencement of construction activities; (2) if no active nests are found, no further mitigation is required; and (3) if active nests are found, a 500-foot exclusion buffer would be established and no project activity allowed to occur within the buffer area until a qualified biologist confirms that the young have fledged from the nest through weekly monitoring, or the nests have been abandoned as determined through daily monitoring.

Regarding bird species at the site, the scientific panel report found that a variety of resident, breeding, migratory and wintering birds use the site, including a number of special-status species. In general, the bird species that use the site include those that forage or nest in relatively open habitats, such as raptors (owls and hawks), curlews, corvids (ravens and crows), swallows, blackbirds and meadowlarks, finches, and sparrows. Small numbers of waterbirds use the ponds and swales.⁵¹ The scientific panel found that the Phase II expansion would reduce nesting and foraging habitat for a number of special-status species, and, in particular, would permanently eliminate nesting territories for at least two pairs of Loggerhead

⁴⁹ DEIR, *supra* note 5 at 4.2-27

⁵⁰ *Id.* at 4.2-26.

⁵¹ Scientific Panel Report, *supra* note 8 at 5-2.

Shrikes, at least part of the nesting territory of at least one pair of Northern Harriers, and part of the home range and (more importantly) the apparent core area of one pair of Golden Eagles nesting offsite. The scientific panel also found that the expansion would eliminate foraging habitat for wintering species such as the Long-billed Curlews, Tricolored Blackbirds and Burrowing Owls. In addition, the scientific panel found that above-ground power lines from the proposed power plant could have the potential, depending on their design, length and placement, to cause direct mortality of Golden Eagles and other raptors from collisions with these lines, that increased night-lighting could cause disorientation of passerine birds and waterfowl or other waterbirds, and that the landfill expansion could result in an increase in American Crows and Common Ravens, predators of threatened and endangered species in California.⁵²

The scientific panel report makes the following recommendations: (1) fencing wetter areas to enhance nesting habitats and allowing tall marsh plants or grasses to grow; (2) planting isolated trees and shrubs such as willows, elderberry or poison oak; (3) enhancing grassland habitat value by managing the timing and intensity of grazing to benefit grasses and forbs; (4) removing artificial predator perches in wetland areas, such as including plastic spikes on top of signs; (5) integrating a corvid abatement program with the current gull program that involves pyrotechnics, falcons or dogs and monitoring its effectiveness; (6) minimizing the active working face of the landfill or quickly covering the active working face to minimize the availability of food for corvids; (7) requiring the Eastern Valley parcel as mitigation since it is the most similar in habitat as the Phase II expansion area and supports trees for nests, low valley for foraging and comparable habitat to support burrowing owls; and (8) incorporating design features of night lighting (type and height of lights, intensity and nature of light beams, shielded to focus downward).⁵³

Bird abatement activities are currently ongoing and coordinated with similar activities conducted by Travis AFB in accordance with its Birds/Wildlife Aircraft Strike Hazard Plan⁵⁴ that is implemented to ensure safe military aircraft operations.

Additional comments on the scientific panel's review of the Phase II expansion were submitted to BCDC regarding the possible off-site effects to locally nesting rare, threatened and endangered species such as the California Least Tern and the Western Snowy Plover in the Montezuma wetlands and Hill Slough, from the potential increase in corvids.⁵⁵ The comments were prepared by Avocet Research Associates and prepared for Sustainability, Parks, Recycling and Wildlife Legal Defense Fund (SPRAWLDEF). The commenter suggests requiring an on-going gull-corvid monitoring program to collect data on corvid occurrence at the landfill, especially during the nesting season prior to landfill expansion, employing corvid-deterrence methods, and an adaptive management plan to reduce corvid occurrence. In response to the recommendation from the scientific review panel, PHLF added a corvid abatement program to the mitigation and monitoring plan (Section 7.1.4) that

⁵² *Id.* at 5-11 - 5-14.

⁵³ *Id.* at 5-17 - 5-19.

⁵⁴ Travis Air Force Base, Birds/Wildlife Aircraft Strike Hazard (BASH) Plan (2006).

⁵⁵ Sustainability, Parks, Recycling and Wildlife Legal Defense Fund, Comments on the Scientific Panel Review of Biological Resource Impacts and Proposed Mitigation for Potrero Hills Landfill Phase II Expansion (2010).

was incorporated by reference into the Draft Biological Opinion by the USFWS. This plan will supplement the existing gull abatement programs that use falcons and dogs to keep native avian predators from obtaining significant food resource from the landfill.

The Commission should determine, based on the information provided regarding special-status and other species at the site, and based on the mitigation proposed, whether the proposed project would have “significant adverse ecological impacts” on the Marsh, pursuant to Policy 4 of the Utilities, Facilities and Transportation section of the LPP.

B. **Ecological Impacts – Groundwater.** Policy 2 of the Water Quality section of the LPP applies to impacts on groundwater:

“To prevent crop damage in some areas, the withdrawal of groundwater from the underground aquifers surrounding the Marsh may be desirable. Withdrawal should not be so extensive as to allow the salt water of the Marsh to intrude into fresh water acquifers [sic], or to disrupt the natural subsurface flow of groundwater into the Marsh.”

The proposed project would involve the construction of a water pipeline system to convey water that would be pumped from an existing water well located on the Griffith Ranch parcel on the north slope of the Potrero Hills ridgeline (Griffith-6R well) to four water tanks that would store up to 15,000 gallons of water each (see Exhibits E and L). According to PHLF, the water would be used for landfill operations, such as dust suppression on the active landfill face, landfill cell construction and fire suppression.⁵⁶ PHLF has also identified that this water would be used for the proposed truck/container washing facility.

In response to a comment letter on the original DEIR from BCDC staff requesting further information regarding the impact of withdrawing groundwater, the FEIR stated that based on studies, “water levels might be lowered about one foot in the local area around the well and the long-term pumping of the new well would not affect the other ranch wells in the vicinity. In addition, no salt water intrusion impact would occur inasmuch as the brackish water in the Union Creek estuary and the underlying highly saline groundwater body is located approximately one mile to the west and the existing natural ground water flow direction would not be affected.”⁵⁷

On February 26, 2007, the Solano County Superior Court ruled that the FEIR did not provide sufficient discussion or refer to data that supported the determination that no significant impact would result from expanded use of the Griffith-6R well and ordered the County to address the EIR deficiencies in a revised document. In response to the Court’s ruling, the County prepared a Recirculated DEIR that concluded, based on tests conducted by Golder Associates Inc., that the potential impacts of pumping activities at the Griffith-6R well on private wells and wetland/slough conditions would be negligible and therefore, the impact would be considered less than significant.⁵⁸ According to the Recirculated DEIR, the aquifer pump test indicates that the Griffith-6R well is capable of sustaining a continuous pumping rate of 15 gallons per minute (gpm) for the landfill’s water supply needs from June through November, without affecting neighboring well users.⁵⁹ Because the total annual groundwater consumption from the Griffith-6R well would be approximately 25 percent of the average annual recharge to the lower sand unit, based on the recharge rate, the seasonal pumping of the Griffith-6R well would not significantly affect the local water balance.

In its comment letter on the DEIR, the RWQCB stated, “The conclusions drawn by Golder Associates from the aquifer pump test and the subsequent computer model

⁵⁶ Cnty. of Solano Dept. of Res. Mgmt., Recirculated Draft Environmental Impact Report for the Potrero Hills Landfill Expansion Project II-2 (2007) [hereinafter *Recirculated DEIR*].

⁵⁷ Cnty. of Solano Dept. of Res. Mgmt., Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project 2-100 (2005).

⁵⁸ Recirculated DEIR, *supra* note 56 at II-11.

⁵⁹ *Id.* at II-9.

simulations of well yield appear reasonable and consistent with the test data. We concur with the report's primary conclusion that privately owned water supply wells located at

significant distance (2,000 feet or more) from the proposed water supply well should not be significantly impacted through seasonal water extraction from well Griffith-6R, provided that pumping rates do not exceed those evaluated in the aquifer test.”⁶⁰

The Commission should determine whether the proposed withdrawal of groundwater at well Griffith-6R would “not be so extensive as to allow the salt water of the Marsh to intrude into fresh water acquifers [sic], or to disrupt the natural subsurface flow of groundwater into the Marsh” pursuant to Policy 2 of the LPP’s Water Quality section.

