



EAST CONTRA  
COSTA COUNTY  
HABITAT  
CONSERVANCY

City of Brentwood

City of Clayton

City of Oakley

City of Pittsburg

Contra Costa County

# GOVERNING BOARD

## *SPECIAL MEETING*

Wednesday, July 30, 2008

5:30 pm

City of Pittsburg City Hall  
1<sup>st</sup> Floor Conference Room  
65 Civic Center Drive, Pittsburg, CA

### AGENDA

- 1) **Introductions**
- 2) **Public Comment** on items that are not on the agenda (public comment on items on the agenda will be taken with each agenda item).
- 3) **Consider the following actions to implement the Lentzner Springs Wetland Restoration Project (Project):**
  - a) **AUTHORIZE** Conservancy staff to execute an agreement with the East Bay Regional Park District (District) for construction of the Project.
  - b) **AUTHORIZE** the payment of \$94,400 to the District for construction of the Project.
  - c) **DIRECT** Conservancy staff to monitor construction of the Project and inspect final improvements to confirm completion of the Project in accordance with the plans and specifications.
  - d) **AUTHORIZE** payment of \$25,000 to District for District's estimated management costs on the Project site for initial five-year period once staff has accepted completion of Project construction.
- 4) **Consider accepting update on the Vasco Caves pond creation project scheduled to be constructed in 2008. Consider scheduling a special meeting of the Governing Board in August prior to the regular meeting on September 17, 2008 to consider approving construction.**
- 5) **Adjourn.**

If you have questions about this agenda or desire additional meeting materials, you may contact John Kopchik of the Contra Costa County Community Development Department at 925-335-1227.

*The Conservancy will provide reasonable accommodation for persons with disabilities planning to participate in this meeting who contact staff at 925 332-1227 at least 24 hours before the meeting.*

**EAST CONTRA COSTA COUNTY  
HABITAT CONSERVANCY**

**DATE:** July 30, 2008  
**TO:** Governing Board  
**FROM:** John Kopchik, Executive Director  
**SUBJECT:** Update on HCP/NCCP Wetland Creation/Restoration Activities

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**RECOMMENDATION**

Approve the following actions to implement the Lentzner Springs Wetland Restoration Project (Project):

- a) AUTHORIZE Conservancy staff to execute an agreement with the East Bay Regional Park District (District) for construction of the Project.
- b) AUTHORIZE the payment of \$94,400 to the District for construction of the Project.
- c) DIRECT Conservancy staff to monitor construction of the Project and inspect final improvements to confirm completion of the Project in accordance with the plans and specifications.
- d) AUTHORIZE payment of \$25,000 to the District for District’s estimated management costs on the Project site for initial five-year period once staff has accepted completion of Project construction.

**RECOMMENDATION**

As reported at previous Governing Board meetings, Conservancy staff, consultants and staff at the District have been working hard to prepare two pilot restoration projects for construction this fall in order to achieve a critical jump start on the Conservancy’s wetland restoration program. The Lentzner Springs project is proposed to be the first to break ground. It would be constructed by the District and funded by the Conservancy. The detailed plans and specifications have been finalized, construction bids have been solicited, a lowest bid has been identified by the District and the project budget has been defined. For the project to move forward, action is needed by

CONTINUED ON ATTACHMENT: <input checked="" type="checkbox"/> YES	
ACTION OF BOARD ON _____ APPROVED AS RECOMMENDED _____	
OTHER _____	
<b><u>VOTE OF BOARD MEMBERS</u></b>	
<input type="checkbox"/> UNANIMOUS	I HEARBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF AN ACTION TAKEN AND ENTERED ON THE MEETING RECORD OF THE CONSERVANCY GOVERNING BOARD ON THE DATE SHOWN.  ATTESTED _____ <i>CATHERINE KUTSURIS, SECRETARY OF THE EAST CONTRA COSTA COUNTY          HABITAT CONSERVANCY</i>  BY: _____, DEPUTY
AYES: _____	
NOES: _____	
ABSENT: _____	
ABSTAIN: _____	

the Conservancy Board to approve the agreement with the District and authorize payment of project costs. The District Board will meet August 5 to consider the project and to award the contract. Conservancy staff recommends that Board approve the above actions to initiate work on this small but important restoration project.

**Overview:** The proposed project will be the first wetland restoration to be implemented as a result of the adoption of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). A critical component to the HCP/NCCP is the implementation of the Conservation Strategy, which provides for the creation of a preserve system that will protect land for the benefit of covered species, natural communities, biological diversity, hydrologic function and ecosystem function, and the restoration or creation of specific habitats and land cover types both to compensate for impacts and to contribute to recovery of listed species. This proposed restoration project will be the first restoration project performed under the Plan and has been designed to begin to fulfill Plan objectives. The project will restore 0.15 acres of alkali wetland and 0.37 acres of native grassland that is currently in a degraded state (e.g., seasonally denuded and choked with invasive star thistle by past management practices, including soil compaction from grazing).

**Project Objectives:** The objectives of the Lentzner Springs Wetland Restoration Project are to:

- Restore the natural function and increase the extent of alkali wetlands in a degraded section of the Lentzner preserve;
- Better integrate existing constructed features in the area with the natural environment by relocating an existing unpaved road and fence away from the restoration area and by improving two stream crossings to increase durability, reduce erosion, and enhance hydrologic connectivity;
- Increase the abundance and distribution of native perennial grassland on the Lentzner parcel; and
- Develop a framework for successful implementation of HCP/NCCP restoration projects through a District and Conservancy partnership.

**Selection of a Contractor:** The District published a Notice to Bidders for this project on July 3, 2008 in two newspapers, with ten (10) firms submitting responsible bids on Thursday, July 24, 2008. The table below summarizes the bids received. The low bidder was Thunder Mountain Enterprises. The cost estimate generated by District and Conservancy staff and consultants for the Notice to Bidders was \$100,000. Submitted bids were generally lower than expected.

