

LOS ANGELES DISTRICT  
U.S. ARMY CORPS OF ENGINEERS

**NOTIFICATION OF COMMENCEMENT OF WORK  
FOR  
DEPARTMENT OF THE ARMY PERMIT**

**Permit Number:** *SPL-2004-01928*  
**Name of Permittee:** *Hans Kernkamp, Riverside County Waste Management Department*  
**Date of Issuance:** *November 7, 2012*

**Date work in waters of the U.S. will commence:** \_\_\_\_\_  
**Estimated construction period (in weeks):** \_\_\_\_\_  
**Name & phone of contractor (if any):** \_\_\_\_\_

Please note that your permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

I hereby certify that I, and the contractor (if applicable), have read and agree to comply with the terms and conditions of the above referenced permit.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

At least ten (10) days prior to the commencement of the activity authorized by this permit, sign this certification and return it using any ONE of the following three (3) methods:

(1) E-MAIL a statement including all the above information to:  
stephen.m.estes@usace.army.mil

OR

(2) FAX this certification, after signing, to: (213) 452-4196

OR

(3) MAIL to the following address:

U.S. Army Corps of Engineers  
Regulatory Division  
ATTN: CESPL-RG-SPL-2004-01928  
915 Wilshire Boulevard  
Los Angeles, California 90017

LOS ANGELES DISTRICT  
U.S. ARMY CORPS OF ENGINEERS

**NOTIFICATION OF COMPLETION OF WORK AND  
CERTIFICATION OF COMPLIANCE WITH  
DEPARTMENT OF THE ARMY PERMIT**

**Permit Number:** *SPL-2004-01928*  
**Name of Permittee:** *Hans Kernkamp, Riverside County Waste Management Department*  
**Date of Issuance:** *November 7, 2012*

**Date work in waters of the U.S. completed:** \_\_\_\_\_  
**Construction period (in weeks):** \_\_\_\_\_  
**Name & phone of contractor (if any):** \_\_\_\_\_

Please note that your permitted activity is subject to a compliance inspection by an Army Corps of Engineers representative. If you fail to comply with this permit you may be subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of said permit.

\_\_\_\_\_  
Signature of Permittee

\_\_\_\_\_  
Date

Upon completion of the activity authorized by this permit, sign this certification and return it using any ONE of the following three (3) methods:

(1) E-MAIL a statement including all the above information to:  
[stephen.m.estes@usace.army.mil](mailto:stephen.m.estes@usace.army.mil)

OR

(2) FAX this certification, after signing, to: (213) 452-4196

OR

(3) MAIL to the following address:

U.S. Army Corps of Engineers  
Regulatory Division  
ATTN: CESPL-RG-SPL-2004-01928  
915 Wilshire Boulevard  
Los Angeles, California 90017



## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Hans Kernkamp, RCWMD      File Number: SPL-2004-01928      Date: 11/07/2012

Attached is:

<b>X</b>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

**SECTION I -** The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at [http://www.usace.army.mil/cecw/pages/reg\\_materials.aspx](http://www.usace.army.mil/cecw/pages/reg_materials.aspx) or Corps regulations at 33 CFR Part 331.

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed) by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to re-evaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Stephen M. Estes  
U.S. Army Corps of Engineers, Regulatory Division  
915 Wilshire Boulevard  
Los Angeles, California 90017  
Phone: (213) 452-3660; Fax: (213) 452-4196  
Email: [stephen.m.estes@usace.army.mil](mailto:stephen.m.estes@usace.army.mil)

If you only have questions regarding the appeal process you may also contact:

Thomas J. Cavanaugh  
Administrative Appeal Review Officer,  
U.S. Army Corps of Engineers  
South Pacific Division  
1455 Market Street, 2052B  
San Francisco, California 94103-1399  
Phone: (415) 503-6574 Fax: (415) 503-6646  
Email: [thomas.j.cavanaugh@usace.army.mil](mailto:thomas.j.cavanaugh@usace.army.mil)

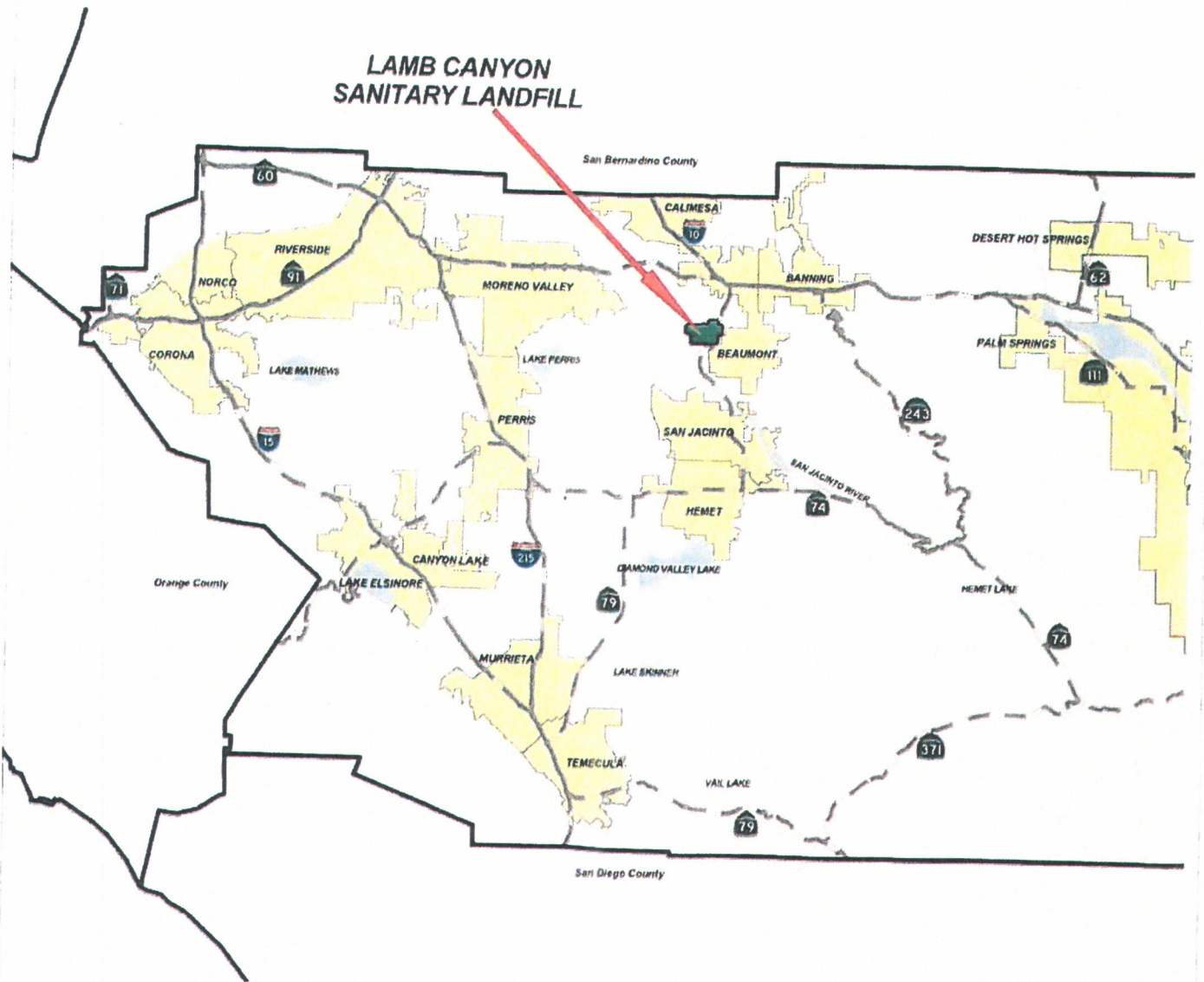
**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

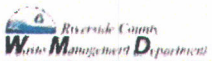
Telephone number:

# LAMB CANYON SANITARY LANDFILL



## Lamb Canyon Sanitary Landfill Regional Location Map

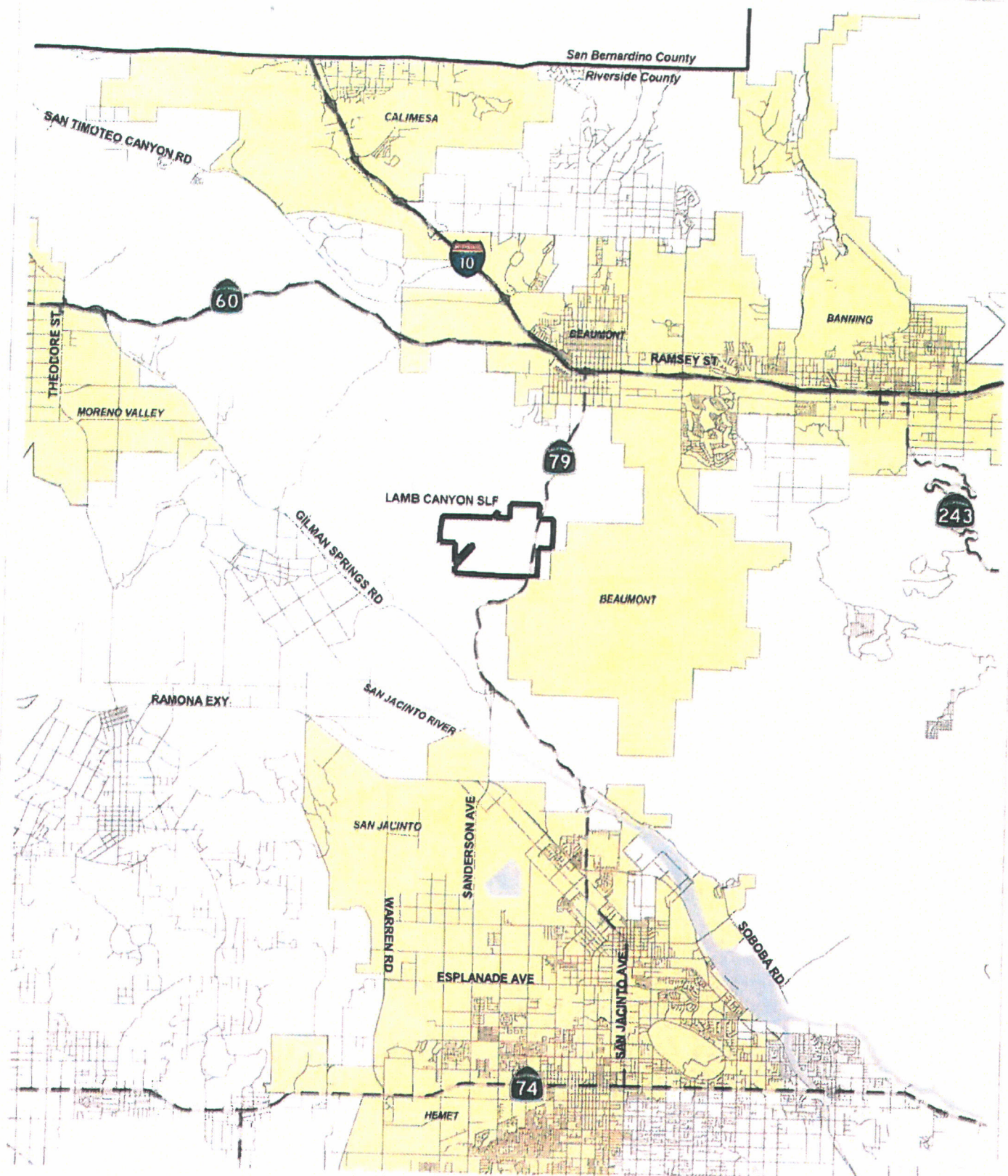
December 2009



Not To Scale

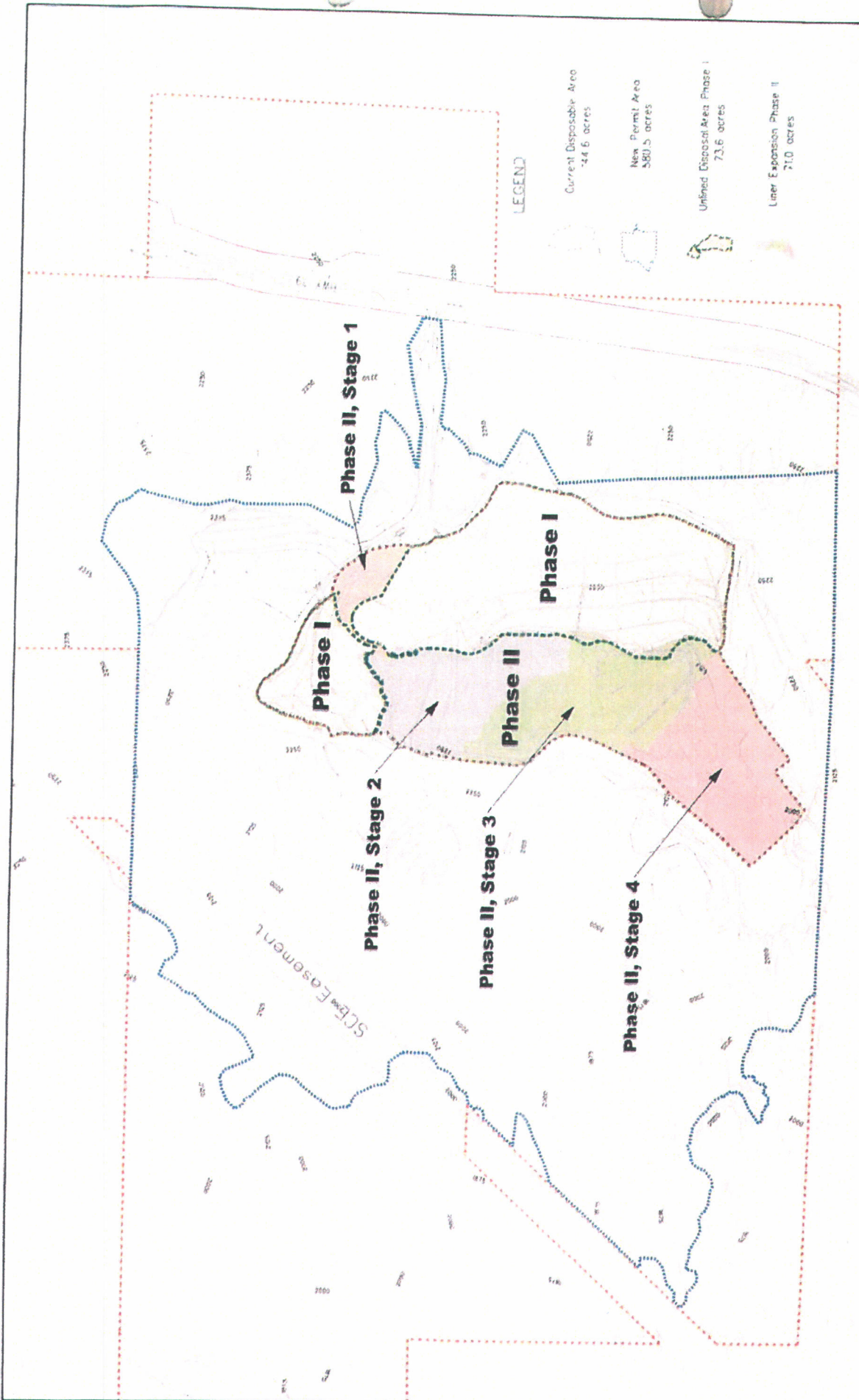
Exhibit 1





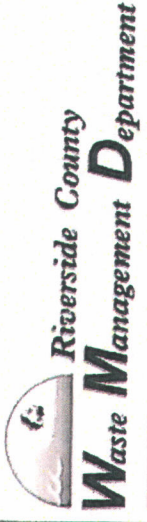
### Lamb Canyon Sanitary Landfill Vicinity Map





**LEGEND**

- Current Disposable Area  
44.6 acres
- New Permit Area  
580.5 acres
- Unlined Disposable Area Phase I  
73.6 acres
- Liner Expansion Phase II  
71.0 acres



Lamb Canyon Sanitary Landfill

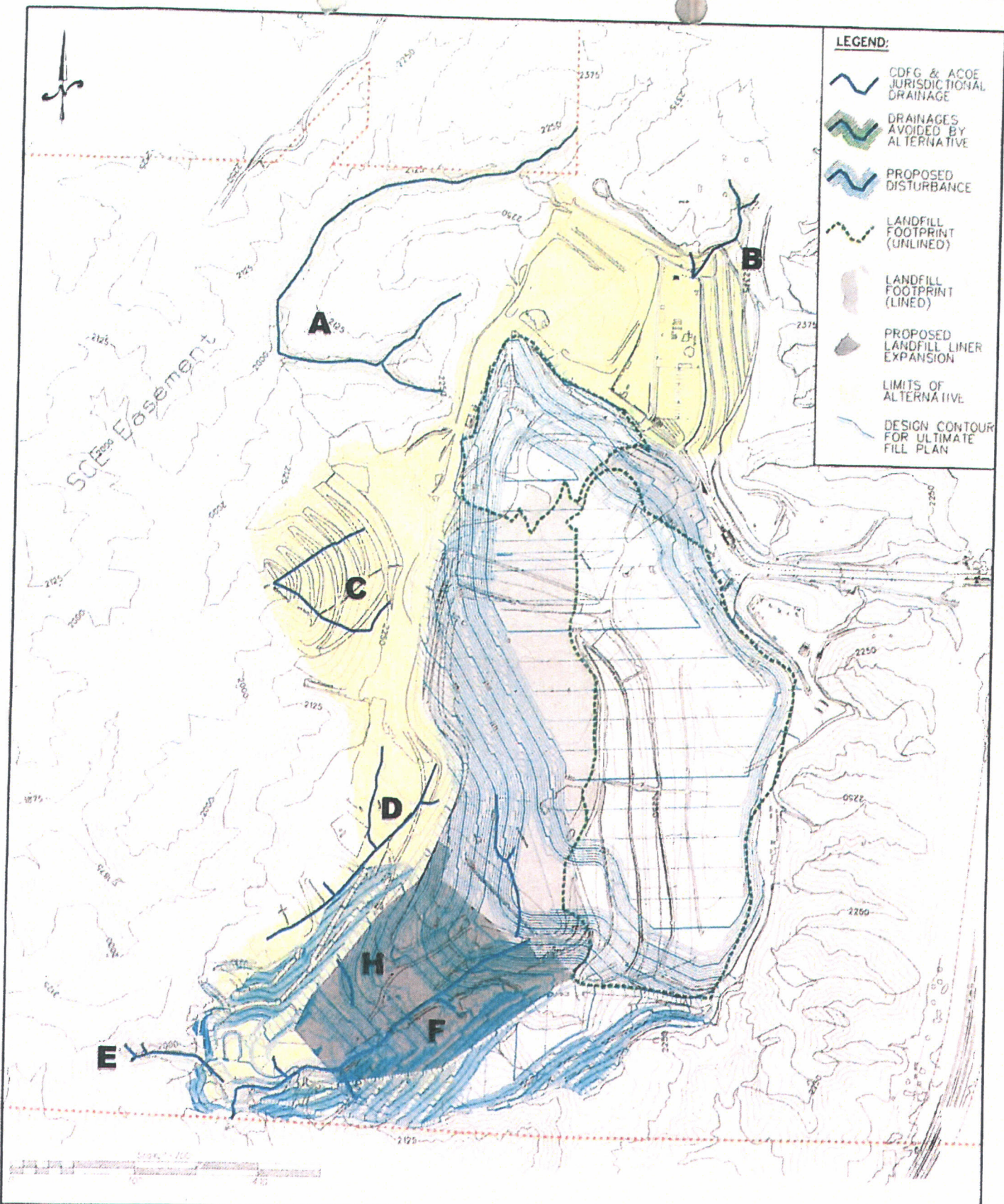
# Phase 2 Staging Plan

Exhibit 3


File Directory: sites/lamb/perm/2010 EA/EA-ex3 phase 2 staging plan.dgn

Date: December 1, 2010 Scale: 1"=1000'





- LEGEND:**
- CDFG & ACOE JURISDICTIONAL DRAINAGE
  - DRAINAGES AVOIDED BY ALTERNATIVE
  - PROPOSED DISTURBANCE
  - LANDFILL FOOTPRINT (UNLINED)
  - LANDFILL FOOTPRINT (LINED)
  - PROPOSED LANDFILL LINER EXPANSION
  - LIMITS OF ALTERNATIVE
  - DESIGN CONTOUR FOR ULTIMATE FILL PLAN

 **Riverside County**  
**Waste Management Department**

Lamb Canyon Sanitary Landfill  
**Phase 2 Ultimate Fill Plan**

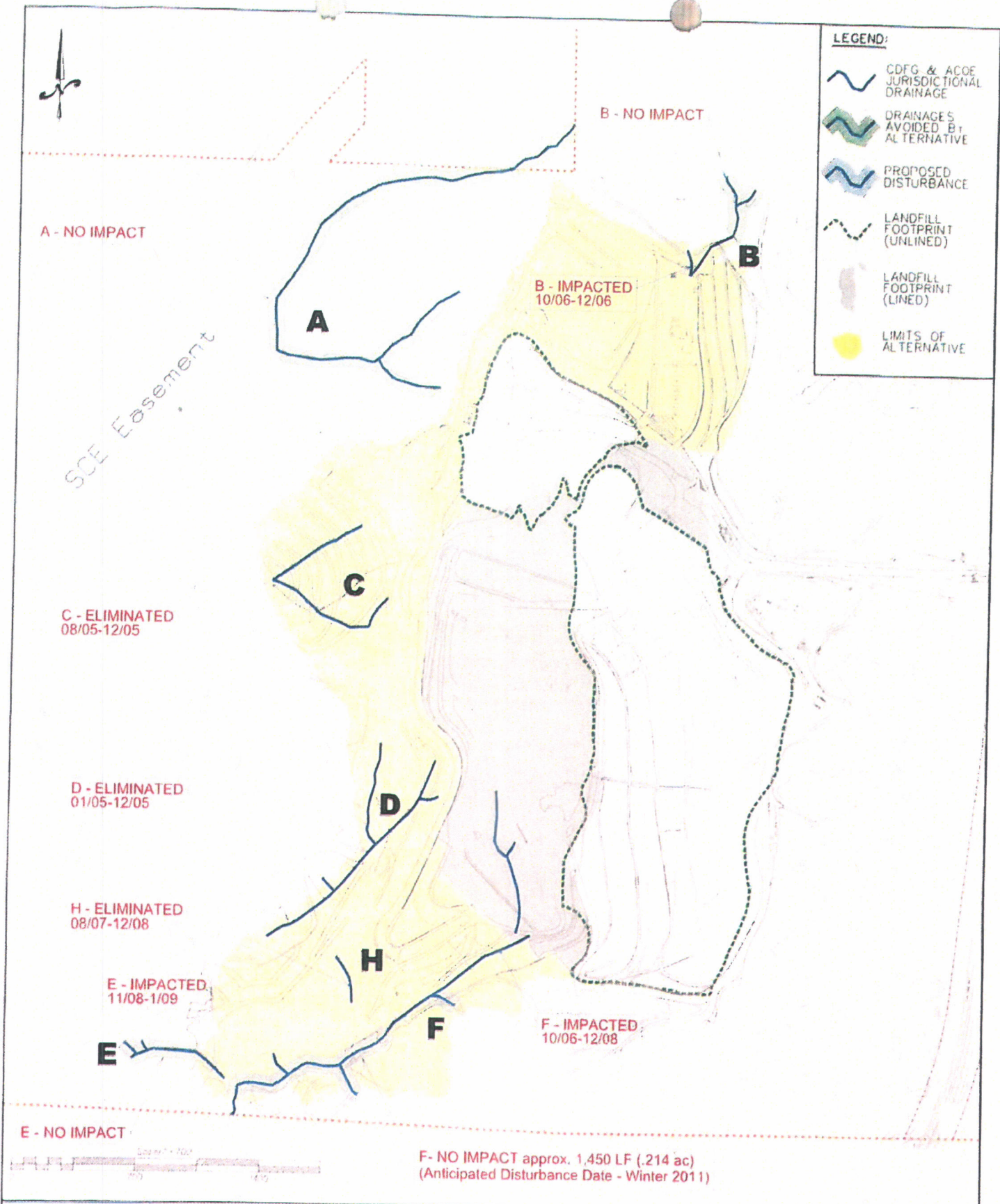
Exhibit 4

File: I:\sites\lamb\permitting\2011 streambed\Phase 2 streambed activities.dgn	Date: February 2011
Photo Date: January 2009	Scale: 1"=700'