- C. **Air Quality.** According to the DEIR, the project site is part of the San Francisco Bay Area Air Basin (SFBAAB). Air quality within the Bay Area is regulated by several jurisdictions including the U.S. Environmental Protection Agency (EPA), the California Air Resources Board, and the Bay Area Air Quality Management District (BAAQMD). Each of these jurisdictions develops rules, regulations, policies and/or goals to attain the goals or directives imposed upon them through legislation. State and local regulations may be more stringent than EPA regulations.

The DEIR identified two significant impacts resulting from the landfill expansion - air quality impacts associated with the expanded landfill operations and odors generated from the landfill operations. The DEIR determined that with mitigation measures, including dust control measures and compliance with the requirements of any revised BAAQMD permit, impacts from the landfill expansion would be mitigated to less than significant.⁶¹

The DEIR identifies odors as a significant impact since odors generated from the landfill have been a source of complaints from adjacent residents, landfill odors would continue, and new sources of odors would be introduced with the landfill expansion. The DEIR requires as mitigation for odor impacts that all composting operations be relocated from the northern boundaries of the project site to the center or southern portions and that sludge processing and storage operations, and mixing and storage of high-moisture content materials combined with dry powdery materials, also occur within the center or southern portions of the site. The DEIR also requires that the landfill modify the Odor Impact Minimization Plan submitted to the Local Enforcement Agency (LEA) in April 2003, to include odor control measures for the 24-hour operation of the working face, the land application of biosolids and the use of seasonal sludge-drying ponds. Odor control measures include increasing the frequency of cover application on the working face of the landfill, use of a vapor phase counteractant system during sludge processing operations or the use of topical applicants as an odor neutralizer at the close of sludge spreading or borrowing operations.

Following certification of the FEIR in September 2005, the Solano County Superior Court found that the EIR was deficient with respect to air quality. In particular, the Court concluded that the DEIR under-reported the level of reactive organic gases (ROG) produced by the proposed project and that there was a lack of substantial evidence to support the FEIR’s finding that the corrected ROG levels would be adequately mitigated by the air quality mitigation measures identified in the DEIR.

In the Recirculated DEIR prepared to respond to the Court’s concern, the air quality sec-

⁶⁰ Cnty. of Solano Dept. of Res. Mgmt., Recirculated Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project 2-5 (2008) [hereinafter *Recirculated FEIR*].

⁶¹ DEIR, *supra* note 5 at 4.9-14, 4.9-21.

tion was revised to include analysis of the project's ROG emissions and to include a discussion of the project's possible impacts related to greenhouse gas emissions. The Recirculated DEIR concludes that the proposed landfill expansion would result in an increase in ROG emissions with landfill gas in excess of BAAQMD significance thresholds but, with mitigation measures, would be reduced to a less-than-significant level. The Recirculated DEIR includes as mitigation measures, several on-site operational changes such as stabilizing dust emissions using water or chemical stabilizer/suppressant and monitoring water content of composing operations, as well as adherence to BAAQMD requirements.⁶²

In order for the expansion to occur, the landfill will need to obtain an Air Pollution Control/Permit to Operate for the landfill gas system from BAAQMD. BAAQMD commented on the Recirculated DEIR stating that their consideration of whether to issue a modified permit to operate the expansion project will be based on emission increases different than identified in the various EIR documents and expressing concern that the health risk may be underestimated.⁶³ BAAQMD also recommended that additional mitigation measures for air emissions be considered as part of the project.

An application for the expansion has been submitted to BAAQMD and is still under review but has not been issued. According to preliminary discussions with BAAQMD staff, they have indicated that its agency may prepare a supplemental environmental document pursuant to CEQA to evaluate the specific air quality impacts resulting from the proposed landfill gas to energy power plant since the design of the facility has changed and become more defined since it was evaluated in the Recirculated DEIR.

The Commission should determine, based on the information provided regarding air quality and based on the mitigation proposed, whether the proposed project would have "significant adverse ecological impacts" on the Marsh.

III. Aesthetic Impacts on the Marsh

The Marsh Act and the LPP require that the construction and operation of solid waste facilities in the Potrero Hills "will not have significant adverse ecological impacts or aesthetic impacts on the Marsh." (PRC §29409, Policy 4 of the Utilities, Facilities and Transportation section of the LPP).

The project site is located within a horseshoe-shaped hill surrounded on the north, east and south that provides a natural screen and obstructs views of the site from most surrounding properties. According to PHLF, the north ridgeline, which run along the northern edge of the Phase I and proposed Phase II site and helps screen the project site from SR-12, a County-designated scenic roadway, range in elevation of between 200 to 300 feet MSL. Valley bottom elevations on the Phase I and proposed Phase II landfill footprints range from 40 to 130 feet MSL (see Exhibit D).

The southern hills, which help screen the project site from Grizzly Island Road, another County-designated scenic roadway, include the north facing slopes along the southern edge of the Phase II parcel as well as the valleys and secondary ridges of the Southern Hills. Elevations range from about 100 feet MSL in the Potrero Hills Valley to between 300 to 400 feet MSL at the highest peak along the southern ridge.

⁶² Recirculated DEIR, *supra* note 56 at II-26.

⁶³ Recirculated FEIR, *supra* note 60 at 2-21.

The Eastern Valley mitigation area is contiguous with the Southern Hills parcel to the south and connects with the southeast corner of the Griffith Ranch mitigation area to the north. A 112.16-acre area of the Griffith Ranch parcel will be preserved and will not be affected by the landfill expansion; the remaining 30.54 acres of the Griffith Ranch parcel will be retained by PHLF. Elevations range from about 100 feet MSL to 380 feet MSL. A saddle-shaped break in the ridge occurs near the northwest corner of the Eastern Valley parcel. This saddle occurs approximately 400 feet east of the eastern boundary of the Phase II expansion area. The elevation of the low point of the saddle is approximately 160 feet MSL.

Currently, the existing landfill scalehouse and equipment maintenance building are only partially visible from SR-12, approximately 1 mile north of the landfill boundary. The majority of the landfill operations are not visible from SR-12 because of the intervening ridgelines and the current approved maximum elevation of 220 feet MSL for Phase I.

Potential aesthetic impacts include: impacts on Scenic SR-12 and adjacent properties from the increased landfill height; impacts from increased night-lighting at the site; impacts from increased litter generation; and potential impacts from proposed new ancillary structures, such as the landfill gas to energy facility, PG&E power lines, visitor center buildings, and four water tanks.

A. **Increased Height.** The expansion project proposes to add more wastes on top of the Phase I site, to reach a maximum elevation of 345 feet MSL, an increase of approximately 125 feet above the existing authorized height. Upon project completion, the landfill would be capped and revegetated with native grasses and with settlement over 20 to 30 years, it is anticipated that the eventual elevation would be approximately 320 feet. The expansion project also proposes a maximum elevation of 345 feet MSL on the Phase II expansion area. These proposed landfill heights would be generally below the elevations of the southern hills and therefore, screened from Grizzly Island Road. However, the increased heights would make the proposed project higher than the northern hills (between 45 to 145 feet higher), and therefore, would make the landfill more visually prominent from SR-12 and viewpoints to the northwest of the site, including the Lawler Ranch subdivision located approximately 1.5 miles to the north-northwest (see Exhibits M, N and O).

As noted above, both SR-12 and Grizzly Island Road are County-designated scenic roadways. According to PHLF, the Scenic Roadways Element of the Solano County General Plan focus on preserving the integrity of foreground views, which, according to the Scenic Roadways Element, include areas between 0 and 0.25 mile. Distant views include areas beyond 0.25 mile. In order to maintain visual quality along scenic roadways, the Scenic Roadway Element has adopted policies that include retaining the open space around marshlands, preventing modifications to natural water movement; burying utility lines underground; avoiding locating new development on steeper slopes; maintaining setbacks between proposed development and the viewshed; preventing the spread of noxious weeds and using materials and colors subordinate to the surrounding natural environment.