NAME OF BIDDER	TOTAL BASE BID
<b>Thunder Mountain Enterprises Sacramento, CA</b>	<b>\$74,500.00</b>
Cinray Construction Antioch, CA	\$79,000.00
Odyssey Companies Stockton, CA	\$86,000.00
Granite Construction Brentwood, CA	\$93,925.00

American Civil Constructors Martinez, CA	\$95,207.01
North Valley Construction Livermore, CA	\$103,921.32
Fanfa, Inc. San Lorenzo, CA	\$106,107.00
Grade Tech Castro Valley, CA	\$111,000.00
W. R. Forde Richmond, CA	\$116,000.00
McNabb Construction Lafayette, CA	\$116,536.00

**Project Budget:** The proposed budget to construct and manage this project for the next five years is presented below. It reflects the project budget provided by Thunder Mountain Enterprises and also includes District costs proposed in the Agreement. Additional Conservancy monitoring and management costs are included at the bottom of the table.

**CONSTRUCTION**

Mobilization/Demobilization	\$2,000
Demolition	\$10,000
Earthwork	\$12,500
Concrete Mat	\$10,000
Culvert	\$8,000
Fencing and Gate	\$15,000
Planting	\$12,000
Plant Maintenance Period	\$5,000
<b>SUBTOTAL BASE CONSTRUCTION</b>	<b>\$74,500</b>
Construction contingency (20%)	\$14,900
<b>APPROVED CONSTRUCTION COSTS</b>	<b>\$89,400</b>

Construction Management By District	\$5,000
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Management Actions By District During Initial Five-Year Period	\$25,000
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<b>TOTAL DISTRICT COSTS TO BE COVERED BY CONSERVANCY DURING INITIAL FIVE-YEAR PERIOD</b>	<b>\$119,400</b>
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<b>Anticipated Conservancy direct costs to perform its portion of management and monitoring responsibilities (annual, during initial five years)</b>	<b>\$6,500 to \$15,000 per year</b>
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The Project Budget includes a 20% construction contingency. This contingency may only be used to fund additional costs incurred by the contractor if work beyond that described in project plans and specification is required (for instance, if the contractor encounters additional metal debris during grading that must hauled offsite). Such additional work requires change orders approved by the District. The Budget also includes \$5,000 to cover the District's staff time to have an inspector supervise construction and \$25,000 to cover the District's anticipated management costs during the first five years after the project is completed (general supervision, grazing management, fence repair, trash removal).

The Conservancy will have responsibility for performing other management tasks, such as monitoring and reporting on the success of the project, salvaging and replanting plants, non-native species management and any remedial measures that may necessary if the Project is not performing as planned. Conservancy costs are more uncertain because they will depend on how well the project is performing.

Conservancy and District staff will track costs during the initial five-year period and develop cost estimates and a funding plan for long term management of the property. Ultimately, a management plan and management funding agreement is anticipated to be developed for the entire Lentzner property. Planning and funding for this restoration project may be subsumed into that larger effort. This will enable cost-savings due to economy of scale and will enable certain management tasks, such as invasive plant management, to be performed on a large enough scale to be effective over the long term.

The Project Budget is consistent with the Conservancy's approved 2008 Budget. The Conservancy's 2008 Budget included \$407,000 for Restoration/Creation and \$66,500 for Monitoring and Adaptive Management. Staff anticipates the Vasco Caves project can also be performed within the Conservancy's 2008 Budget.

**Anticipated Project Schedule:** Below is a rough estimate of the construction schedule.

August 5, 2008: Contract awarded.

August 18, 2008: Pre-construction meeting

September 8 – September 26: Construction (approximate)

September 26 – November 7, 2008: Irrigation of restoration area (as needed during dry season)

November 7, 2008: Project completion. Monitoring and adaptive management commences.

**Permits:** One of the more challenging aspects of this project and a potential reason the District could be precluded from constructing the project this fall is the need for permits. Because the project seeks to restore a degraded wetland and includes work in a stream, the project requires permits from the U.S. Army Corps of Engineers, the Central Valley Regional Water Quality Control Board, the California Department of Fish and Game, and consultation by the U.S. Fish and Wildlife Service. The Conservancy is responsible for procuring these permits. Applications have been submitted but the timing is very tight due to the extremely compressed scheduled for this project. Each permitting agency has been briefed on the project and the timing and has indicated they will make every effort to process the permits in an expedited fashion.

**California Environmental Quality Act(CEQA):** The project is categorically exempt from CEQA. Categorical exemption 15333, Small Habitat Restoration Projects, exempts certain restoration projects smaller than 5 acres. That exemption applies to this project. Conservancy staff will file a Notice of Exemption.

**Value of Project to Conservancy:** There are a number of reasons why it is critical to pursue this pilot wetland restoration projects this year. Over the 30-year life of the HCP/NCCP, the Conservancy may be required to restore or create a large number of acres of various types of wetlands and waters. If impacts to wetlands and waters are substantial during those 30 years, the cumulative total restoration/creation acreage could exceed 500 acres. A more likely but still conservative<sup>1</sup> projection is 300 acres, which amounts to 10 acres of restoration/creation per year. By the end of the second year of implementing the HCP, the Conservancy must have caught up to the mitigation requirements of impacts that have occurred. At this point, no impacts have occurred, though fees have been paid in advance of the HCP for minor impacts to wetlands totaling much less than one acre. The Conservancy's intention as stated in the Work Plan is to be aggressive in its wetlands restoration and creation program and to initiate at least some pilot projects during the first year of implementation (2008 is officially the first year of implementation).

Constructing this pilot project not only helps the Conservancy begin to achieve wetland restoration/creation targets, but also allows the Conservancy to understand and define the key challenges associated with planning and implementing restoration/creation projects, test the abilities of new consultants and become familiar with EBRPD's restoration process. Staff anticipates that this pilot project will be much more expensive per acre than future restoration projects because it is small in size and does not achieve an economy of scale. However, the project can be designed, constructed and maintained within the limits set by the Conservancy's approved Budget for these Budget categories.

**Detailed Information on Project Components:** The primary components of the project are: 1) restoration of a degraded swale, 2) repair of a headcut adjacent to the swale, 3) relocation of dirt roads and fences to avoid the restoration area and 4) improvements to stream crossings in two locations.