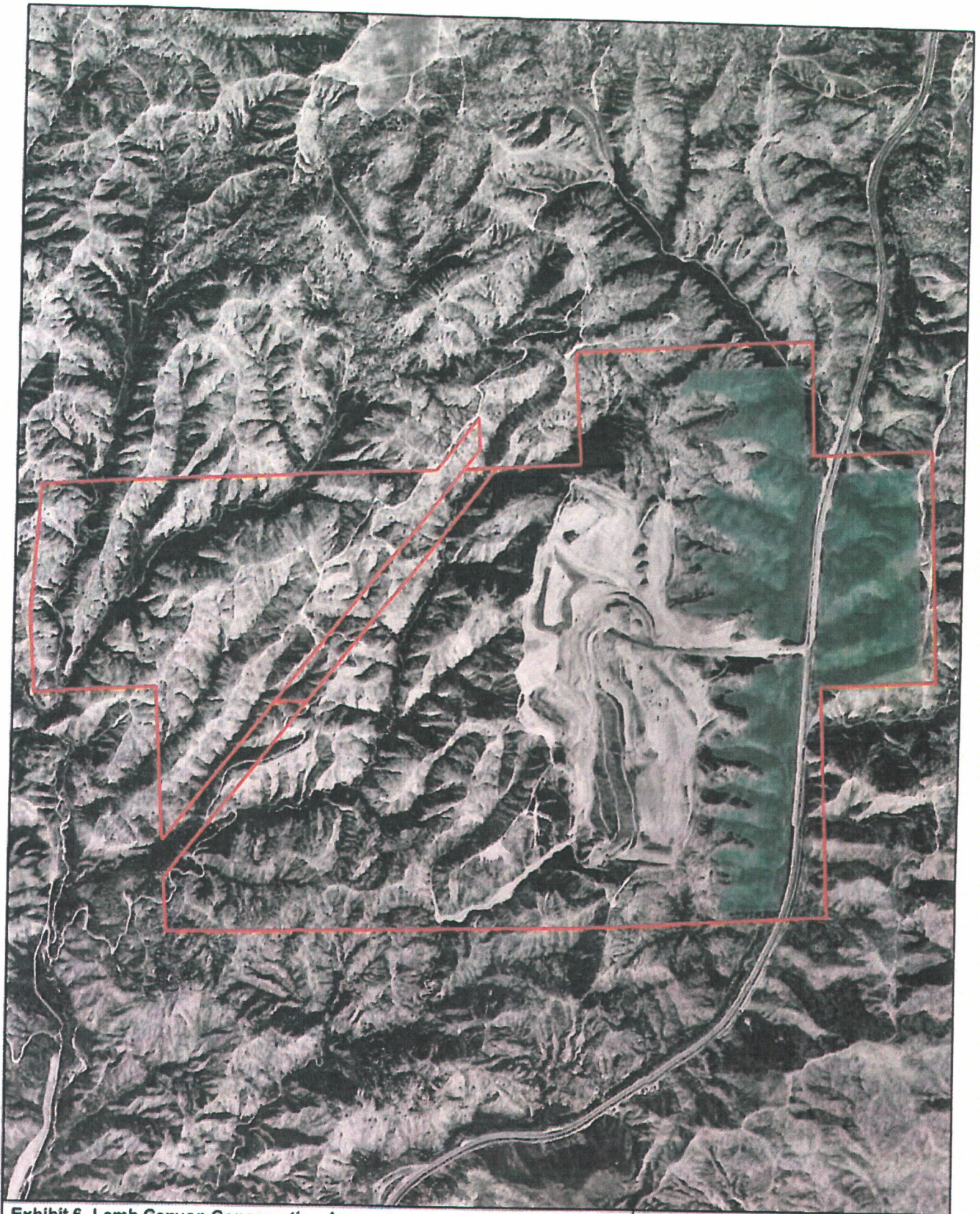


**LEGEND:**

-  CDFG & ACCE JURISDICTIONAL DRAINAGE
-  DRAINAGES AVOIDED BY ALTERNATIVE
-  PROPOSED DISTURBANCE
-  LANDFILL FOOTPRINT (UNLINED)
-  LANDFILL FOOTPRINT (LINED)
-  LIMITS OF ALTERNATIVE







**Exhibit 6- Lamb Canyon Conservation Area**

**Legend**

- Lamb Canyon Landfill Property Boundary
- Lamb Canyon Conservation Area

1 inch = 1,500 feet  
 0 375 750 1,500  
 Feet



**Map Notes**

Aerial: USGS (2002)  
 Property Boundary: Lamb Canyon (2003)  
 Date: 05/01/2009  
 Projection: UTM NAD83 Zone 10N  
 Path: R: project\sc08/  
 LambCanyon\mxd\project\_boundary





**Phase 3 CDFW**

**SAA No. 1600-2010-0084-R6**

CALIFORNIA DEPARTMENT OF FISH AND GAME  
INLAND DESERTS REGION  
3602 INLAND EMPIRE BLVD., SUITE C-220  
ONTARIO, CA 91764



**STREAMBED ALTERATION AGREEMENT**  
NOTIFICATION No. 1600-2010-0084-R6 (REVISION 2)

RIVERSIDE COUNTY WASTE MANAGEMENT DEPARTMENT  
LAMB CANYON LANDFILL 202.2-ACRE EXPANSION PROJECT

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and Riverside County Waste Management Department (Permittee), represented by Hans Kernkamp.

COUNTY OF RIVERSIDE  
WASTE MANAGEMENT  
12 OCT -1 PM 4: 29

**RECITALS**

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on May 12, 2010, that Permittee intends to complete the project described herein.

WHEREAS, pursuant to FGC section 1603, DFG has determined that the project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the project in accordance with the Agreement.

**PROJECT LOCATION**

The project is located within five unnamed streams (referred to as Drainages 1-5) and 19 associated tributaries, all tributary to the San Jacinto River and thence Canyon Lake, just west of the existing Lamb Canyon Landfill Phase 2 area located at 16404 Lamb Canyon Road, three miles south of Highway 60, between the cities of Beaumont and San Jacinto, in unincorporated Riverside County, State of California; Latitude: 33.87000 N, Longitude: 117.11999 W.

**PROJECT DESCRIPTION**

Permittee is proposing to expand their existing Solid Waste Facility Permit area at the existing Lamb Canyon Landfill (Landfill) from 353.4 acres to a total of 580.5 acres, for an increase of 227.1 acres. The 227.1-acre increase includes the 202.1-acre expansion of the existing active landfill, as well as a 25-acre site located south of the landfill which will remain undisturbed and serve as a buffer area. Expansion activities will be performed within the 202.1-acre landfill expansion area and a 0.062-acre area located

immediately adjacent to the expansion area (for a total of 202.2-acres) and include the placement of fill associated with typical landfill activities, including dirt management, waste processing, and waste disposal. All DFG jurisdictional areas within the 202.1-acre landfill expansion area will be filled as a result of the project.

## PROJECT IMPACTS

Existing native fish and wildlife resources the project could potentially affect include:

**AMPHIBIANS** – western spadefoot (*Spea hammondi*); **BIRDS** – American kestrel (*Falco sparverius*), Anna's hummingbird (*Calypte anna*), Bell's sage sparrow (*Amphispiza belli*), Bewick's wren (*Thryomanes bewickii*), burrowing owl (*Athene cunicularia*), bushtit (*Psaltriparus minimus*), cactus wren (*Campylorhynchus brunneicapillus*), California quail (*Callipepla californica*), California towhee (*Pipilo crissalis*), California quail (*Callipepla californica*), coastal California gnatcatcher (*Polioptila californica*), common raven (*Corvus corax*), Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), golden eagle (*Aquila chryseatos*), greater roadrunner (*Geococcyx californianus*), house finch (*Carpodacus neomexicanus*), killdeer (*Charadrius vociferous*), lesser goldfinch (*Carduelis psaltria*), loggerhead shrike (*Lanius ludovicianus*), mourning dove (*Zenaida macroura*), northern harrier (*Circus cyaneus*), phainopepla (*Phainopepla nitens*), prairie falcon (*Falco mexicanus*), red-tailed hawk (*Buteo jamaicensis*), sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), spotted towhee (*Pipilo maculatus*), turkey vulture (*Cathartes aura*), western kingbird (*Tyrannus verticillatus*), western scrub-jay (*Aphelocoma californica*), western wood peewee (*Contopus sordidulus*), wrentit (*Chamaea fasciata*); **MAMMALS** – badger (*Taxidea taxus*), black-tailed jackrabbit (*Lepus californicus*), bobcat (*Lynx rufus*), Botta's pocket gopher (*Thomomys bottae*), cactus mouse (*Peromyscus eremicus*), California ground squirrel (*Spermophilus beecheyi*), California mouse (*Peromyscus californicus*), coyote (*Canis latrans*), deer mouse (*Peromyscus maniculatus*), Dulzura kangaroo rat (*Dipodomys simulans*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), mountain lion (*Felis concolor*), mule deer (*Odocoileus hemionus*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), Pacific kangaroo rat (*Dipodomys agilis*), pocket gopher (*Thomomys bottae*), pocket mouse (*Chaetodipus fallax*), rabbit (*Sylvilagus sp.*), raccoon (*Procyon lotor*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), San Diego desert woodrat (*Neotoma lepida intermedia*), southern grasshopper mouse (*Onychomys torridus ramona*), Stephen's kangaroo rat (*Dipodomys stephensi*), western harvest mouse (*Reithrodontomys megalotis*); **PLANTS**: chapparal sand verbena (*Abronia villosa aurita*), Englemann oak (*Quercus engelmannii*); **REPTILES**: Belding's orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), California legless lizard (*Aniella pulchra pulchra*), California ringneck snake (*Diadophis punctatus similes*), California striped racer (*Masticophis lateralis*), California tiger salamander (*Ambystoma californiense*), coachwhip (*Masticophis flagellum*), coast patchnose snake (*Salvadora hexalepis virgulata*), coastal rosy boa (*Lichanura trivirgata rosefusca*), Coronado skink (*Eumeces interparietalis*), gopher snake (*Pituophis melanoleucus*), granite night lizard (*Xantusia henshawi henshawi*), granite spiny lizard (*Sceloporus orcuttii orcuttii*), northern red-diamond rattlesnake (*Crotus exsul*), orange-

throated whiptail (*Cnemidophorus hyperythrus*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), side-blotched lizard (*Uta stansburiana*), southern Pacific rattlesnake (*Crotalus viridis*), western whiptail (*Cnemidophorus tigris*); and all other fish and wildlife resources in the project vicinity.

The adverse effects the project could have on the fish and wildlife resources identified above include the loss of nesting and foraging habitat, and the alteration of wildlife corridors. The construction of the project will permanently impact a total of 2.739 acres of jurisdictional areas, consisting of 2.027 acres of unvegetated ephemeral streambed habitat, 0.635 acres of desert olive scrub, 0.011 acres of Mexican elderberry woodland, 0.014 acres of mule fat scrub, and 0.052 acres of tamarisk scrub.

## **MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES**

### **1. Administrative Measures**

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times to present to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site at any time to verify compliance with the Agreement.
- 1.5 Compliance with the MSHCP and Take of Listed Species. The issuance of this Agreement does not authorize the take of any state and/or federally listed threatened, endangered, or fully protected species. Additionally, it does not infer that the project is consistent with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) or that the project is a Biologically Equivalent or Superior Preservation Alternative. If modifications to the project are necessary to meet MSHCP requirements because the project is found during the MSHCP

review process to be inconsistent with the MSHCP and/or the Western Riverside County Regional Conservation Authority (RCA) and/or Wildlife Agencies (DFG and/or U.S. Fish and Wildlife Service) do not agree the project is a Biologically Equivalent or Superior Preservation Alternative, then a request for an amendment to this Agreement will be required.

- 1.6 Take of Nesting Birds. Sections 3503, 3503.5, and 3513 of the FGC prohibit take of all birds and their active nests, including raptors and other migratory non-game birds (as listed under the Migratory Bird Treaty Act).

## **2. Avoidance and Minimization Measures**

To avoid or minimize adverse impacts to the fish and wildlife resources identified above, Permittee shall implement each measure listed below.

- 2.1 Biological Monitor. A qualified biologist shall be onsite to monitor all activities that result in the clearing of sensitive habitat as well as grading, excavation, and/or other ground-disturbing activities in jurisdictional areas. Permittee shall flag the limits of grading and the jurisdictional areas, perform necessary surveys, and take photographs during the construction process, as required by this Agreement. The biological monitor is required to halt construction activities if threatened or endangered species are identified and notify the appropriate agencies immediately.
- 2.2 Lighting Impacts. No lighting shall be allowed to impact jurisdictional areas, and the lighting and fencing for infrastructure adjacent to jurisdictional areas shall be designed or reviewed by a qualified biologist to allow wildlife to move within the open space and conserved areas without hindrance.
- 2.3 Biological Surveys. Permittee shall maintain current (no more than one year old) biological survey data for all sensitive species that are present or have the potential to be present within the project site for the term of this Agreement. Surveys shall be performed by a qualified biologist.
- 2.4 Nesting Bird Surveys. Permittee shall not remove vegetation from the project site from March 15 to September 15 to avoid impacts to nesting birds. If project construction cannot be avoided during the period of March 15 through September 15, Permittee shall have a qualified biologist survey all potential nesting vegetation within the project site for nesting birds, prior to commencing project activities (including construction and/or site preparation). Surveys shall be conducted once a day for five days at the appropriate time of day during the breeding season and surveys shall end no more than three days prior to vegetation removal and/or disturbance. Documentation of surveys and findings shall be submitted to DFG for review and concurrence prior to conducting project activities. If no nesting birds were observed and concurrence was received from DFG, project activities may

begin. If an active bird nest is located, the nest site shall be fenced a minimum of 200 feet (500 feet for Least Bell's vireo, Southwestern willow flycatcher, and/or raptors) in all directions, and this area shall not be disturbed until after September 15 or until the nest becomes inactive. If threatened or endangered species are observed in the area, no work shall occur during the breeding season (March 15 through September 15) to avoid direct or indirect (noise) take of listed species.