According to the DEIR, the increased landfill height would result in significant visual impacts to views toward the marsh by degrading local views for travelers on SR-12 to the north and residences located to the northwest. The visibility of active landfill operations from SR-12 would degrade the rural character of the visually prominent Potrero

Hills. For residents to the northwest, the increased height of the landfill mound would make it more visually prominent than anticipated with the currently permitted landfill footprint and height. In addition to views from the north and SR-12, views would be altered from proposed future trails on the Southern Hills, which are being proposed for public access, looking northward.

In order to shield the active landfill working face from the surrounding site, the landfill proposes to construct an earthen berm on the northwestern and northeastern edge of the active working face prior to filling areas visible from residential areas to the northwest and SR-12 to the north. The berm would be temporary to screen the active landfill face. According to the DEIR, this mitigation measure would reduce the visual impacts from the increased landfill height to less than significant.⁶⁴ Although an earthen berm may screen the active landfill site temporarily while it is being constructed, this mitigation measure would not mitigate for the alteration in views created by the final height of the landfill that would rise above the current elevations of the northern hills.

In response to a request by BCDC staff to prepare additional information on possible visual impacts resulting from the project, PHLF retained Environmental Vision of Berkeley, California to prepare a "Visual Resources Technical Report". This analysis employed visual assessment methods based, in part, on U.S. Department of Transportation Federal Highways Administration methodology and concluded that "the project's overall appearance would generally look similar to the surrounding Potrero Hills in terms of its form, color and texture" and that "motorists traveling along approximately 8 miles of SR-12 would have intermittent views of the proposed project."⁶⁵ The Visual Resources Technical Report includes existing views and visual simulations of the proposed increased landfill height, following landfill closure, capping and revegetation as well as photo diagrams illustrating the change in the landform resulting from the proposed project (see Exhibits P, Q, R, S, and T).

According to the report, "from east and westbound SR-12 the project would appear along the horizon, in the backdrop" and "although portions of the project would be visible from some locations within the Rush Ranch Nature Center, the visual change would generally appear as a relatively subtle modification to existing landform." In addition, "Motorists traveling south on [Grizzly Island Road] between SR-12 and Rush Ranch would experience intermittent views of the project" but "[w]here visible from Grizzly Island Road, the project would generally appear along the horizon, in the backdrop." The report also concluded that the project would be partially visible from the Lawler Ranch Park similar to the view from westbound SR-12.⁶⁶

The Commission should determine whether, based on the information provided regarding the increased height of the landfill and based on the mitigation measures proposed, the proposed project would have "significant adverse aesthetic impacts" on the Marsh. If the Commission determines that significant adverse aesthetic impacts could result, the Commission should consider whether mitigation measures such as limiting the height so that it is appropriately screened and hidden within the Potrero Hills, could mitigate these possible impacts.

⁶⁴ DEIR, *supra* note 5 at 4.10-6

⁶⁵ Env'tl. Vision, Visual Resources Technical Report 6-7 (2009) [hereinafter *Visual Resources Technical Report*].

⁶⁶ *Id.*

- B. **Night-Lighting.** The current Solid Waste Facility Permit for the project limits the number of portable lights at the site to two. Night lighting at the site has occurred since 1997. The proposed project would remove the two-light restriction and allow night lighting at the active face of the landfill and at other operations that require light (such as composting). The DEIR found that the increase in night-lighting could be a nuisance for residences to the north and would be a significant impact.⁶⁷ According to the DEIR, the portable night-lighting would not generally be visible from the north but would be visible from the northwest because of the landform shape and location of the Potrero Hills. In addition, as the landfill mound exceeds the height of the northern ridgeline of the Potrero Hills, as currently proposed, the landfill operations and night lighting would become visible from the north. The DEIR identifies as mitigation measures, that night-time lights not be colored and that they be shielded and directed downward to reduce glare.

The USFWS determined that increased night-lighting could affect CTS populations but that the effects of increased lighting on CTS will be minimized by using a small number of lights in a manner that avoids off-site reflection and glare, with a maximum of seven construction light plants.⁶⁸

The Commission should determine whether, based on the information provided regarding night-lighting, and based on the mitigation measures proposed, the proposed project would have “significant adverse aesthetic impacts” on the Marsh. If the Commission determines that significant adverse aesthetic impacts could result, the Commission should consider whether mitigation measures could mitigate these possible impacts.

- C. **Litter.** Currently, litter is generated at the site from trash being blown from composting operations and the landfill working face, in addition to during the loading of transfer trailers during windy conditions. The proposed project would contribute to this litter generation by increasing the volume of waste received at the site and extending the landfill’s service life. Due to the generally windy conditions at the site, litter blows around on the site and onto adjacent properties, causing an adverse visual impact and a general nuisance for adjacent residences. In addition, litter in the Marsh can become a hazard to wildlife that may either ingest the litter or become entangled in it. This impact was identified as a significant one in the DEIR.⁶⁹ Offsite litter from the landfill has resulted in violation notices being issued by the Solano County Local Enforcement Agency (LEA). In response to the violation notices, PHLF has implemented a number of litter control measures that include enclosing the active portion of the landfill within litter control fences to trap wind-blown trash and contain it on-site, installing portable litter fences downwind of the landfill face, hiring litter pickers to collect litter on a daily basis, and installing netting and fencing or stacked cargo containers near the recyclables handling area to act as windscreens.⁷⁰

According to the DEIR, PHLF will need to update its current litter control program to ensure compliance with the Department of Resources Recycling and Recovery/CalRecycle’s (formerly known as CIWMB) regulations, and will need to submit this

⁶⁷ DEIR, *supra* note 5 at 4.10-6.

⁶⁸ Draft Biological Opinion, *supra* note 11 at 52.

⁶⁹ DEIR, *supra* note 5 at 4.10-17.

⁷⁰ *Id.* at 4.10-2.

program to the LEA for approval prior to project implementation. This program will need to indicate how litter will be controlled as a result of the anticipated increase in waste, including mitigation measures such as: (1) use of additional portable litter fencing and increasing the height of existing fencing at the landfill's working face and around the recyclables handling area; and (2) increasing the staff of the daily cleanup crew to adequately collect both on- and off-site litter. The DEIR found that with the implementation of these mitigation measures, the potential visual impacts associated with increased litter generation would be considered less than significant.

The Commission should determine whether, based on the information provided regarding litter, and based on the mitigation measures proposed, the proposed project would have "significant adverse aesthetic impacts" on the Marsh. If the Commission determines that significant adverse aesthetic impacts could result, the Commission should consider whether mitigation measures could mitigate these possible impacts. The Commission should also consider whether these mitigation measures (such as the increased litter control fence heights) could result in additional adverse aesthetic impacts.

- D. **New Ancillary Structures.** Several new proposed structures that could result in adverse aesthetic impacts include: (1) a new landfill gas-to-energy facility located near the existing gas flare, south of the operations facilities, that would occupy approximately 4-acres; (2) upgrades to existing PG&E transmission lines, replacement of approximately 45 existing power poles and the installation of 10 new power poles; (3) installation of a new visitor center and two moveable remote-area trailers; and (4) construction of four water storage tanks on the northern ridgeline between Phase I and Phase II (see Exhibits U and L).

The DEIR evaluated the impacts of a new, approximately 3- to 5-acre landfill gas-to-energy facility near the existing gas flare and determined that because the location is "within an area that includes a number of buildings and is screened from offsite areas by intervening hills, no adverse visual impacts would be anticipate [sic] with its construction and operation."⁷¹ The Visual Resources Technical Report, prepared by PHLF, evaluated a 1-acre landfill gas-to-energy facility near the existing gas flare and found that "[d]ue to existing topographic conditions, the power plant site is not visible from the off-site public viewpoints addressed in this study, therefore it is not the subject of detailed evaluation."⁷²

With respect to the upgrades to existing power lines and the installation of additional lines, the DEIR primarily evaluated the extension of power line from the existing PG&E line to a power plant location located north of the Phase II expansion area. The location of the power plant was eventually moved to the Phase I footprint, near the landfill maintenance operations and administration area, in response to comments from BCDC staff and other agencies. The DEIR states, "If the power plant is constructed at the alternative site near the landfill maintenance operations and administration area, a power line would extend from this plant to the PG&E line, following the same alignment along the ridgeline as the power line for the preferred power plant location. The visual impacts associated with power line installation would be considered less than

⁷¹ *Id.* at 4.10-16.