To perform these restoration tasks, the project area will be cleared, grubbed, and graded to establish the contours and elevations shown on the Grading Plan. A failing cattle trough in the center of the denuded area will be removed along with other debris. Grading north and east of the box spring will address soil compaction and create a broad swale connected to existing wetland vegetation in the floodplain of Oil Canyon Creek. Grading south and east of the box spring and in/around an existing non-jurisdictional eroded channel in the southern part of project area will stabilize the channel, prevent upstream migration of the headcut, and create a seasonal wetland swale. Existing wetland vegetation will be protected by temporary fencing installed prior to earthwork.

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<sup>1</sup> Creation/restoration needs could very likely be less than 300 acres, but 300 acres is a conservative projection in the sense that is prudent for the Conservancy not to under-plan.

As shown in the Planting Plan, the proposed native grassland restoration area is 0.37 acres and will be located in the western portion of the project area. This area will be disked to a depth of 12 inches prior to seeding. Approximately 14-20 pounds/acre of native seed mix [consisting of purple needlegrass (*Nasella pulchra*), creeping wildrye (*Leymus triticoides*), and meadow barley (*Hordeum brachyantherum*)] will be hand-broadcast using a rotary-type spreader and hydromulching.

For the proposed alkali wetland restoration section (0.15 acres - eastern project area), planting holes will be excavated with a hand auger to a depth and width sufficient to accommodate rootballs of on-site harvested 4-inch-diameter plugs of native herbaceous wetland species [saltgrass (*Distichlis spicata*), alkali heath (*Frankenia salina*), and spike rush (*Eliocharis macrostachya*)]. After planting, the holes will be backfilled with native material. The native alkali wetland and grassland restoration areas will be irrigated for 6 weeks after installation to promote their establishment.

Existing fencing (348 lf) that crosses the wetland area will be removed. The degraded fence that surrounds the spring outfall will be replaced (for public safety) and new fencing will be installed around the restoration area to protect restoration and plantings from cattle grazing and traffic. Fencing specifications are 48-inches in height, 14 to 15.5 gauge, 5-point barbed wire, Class III or Gaucho barbed wire fence with 6-foot galvanized steel T-posts. T-posts will be installed to a depth of 30 inches. The fence may be removed once vegetation is established.

The existing dirt road south of the box spring will be relocated away from the restoration area; an improved ford will be installed in the location where it will cross a small swale above the headcut. A 480 square-foot permeable, articulated concrete mat will be installed over the fill to create a low-water crossing that accommodates Park District vehicle access for monitoring, maintenance, and emergency purposes. The mat will contain 15 7/8" by 11 7/8" concrete blocks, excavated to a depth equal to the thickness of the block (holes will be less than or equal to 1-inch in depth, grooves or depressions will be less than or equal to 0.5 inches in depth, with a dimension not exceeding 1-foot in any direction). Geotextile fabric will be placed between the compacted sub grade and the interlocking concrete blocks.

The road/trail crossing of Oil Canyon Creek at the north end of the project area will also be improved to reduce erosion and prevent future failure. The existing 36-inch diameter, 26-foot long Corrugated Metal Pipe (CPM) culvert does not provide sufficient capacity to convey high stream flow, and the overlying berm is susceptible to erosion. The culvert will be replaced with a 42-inch (span) by 32-inch (rise) corrugated (3-inch by 0.5-inch) galvanized steel pipe arch culvert. The larger culvert will increase hydrologic connectivity between the upstream and downstream reaches of Oil Canyon Creek, and provide inundation to the restored alkali wetland area during high flows without expanding the footprint of the existing culvert. Approximately 10 square feet of ungrouted, 8- to 12-inch rock will be installed on the downstream end of the culvert to dissipate energy and prevent scour. The rock will be keyed into the existing channel invert, allowing for the establishment of emergent wetland vegetation.

**Attachments:**

- Draft Agreement with East Bay Regional District.

# DRAFT

## AGREEMENT BETWEEN EAST CONTRA COSTA COUNTY HABITAT CONSERVANCY AND EAST BAY REGIONAL PARK DISTRICT RELATING TO THE LENTZNER SPRINGS WETLAND RESTORATION PROJECT AT BLACK DIAMOND MINES REGIONAL PRESERVE

This Agreement, dated [REDACTED], 2008, is by and between East Contra Costa County Habitat Conservancy (“Conservancy”) and East Bay Regional Park District (“District”; the Conservancy and District collectively are the “Parties”).

### RECITALS

1. The Lentzner parcel is located adjacent to the Black Diamond Mines Regional Preserve in unincorporated Contra Costa County, California and is comprised of 320-acres (the “Property”). The Property was acquired by the District in 2005, in part with funding from Liberty Union School District as mitigation for construction of a new school.
2. The Conservancy is administering the implementation of the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (“HCP”) in Contra Costa County, California. The HCP has been approved by the District and the Conservancy. The HCP has undergone environmental review and permitting by the United States Fish and Wildlife Service (the “Service”) and Department of Fish and Game (“CDFG” or the “Department”). The HCP calls for the restoration and creation of wetlands within preserved lands.
3. Pursuant to the HCP, the Conservancy and the District have agreed to do the following:
  - a. District will construct a wetland restoration project on the Property and will perform certain management responsibilities relating thereto; and
  - b. Conservancy will provide funds to the District to pay District’s costs associated with construction and management of such wetland restoration project and will perform certain management, maintenance and remedial measures relating to such project.
4. The Lentzner Springs Wetland Restoration Project is not located within the portion of the Property that will be encumbered by the future Liberty Union Conservation Easement Area. However, the Conservancy and the District acknowledge that the site of the Lentzner Springs Wetland Restoration Project will be maintained in a natural state in perpetuity.
5. The District Board of Directors by Resolution No. 2008-[REDACTED], authorized acceptance of the Conservancy’s proposed wetland restoration on August 5, 2008.