- 2.5 Burrowing Owl. To avoid direct take of burrowing owls, a qualified biologist shall conduct burrowing owl preconstruction surveys of each project site following the 1993 Burrowing Owl Consortium Guidelines (BOCG). Surveys shall be conducted no more than 30 days prior to the initiation of each project activity. If owls are found onsite, no disturbance shall occur within 300 feet of the occupied burrow during the nesting season (March 1 through August 31). Owls may be passively relocated (following BOCG) outside the breeding season by a qualified biologist. A relocation plan shall be submitted to the Department for review and approval.
- 2.6 Nonnative plant species. DFG recommends the use of native plants to the greatest extent feasible in the landscaped areas adjacent to and/or near mitigation/open space areas and within or adjacent to stream channels. Permittee shall not plant, seed, or otherwise introduce invasive nonnative plant species to the landscaped areas adjacent to and/or near mitigation/open space areas and within or adjacent to stream channels (minimum 100 foot setback from open space areas and 150 foot setback from stream channels and wetland/riparian mitigation sites). Invasive nonnative plant species not to be used include those species listed on the "California Invasive Plant Inventory, February 2006" and the "February 2007 Inventory Update", (which are updates to Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999"). This list includes: pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capeweed, tree of heaven, periwinkle, bush lupine, sweet alyssum, English ivy, French broom, Scotch broom, Spanish broom, and pepperweed. A copy of the complete list can be obtained by contacting the California Invasive Plant Council by phone at (510) 843-3902, at their website at [www.cal-ipc.org](http://www.cal-ipc.org), or by email at [info@cal-ipc.org](mailto:info@cal-ipc.org).
- 2.7 Best Management Practices. Permittee shall actively implement all best management practices (BMPs) outlined in the Notification of Lake or Streambed Alteration package and supplemental materials submitted to DFG for this project. BMPs shall be monitored daily and repaired if necessary to ensure maximum erosion and sediment control. All fiber rolls, straw waddles, and/or hay bales utilized within and adjacent to the project site shall be free of nonnative plant materials.
- 2.8 Pollution and Litter. Permittee shall comply with all litter and pollution laws. All contractors, subcontractors, and employees shall also obey these laws and it shall be the responsibility of Permittee to ensure compliance.

- 2.8.1 Permittee shall not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter a lake, streambed, or flowing stream or be placed in locations that may be subjected to high storm flows.
- 2.8.2 Spoil sites shall not be located within a lake, streambed, or flowing stream or locations that may be subjected to high storm flows, where spoil shall be washed back into a lake, streambed, or flowing stream where it will impact streambed habitat and aquatic or riparian vegetation.
- 2.8.3 Raw cement/concrete or washings thereof, asphalt, paint, or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish and wildlife resources resulting from project related activities shall be prevented from contaminating the soil and/or entering the waters of the State. These materials, placed within or where they may enter a lake, streambed, or flowing stream by Permittee or any party working under contract or with the permission of Permittee, shall be removed immediately.
- 2.8.4 No broken concrete, cement, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or washings thereof, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any lake, streambed, or flowing stream.
- 2.8.5 No equipment maintenance shall be done within or near any lake, streambed, or flowing stream where petroleum products or other pollutants from the equipment may enter these areas under any flow.

### **3. Mitigation Measures**

To mitigate for adverse impacts to the fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

- 3.1 Habitat Mitigation –Offsite. Permittee shall contribute sufficient funds to the Santa Ana Watershed Association (SAWA) In-Lieu Fee Program for the enhancement (active removal) of nonnative plant species and ongoing restoration of 2.34 acres of riparian habitat in the San Jacinto River Watershed. If an appropriate enhancement/restoration site cannot be located within the San Jacinto River Watershed, SAWA shall utilize the funds for enhancement/restoration in the upper Santa Ana Watershed in Riverside County. **Prior to the initiation of any project**

**activities in jurisdictional areas and no later than October 1, 2013**, Permittee shall submit to DFG for review and approval written documentation certifying the contribution of funds to SAWA. A report shall be submitted to DFG annually (by SAWA), documenting the progress of the restoration site. Photos of the restoration site shall be included in the annual reports.

- 3.2 Habitat Enhancement/Restoration– Onsite. Permittee shall enhance and restore 6.564 acres of riparian habitat within Drainage G of the Lamb Canyon Conservation Area (LCCA) as described in the Lamb Canyon Landfill Phase III Habitat Mitigation and Monitoring Plan (HMMP) dated August 10, 2012. Enhancement will include the removal of all nonnative plant species, trash, and debris. Permittee shall also restore the 6.564-acre riparian habitat area through the installation of California native container plants and/or cuttings and dispersal of appropriate native seed mix. The plantings, cuttings, and seed mix should include a range of riparian species naturally occurring within the LCCA.
- 3.3 Plant Palette. All plant species installed within the mitigation site shall include only **local California native** container plants and cuttings, and shall be typical of the existing native plant species present in the riparian habitat areas within the LCCA. DFG recommends that plant material be installed between October 1 and April 30 to maximize the benefits of the winter rainy season.
- 3.4 Success Criteria for Onsite Enhancement/Restoration Site. The onsite enhancement/restoration site shall meet all of the requirements below:
  - 3.4.1 All plantings shall have a minimum of 65% survival and shall attain 80% cover after 5 years. If the survival and cover requirements have not been met, Permittee is responsible for replacement planting to achieve these requirements. Replacement plants shall be monitored with the same survival and growth requirements for 5 years after planting. Natural recruitment of native plants may be used to supplement replacement plants.
  - 3.4.2 The enhancement/restoration site shall not contain more than 5 percent nonnative plant species for DFG to deem the site successful. All plant species with rates of dispersal and establishment listed as “High” or “Moderate” on the California Invasive Plant Inventory shall have documented absence, or have been removed from the site for at least three years for DFG to deem the site successful. Nonnative plant removal shall be conducted throughout the 5-year monitoring and maintenance period.



- 3.4.3 Irrigation of the restoration site may only be used to help the plants become established during the first two years following installation. Watering/irrigation of the site shall be discontinued at least two years prior to completion of the monitoring period for the site to be deemed successful by DFG.
- 3.5 Conservation of Mitigation Site and LCCA. Consistent with Streambed Alteration Agreements numbers 1600-2004-0100-R6 and 1600-2010-0177-R6, Permittee shall convey a conservation easement over the 207.1-acre LCCA to the Western Riverside County Regional Conservation Authority (RCA) as proposed in the June 2004 *Riverside County Waste Management Department Lamb Canyon Landfill Expansion Project Conceptual Habitat and Hydrology Mitigation Monitoring Plan*, to protect fish and wildlife resources, in perpetuity. The conservation easement shall be recorded prior to impacting any jurisdictional areas and no later than by October 1, 2013. Permittee shall provide sufficient funds to the RCA to manage the LCCA in perpetuity. An executed copy of the conservation easement shall be provided to DFG by November 1, 2013.
- 3.6 Protection of Enhancement/Restoration Site. To protect the enhancement/restoration site, Permittee shall place appropriate signage around the perimeter of the site. Except for uses appropriate to a habitat conservation area as approved by DFG, the public shall not have access to the enhancement/restoration site, and no activities shall be permitted within the site, except the maintenance of habitat, including the removal of nonnative plants, trash, and debris, and the installation of native plant materials.

#### 4. Reporting Measures

Permittee shall meet each reporting requirement described below.

- 4.1 Annual Reporting. An annual report shall be submitted to DFG for a minimum of five years following the enhancement and restoration within the 6.564-acre site or until DFG deems the site successful. At a minimum, this report shall include the following information: (1) a description of the enhancement and restoration activities conducted during the previous year, including: (a) the initial removal of nonnative plant species, trash, and debris, (b) an overview of the planting effort including the amount and types of plants and/or cuttings installed, (c) when the activities were conducted, and (d) a map of the plant installation locations; (2) current site conditions, including: (a) percent cover of native and non-native species, (b) the percent survival of the container plants and/or cuttings installed, (c) the number by species of plants replaced or naturally recruited, and (d) the methods used to assess these parameters; and (3) information regarding nonnative plant removal, including: (a) the methods used for removal, (b) the amount removed and/or treated, (c) the frequency and timing of removal and treatment, (d) disposal specifics, and (e) a summary of the general successes and

failures or failure of the nonnative removal plan. The report shall also include wildlife species observed at the mitigation site during monitoring surveys including sensitive species and/or listed species. Photos from designated photo stations shall be included. **The first annual report for the enhancement/restoration site is due within 13 months of plant installation.**

- 4.2 Long Term Agreement Status Report. Pursuant to FGC section 1605(g)(2), Permittee shall provide the Department with a status report of the project every four years for the life of the Agreement. The status report shall be delivered to the Department no later than 90 days prior to the end of each four-year period. **The first status report is due no later than June 13, 2016** and shall include all of the following information: (1) a copy of the original Agreement; (2) a status of the project activities covered by the Agreement; (3) an evaluation of the success of failure of measures in the Agreement to protect fish and wildlife resources that the project activities may substantially adversely affect; and (4) a discussion of any factors that could increase the predicted adverse impacts on fish and wildlife resources, and a description of the resources that may be adversely affected.

In addition, the status report shall include photo documentation of the habitat areas before and after work was performed. The Department will review the status report and conduct an onsite inspection to confirm that Permittee is in compliance with the Agreement and that the measures in the Agreement continue to protect fish and wildlife resources. If the Department determines that the measures in the Agreement no longer protect the fish and wildlife resources that are being substantially adversely impacted by the project activities, the Department, in consultation with Permittee, and within 45 days of receipt of the status report, shall impose additional measures to protect the fish and wildlife resources affected by the project activities.

- 4.3 Notification to CNDDDB. If any sensitive species are observed on or in proximity to the project site, or during project surveys, Permittee shall submit California Natural Diversity Data Base (CNDDDB) forms and maps to the CNDDDB within five working days of the sightings, and provide the regional DFG office with copies of the CNDDDB forms and survey maps. The CNDDDB form is available online at: [www.dfg.ca.gov/whdab/pdfs/natspec.pdf](http://www.dfg.ca.gov/whdab/pdfs/natspec.pdf). **This information shall be mailed within five days to:** DFG Natural Diversity Data Base, 1807 13th Street, Suite 202, Sacramento, CA 95814, Phone (916) 324-3812. A copy of this information shall also be mailed within five days to DFG Inland Deserts Region at the address below under Contact Information. **Please reference SAA # 1600-2010-0084-R6.**
- 4.4 Notification of Start of Construction. The Permittee shall notify DFG, in writing, at least five (5) days prior to initiation of project activities in jurisdictional areas, and at least five (5) days prior to completion of project activities in jurisdictional areas. Notification should be mailed to DFG Inland Deserts Region at the address below under Contact Information. **Please reference SAA # 1600-2010-0084-R6.**

## **CONTACT INFORMATION**

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

### To Permittee:

Mr. Hans Kerkamp  
Riverside County Waste Management Department  
14310 Fredrick Street  
Moreno Valley, CA 92553  
(951) 486-3205 (fax)

### To DFG:

Kimberly Freeburn-Marquez  
Department of Fish and Game  
Inland Deserts Region  
Lake and Streambed Alteration Program  
3602 Inland Empire Blvd., Suite C-220  
Ontario, CA 91764  
Notification #1600-2010-0084-R6  
(909) 481-2945 (fax)  
kfreeburn@dfg.ca.gov

## **LIABILITY**

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the project. The decision to proceed with the project is Permittee's alone.

## **SUSPENSION AND REVOCATION**

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

## **ENFORCEMENT**

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

## **OTHER LEGAL OBLIGATIONS**

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other federal, state, or local laws or regulations before beginning the project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

## **AMENDMENT**

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the

corresponding amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **TRANSFER AND ASSIGNMENT**

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5).

## **EXTENSIONS**

In accordance with FGC section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see Cal. Code Regs., tit. 14, § 699.5). DFG shall process the extension request in accordance with FGC 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

## **EFFECTIVE DATE**

The Agreement becomes effective on the date of DFG's signature, which shall be: 1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC section 711.4 filing fee listed at:

[http://www.dfg.ca.gov/habcon/ceqa/ceqa\\_changes.html](http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html).

## **TERM**

This Agreement shall expire on **September 10, 2024** unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

**AUTHORITY**

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the provisions herein.

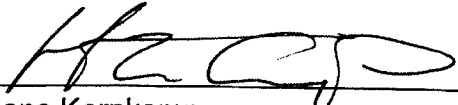
**AUTHORIZATION**

This Agreement authorizes only the project described herein. If Permittee begins or completes a project different from the project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

**CONCURRENCE**


The undersigned accepts and agrees to comply with all provisions contained herein.

**FOR THE RIVERSIDE COUNTY WASTE  
MANAGEMENT DEPARTMENT**

  
\_\_\_\_\_  
Hans Kernkamp  
General Manager/Chief Engineer

9/13/12  
\_\_\_\_\_  
Date

**FOR DEPARTMENT OF FISH AND GAME**

  
\_\_\_\_\_  
Environmental Program Manager

9-25-12  
\_\_\_\_\_  
Date

Prepared by: Kimberly Freeburn-Marquez, Environmental Scientist

**Phase 3 USACE - 404 Permit  
SPL 2010-00535-SME**

## DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Hans Kernkamp; Riverside County Waste Management Department

**Project Name:** Lamb Canyon Landfill Expansion Project-Phase 3

**Permit Number:** SPL-2010-00535-SME

**Issuing Office:** Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Location:** The proposed project is located at 16411 Lamb Canyon Road between the cities of Beaumont and San Jacinto, in unincorporated Riverside County at approximately 33.8826, -117.0073 (Figures 1 and 2). The discharge of fill material would occur within unnamed tributaries to the San Jacinto River (Figures 3 and 4).