⁷² Visual Resources Technical Report, *supra* note 65 at 3.

significant.”⁷³ The Visual Resources Technical Report did not evaluate the possible visual impacts from the power lines.

Neither the DEIR nor the Visual Resources Technical Report evaluated possible aesthetic impacts from the new visitor center structures. The proposed project would involve installing an approximately 14-foot-high, 1,440-square-foot, double-wide trailer with generator power, to function as a visitor center, located near the entrance to the landfill. The trailer would be located near the existing landfill office trailers, within the “campus” area of the Phase I active landfill site that, according to PHLF, would be shielded by the adjacent hills. Large viewing windows would be installed along the east, south and west sides of the trailer and an Americans with Disabilities (ADA)-compliant access ramp would be added. In addition, up to two, 14-foot-high and 480-square-foot smaller trailers would be scattered throughout the landfill site as two moveable remote-area trailers. These trailers would be within the active landfill area to allow viewing of the on-going landfill operations.

The DEIR determined that the construction of four new water tanks located along the peak of the northern ridgeline between the Phase I/Phase II sites would result in a significant visual impact.⁷⁴ The water tanks would be approximately 20-feet-in-diameter and 12-feet-tall, each storing up to 15,000 gallons of water. To mitigate for this impact, PHLF proposes to construct an approximately 10-foot-high sloped earthen berm to screen the tanks from the west, north and east. According to the DEIR, the berm would be vegetated with non-native grasses to ensure that it visually blends with the surrounding vegetation. The Visual Resources Technical Report did not evaluate the potential visual impacts resulting from the four new water tanks.

The Commission should determine whether, based on the information provided regarding the construction of new ancillary structures, and based on the mitigation measures proposed, the proposed project would have “significant adverse aesthetic impacts” on the Marsh. If the Commission determines that significant adverse aesthetic impacts could result, the Commission should consider whether mitigation measures could offset these possible impacts.

IV. Water Quality

The following policies in the Water Quality section of the LPP apply to the impacts on water quality:

Policy 3 states, “Disruption or impediments to runoff and stream flow in the Suisun Marsh watershed should not be permitted if it would result in adverse effects on the quality of water entering the Marsh. Riparian vegetation in the immediate Suisun Marsh watershed should be preserved, and stream modification permitted only if it is necessary to ensure the protection of life and existing structures from floods. Only the minimum amount of modification necessary should be allowed in such cases.”

Policy 4 states, “The development of industrial facilities adjacent to or upstream from the Marsh should not be permitted if they have the potential to cause significant adverse impacts on the water quality of the Suisun Marsh. Activities that

⁷³ DEIR, *supra* note 5 at 4.10-16.

⁷⁴ DEIR, *supra* note 5 at 4.10-17.

could significantly alter the temperature, salinity or turbidity of the water should be prohibited. Industrial facilities that will increase the potential for spills of toxic and hazardous materials should not be permitted unless it is established that spills of such materials will not represent a significant threat to the Marsh.

The project site is located two to three miles upstream of the brackish Suisun Marsh. An ephemeral surface water runoff channel, Spring Branch Creek, exists along the southern edge of the valley and runs from east to west. Spring Branch Creek is formed from two smaller waterways to the east and south, which drain from the hills into swales that continue to the headwaters of the creek. Spring Branch Creek flows west into First Mallard Branch, a tributary of Cutoff and Suisun Sloughs (see Exhibit D).

According to PHLF, U.S. Army Corps of Engineers 404 permits were issued in 1988 and 1995 to relocate the original stock pond that was located in the center of the Phase I landfill footprint and construct a concrete- or asphalt-lined surface runoff drainage channel along the 4,400-foot-length of the south side of the Phase I landfill footprint.⁷⁵ Final discharge of the Phase I surface area runoff is to Spring Branch Creek to the west and an unnamed drainage to the northwest of the site. Spring Branch Creek downstream of the landfill flows into the stockwater pond constructed offsite by the project applicant in 1995. No residential or commercial structures are located within the project drainage area.⁷⁶

Spring Branch Creek is shown as a blue-line drainage on the Denverton USGS quadrangle, and it follows the drainages designated as Drainage A on the Phase II Expansion Area delineation. The U.S. Army Corps of Engineers has determined that the drainage segments as shown on the delineation map are within the Corps jurisdiction, at least based on the criteria at the time of the site verification.⁷⁷ According to PHLF, the drainage feature known as the Spring Branch Creek channel – with an actual defined bed and bank – previously existed only downstream (flowing west) from the original stock pond located in the center of the Phase I landfill footprint. Upstream from the stock pond, only grassy swales existed, similar to those in the Phase II area, and there has been no defined bed and bank features in the Phase II watercourses. They state, “only ephemeral watercourses located in swales, and a farmer’s remnant ditch, are to be modified in the Phase II landfill footprint expansion area.”⁷⁸ In addition, PHLF states, “there is a lack of riparian vegetation and habitat due to poor soil moisture and retention conditions, and no real aquatic habitat value which is reflected in the recent multi-year monitoring and surveys” and “the Spring Branch Creek tributary drainage area is not a source of groundwater recharge in the Phase II project area due to the clayey soils and limited infiltration of groundwater beyond that necessary for saturation of soils.”⁷⁹

The scientific panel report found that “four photographs from [the panelist’s] field survey on March 31, 2007, provide evidence that demonstrate the presence of a bed and bank. In addition, wetland vegetation was identified within the stream channel.”⁸⁰ (See Exhibit X).

The proposed expansion project would involve relocating the eastern portion of Spring

⁷⁵ Potrero Hills Landfill, Inc., Project Description: Potrero Hills Landfill Phase II Expansion Project 29 (2007) [hereinafter *Project Description*].

⁷⁶ DEIR, *supra* note 5 at 4.4-7.

⁷⁷ Potrero Hills Landfill, Inc., Response to the Scientific Panel Review Report 3-10 (2007).

⁷⁸ Project Description, *supra* note 75 at 30.

⁷⁹ *Id.* at 31

⁸⁰ Scientific Panel Report, *supra* note 8 at 3-6.

Branch Creek that falls within the Phase II footprint, to the southern edge of the landfill. The project would involve constructing a buttress fill along the southern edge and two forms of water flow in Spring Branch Creek to carry water from the eastern Potrero Hills Valley south around the landfill (see Exhibits V and W). The main creek flow would be routed into an approximately 6,500-foot-long pre-cast concrete pipeline that would be placed at the bottom of the soil buttress area and built in segments of approximately 200-600 feet every three to five years, as each landfill cell is filled. The downstream end of the pipeline would be located in the center of the Phase I landfill and the ultimate eastern end of the pipeline will be near the southeast corner of the Phase II area. The pipeline would be bedded in native soil and overtopped entirely with soil materials approximately 75 feet deep. Once the pipeline is constructed beneath the buttress, a surface channel would be created on top of the buttress area to carry runoff from the southern hillsides and the landfill. This channel would merge with the flow discharging from the pipeline near the western outlet of the pipe. Each rise of the buttress area constructed as the adjacent zone of the landfill is built to higher elevations would contain a similarly constructed channel. A permanent drainage channel, with a long-term, stable channel lining would be constructed on top of the buttress when the final landfill cap is installed.

Sediment control berms and collection basins are placed down-slope of fill areas. Periodically, during late summer, the silt accumulated in the basins is removed. Under the Phase II project, a new silt-control basin would be constructed within the temporary silt-control basins downgradient from the easternmost active landfill cell (see Exhibit E). This new basin will trap the silt in the runoff to divert it from active landfill areas. The east basin will be moved eastward to a similar configuration as each new landfill cell is constructed to the east. This east basin seasonally is equipped with a diesel-operated pump during the wet weather season to allow the ponded water to be pumped into the drainage channel located at the south edge of the landfill. The section of channel where the pump discharge will occur will be appropriately lined to prevent scouring of the channel. When the east basin is to be relocated, the ponded water will be removed, and the silt and walls of the basin will be excavated as part of the cell construction.