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## AGREEMENTS

Therefore, based on the foregoing recitals, the Conservancy and the District agree to the following:

1. **Construction of Project.** The District shall construct, and the Conservancy shall fund, the wetland restoration project on the Property, as described more particularly in Exhibit “A,” which is attached hereto and incorporated herein by this reference (the “Project”). Detailed plans and specifications for the Project and the contract to be entered into by District relating to construction of the Project have been approved by staff at the District and the Conservancy. A complete budget detailing all of the estimated costs associated with construction of the Project that Conservancy will be required to pay is set forth in Exhibit “B,” which is attached hereto and incorporated herein by this reference (“Project Budget”). Conservancy shall only be required to pay for those Project costs, \$89,400, that have been included in the Project Budget approved in advance by Conservancy (“Approved Construction Costs”). Conservancy will advance to District the sum equal to the Approved Project Costs within 14 days of executing this agreement. Conservancy will not be required to advance or pay any Project costs beyond the Approved Construction Costs unless those additional Project costs have been approved by Conservancy in advance. If the funds advanced to District by Conservancy to cover Approved Project Costs exceed the actual Project costs incurred by District for the Project, Conservancy and District will promptly meet and confer following completion of construction of the Project to discuss whether District shall apply such excess funds to future management and maintenance of the Project or be returned to Conservancy.

District shall use its reasonable good faith efforts to complete construction of the Project within one year of the date of this Agreement. District shall keep Conservancy apprised of the status of the Project throughout construction. District shall promptly notify Conservancy when construction of the Project is complete, upon which (a) Conservancy shall have the right to inspect the Project and confirm completion of the Project in accordance with the plans and specifications approved by Conservancy, and (b) the Parties will determine the date the Project was completed for purposes of determining the first date of the Initial Period (as defined below).

2. **Construction Management.** During project construction, District will incur costs related to inspection of contractor’s work, construction meetings and communications, and other related tasks. Conservancy agrees to provide District with \$5,000 within 14 days of executing this agreement as compensation for these costs. Should there be significant changes in project circumstances, the District may determine that such funding is inadequate for management of the project. Should this occur, Conservancy and District shall confer to reach mutual agreement on changes to the project and/or increased compensation to District for increased construction management costs.
3. **Initial Management and Maintenance of Project.** During the initial five year period immediately following District’s completion of construction of the Project (the “Initial Period”), the Parties will cooperate in implementing a management plan for the completed Project (“Management Plan”) that will be developed by the Parties prior to completion of

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construction and will generally provide as follows:

- a. Conservancy, at Conservancy's cost and expense, shall perform certain defined monitoring tasks and remedial measures relating specifically to the Project that are described in Exhibit "C".
- b. District shall perform day-to-day land management activities, including general site supervision, fence maintenance, grazing management, and trash removal.

A general outline of the additional components of the Management Plan, including the goals and objectives of the Project, is included in Exhibit "C" attached hereto.

4. **Initial Management Funding.** During the Initial Five Year Period, Conservancy shall provide to District funds (the "Conservancy Funds") in the sum of \$25,000 to pay those management and maintenance costs incurred by District for management and maintenance activities conducted by District in accordance with the Management Plan. Conservancy shall pay such funds within thirty days of final acceptance of project improvements by Conservancy. The District shall not be responsible for performing management and maintenance tasks in excess of \$5,000 per year, or \$25,000 for five years. Should District determine that its costs may exceed \$5,000 in any year it shall notify the Conservancy. The Conservancy and District shall meet and confer to determine how such costs may be reduced or to reach agreement on Conservancy providing additional funds to District.

The District shall maintain written records of all expenses incurred and paid by District during each calendar year that relate to performing activities required or permitted of District under the Management Plan, including those paid with Conservancy Funds, and shall provide a written accounting of same to Conservancy on or before April 15 of the year immediately following the calendar year for such reporting.

5. **Permanent Management and Maintenance of the Project.** Conservancy and District shall meet and confer prior to the six month period immediately preceding the end of the Initial Period to accomplish the following:
  - (a) Conservancy and District will determine the Parties' respective management and maintenance responsibilities for the Project following the Initial Period.
  - (b) In the event the Project has not, or will not meet, the goals and objectives set forth in the Management Plan at the end of the Initial Period, as reasonably determined by Conservancy, Conservancy and District will determine the feasibility of undertaking additional measures mutually agreeable to Conservancy and District, and at the Conservancy's sole cost, that are designed to improve the functionality of the Project to a level that will meet such goals and objectives. If it is not feasible to improve the functionality of the Project to a level that will meet such goals and objectives, as reasonably determined by Conservancy, the Conservancy and the District will determine mutually agreeable measures to remove the wetland and/or cease maintenance of the wetland, at which time the Parties management

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obligations under this agreement will terminate.

- (c) Conservancy and the District will (i) analyze all costs incurred by the Parties during the Initial Period to implement the Management Plan, (ii) prepare an estimate of the costs associated with management, maintenance and monitoring of the Project following the Initial Period (“Future Management Costs”), and (iii) determine a mutually agreeable method for Conservancy to fund such costs related to the Project following the Initial Period, which methods could include a new annual reimbursement rate, establishment of an endowment for management of the Project, and/or including Future Management Costs in an endowment or annual contribution set up for management of the entire Property and neighboring properties that are covered by the same preserve management plan.

In the unlikely event that Conservancy and District cannot reach agreement on management, maintenance and monitoring of the Project following the Initial Period then the District shall be discharged of any and all obligations to manage, maintain or monitor the Project.

6. **Permits.** Conservancy shall be responsible for obtaining any local, county, state, and federal regulatory approvals and permits required to construct and maintain the Project on the Property (collectively, “Approvals”); provided, however, District will at all times cooperate fully with Conservancy and perform any acts or execute any documents reasonably necessary to enable Conservancy to secure such approvals and permits. District may be named as applicant or co-applicant or co-permittee as the Property owner and future management agency and shall review and approve such applications prior to submittal. District shall not commence construction of the Project unless and until all required Approvals for such construction have been obtained. Conservancy shall use its reasonable good faith efforts to obtain all Approvals required for construction of the Project on or before September 1, 2008.
7. **Access to Property.** Conservancy shall be authorized to access the Property, at reasonable times and upon reasonable prior notice to District, for the purpose of inspecting progress of the Project, monitoring Conservancy’s compliance with this Agreement, and conducting Conservancy’s obligations under this Agreement.