**Project Description:** The Lamb Canyon Landfill Expansion Project-Phase 3 would discharge dredged or fill material into approximately 1.167 acres (20,754 linear feet) of non-wetland waters of the United States requiring a Department of the Army permit pursuant to section 404 of the Clean Water Act of 1972. Specifically, you are authorized to install landfill liner and discharge soil in preparation for landfill activities on the Phase 3 expansion site, resulting in the permanent loss of approximately 1.167 acres of non-wetland waters of the United States (Figures 3 and 4).

### **Permit Conditions:**

#### **General Conditions:**

1. The time limit for completing the authorized activity ends on **August 24, 2021**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.



3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.
4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

**Special Conditions:**

1. Prior to initiating construction in waters of the United States, and to partially mitigate for impacts to 1.167 acres of non-wetland waters of the United States, the Permittee shall provide documentation verifying purchase of 2.34 ephemeral stream combo credits for the enhancement of ephemeral waters of the United States and of adjacent upland buffer and riparian buffer from a Corps-approved mitigation bank (Soquel Canyon Mitigation Bank). The Permittee shall not initiate work in waters of the United States prior to receiving written confirmation (by letter or e-mail) from the Corps Regulatory Division as to compliance with this Special Condition. The permittee retains responsibility for providing the compensatory mitigation until the number and resource type of credits described above have been secured from a sponsor and the district engineer has received documentation that confirms that the sponsor has accepted the responsibility for providing the required compensatory mitigation. This documentation may consist of a letter or form signed by the sponsor, with the permit number and a statement indicating the number and resource type of credits that have been secured from the sponsor.
2. The Permittee shall partially mitigate for permanent impacts to 1.167 acres of non-wetland waters of the United States through the enhancement of 2.14 acres of non-wetland waters of the United States, as described in the final, approved mitigation plan: "Habitat Mitigation and Monitoring Plan (HMMP)-Lamb Canyon Landfill 202.2-Acre Expansion Project," (dated April 2013, and prepared by the Riverside County Waste Management Department) and HMMP Addendum entitled "Long-Term Monitoring Plan-Lamb Canyon Conservation Area," (dated August 2013, and prepared by the Riverside County Waste Management Department) (Figure 5). The Permittee shall complete site preparation and planting and initiate monitoring as described in the final, approved mitigation plan concurrently with impacts to waters of the United States. According to the final, approved mitigation plan, responsible parties would be as

follows: a) Implementation: Riverside County Waste Management Department; b) Performance: Riverside County Waste Management Department; c) Long-term management: Riverside County Waste Management Department. The Permittee retains ultimate legal responsibility for meeting the requirements of the final, approved mitigation plan. Detailed mitigation objectives, performance standards, and monitoring requirements are described in the above final, approved mitigation plan. Any requirements for financial assurances and/or long-term management provisions are also described in the above final, approved mitigation plan, HMMP Addendum, and Special Condition 3. In addition, Special Condition 2 of the Department of the Army permit for the Lamb Canyon Landfill Expansion Project-Phase 2 (Corps File No. SPL-2004-01928) required a recorded Conservation Easement (CE), in a form approved by the U.S. Army Corps of Engineers (Corps) Regulatory Division, which shall run with the land, obligating the Permittee, its successors and assigns to protect and maintain the 207.1-acre Lamb Canyon Conservation Area as natural open space in perpetuity. This CE shall be recorded prior to initiation of work in waters of the United States associated with the Lamb Canyon Landfill Expansion Project-Phase 3. Your responsibility to complete the required compensatory mitigation as set forth in Special Condition 2 will not be considered fulfilled until you have demonstrated compensatory mitigation project success and have received written verification of that success from the Corps Regulatory Division.

**MONITORING:** You shall submit monitoring reports for all compensatory mitigation sites as described in the final, approved mitigation plan by October 1<sup>st</sup> of each year following the construction of mitigation. To assure compensatory mitigation success, you shall monitor the mitigation areas for at least five (5) consecutive growing seasons after construction or until the Corps Regulatory Division determines the final performance standards are met (monitoring shall be for a minimum of 5 years unless the Corps agrees earlier that success has been reached and maintained for a sufficient time period, or, if success is not demonstrated to the Corps' satisfaction after the 5th year of monitoring, additional monitoring may be required by the Corps as determined at that time). The monitoring period shall commence upon completion of the construction of the mitigation sites. Additionally, you shall demonstrate continued success of the compensatory mitigation sites, without human intervention, for at least two consecutive years during which interim and/or final performance standards are met. The compensatory mitigation project will not be deemed successful until this criterion has been met.

**GIS DATA:** Within 60 days following permit issuance for Standard Individual Permits, you shall provide to this office GIS data (polygons only) depicting the boundaries of all compensatory mitigation sites, as authorized in the above, final mitigation plan. All GIS data and associated metadata shall be provided on a digital medium (CD or DVD) or via file transfer protocol (FTP), preferably using the Environmental Systems Research Institute (ESRI) shapefile format. GIS data for mitigation sites shall conform to the Regulatory\_mitigation\_template\_20160115.lpk labeling requirements, as specified in the Final Map and Drawing Standards for the South Pacific Division Regulatory Program dated February 10, 2016 (<http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences/tabid/10390/Article/651327/updated-map-and-drawing-standards.aspx>), and shall include a text file of metadata, including datum, projection, and mapper contact information. Within 60 days

following completion of compensatory mitigation construction activities, if any deviations have occurred, you shall submit as-built GIS data (polygons only) accompanied by a narrative description listing and explaining each deviation.

3. Prior to initiating construction in waters of the United States, the Permittee shall post financial assurance ("financial assurance") in the form of a Government Letter of Assurance or another form approved by the Corps Regulatory Division for the estimated cost of implementing the approved HMMP (including a 20% contingency to be added to the total costs). The purpose of this financial assurance is to guarantee the successful implementation, maintenance, and monitoring of compensatory mitigation.
4. Prior to initiating construction in waters of the United States, the Permittee shall submit to the Corps Regulatory Division a complete set of final detailed grading/construction plans showing all work and structures in waters of the United States. All plans shall be in compliance with the Final Map and Drawing Standards for the South Pacific Division Regulatory Program dated February 10, 2016 (<http://www.spd.usace.army.mil/Missions/Regulatory/PublicNoticesandReferences/tabid/10390/Article/651327/updated-map-and-drawing-standards.aspx>). All plan sheets shall be signed, dated, and submitted on paper no larger than 11x 17 inches. No work in waters of the United States is authorized until the Permittee receives, in writing (by letter or e-mail), Corps Regulatory Division approval of the final detailed grading/construction plans. The Permittee shall ensure that the project is built in accordance with the Corps-approved plans.
5. Within 45 calendar days of completion of authorized work in waters of the United States, the permittee shall submit to the Corps Regulatory Division a post-project implementation memorandum including the following information:
  - a. Date(s) work within waters of the United States was initiated and completed;
  - b. Summary of compliance status with each special condition of this permit (including any noncompliance that previously occurred or is currently occurring and corrective actions taken or proposed to achieve compliance);
  - c. Color photographs (including map of photopoints) taken at the project site before and after construction for those aspects directly associated with permanent impacts to waters of the United States such that the extent of authorized fills can be verified;
  - d. One copy of "as built" drawings for the entire project. Electronic submittal (Adobe-PDF format) is preferred. All sheets must be signed, dated, and to-scale. If submitting paper copies, sheets must be no larger than 11 x 17 inches; and
  - e. Signed Certification of Compliance (attached as part of this permit package).
6. Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff (Danielle Storey at 213-452-3855 or Meg McDonald at 213-452-3849) and Corps Regulatory Division within 24 hours of discovery. The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the

potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

**Further Information:**

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

- ( ) Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).
- (X) Section 404 of the Clean Water Act (33 U.S.C. 1344).
- ( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

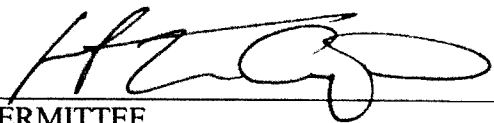
5. Re-evaluation of Permit Decision. This office may re-evaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a re-evaluation include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of this permit.
- b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a re-evaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

  
\_\_\_\_\_  
PERMITTEE

Hans Kernkamp  
General Manager-Chief Engineer

9/29/16  
\_\_\_\_\_  
DATE

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

**ESTES.STEPHEN.M.1**  
**385639275**

Digitally signed by ESTES.STEPHEN.M.1385639275  
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,  
ou=USA, cn=ESTES.STEPHEN.M.1385639275  
Date: 2016.11.17 09:59:44 -08'00'

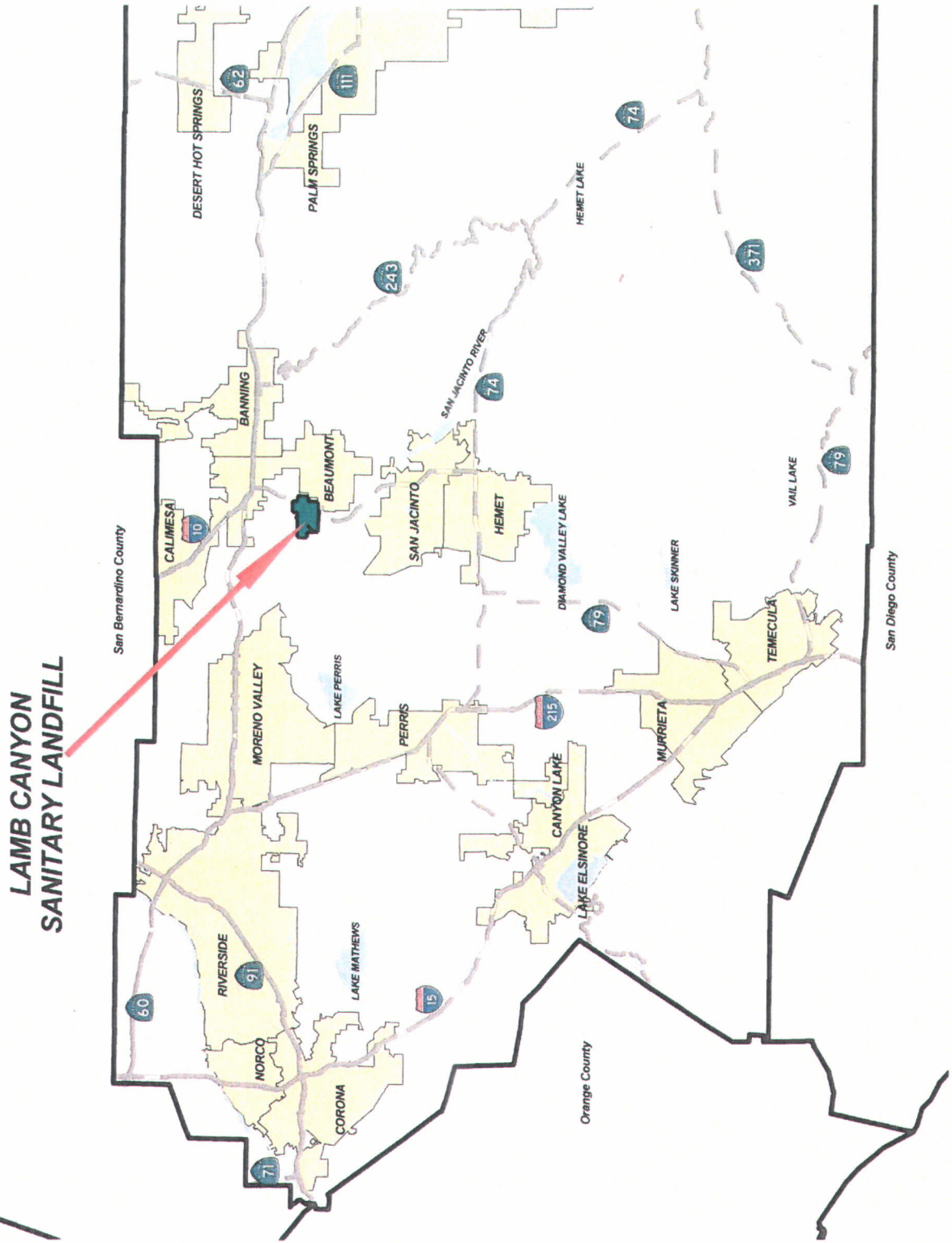
\_\_\_\_\_  
Stephen M. Estes  
Senior Project Manager  
Orange and Riverside Counties Section  
South Coast Branch  
Regulatory Division