PHLF states that the relocation of Spring Branch Creek is necessary to support the development of the proposed project, but the DEIR and the County's actions did not identify that the relocation of Spring Branch Creek was necessary to ensure protection from floods. A Streambed Alteration Agreement from CDFG is required for the proposed modification to Spring Branch Creek. Due to staffing constraints, CDFG was unable to provide PHLF with a proposal within the time lines required by the California Fish and Game Code and therefore, the project was authorized by matter of law.⁸¹

The DEIR identified three significant impacts to hydrology and water quality, as a result of the proposed expansion project: (1) increased soil erosion potential from the modification of drainage patterns and removal of vegetation that could affect the water quality of local drainages; (2) degradation of surface water quality by the increase in disturbed landfill operation area and contact with refuse, leachate or biosolids; and (3) potential impacts to groundwater quality. The DEIR concluded that these impacts could be mitigated to less than significant levels.

⁸¹ Notification of Lake or Streambed Alteration, Notification No. 1600-2009-0257-3, Spring Branch Creek and Tributaries, Solano County, from California Department of Fish and Game to Jim Dunbar, Potrero Hills Landfill, November 18, 2009.

According to the DEIR, increased soil erosion could be mitigated with the implementation of Best Management Practices (BMPs) during cell construction that include: diversion of storm water runoff with temporary swales or interceptor ditches; retention of existing vegetation wherever possible; stabilization of barren soils with jute netting or geotextile fabric; application of straw or mulch after seeding; installation of silt fencing to direct runoff from construction areas; and using plastic sheets or tarps to cover stockpiled soils. To address impacts on surface water quality, the DEIR identifies as mitigation measures, the preparation of a revised Surface Water Monitoring Program and Erosion and Sedimentation Plan for the proposed expansion, and compliance with required regulatory permits, including a revised use permit/marsh development permit.⁸² Impacts to groundwater quality could be mitigated by: (1) designing and installing the landfill liner according to state and federal requirements; (2) ongoing groundwater monitoring; (3) installing an expanded leachate collection system; and (4) implementation of a landfill gas control system to remove volatile organic contaminants before they reach groundwater.

A report prepared by Swanson Hydrology and Geomorphology (March 4, 2005) for PHLF and referenced in the Final EIR for the project, included an analysis of the Spring Branch Creek drainage area within the Phase I and Phase II project areas.⁸³ The report concluded the following:

“Examined within the context of the stream ecological factors described above, the reaches of Spring Branch Creek within and above the project landfill expansion site fall short of the significant ecological value inferred by the applicable ordinances and policies as envisioned in the SMPP and LPP. The reasons are as follows:

1. There is no defined, continuous stream channel: Spring Branch Creek has been obliterated by grading and now consists of discontinuous reaches of grassy swale, gully headcuts and potholes. Examination of historical aerial photographs show segments of a meandering channel within the landfill area, and remnants of meanders within the expansion zone, but these have all been destroyed by grazing and construction of roads and fence lines. Not until the “ditch” reach along the landfill does a continuous stream channel exist.
2. The hydrology of surface flow in the swale/gully/pothole drainage is clearly ephemeral and subject to drying immediately after rainfall periods and the end of the rainfall season. Runoff from rainfall over the dense clay soils is immediate and little if any infiltration to groundwater occurs after soils are saturated. As clay does not easily transmit groundwater, no significant baseflow is created and most if not all infiltrated flow is tied up in soil moisture which is consumed by annual grass transpiration and evaporation. As a result there is virtually no aquatic habitat value which is reflected by recent multi-year biological monitoring and surveys.

⁸² DEIR, *supra* note 5 at 4.4-18.

⁸³ Assessment of the Ecological Value of Spring Branch Creek in and near Potrero Hills Landfill, Swanson Hydrology + Geomorphology (2005) *referenced in* Solano Cnty. Dep’t. of Env’tl. Mgmt., Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project 2-88 (2005).

Moreover, the runoff and surface flow available has done little geomorphic work to create a defined and continuous channel, only isolated areas of erosion forming gully headcuts and potholes mostly within disturbed road fill. This is despite the fact that the grading and obliteration of the original channel occurred before the 1937 aerial photographs were taken.

3. No riparian vegetation exists along the swale/gully/pothole, only non-native annual grasses and some forbs exist which are typical of the surrounding, non-riparian terrain. In this regard, there are no existing riparian habitat resources in the Spring Branch Creek within the landfill expansion area.
4. The existing landfill has and will continue to sever the Spring Branch Creek corridor leaving the upper and lower watershed completely separated and altered by the landfill and without any riparian resource or ecological value. The existing drainage way now flows within a ditch along the landfill and ultimately into a dammed detention pond. As with the drainageway in the proposed project site, there is no riparian vegetation or habitat through the landfill reach.
5. Spring Branch Creek offers little opportunity for resource enhancement as hydrologic and geomorphic conditions favor only a grassy ephemeral draw; there is no evidence that riparian vegetation would be supported if the system were restored as soil moisture appears limited to only support annual grasses..."

According to the scientific panel report, the "Phase II landfill expansion effectively eliminates the natural, remaining upper Spring Branch Creek watershed and permanently reconfigures the Spring Branch Creek valley" and "[t]hese changes will disrupt and impede watershed runoff and stream flow, alter the creek's water temperature, and have the potential to affect other water quality parameters such as turbidity and salinity."⁸⁴ The report finds that the upstream channelization and relocation of Spring Branch Creek will decrease its ecological value and have repercussions, likely negative, on the lower watershed as it flows west into Suisun Marsh at First Mallard Slough. The scientific panel report includes the following recommendations: (1) establish controls on the constructed Spring Branch channel that mimic natural flows, and then monitor water quality; and (2) mitigate for losses of the Spring Branch Creek channel in areas within its current watershed.

The Commission generally relies on the advice of the RWQCB regarding water quality issues. PHLF will need to obtain a National Pollutant Discharge Elimination System (NPDES) permit, a Waste Discharge Requirements permit, and a Water Quality Certification

⁸⁴ Scientific Panel Report, *supra* note 8 at 3-6 and 3-10.

from the Regional Water Quality Control Board (RWQCB) prior to initiating the landfill expansion. Applications for these permits have been submitted to RWQCB and they are currently still under review but have not been issued.

The Commission should determine whether the proposed project would be consistent with the water quality policies of the LPP which: (1) prohibit development that have the potential to cause significant adverse impacts on the water quality of the Marsh, significantly alter the temperature, salinity or turbidity of the water, or significantly increase the potential for spills of toxic and hazardous materials to the Marsh (Policy 4); (2) prohibit disruption or impediments to runoff and stream flow that result in adverse effects on the quality of water entering the Marsh (Policy 3); (3) require the preservation of riparian vegetation; (Policy 3) and (4) allow stream modification only if necessary to ensure the protection of life and existing structures from floods, and only the minimum modification necessary (Policy 3).

V. Electric Lines and New Roads

A. **Electric Lines.** The following policy in the Utilities, Facilities and Transportation section of the LPP applies the construction of new electric lines:

Policy 1(c) states, "Within the Marsh, new electric lines for local distribution should be installed underground unless undergrounding would have a greater adverse environmental affect on the Marsh than above-ground construction, or the cost of underground installation would be so expensive as to preclude service. Any distribution line necessary to be constructed above ground should have all wires at least six feet apart."

According to the DEIR, the landfill is not served by the PG&E power grid. The landfill uses on-site diesel generators to produce the electricity used for exterior lighting, office needs, equipment maintenance building needs, landfill gas extraction, surface water pumping, and leachate control.⁸⁵ In order to capture the increase in landfill gas resulting from the proposed landfill expansion, PHLF proposes to construct a landfill gas-to-energy facility that would convert landfill gas to electricity (up to 10 megawatts) and deliver the generated electricity to the PG&E power grid. The proposed landfill gas-to-energy facility would be located near the existing gas flare, just past the landfill entrance on the Phase I site (see Exhibit U). Existing PG&E power lines extend from Branscombe Road, pass through neighboring farmland and branches into two directions (see Exhibit C). Westward, it runs along the hill ridge, north of the landfill, toward Scally Road to serve three local residences. The eastward leg of the power line connects to the Explosives Technology facility located at the east end of the Potrero Hills. The approximately 2.2 miles of power lines in the area involve approximately 45 existing poles.