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In witness whereof, District and Conservancy have executed this Agreement, effective as of the date first above written.

**EAST CONTRA COSTA COUNTY HABITAT CONSERVANCY**

By: \_\_\_\_\_  
Name: Catherine Kutsuris  
Title: Secretary  
Date: \_\_\_\_\_

**EAST BAY REGIONAL PARK DISTRICT**

By: \_\_\_\_\_  
Name: Pat O'Brien  
Title: General Manager  
Date: \_\_\_\_\_

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**EXHIBIT “A”**

**Lentzner Springs Wetland Restoration Project (“Project”)**

The Lentzner Springs Wetland Restoration Project will add an additional 0.15 acres of alkali wetland and 0.37 acres of native grassland to the former Lentzner property, now a part of the Black Diamond Mines Regional Preserve. Work to be performed under this Project would include clearing and grubbing, demolition, earthwork, planting of harvested alkali grass plugs and seeding of native grasses. An at-grade ford made of articulated concrete mat and a new culvert would be installed to improve flows, drainage and vehicular maintenance access. Both temporary and permanent barbed wire fencing and gates would be installed to protect the site during plant establishment and control cattle grazing operations.

The attached maps describe the Project in greater detail.

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**EXHIBIT "B"**

**Project Budget**

CONSTRUCTION	
Mobilization/Demobilization	\$2,000
Demolition	\$10,000
Earthwork	\$12,500
Concrete Mat	\$10,000
Culvert	\$8,000
Fencing and Gate	\$15,000
Planting	\$12,000
Plant Maintenance Period	<u>\$5,000</u>
<b>SUBTOTAL BASE CONSTRUCTION</b>	<b><u>\$74,500</u></b>
Construction contingency (20%)	<u>\$14,900</u>
<b>APPROVED CONSTRUCTION COSTS</b>	<b><u>\$89,400</u></b>
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CONSTRUCTION MANAGEMENT BY DISTRICT	<u>\$5,000</u>
MANAGEMENT ACTIONS BY DISTRICT DURING INITIAL PERIOD	<u>\$25,000</u>
<b>TOTAL</b>	<b><u>\$119,400</u></b>

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**EXHIBIT “C”**

Resource Management Plan Outline

# Lentzner Spring Restoration Resource Management Plan Outline

## Introduction

The East Contra Costa County Habitat Conservancy (Conservancy) in partnership with the East Bay Regional Park District (District) are planning a wetland and native grassland restoration for the Lentzner property, a recently acquired preserve adjacent to Black Diamond Mines Regional Preserve.

The project was initiated as a component of the East Contra Costa County Habitat Conservation Plan / Natural Community Conservation Plan (HCP/NCCP or Plan), a document and process intended to provide regional conservation and development guidelines to protect natural resources while improving and streamlining the permit process for endangered species and wetland regulations. A critical component to the HCP/NCCP is the implementation of the Conservation Strategy, which provides for the creation of a preserve system that will protect land for the benefit of covered species, natural communities, biological diversity, and ecosystem function and compensate for habitat loss by restoring or creating specific habitats and land cover types.

This project will address the HCP/NCCP Conservation Strategy by restoring 0.15 acres of alkali wetland and 0.37 acres of native grassland in a preserve area degraded by grazing traffic and invasive weeds.

This *Resource Management Plan* presents the objectives, responsibilities, management, and monitoring actions that provide for conservation of aquatic resources and associated habitats within the restoration area. It is one component of a larger scope *Preserve Management Plan* to be developed for the entire Lentzner parcel, which will document past and ongoing land management activities, the permitted and prohibited uses of the property, and a prescription of preserve enhancements and management actions that will be used to fulfill the parcel and preserve-wide biological goals and objectives.

## Location

The Lentzner parcel is located in northeast Contra Costa County, 5 miles south of Highway 4 in Antioch. On the Antioch South 7.5-minute USGS quadrangle, it lies in Township 01 North, Range 01 East. Black Diamond Mines Regional Preserve, owned and operated by the District, is adjacent to the Lentzner parcel,

and the restoration site is just south of the property line between Lentzner and Black Diamond Mines (Figure 1). Access to the site is by unpaved roads from the Black Diamond Mines Regional Preserve office on Somersville Road or via the Stewartville Trail entrance on Frederickson Lane in Antioch. Both entrances have gates locked to vehicular traffic.

## Goals and Objectives

The entire Lentzner parcel was identified as a high priority for preserve acquisition in the HCP/NCCP based on an analysis of ecological and conservation opportunities. The property includes modeled habitat for the San Joaquin kit fox (*Vulpes macrotus mutica*), California tiger salamander (*Ambystoma californiense*), red-legged frog (*Rana aurora draytonii*), Alkali milkvetch (*Astragalus tener ssp. tener*), brittlescale (*Atriplex depressa*) and San Joaquin spearscale (*Atriplex joaquiniana*).

Wetland restoration is one critical component to the conservation strategy described in the in the HCP/NCCP. Restoration of wetlands ensures no net loss of that land cover type in the HCP/NCCP inventory area, and intends to replace the functions of natural communities lost to covered activities. Alkali wetlands are particularly rare in the HCP/NCCP inventory area, mainly occurring on a 380-acre wetland complex southeastern portion of the inventory area south and east of Byron. Land cover mapping indicates that less than 1% of the HCP/NCCP inventory area contains alkali wetlands (HCP/NCCP, 3-18).

California native grasslands have been identified as one of the most endangered ecosystems in the United States (Noss et al. 1995). Annual grassland is found throughout the HCP/NCCP area, but most patches have a low relative cover of native species due to past or current land uses practices and the spread of nonnative plants.

The objectives of the Lentzner Springs restoration project are to:

- Restore the natural function and increase the extent of alkali wetlands in a degraded and partially denuded section of the Lentzner preserve;
- Better integrate existing constructed features in the area with the natural environment by relocating an existing unpaved road and fence away from the restoration area and by improving two stream crossings to increase durability, reduce erosion, and enhance hydrologic connectivity;
- Increase the abundance and distribution of native perennial grassland on the Lentzner parcel; and
- Develop a framework for successful implementation of HCP/NCCP restoration projects through a District and Conservancy partnership.