\_\_\_\_\_  
DATE

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

\_\_\_\_\_  
TRANSFEREE

\_\_\_\_\_  
DATE

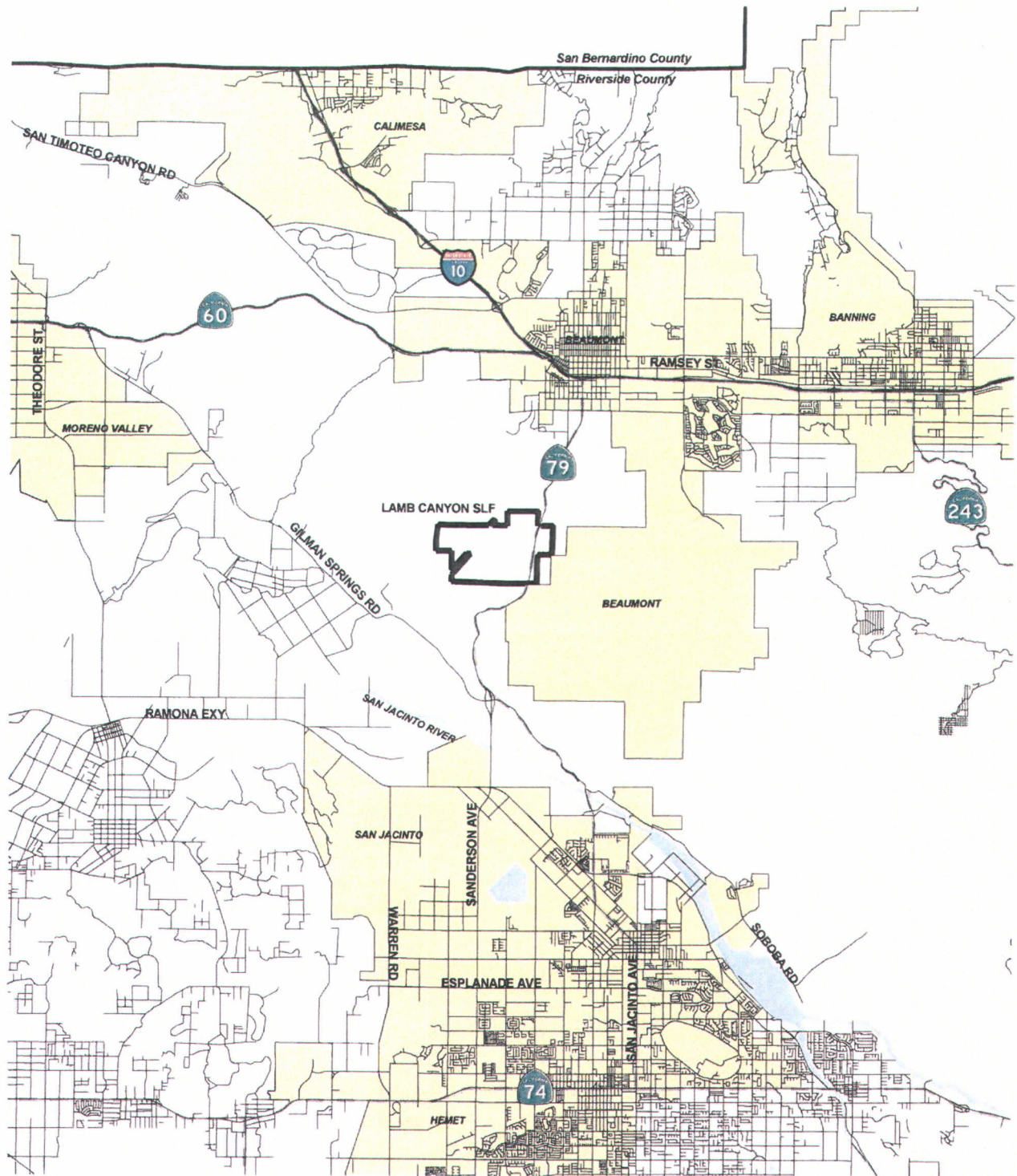


Regional Map



Figure 1



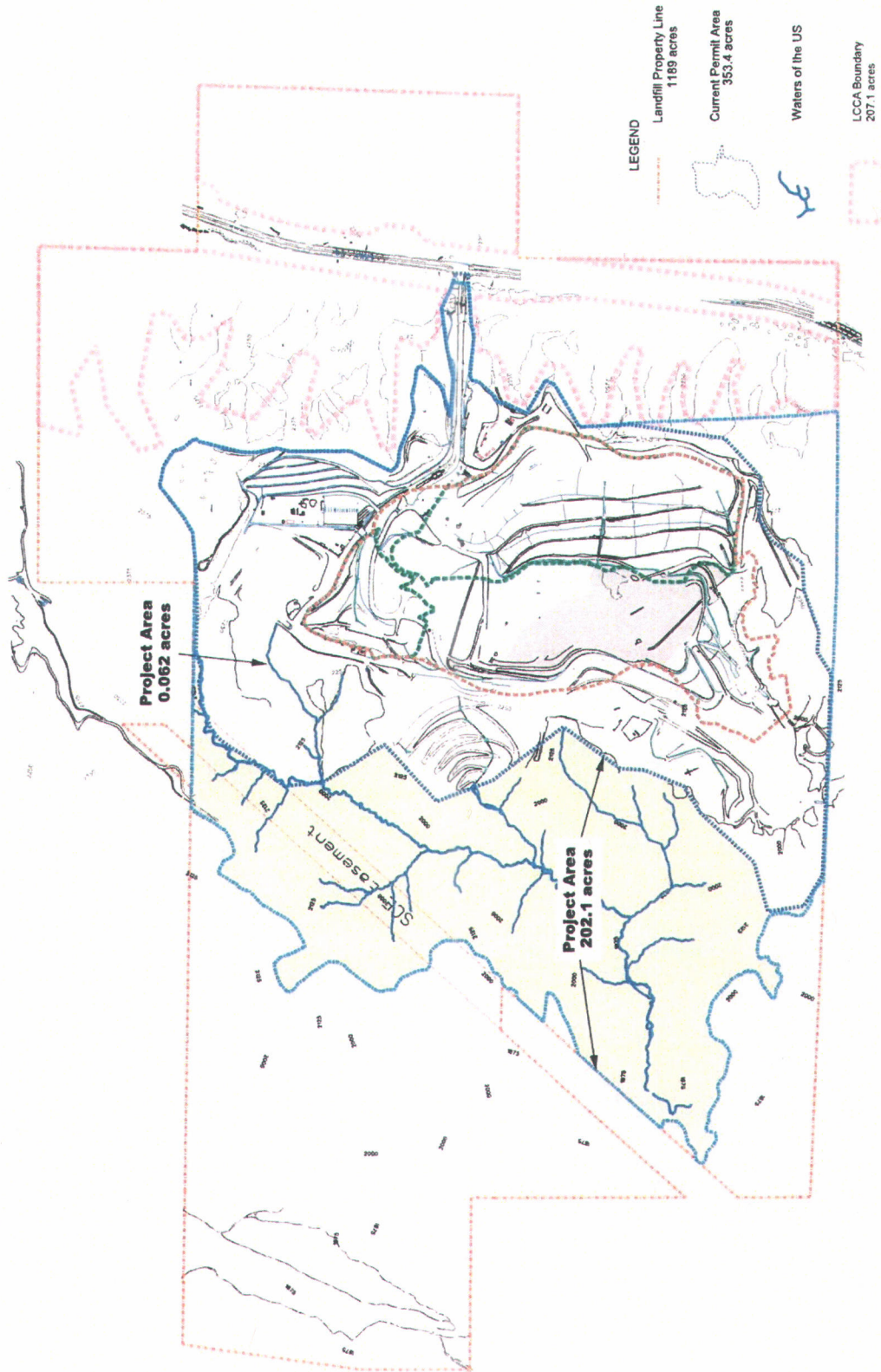


Vicinity Map



Figure 2





Proposed Project Map



Figure 3

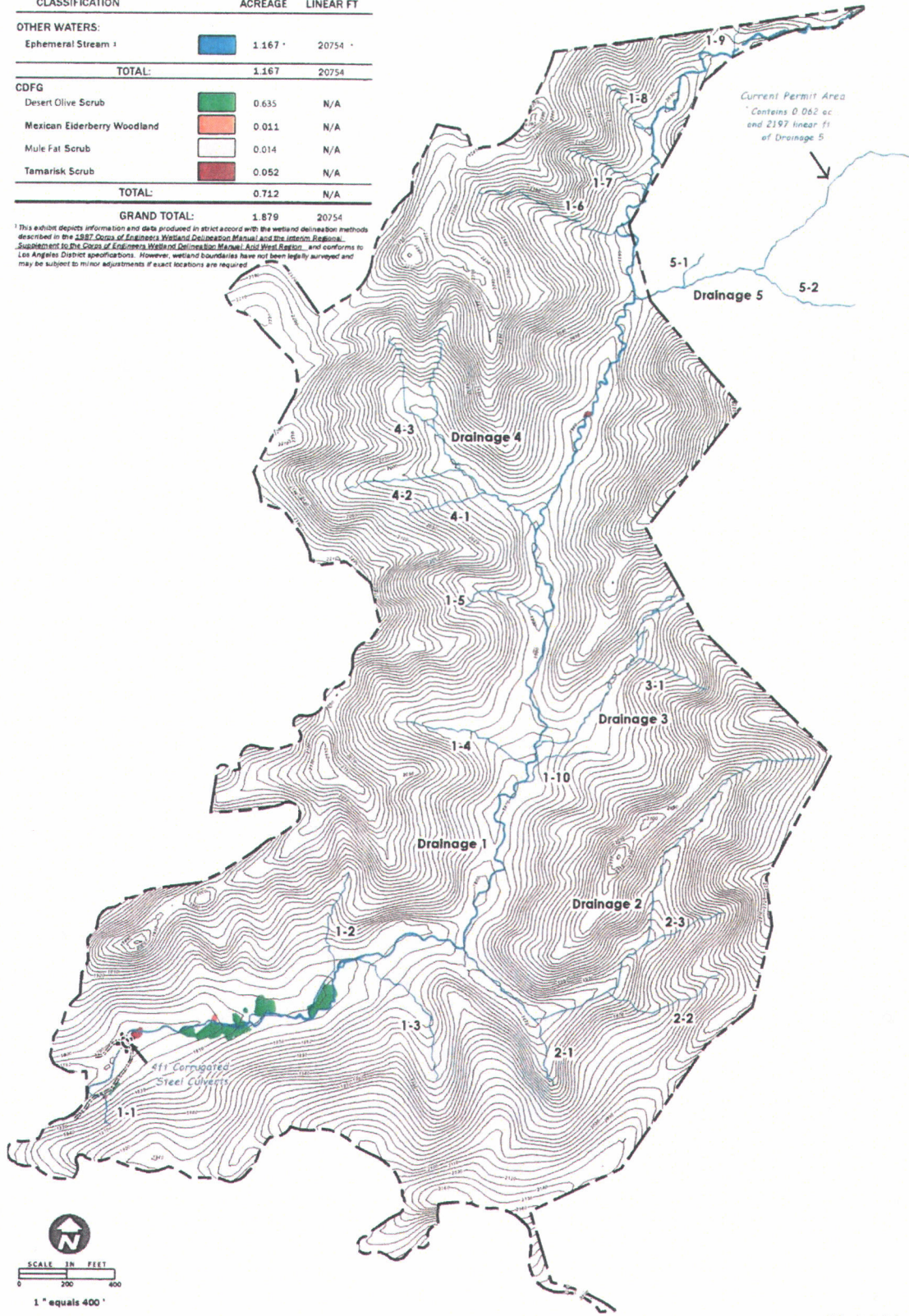


**WATERS OF THE U.S. ACREAGE**

Topo: Interpolated from USGS 10m DEM (Approximate)

CLASSIFICATION	EXISTING ACREAGE	EXISTING LINEAR FT
<b>OTHER WATERS:</b>		
Ephemeral Stream	1.167	20754
<b>TOTAL:</b>	<b>1.167</b>	<b>20754</b>
<b>CDFG</b>		
Desert Olive Scrub	0.635	N/A
Mexican Elderberry Woodland	0.011	N/A
Mule Fat Scrub	0.014	N/A
Tamarisk Scrub	0.052	N/A
<b>TOTAL:</b>	<b>0.712</b>	<b>N/A</b>
<b>GRAND TOTAL:</b>	<b>1.879</b>	<b>20754</b>

<sup>1</sup> This exhibit depicts information and data produced in strict accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Interim Regulatory Supplement to the Corps of Engineers Wetland Delineation Manual, April 1989 Edition, and conforms to Los Angeles District specifications. However, wetland boundaries have not been legally surveyed and may be subject to minor adjustments if exact locations are required.