The existing power lines do not have sufficient voltage or current-carrying capacity to transmit the projected amount of electrical power generated by the expanded landfill. The proposed project would involve replacing these 45 existing power poles with 18-inch-in-diameter and 40-foot-tall poles, spaced approximately six feet apart and installing thicker conductor wires (from 1/8-inch-in-diameter to 3/8-inch-in-diameter), for approximately 5,200-linear-feet (see Exhibit Y). In order to connect the landfill's gas-to-energy facility to the existing power lines, approximately 500 feet of new overhead

⁸⁵ DEIR, *supra* note 5 at 4.5-2.

power line and up to 6,300 feet of underground power line would be installed (see Exhibit Y). The new overhead power lines would involve the installation of up to 10 new power poles, some located near the landfill gas-to-energy facility within the Phase I footprint, and some located along the north hill ridgeline near the existing PG&E power lines. The new power poles would require a temporary disturbance area of 5 feet by 5 feet and a final power pole footprint of four square feet (see Exhibit Y). PHLF will need to demonstrate that the 500 feet of power lines proposed above-ground cannot be underground because it would have a greater adverse environmental affect on the Marsh than above-ground construction, or the cost of underground installation would be so expensive as to preclude service. Similarly, PHLF will need to demonstrate why, despite the significant increase in current-carrying capacity, the existing above-ground power lines should not be viewed as new lines and be undergrounded.

The DEIR found that the disruption of electrical service to existing PG&E customers resulting from the upsizing of the power lines would not result in significant public utility impacts since these disruptions are expected to be temporary, if they occur at all.⁸⁶

The Commission should determine whether the proposed project would be consistent with the policies of the Utilities, Facilities and Transportation section of the LPP which requires that new electric lines be installed underground unless undergrounding would have a greater adverse environmental effect, or the cost of underground installation would preclude service (Policy 1(c)).

- B. **New Roads.** The following policy in the Utilities, Facilities and Transportation section of the LPP applies to the construction of new roads:

Policy 1(e) states, “New roadways (highways, primary and secondary roads) and rail lines that form barriers to movement of terrestrial wildlife should not be constructed in the Suisun Marsh or in adjacent uplands necessary to protect the Marsh...”

The proposed project would involve using an approximately 30-foot-wide and 400-foot-long bypass road comprised of two lanes adjacent to the existing Potrero Hills Lane (see Exhibit Z). According to PHLF, the road would be used sparingly, as auxiliary access when necessary to cope with transportation interruptions. The bypass lanes are currently graveled and unpaved.

According to PHLF, when Potrero Hills Lane was constructed to serve as the landfill access road in 1984-1985, it was placed on the old farm road adjacent to the then-existing graveled road that served the Delta Associates quarry. Initially, both roads were maintained in service with the heavily-laden gravel trucks operating on the quarry access road, while landfill traffic used the new Potrero Hills Lane. During the 1990s the quarry operation became less active and the quarry access road was used infrequently. Since the early 2000s, the quarry access road has been plowed annually as a firebreak along the east side of Potrero Hills Lane. During a contested landfill labor issue in 2003, a 400-foot portion of the old quarry roadway was reactivated as a bypass lane.⁸⁷ The road has not been used since the labor issue in 2003 and is currently overgrown with vegetation

⁸⁶ *Id.* at 4.5-5.

⁸⁷ Project Description, *supra* note 75 at 43.

(see Exhibit Z). The road is located adjacent to Potrero Hills Lane, which is currently used by trucks entering and exiting the landfill facility.

The bypass road was included in the DEIR. During the 2005 use permit revision process, Solano County found it unnecessary to include the bypass road in the permit since the DEIR found that the use of the road would not have a significant impact, that it was an existing historically used road and therefore, the LPP policy regarding new roads was not applicable.

The Commission should determine whether reactivation of an old road could be considered the construction of a new highway, or a primary or secondary road. If it is determined that the use of the bypass road is a new road as contemplated by policy 1(e), the Commission should determine whether the road forms a barrier to movement of terrestrial wildlife.

VI. Recreation and Marsh Access

The following policies in the Recreation and Marsh Access section of the LPP apply to recreational uses and public access:

Policy 2 states, "Land should also be purchased for public recreation and access to the Marsh for such uses as fishing, boat launching and nature study. These areas should be located on the outer portions of the Marsh near the population centers and easily accessible from existing roads. Improvements for public use should be consistent with protection of wildlife resources."

Policy 5 states, "Recreational activities that could result in adverse impacts on the environmental or aesthetic qualities of the Suisun Marsh should not be permitted. Levels of use should also be monitored to insure that their intensity is compatible with other recreation activities and with protection of the Marsh environment..."

To provide public access improvements associated with the expanded landfill, PHLF proposes to create a 57,000-square-foot overlook on the closed Solano Garbage Company landfill site that would have up to six parking spaces, interpretive signage, approximately five benches, a bicycle rack, trashcan, and a portable toilet (see Exhibit J). The purpose of the overlook is to provide an interpretive site that can provide information about the Marsh and its importance as a managed and protected ecological area. The proposed public access overlook was reviewed by BCDC's Design Review Board (DRB) on December 7, 2009, and in response to the DRB's comments, the overlook was revised to be less constructed and the proposed structures were reduced and scaled-back to fit in with the more natural surroundings of the Marsh.

A concern regarding the safety of placing a public access overlook on the closed landfill was raised at that meeting. According to PHLF, the final capping installation and closure modifications at the site were completed in 1998 and during the 10+ years since the final cover was completed, regular maintenance of the final surface has been conducted. The Solano County LEA inspects the site regularly. During the most recent annual inspections conducted in 2008 and 2009, the LEA found that there were no areas of concern related to environmental controls, grading and final cover, drainage and erosion control, and site security.⁸⁸ The installation of an overlook area and allowance for public access has been

⁸⁸ Memorandum from James Dunbar, P.E., Potrero Hills Landfill to Ming Yeung, BCDC, Re: Closed Solano Garbage Company Landfill, (April 29, 2010).

designed to avoid impacts to the final cap.

In addition to an overlook, PHLF proposes to place dedicated easements over approximately 12,200 linear feet (2.31 miles) of existing dirt roads and trails within the Southern Hills parcel that could be used in the future as public access, should a connection over neighboring private parcels be obtained in the future (see Exhibit K).

PHLF would also provide a total of \$300,000 in funds over a 25-year period to the Solano Land Trust, to help fund public access improvements and services at the Rush Ranch site. The funds would be distributed in the following manner: (1) \$100,000 within the first five years of Phase II operations; and (2) \$200,000 over the next twenty years. No less than \$10,000 would be given in any given year.

The Commission should determine whether expanding the landfill and other aspects of the proposed project would be consistent with the Recreation and Marsh Access section of the LPP which provides that: (1) land should be purchased for public recreation and access to the Marsh for such uses as fishing, boat launching and nature study consistent with protection of wildlife resources (Policy 2); and (2) recreational activities that could result in adverse impacts on the environmental or aesthetic qualities of the Marsh should not be permitted, and that levels of use should be monitored to insure that their intensity is compatible with other recreation activities and protection of the Marsh (Policy 5).

VII. CEQA Review

Solano County is the lead agency for the proposed project under CEQA. The County prepared a Draft Environmental Impact Report (DEIR) for the Project in 2003, and hired EDAW Inc. as a consultant to prepare the Report. The DEIR identified approximately 24 significant adverse impacts from the proposed landfill expansion, including impacts to wildlife, habitats and aesthetic resources. However, the DEIR concluded that, with mitigation, each impact could be reduced to less than significant levels.