## Responsible Parties

*Site Manager and Property Owner:*

East Bay Regional Park District  
2950 Peralta Oaks Court  
Oakland, CA 94605-0381

*Partner:*

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## Site Conditions

### Regional Setting

The Lenzner parcel is located in the northern half of the HCP/NCCP inventory area within the Mt. Diablo foothills. The entire parcel is designated as a high acquisition priority in the HCP/NCCP because of its proximity to surrounding open space, potential to provide habitat for covered species, and opportunities for stream and wetland restoration. Black Diamond Mines Regional Preserve is just north of the parcel, Clayton Ranch is xx miles south of the property, and Roddy Ranch, a private deed-restricted open space area, is xx miles to the west.

The project occurs in Oil Creek Canyon – a small drainage to Sand Creek. Sand Creek (with a sub-basin size of 9,600 acres), captures flow from the project site and drains east to Marsh Creek in Brentwood. The Marsh Creek Watershed is the second largest watershed in Contra Costa County, totaling more than 60,000 acres.

Precipitation in the area falls as rain, averaging approximately 13 to 16 inches per year (Contra Costa County Community Development Department 2003).

### Historical Context

History of mining/grazing on site – need info from EBRPD

### Current Site Conditions

The delineated area is located in eastern Contra Costa County in the foothills northeast of Mt. Diablo. The region is dominated by blue oak woodland interspersed with annual grassland on steep hillsides and scattered riparian

woodland/scrub along larger streams. Some of the hillslopes in the area also support chaparral and sage scrub communities.

The restoration project is located on Lenzner’s valley floor, and includes an unnamed spring and tributary, and a reach of the mainstem Oil Canyon Creek (Figure 2). The entire restoration area is 0.5 acres.

## Soils

The primary soil type present in the delineated area is the Altamont-Fontana Complex, 30 to 50 percent slopes that is found on foothills in the eastern uplands of the County. This soil map unit includes 50 percent Altamont clay, 35 percent Fontana loam, and 15 percent of Millsholm loam, Lodo clay loam, Capay clay and Rincon clay loam. Capay and Rincon soils are present in small drainage ways and on toe slopes, so they are included in the following table (USDA 1977). Capay clay is slightly acid to moderately alkaline clay 36 inches thick, and Rincon clay is a neutral clay loam about 12 inches thick. Neither of these soil types are listed as hydric soils. Additionally, according to the Contra Costa Hydric Soil List (1992) there is an additional soil type within the Altamont-Fontana complex. This soil type, Pescadero clay loam, is considered hydric in depressions. Pescadero clay loam can also contain high alkali content, and in those situations is mapped as Pescadero clay loam, strongly alkali. The Los Gatos Loam 30 to 50 percent slopes was mapped directly east of the delineation area and is found on north facing slopes in uplands.

## Vegetation

The restoration site currently contains two land cover types – annual grassland and alkali wetland. For the purposes of HCP/NCCP implementation, annual grassland is defined as a natural community where grasses and forbs (often non-native) dominate the landscape, and trees and shrubs comprise less than 5% canopy cover (ECCHCP/NCCP, pg#). Alkali wetlands support ponded or saturated soil conditions and alkaline plants, and occur as perennial or seasonally wet features on alkali soils.

Annual grassland in the project site is dominated by non-native species, composing up to 100% non-natives in some vegetation sampling areas.

Using Department of Fish and Game (2000) and California Native Plant Society (2001) botanical survey protocols, the current wetland and grassland area was surveyed to map current plant cover, with the following results:

Table x. Low terrace adjacent to seep wetland (DP1) – Map in progress

Species	Native/non-native	Percent cover
Barley/Mediterranean barley ( <i>Hordeum marinum ssp. gussoneanum</i> )	Non-native	40%

Species	Native/non-native	Percent cover
Italian ryegrass ( <i>Lolium multiflorum</i> )	Non-native	40%
Common pepper grass ( <i>Lepidium nitidum</i> )	Native	10%
Meadow barley ( <i>Hordeum brachyamtherum</i> )	Native	10%
San Diego pepperweed ( <i>Lepidium latipes latipes</i> )	Native	1%

Table x. Upland site west of water trough (DP2) Map in progress

Species	Native/non-native	Percent cover
Soft brome/soft chess ( <i>Bromus hordeaceus</i> )	Non-native	60%
Italian ryegrass ( <i>Lolium multiflorum</i> )	Non-native	10%
Yellow star thistle ( <i>Centaurea solstitialis</i> )	Non-native	20%
Barley/Mediterranean barley ( <i>Hordeum marinum ssp. gussoneanum</i> )	Non-native	10%

Table x: Downstream of tributary (DP3) Map in progress

Species	Native/non-native	Percent cover
Soft brome/soft chess ( <i>Bromus hordeaceus</i> )	Non-native	60%
Italian ryegrass ( <i>Lolium multiflorum</i> )	Non-native	10%
Yellow star thistle ( <i>Centaurea solstitialis</i> )	Non-native	20%
Barley/Mediterranean barley ( <i>Hordeum marinum ssp. gussoneanum</i> )	Non-native	10%

Insert tables from 6 other sample sites.

Although the Lentzner property is modeled as potential habitat for alkali milkvetch (*Astragalus tener ssp. tener*), brittle scale (*Atriplex depressa*), and San Joaquin sparscale (*Atriplex joaquiniana*), protocol surveys for HCP/NCCP covered plant species resulted in no observations (June 19, 2008). Special status plants species, documented in the California Natural Diversity Database (CNDDDB), have been observed within xx miles of the restoration, and are documented in Table xx.

## Wildlife

Wildlife species associated with annual grassland include reptiles such as western fence lizard (*Sceloporus occidentalis*), common garter snake (*Thamnophis sirtalis*), and western rattlesnake (*Crotalis viridis*); mammals such as black-tailed

jackrabbit (*Lepus californicus*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), western harvest mouse (*Reithrodontomys megalotis*), California vole (*Microtus californicus*), American badger (*Taxidea taxus*), and coyote (*Canis latrans*); and birds such as burrowing owl (*Athene cunicularia*), short-eared owl (*Asio flammeus*), horned lark (*Eremophila alpestris*), and western meadowlark (*Sturnella neglecta*). Annual grassland also provides important foraging habitat for turkey vulture (*Cathartes aura*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), and red-tailed hawk (*Buteo jamaicensis*).