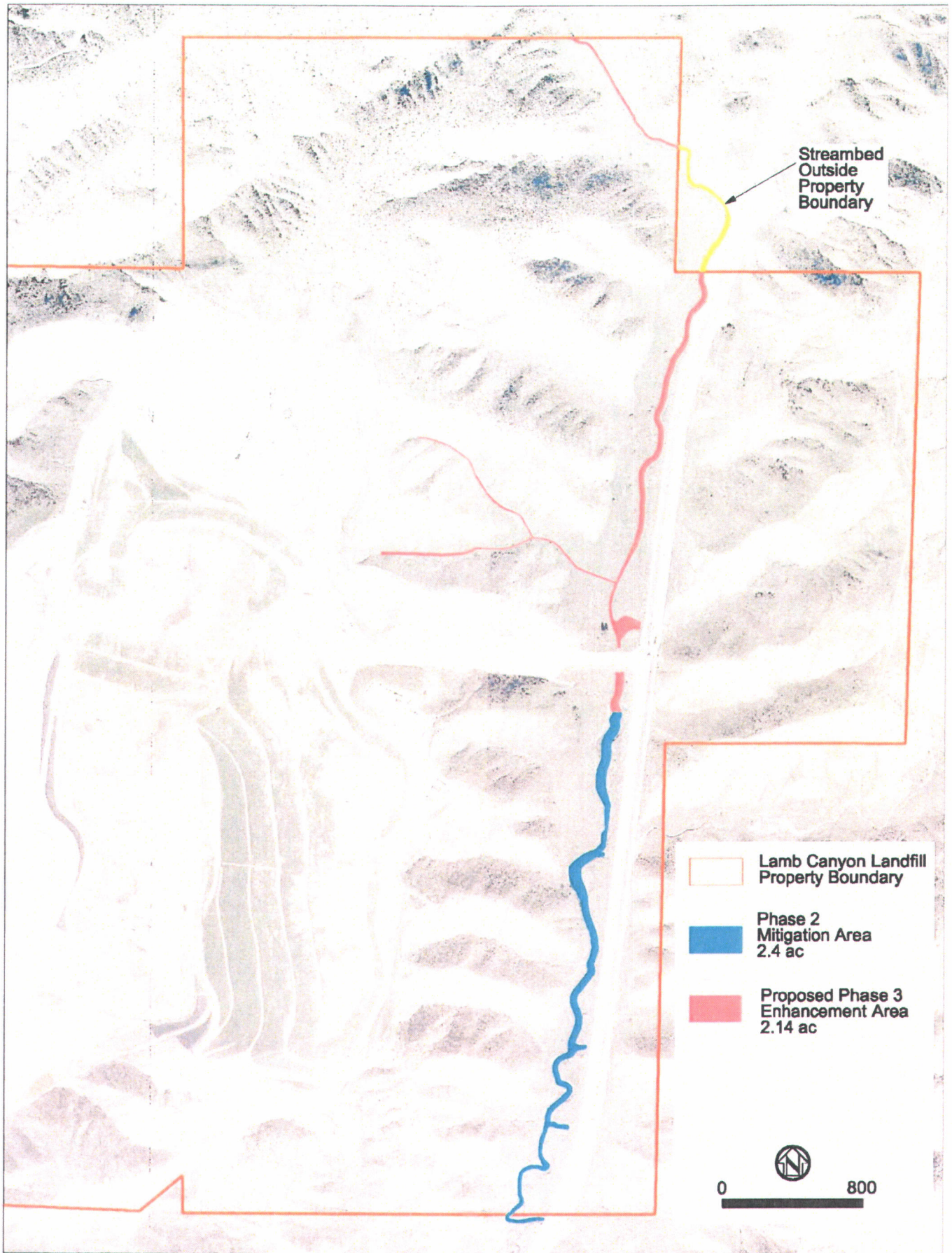


Delineator: S. Taylor

**Jurisdictional Areas & Impacts**

Figure 4





LCCA Onsite Habitat Enhancement Areas

Figure 5



## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Hans Kernkamp, Riverside County Waste Management Department	File Number: SPL-2010-00535-SME	Date: August 24, 2016
---	---------------------------------	-----------------------

Attached is:	See Section below
--------------	-------------------

X	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

**SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at [http://www.usace.army.mil/cecw/pages/reg\\_materials.aspx](http://www.usace.army.mil/cecw/pages/reg_materials.aspx) or Corps regulations at 33 CFR Part 331.**

**A: INITIAL PROFFERED PERMIT:** You may accept or object to the permit.

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **OBJECT:** If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

**B: PROFFERED PERMIT:** You may accept or appeal the permit

- **ACCEPT:** If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- **APPEAL:** If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**C: PERMIT DENIAL:** You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**D: APPROVED JURISDICTIONAL DETERMINATION:** You may accept or appeal the approved JD or provide new information.

- **ACCEPT:** You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- **APPEAL:** If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.

**E: PRELIMINARY JURISDICTIONAL DETERMINATION:** You do not need to respond to the Corps regarding the preliminary JD. The preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed) by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to re-evaluate the JD.

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

**REASONS FOR APPEAL OR OBJECTIONS:** (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

**ADDITIONAL INFORMATION:** The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Stephen M. Estes  
Senior Project Manager  
U.S. Army Corps of Engineers, Los Angeles District  
915 Wilshire Boulevard, Suite 930  
Los Angeles, California 90017  
Phone: 213-452-3660  
Email: [stephen.m.estes@usace.army.mil](mailto:stephen.m.estes@usace.army.mil)

If you only have questions regarding the appeal process you may also contact:

Thomas J. Cavanaugh  
Administrative Appeal Review Officer  
U.S. Army Corps of Engineers, South Pacific Division  
1455 Market Street, 2052B  
San Francisco, California 94103-1399  
Phone: 415-503-6574 Fax: 415-503-6646  
Email: [thomas.j.cavanaugh@usace.army.mil](mailto:thomas.j.cavanaugh@usace.army.mil)

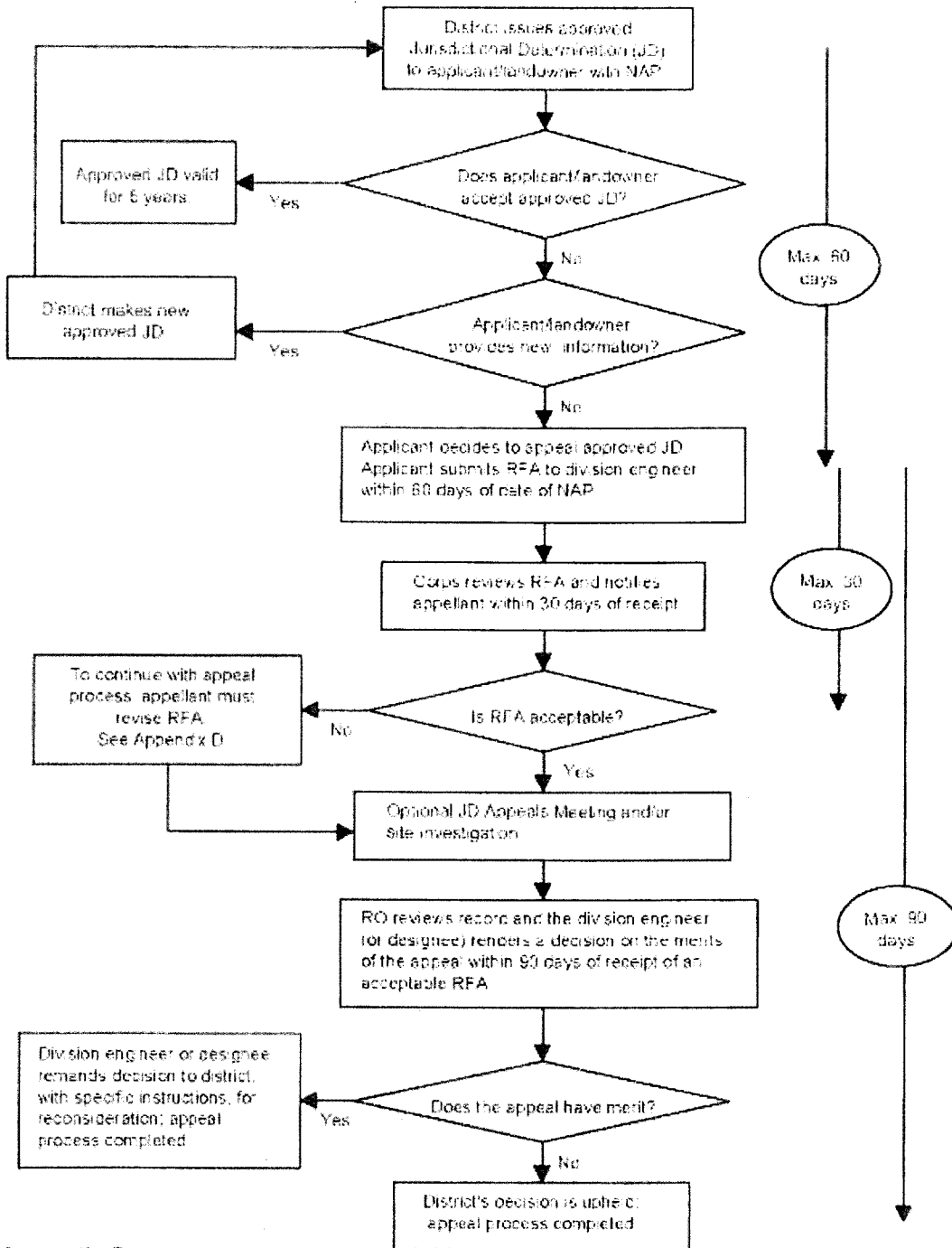
**RIGHT OF ENTRY:** Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

\_\_\_\_\_  
Signature of appellant or agent.

Date:

Telephone number:

## Administrative Appeal Process for Approved Jurisdictional Determinations



# **HABITAT MITIGATION AND MONITORING PLAN**

**For  
Riverside County Waste Management Department  
Lamb Canyon Landfill**

**Survey Date: January 12 & 19, 2011  
March 7 & 10, 2011**

**Prepared: April 21, 2011 by:**

**Jared Bond  
Senior Ecological Resources Specialist  
Riverside County Planning Department  
Environmental Programs Division  
(951) 955-0314  
[jbond@rctlma.org](mailto:jbond@rctlma.org)**



**Habitat Mitigation and Monitoring Plan**  
**Streambed Alteration Agreement Notification No. 1600-2010-0177-R6**  
**Lamb Canyon Landfill: Completion of Phase 2**

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**List of Exhibits**

- Exhibit 1 – Regional Map
- Exhibit 2 – Vicinity Map
- Exhibit 3 – Phase 2 Streambed Activities
- Exhibit 4 – Proposed Enhancement Area

**Appendices**

- Appendix A – Status of 2004 Agreement Mitigation Measures
- Appendix B – Species Compendium
- Appendix C – Site Photos



## **Executive Summary**

The primary objective of the Habitat Mitigation and Monitoring Plan (HMMP) is to enhance the biological functions and values of approximately 1.07 acres of Waters of the State of California (WSC) within the Lamb Canyon Conservation Area (LCCA) by removal of target non-native species. The goal is to increase the ratio of native to non-native cover within each drainage proposed for enhancement and reduce the overall percent cover of target non-native species to a threshold of less than 5 percent cover. In addition, burnt remnant debris that is blocking or obstructing the natural hydrology of these drainages shall be removed in order to prevent seed sources for target non-natives and improve the overall hydrological function. Enhancement will be achieved through the application of chemical and mechanical treatments until drainages have achieved the desired success criteria. In order to demonstrate that drainages have achieved the desired success criteria, quantitative monitoring, using point-count transects and 1m quadrates, will be conducted annually during the monitoring period.

**Habitat Mitigation and Monitoring Plan  
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## **Project Information**

### **Project Location**

The Lamb Canyon Landfill is owned and operated by the Riverside County Waste Management Department (RCWMD). The Lamb Canyon Landfill is located at 16411 Lamb Canyon Road, off of State Highway 79 (SH79), between the City of Beaumont and City of San Jacinto, in an unincorporated area of Riverside County. The project site is accessed from State Highway 79, which links Interstate 10 to the north with Gilman Springs Road and State Highway 74 to the south (Exhibit 1, Regional Location Map, and Exhibit 2, Vicinity Map).

### **Project Summary**

This HMMP has been prepared for the replacement and enhancement of ephemeral drainages as mitigation for the completion of the Phase 2 expansion project at the Lamb Canyon Landfill. The project is limited to the completion of previous work permitted under Streambed Alteration Agreement No.1600-2004-0100-R6 (2004 Agreement) for the Phase II, Stage 2 expansion of the Lamb Canyon Landfill. Previous authorized impacts included partial or complete fill of six unnamed streams (referred to as Drainages B, C, D, E, F, and H) within the boundaries of the landfill, impacting 1.174 acres of vegetated ephemeral streambed. The remaining proposed impacts include 0.054 acres from the 2004 Agreement as well as the fill of 0.16 acres of newly reestablished jurisdictional waters within Drainage F, for a total of 0.214 acres of permanent impacts (Exhibit 3, Phase 2 Streambed Activities). The status for mitigation measures described in the 2004 Agreement is located in Appendix A.

## **Objectives/Mitigation Goals**

### **Goal of the Mitigation Program**

Habitat enhancement and proposed mitigation measures have been developed based on the current condition of the drainage features within the LCCA (Exhibit 4, Proposed Enhancement Area). The primary goal of the habitat mitigation and monitoring plan is to enhance the biological value of the ephemeral drainages within the LCCA, including increasing species diversity, increasing cover, and improving connectivity to other wildlife areas. This will be achieved through reduction and removal of non-native/invasive species, thus providing future opportunities for native seed propagation and establishment within the riparian system.