The County certified the Final EIR (FEIR) and modified the Landfill's existing marsh development permit (MD-88-09) to authorize expansion of the landfill on September 13, 2005. The FEIR for the Landfill expansion was challenged in Solano County Superior Court, and was set aside by the court for the failure to adequately analyze the impacts of the project on water supply, air quality and project alternatives on February 6, 2007 (Protect the Marsh et. al v. County of Solano, Case No. FCS026839).

BCDC Appeal No. 1-05 of the County's marsh development permit (MD 88-09) was withdrawn pending final approval of the FEIR. The County revised the portions of the FEIR found inadequate by the court, and certified the Revised FEIR in June 2008. However, the Revised FEIR was set-aside again by the court on October 14, 2008 for failing to adequately analyze the "no project alternative" regarding the use of the Hay Road Landfill in Solano County for locally generated solid waste. The County revised the FEIR again to address the use of the Hay Road Landfill as an alternative to the expansion of the facility at Potrero Hills, and the court approved the Revised Recirculated FEIR and discharged its writ of mandate previously issued to the County on November 3, 2009.

CEQA Guidelines mandate that all EIRs include a comparative evaluation of alternatives to the project that are capable of attaining most of the project's basic objectives, but would avoid or substantially lessen any of the significant effects of the project. (14 CCR § 15126.6)) According to the DEIR, the project applicant's project objectives are "to provide a stable,

long-term source of disposal capacity, to promote and encourage recycling activities, to increase the efficiency of site operations, and to implement the re-use, recycling and advanced waste technologies and innovative use of landfill-related products, including energy,"⁸⁹ and to comply with the requirements of the California Integrated Waste Management Act of 1989. The DEIR analyzed two alternatives – the no-project alternative which consisted of continued operation of the landfill until it reaches current capacity and then closure and transfer of wastes to an alternative disposal facility; and an expansion of the existing Phase I landfill with higher elevations.

In *Protect the Marsh et. al v. County of Solano* (Case No. FCS026839), challenging the FEIR, the Superior Court stated in 2006 that, "Just one on-site alternative might be sufficient for most projects. However the specific protections of this marshland, and the limited statutory authorization for a solid waste project only in the absence of a practical, reasonably accessible alternative site, suggest that a range of alternatives for this project must include a meaningful discussion of possible sites outside the marsh area, both within and outside of Solano County."⁹⁰

In order to address the Court's decision, the Recirculated DEIR included a revised Alternatives chapter with a discussion of alternative sites located outside the Suisun Marsh and the secondary management area. The Recirculated DEIR added to the two alternatives identified in the DEIR, a discussion of the Maine Prairie Area Site Alternative, located within an undefined location south of Dixon, California, adjacent to State Route 113 and west of Cache Slough. This site was suggested by the Northern California Recycling Association as a potential location for a new landfill that might reduce the project's adverse impacts.

The Recirculated DEIR analyzed the possible construction of a new landfill in the approximately 12,000-acre Maine Prairie Area Site to provide Solano County and regional users currently utilizing the PHLF with 35 years or more of landfill disposal capacity. The Recirculated DEIR found that although the development of a new landfill within the Maine Prairie area would result in substantial adverse environmental impacts, "it cannot be precisely determined whether these impacts would necessarily be more or less severe than those anticipated with the proposed project."⁹¹ The Recirculated DEIR also includes a refinement of the project objectives and cites as one of those objectives "to provide a stable, long-term source of disposal capacity for all current and anticipated landfill users. The California Integrated Waste Management Act of 1989 (CIWMA) requires that all California counties, including Solano County, demonstrate a minimum of 15 years of assured disposal capacity in its integrated waste management plan..."⁹²

In addition to the more detailed discussion of the Maine Prairie Area Site, the Recirculated DEIR included a canvassing of other existing landfill sites and alternative waste reduction technologies, and determined that they were unable to feasibly attain most of the project objectives. Nineteen landfills throughout greater Northern California were identified, including the Hay Road landfill site located in Solano County, and several already closed

⁸⁹ DEIR, *supra* note 5 at 3.4 – 3.7.

⁹⁰ *Protect the Marsh v. County of Solano*, No. FCS026839, slip. op. at 7 (Cal. Super. Ct. Solano County Feb. 26, 2007); Recirculated DEIR, *supra* note 56 at II-32.

⁹¹ Recirculated DEIR, *supra* note 56 at II-63.

⁹² *Id.* at II-31.

landfill sites. Most of the sites were determined to be unavailable for use by PHLF based on the fact that they are currently operating and owned by a competitor to PHLF.⁹³

The EIR analysis included a review of northern California counties' integrated waste management plans to determine if proposed new landfill sites were identified in the plans. The EIR found that no new landfill sites had been identified in any county integrated waste management plan within the northern California region service areas of the PHLF facility.

The court found that the alternatives discussion concerning alternatives outside the Suisun Marsh was adequate and in compliance with CEQA, but set-aside the Recirculated FEIR again on October 14, 2008, for failing to include a discussion of the use of the Hay Road Landfill in Solano County for locally generated solid waste currently received at PHLF in the "no project alternative" section of the Alternatives Analysis. The Hay Road landfill is located in the northern unincorporated area of Solano County, east of Vacaville, at the intersection of SR-113 and Hay Road. The County prepared a Revised Recirculated FEIR in response to the court's decision, which included new information regarding the merger of Republic Services, Inc., (the parent company which owned PHLF) with Allied Waste Industries, Inc. As a result of the merger, PHLF was required to be divested by Republic. PHLF has been subsequently purchased by Waste Connections, Inc., a Folsom-based waste company. As a result of the divestiture, wastes totaling approximately 550 tons per day (300 tons per day as of February 2009) from western Contra Costa are no longer sent to PHLF but retained by Republic Services, Inc. At the time of the publication of the Recirculated Revised FEIR, it was estimated that the daily tonnage rate would be approximately 2,550 - 2,600 tons per day with the removal of tonnage from western Contra Costa (instead of the previous average of 3,100 tons per day).⁹⁴ PHLF has a permit limit of 3,400 tons per day. Of the average 3,100 tons per day, approximately 700-800 tons per day are generated locally within Solano County.

The County's analysis of the Hay Road alternative in the Recirculated Revised FEIR was deemed reasonable and approved by the court on November 3, 2009. According to the Revised Recirculated FEIR, the Hay Road landfill receives an average of approximately 500 tons of waste per day. Under its current Solid Waste Facility Permit, the Hay Road landfill has a daily average tonnage limit of 1,200 tons per day based on a 7-day rolling week. The facility permit was recently updated by the County Integrated Waste Management Board (CIWMB) to show an expected closure date of 2077, based on that landfill's current waste volumes. According to the Recirculated Revised FEIR, complete redirection of all locally-generated wastes from PHLF to Hay Road (700-800 tons per day), would exceed the currently permitted maximum tonnage of 1,200 tons per day for the Hay Road facility.⁹⁵ The Recirculated Revised FEIR notes that transferring locally generated wastes to another landfill could require the construction and use of a new solid waste transfer facility in the Fairfield-Suisun area, which would create its own potential land use concerns.⁹⁶ According to the Recirculated Revised FEIR, adopting the No Project Alternative by not expanding the landfill at Potrero Hills would fundamentally change the County's Integrated Waste Management Plan and landfill siting policies, and the goal to ensure that sufficient solid

⁹³ *Id.* at II-69 - II-79.

⁹⁴ Recirculated Revised FEIR, *supra* note 1 at 5.

⁹⁵ *Id.* at 7.