During the wet season, seasonal wetlands can be used by a variety of wildlife, including various amphibians such as western spadefoot (*Scaphiopus hammondi*), Pacific chorus frog (*Pseudacris regilla*), western toad (*Bufo boreas*), and California tiger salamander (*Ambystoma californiense*); shorebirds such as killdeer, black-necked stilt (*Himantopus mexicanus*), and American avocet (*Recurvirostra americana*); and passerines such as Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), brownheaded cowbird (*Molothrus ater*), and American pipit (*Anthus rubescens*). During the dry season, a variety of small mammals use the areas, including deer mouse, California vole, and long-tailed weasel (*Mustela frenata*). Raptors such as white-tailed kites, northern harrier, and red-tailed hawk may forage in this land cover type.

Special-status wildlife that have been observed within 2 miles of the restoration are listed in Table xx. Jones & Stokes wildlife biologist will conduct required planning surveys for special status species in accordance to the HCP/NCCP.

The Lentzner parcel has been designated suitable core habitat for the San Joaquin kit fox (Figure xx), and the Lentzner parcel provides a connection from Black Diamond Mines Regional Preserve to the Cowell Ranch.

The Lentzner parcel is modeled as potential breeding habitat for the California tiger salamander (ECC HCP/NCCP, 2007). Surveys for California tiger salamander by Allaback and Winfield (2004) resulted in observations of larvae in a seasonal stock pond (confirm location/proximity to spring).

Sand Creek is identified as potential breeding habitat for California red-legged frog, and the entire Lentzner parcel provides potential migration and aestivation habitat (ECC HCP/NCCP, 2007). Several ponds on the parcel provide breeding habitat, and red-legged frogs have been documented on the Sand Creek mainstem (Winfield, 2005) (need location).

## Water Sources and Quality

The restoration project includes part of an active spring, which is denuded of vegetation except for sparse patches of saltgrass (*Distichlis spicata*). The spring area displays characteristics consistent with an alkali scald, i.e. an area where concentration of salts is so high that plant growth is inhibited. Results of March 27, 2008 water samples found that total dissolved solids (TDS) and specific

conductance (SC) were extremely elevated above water quality standards. TDS was 13,000 mg/L and the specific conductance was 19,000 umhos/cm. The USEPA drinking water quality criteria for TDS is 500 mg/L.

The water samples also contained elevated levels of boron at 20 mg/L. The Regional Water Quality Control Board criteria for boron is seasonally dependant due to flow variations. Numeric boron criteria from March 15th to September 15th is 2.0 mg/L, and from September 16th to March 14th, it is 2.6 mg/L (confirm whether this is Central or SFB Regional Board criteria). Boron occurs naturally in this area, and the result of high concentrations of boron, EC, and TDS could be linked to mining operations.

The restoration project will receive intermittent flow from a small steep watershed located upstream of the restoration site. Because of the presence of larger patches of alkali plants in the lower project site (where the spring water mixes with tributary runoff), it is believed that intermittent flows will dilute the mineral content of the spring and result in more diverse vegetation in the alkali wetland restoration area.

The mainstem channel of Oil Canyon Creek in the vicinity of the project area is intermittent or ephemeral depending on the water year. It contains large stands of alkali plant species, including xx.

## Restoration

The approach for the Lenzner springs restoration project is to capture flow from the ephemeral stream tributary and its watershed into an alkali wetland habitat, with minor grading and bed contouring. The project also includes installation of local plant species to increase plant diversity, and the establishment of a native grassland area south of the alkali wetland.

## Definition

According to the HCP/NCCP, habitat restoration is defined as the establishment of a vegetation community in an area that historically supported it, but no longer does because of the loss of one or more required ecological factors. On the Lenzner site, long-term grazing and invasive species encroachment has impacted the ecological and hydrologic function of the alkali wetland and annual grassland communities.

## Schedule

50% and 100% designs and specifications have been reviewed and approved by the District. The Conservancy approved funding for the project on xx.

Bidding

Pre bid meeting

Permits

Construction

Short-term monitoring

Long-term monitoring

## Seasonal alkali wetland

The lack of vegetation on the existing project site is likely a combined result of cattle grazing, compaction, elevation, and a lack of freshwater inundation. Water retention and plant populations increase downstream of the spring, where dilution occurs between the spring and tributary water sources. The homogenous, non-native, annual grasses in the project area are high enough in elevation to rarely (if ever) be inundated.

A natural alkali wetland should contain plants with wetland indicator status of facultative species (FAC) or wetter (Reed 1988). Another key requirement for alkali wetlands is the seasonal delivery of surface flows or shallow subsurface flows that support the wetland environment. The site will be cleared, grubbed, and graded according to the contours shown in Figure xx to enhance flow connectivity. Approximately xx of 4-inch diameter plugs of native herbaceous wetland species, harvested onsite, will be planted in the alkali wetland restoration area.

## Native grassland

Broadcast seeding with native seed mix and hydromulching will occur in the native grassland restoration area, including purple needle grass (*Nasella pulchra*), creeping wildrye (*Leymus triticoides*), and meadow barley (*Hordeum brachyantherum*).

## Wildlife

If habitat for San Joaquin kit fox is found to be present in the project area during planning surveys, all dens will be mapped and documented as active or inactive. If the presence of kit fox is documented, exclusion zones for potential and known dens will be established according to HCP/NCCP guidelines with proper notification to the United States Fish and Wildlife Service (FWS) of occupied natal dens (6-38). The completed restoration should not provide a dispersal barrier

to San Joaquin kit fox, which would more likely traverse the open grassland area to the west of the project site.

If habitat for western burrowing owls is found during planning surveys, all burrows will be mapped and deemed active or inactive, and any use of breeding or foraging habitat will be documented according to HCP/NCCP guidelines (6-40). The presence of burrowing owls triggers the establishment of buffer zones around nests and burrows, according to HCP/NCCP guidelines (6-40).