⁹⁶ *Id.* at 8.

waste disposal capacity is available.⁹⁷ It concludes that the No Project Alternative therefore “would have the effect of limiting the County’s waste disposal options, and would not provide an effective, long-term solution to the County and regional waste management needs served by the applicant’s Potrero Hills facility.” It also notes that the No Project Alternative would shift impacts from the landfill site to another site or sites, but cannot determine at this time whether those impacts would be greater or less than those identified for the proposed project.⁹⁸

It is unclear at this time what the effect of the court’s decision upholding Measure E will be on the operation of the Potrero Hills or Hay Road landfill in Solano County. As noted earlier, Measure E was enacted in 1984 to limit the importation of out-of-county waste to 95,000 tons-per-year, but it was never enforced by the County. The court’s May 12, 2010 ruling upholds the validity of Measure E but does not order the County to stop importing out-of-county waste. Parties to the litigation are considering appeals and motions to reconsider and enforce the court’s decision. If enforced, Measure E could substantially reduce the volume of waste coming into the Potrero Hills landfill. Currently the landfill imports approximately 80% of its waste (approximately 2,500 tons per day) from out-of-county. Approximately 500 tons per day comes to the landfill from within the County, and approximately 75 tons per day comes from out-of-state. The landfill currently projects Phase I to reach capacity by 2016, and for Phase II to take 35 years to reach capacity based on current received waste amounts. If Measure E is enforced, it could substantially lengthen the time that it will take for Phase I and Phase II to reach capacity. However, Measure E limits the amount of out-of-County waste but does not affect the amount of waste that the landfill could import from out-of-state. Therefore, even if Measure E were enforced, the landfill could make up the difference in the loss of out-of-county waste by importing more waste from out-of-state. Under this scenario, it is unclear whether PHLF would be able to import enough out-of-state waste to maintain the amount of wastes it currently receives; if does not, the expected life of the remaining Phase I site and the proposed Phase II site may be longer than currently projected, as less waste will be received at the site and the landfill will be filled at a slower rate.

The Commission is acting as a responsible agency under CEQA. Each responsible agency independently must consider the lead agency’s EIR “prior to acting upon or approving the project.” (14 CCR §§ 15050(b), 15096(f)) “A responsible agency complies with CEQA by considering the EIR . . . prepared by the lead agency and by reaching its own conclusions on whether and how to approve the project involved.” (14 CCR § 15096(a).) The Commission should also make findings as to the existence of “changes or alterations” to the project which, if incorporated into the project would “mitigate or avoid the significant effects [of the project] on the environment.” (PRC § 21081(a) and CEQA Guidelines 15096(h) and 15091.

Review Boards and Materials

Design Review Board.

On December 7, 2009, the Commission’s DRB reviewed a design for the proposed public access overlook at the closed Solano Garbage Company site. At the time, the proposed improvements included one overlook area at the top of the hill, several benches, wind struc-

⁹⁷ *Id.* at 9.

⁹⁸ *Id.* at 10.

tures, signage affixed by large gabion basket structures, a parking area, trashcan and bicycle rack. The DRB asked several questions related to: (1) the landfill site; (2) topography in the vicinity; (3) access to the proposed overlook; (4) proposed amenities such as lighting and restrooms; and (5) clarification on the proposed design for gabion baskets that would support proposed signage. At the meeting and afterwards in correspondence directly to staff, the DRB members expressed a desire to have the design details work with the natural landscape to reduce the visual impact of the public access improvements. The DRB asked staff to work with PHLF to develop a design that was more scaled-back and that fits with the natural surroundings. One DRB member recommended trash receptacles and restrooms at the parking area and suggested that soil testing be done since the area is to be used for public access.

The design has been refined in response to the DRB comments to create two public access overlook spaces and to use more natural elements in the design (such as boulders and custom-designed benches for seating and a corten steel retaining wall as a windbreak). The overlook would also include a portable toilet in the parking area. The final design of the proposed public access would be subject to plan review by BCDC staff.

Other Required Agency Approvals

See Table 5: Regulatory Requirements for Phase II Potrero Hills Landfill Expansion

Relevant Portions of the California Environmental Quality Act

1. Ca. Pub. Resource Code § 21004.
2. Ca. Pub. Resource Code § 21801(a).

Relevant Portions of Suisun Marsh Preservation Act

1. Ca. Pub. Resource Code § 29002.
2. Ca. Pub. Resource Code § 29409
3. Ca. Pub. Resource Code §§ 29500–29524.
4. Ca. Pub. Resource Code § 29503.
5. Ca. Pub. Resource Code § 29504.
6. Ca. Pub. Resource Code § 29523.
7. Ca. Pub. Resource Code § 29506.
8. Ca. Pub. Resource Code § 29524(c),(d).

Relevant Portions of the Suisun Marsh Local Protection Program (LPP)

1. LPP Policies on Agriculture and Open Space (pp. 7, 10–11).
2. LPP Policies on Wildlife Habitat Management and Preservation (pp. 15–16).
3. LPP Policies on Agriculture (pp. 16–17).
4. LPP Policies on Water Quality (pp. 18–19).
5. LPP Policies on Utilities, Facilities, and Transportation (pp. 22–29).
6. LPP Policies on Recreation and Marsh Access (pp. 30–31).

Relevant Portions of the Suisun Marsh Protection Plan (SMPP)

1. SMPP Findings on Utilities, Facilities, and Transportation (pp. 22–24).

2. SMPP Policies on Utilities, Facilities and Transportation (pp. 24-27).

Bibliography

1. Bay Conservation and Dev. Comm'n., Scientific Panel Review of Biological Resources Impacts and Proposed Mitigation for the Potrero Hills Phase II Expansion (2007).
2. Cnty. of Solano, Recirculated Revised Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2009).
3. Cnty. of Solano, Revised Recirculated Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2009).
4. Cnty. of Solano Dept. of Res. Mgmt., Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2005).
5. Cnty. of Solano Dept. of Res. Mgmt., Recirculated Draft Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2007).
6. Cnty. of Solano Dept. of Res. Mgmt., Recirculated Final Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2008).
7. Potrero Hills Landfill, Inc., Project Description: Potrero Hills Landfill Phase II Expansion Project (2009).
8. Env'tl. Vision, Visual Resources Technical Report (2009).
9. Potrero Hills Landfill, Inc., Response to the Scientific Panel Review Report (2007).
10. Potrero Landfill, Inc., Mitigation and Monitoring Plan (2009).
11. Potrero Hills Landfill, Inc., Project Description: Potrero Hills Landfill Phase II Expansion Project (2007).
12. Solano Cnty. Dep't. of Env'tl. Mgmt., Draft Environmental Impact Report for the Potrero Hills Landfill Expansion Project (2003).
13. Sustainability, Parks, Recycling and Wildlife Legal Defense Fund, Comments on the Scientific Panel Review of Biological Resource Impacts and Proposed Mitigation for Potrero Hills Landfill Phase II Expansion (2010).
14. Swanson Hydrology + Geomorphology, Assessment of the Ecological Value of Spring Branch Creek in and near Potrero Hills Landfill (2005).
15. U.S. Fish and Wildlife Service, Draft Biological Opinion on the Proposed Potrero Hills Landfill Phase II Expansion Project (2010).

List of Exhibits and Tables

Exhibits

- A** - Regional Location
- B** - Vicinity Map
- C** - Phase I Existing Facilities and Operations
- D** - Topography
- E** - Proposed Phase II Project

- F** - Concept of Landfill Construction Sequence
- G** - Cross-Section of Phase II Landfill at Full Build-Out
- H** - Proposed Project Site and Mitigation Areas
- I** - Proposed Public Access
- J** - Public Access Site Plan for Solano Garbage Company Overlook
- K** - Public Access Plan for Southern Hills Trail Easements
- L** - Water Pipeline System and Four Water Tanks
- M** - Potrero Hills Cross Sections
- N** - Cross Sections of Existing Ridgelines and Phase II Landfill
- O** - Ridegline Profiles Looking South from Highway 12
- P** - Landscape Context and Photo Viewpoint Locations
- Q** - Annotated Photo Diagram, SR-12 Looking Southwest
- R** - Annotated Photo Diagram, SR-12 Looking Southeast
- S** - Annotated Photo Diagram, Marsh Trail Looking East
- T** - Existing View and Visual Simulation from SR-12 Looking Southwest
- U** - New Ancillary Structures
- V** - Southern Slope Buttress Fill and Pipeline
- W** - Landfill Buttress and Perimeter Berm
- X** - Spring Branch Creek Photos
- Y** - New Electric Lines
- Z** - Potrero Hills Lane Bypass Road

Tables

- 1** - Summary of Permit Actions and Litigation
- 2** - Proposed Mitigation Table and Ratios
- 3** - Special-Status Species Potentially Occurring in the Potrero Hills Landfill Expansion Area
- 4** - Regulatory Requirements for Phase II Potrero Hills Landfill Expansion