If nests for golden eagles are documented during planning surveys, the nests must be inspected for occupation prior to project construction. The presence of golden eagles triggers the establishment of buffer zones around nests and monitoring compliance during construction.

Any disturbance of the top of Oil Canyon Creek’s bank requires mapping potential breeding habitat for red-legged frog and California tiger salamander, documentation of habitat quality and features, and reporting requirements. In addition, the United States Fish and Wildlife Service and California Department of Fish and Game require 30-day salvage notification. Due to the small scale of the restoration project and water quality constraints, the wetland is not anticipated to support covered amphibians (red-legged frog and California tiger salamander).

## Management and Maintenance

### Grazing

Livestock grazing is an important management tool to enhance vegetation and reduce the biomass and spread of exotic plants. Livestock historically obtained their drinking water from the trough, and will likely look to the spring and Oil Canyon for future water supply. Seasonally wet-drainages can be trampled during the rainy season, which can cause soil compaction and harm or destroy newly established plants. The restoration area will be fenced to control grazing intensity and related disturbances for the first xx seasons.

Cattle or sheep can be used as a management tool to reduce wildfire fuel loads, maintain or improve grassland habitat species diversity, and maintain or improve potential habitat for California tiger salamander and burrowing owls on site. Limited, seasonal grazing of the restoration area could be an effective tool for managing undesirable species, such as milk thistle.

### Fencing

In studies at the Los Vaqueros watershed, livestock enclosures were found to benefit seasonal alkali wetlands in the short term. After 1 year, the relative

cover, species richness, and species diversity of native target plants was greater in exclosures than immediately outside them (Jones & Stokes 1992b).

Fencing (5-strand barbed wire with galvanized steel posts) will be installed to temporarily exclude livestock. The fence may be removed after xx seasons if the fenced area possesses resilient, native vegetation structure and cover. The perimeter fencing and gates will be inspected annually prior to the start of the grazing season and will be repaired as needed.

The spring outlet will be permanently fenced with 5-strand barbed wire fencing to protect public safety. A new gate will allow for access and maintenance.

## Irrigation

The contractor charged with restoration construction will be responsible for irrigation for a minimum period of 6-weeks following planting. Depending on precipitation, the irrigation period may be extended.

## Native Plant Species

Depending on the successful establishment of new species and level of invasive species encroachment, native plants may need to be salvaged and revegetated on an annual basis.

## Pest Control

Grading in the restoration area could result in the spread of non-native plant species, specifically milk thistle (*Silybum marianum*). Infestations of invasive and noxious plants can adversely affect habitat values. Occurrences of such weedy species could be controlled by some combination of manual removal, short-term grazing, or spot herbicide. Herbicides will be used only if alternative management methods are not likely to be effective or practicable. Any herbicides to be used will be labeled by the U.S. Environmental Protection Agency for use in or near aquatic environments. Herbicide application methods will be limited to the most target specific approaches practicable.

Control of pests should be in accordance with the District's pest management policies and practices. Other sites in the District park system with milk thistle infestations have been managed with small applications of Milestone herbicide on mature stands (Nancy Brownfield, personal communication), which is broad-leaf selective and will not kill grasses. Note that herbicides are not proposed for coverage in the Section 10(a)(1)(B) permit for the HCP/NCCP.

Feral pig management for the restoration area should be completed as part of the parcel-wide Preserve Management Plan.

## **Routine Park Maintenance**

Maintenance activities will occur on the property on both an as-needed and routine basis. In general, maintenance could include repair/replacement of fencing and gates, fire hazard reduction, and debris removal.

## **Performance Criteria and Monitoring**

Monitoring and adaptive management are essential components of restoration and habitat management. Performance criteria indicate whether restoration is progressing as intended and how the project may be altered or redesigned to better achieve project goals.

Monitoring for the Lentzner restoration will be annually for the first five years, then at years seven and ten, or until performance criteria are met.

## **Performance Monitoring**

Vegetation monitoring in restored wetlands and grasslands will be conducted annually during the blooming period of key species. In most years, this is expected to be April–May, but the actual timing may be adjusted slightly to coincide with optimal blooming conditions.

During the first 5 years following restoration, vegetation monitoring will focus on survival of individual plantings. Following Year 5, the focus of monitoring will shift to overall vegetative cover and relative abundance of native species. Table xx presents the criteria that will be used to evaluate the progress of restoration plantings.

**Table xx.** Performance Standards for Restoration Plantings

<b>Year</b>	<b>Criterion</b>	<b>Satisfactory Progress Threshold</b>
1		70% survival in Good or Fair condition
2		60% survival in Good or Fair condition
3	% of plants surviving	xx% survival in Good or Fair condition
4		xx% survival in Good or Fair condition
5		xx% survival in Good or Fair condition
7		Cover of native alkali wetland plants
		xx% native cover
	Cover of native grasses	
	Cover of alkali wetland plants	xx% native cover
10	Cover of native grasses	xx% native cover

Progress of the restoration plantings will be considered satisfactory if the criteria in Table xx are met or exceeded.

Relative vegetative cover and species abundance in the restoration area will be monitored using randomly selected 1-meter-square quadrats placed along permanent transects. The end points of each transect will be permanently marked using a metal T-post or other method approved by EBRPD. Transect locations will also be databased using a sub-meter precision GPS units.

In each quadrat, monitors will visually estimate the percentage of absolute cover by vegetation type. Monitors will then identify the native species present in each quadrat and visually estimate the relative percentage of cover by each wetland species in each quadrat.

If the wetland or grassland area fails to meet its annual performance standard, additional planting of the same species and/or a shift in the planting palette could occur.

Hydrologic monitoring is not recommended for the small restored wetland area, but could include field visits during and immediately following a storm, for xx storms until the end of the storm season, or until four sequential visits detect no ponded water or saturated soils. Hydrologic monitoring documents the extent, depth, and duration of ponding. If ponding is absent, monitors will check for soil

saturation. Monitors will use sub-meter precision GPS to document the extent of ponding.