### **Ownership and Responsible Parties**

The RCWMD is the responsible party for implementation and monitoring of the onsite LCCA mitigation area. All remedial and/or contingency measures required during the initial monitoring period would be the responsibility of the RCWMD. CDFG will be contacted in the case of a change in ownership or parties responsible for implementation of this mitigation plan.

**Habitat Mitigation and Monitoring Plan**  
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RCWMD can be contacted at the address listed below.

Riverside County Waste Management Department  
14310 Frederick Street  
Moreno Valley, CA 92553  
Contact: Ryan Ross  
Telephone: 951.486.3351

The RCWMD shall not be responsible for the loss of native plants within the mitigation area due to an interruption by unexpected causes, including but not limited to fire, that destroy more than 75 percent of the enhancement project.

Damage to the enhancement effort due to vandalism or other unexpected causes shall be evaluated by the RCWMD and CDFG to determine responsibility for corrective actions, if any.

## **Site Selection & Baseline Information**

### **Site Selection**

EPD biologists Jared Bond and Michael Richard systematically examined each ephemeral drainage in order to establish baseline biological conditions and to identify areas that would be most suitable for enhancement activities. Biological investigations focused on areas delineated as WSC (AMEC, 2010) that are within the LCCA. Main drainage, Segment G, was excluded due to existing commitments for the Phase 3 development project.

Basic biological information, including species composition, qualitative estimates of non-native/invasive species, and an evaluation of the functions and values of each drainage was gathered. A species compendium is attached as Appendix B. Assessments focused on identifying the presence of highly invasive non-native species referred to as target species and include, tree tobacco (*Nicotiana glauca*), tocolota (*Centaurea melitensis*), Russian thistle (*Salsola turgus*), and short pod mustard (*Hirschfeldia incana*). Each ephemeral drainage feature ultimately conveys water flow to the large U.S.G.S. unnamed blue-line stream referred to as drainage G that runs north to south. Drainage G gathers water from within the LCCA and conveys water through a well developed willow riparian drainage that takes water under Gilman Springs Road and ultimately to the San Jacinto Wildlife Area and the greater Santa Ana River watershed. Drainages within the LCCA are primarily fed by direct rainfall and water captured by the surrounding watershed.

### **Baseline Information**

Recent wildfires in 1998 and 2006 have burned significant portions of the LCCA and its associated drainages, specifically drainages G-12 and 12a. Fires have removed or altered vegetation cover along canyon walls and within the ephemeral drainages which has resulted in increased erosion and the establishment of target non-native species, including short-pod mustard

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(*Hirschfeldia incanai*) and Russian thistle (*Salsola targus*). In addition, burn remnants of laurel sumac (*Malosma laurina*) and other woody species that were scorched by the wildfires have accumulated. This accumulation has practically obstructed the flow of the feature and also provides a gathering point for non-native species including thistle and mustard. The burnt debris has accumulated a large amount of desiccated target non-natives that have could become potential seed sources. If allowed to remain this accumulation of target non-natives within G-12 will become seed sources that may further degrade the downstream functions and values of the riparian system. Mature and flowering tree tobacco was also observed in the upper portion of G-12. Photos of Drainage G-12 can be seen in Appendix C.

Table 1 below shows the estimated % cover of target non-native species within drainage 12 and 12a.

**Table 1: WSC Drainage Estimated % Cover of Target Non-Natives**

Stream ID	WSC (AC)	% cover of invasives
G-12	0.797	50
G-12a	0.409	30

**Habitat Enhancement**

The large patches of target non-natives in Drainage 12/12A consist of tocalote (*Centaurea melitensis*), short-pod mustard (*Hirschfeldia incana*), Russian thistle (*Salsola targus*), tamarisk (*Tamarix ramosissima*) and tree tobacco (*Nicotiana glauca*).

Eradication of weedy target species such as tocolate, thistle, and short-pod mustard, can be achieved through mechanical or chemical treatments. Based on the overall size of the LCCA and amount of enhancement being proposed it is likely more cost effective to use appropriate herbicides, such as Glyphosate, to reduce the presence of target non-natives. Hand removal or mechanical treatments such as mowing may be appropriate for removal on small patches or in areas that maybe ecologically sensitive. Mechanical or chemical treatments should be applied when conditions are conducive to achieve maximum effectiveness against target species, which is in the spring before target species have flowered.

Remnant debris from past fires that is blocking/clogging drainage 12 will be removed by hand. If removal of debris results in additional disturbance such as erosion then these areas should be re-seeded with native species. Only loose debris that is desiccated and determined to be dead should be removed. Debris that is still attached to active root systems should be left in place as to not create additional soil disturbance. Additional disturbance to bare soil will provide additional opportunities for the establishment of non-native species including target species.

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In addition to a reduction in target non-native, an increase in vegetative structure complexity and the appearance of young mule fat, willow (*Salix* spp.), and other riparian obligate species will indicate a trend toward native vegetation establishment. Presence of these emergent riparian species is a strong indicator that WSC features are recovering. In order to achieve the goals of the enhancement efforts and restore the natural functions and values of riparian systems it may be appropriate to apply native seed or container stock after mechanical or chemical applications. The Riparian Rescue Seed Mix (S&S Seeds, Inc.), or comparable seed mix, shall be applied (as necessary.) Native seed mixes should be applied after the first heavy rains of the season. This will help improve the density and percent cover of native vegetation while target species are being removed. Seed application methods vary and should be evaluated on a site by site basis. Seeding should utilize annual rainfall events as much as possible in order to reduce the need for supplemental water.

### **Monitoring**

Monitoring shall be performed along transects using point-count transects and 1m quadrates. The following data will be collected and calculated for mitigation areas. The data will be used to assess the success of the mitigation areas and to identify any necessary remedial actions:

1. Relative cover of both native and exotic species;
2. Plant density - number of individual per unit area;
3. Species richness - number of species in the sample area;
4. Species diversity - a combination of species diversity and relative abundance. This will be expressed using a Shannon Index (Magurran, 1988);
5. Structural diversity - number of vegetative strata present.

In addition, the general health, growth rate, and mortality of plant species will be noted along each transect.

### **Photo Documentation**

Photograph stations will be established along the perimeter of the mitigation area. Site photographs will be taken from the photograph stations during the last scheduled monitoring visit per year and the photographs and a map showing the locations of each station will be included in every monitoring report. These locations are approximate and every effort should be taken to maintain the location of the stations throughout the duration of the monitoring period.

### **Reporting**

Annual reports summarizing the habitat monitoring results shall be submitted to CDFG during the first quarter of each year after commencement of the mitigation program, and continuing

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throughout the monitoring period. Monitoring reports will discuss maintenance activities performed; the results of the monitoring; an assessment of the progress made towards achievement of the success criteria; and recommendations of any remedial or adaptive management measures that may be necessary or prudent. Also included in the report will be: date and time of invasive plants removal events, number of hours worked, frequency and timing of removal and treatment, description/list of invasive plants removed, amount of invasive plants removed, description of techniques and tools used to remove invasive plants, description of method of disposal of invasive plants that were removed.

### **Habitat Monitoring Schedule**

Habitat mitigation monitoring will be conducted for five years. Non-native plant removal, seeding, and monitoring may cease prior to the 5 years if the success criteria have been met. The mitigation sites shall be monitored quarterly during the first year, semi-annually during the second and third years, and annually thereafter for at least two more years. Required maintenance will be performed within three weeks of identification of any damage or needs. Monitoring will begin one month after the first major eradication treatment is conducted and will continue until either:

- 1) The mitigation areas have met the final success criteria,
- 2) The CDFG determine that monitoring is no longer required; or
- 3) Alternative mitigation sites or strategies are adopted and approved by CDFG.

### **Performance Standards and Contingency Measures**

This section provides success criteria based on the biologic conditions of the habitat mitigation areas. The ultimate success criteria will be used as the basis for certification of mitigation success and/or the need for contingency measures.

#### **Success Criteria**

To be considered successful, the onsite habitat mitigation area must achieve the following standards:

- Enhance 1.07 acres of jurisdictional habitat within Drainages 12/12a, through the removal of exotic vegetation and native seeding (where appropriate):
  - The enhancement area shall not contain more than 5 percent nonnative plant species.
  - The site resists invasion by non-native species - no significant weeding being necessary for two consecutive years.

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**Adaptive Management and Contingency Measures**

An integral part of a successful mitigation program is the ability to detect problems with the mitigation early in the process, determine the cause of the problem, and attempt to modify the mitigation program to accommodate emerging issues or situations. Problems, such as trash, vandalism, isolated instances of plant mortality, or small-scale weed or pest infestations will be rectified as they are discovered during routine site monitoring.

**Certification of Success and Agency Notification**

The 1.07 acre enhancement mitigation area will be considered a success when all criteria identified in this document are met. When the 5-year monitoring period is complete, and/or if the permittee believes all performance standards have been met, the permittee shall notify applicable regulatory agencies. The notification will be accompanied by the most recent annual monitoring report and any supplemental information necessary to document attainment of the success criteria.

**Habitat Mitigation and Monitoring Plan**  
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**Literature Cited**

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California Department of Fish & Game. 2009. California Natural Diversity Data Base

Clarke, Oscar. 2007. Flora of the Santa Ana River & Environs. Heyday Books

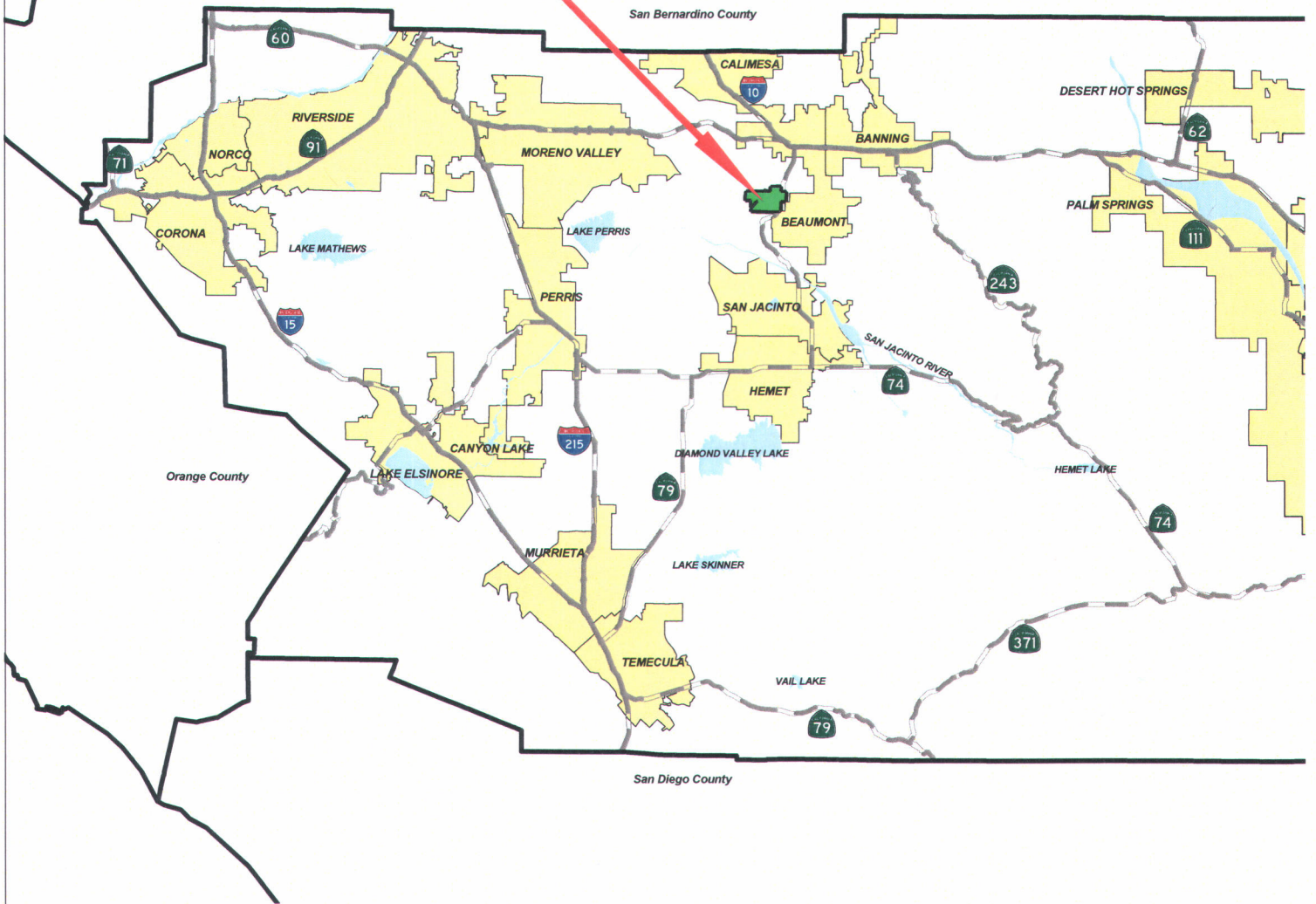
Dudek & Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan

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<http://websoilsurvey.nrcs.usda.gov/app/>

National Geographic. 1999. National Geographic Field Guide to the Birds of North America (3<sup>rd</sup> Edition)



# LAMB CANYON SANITARY LANDFILL

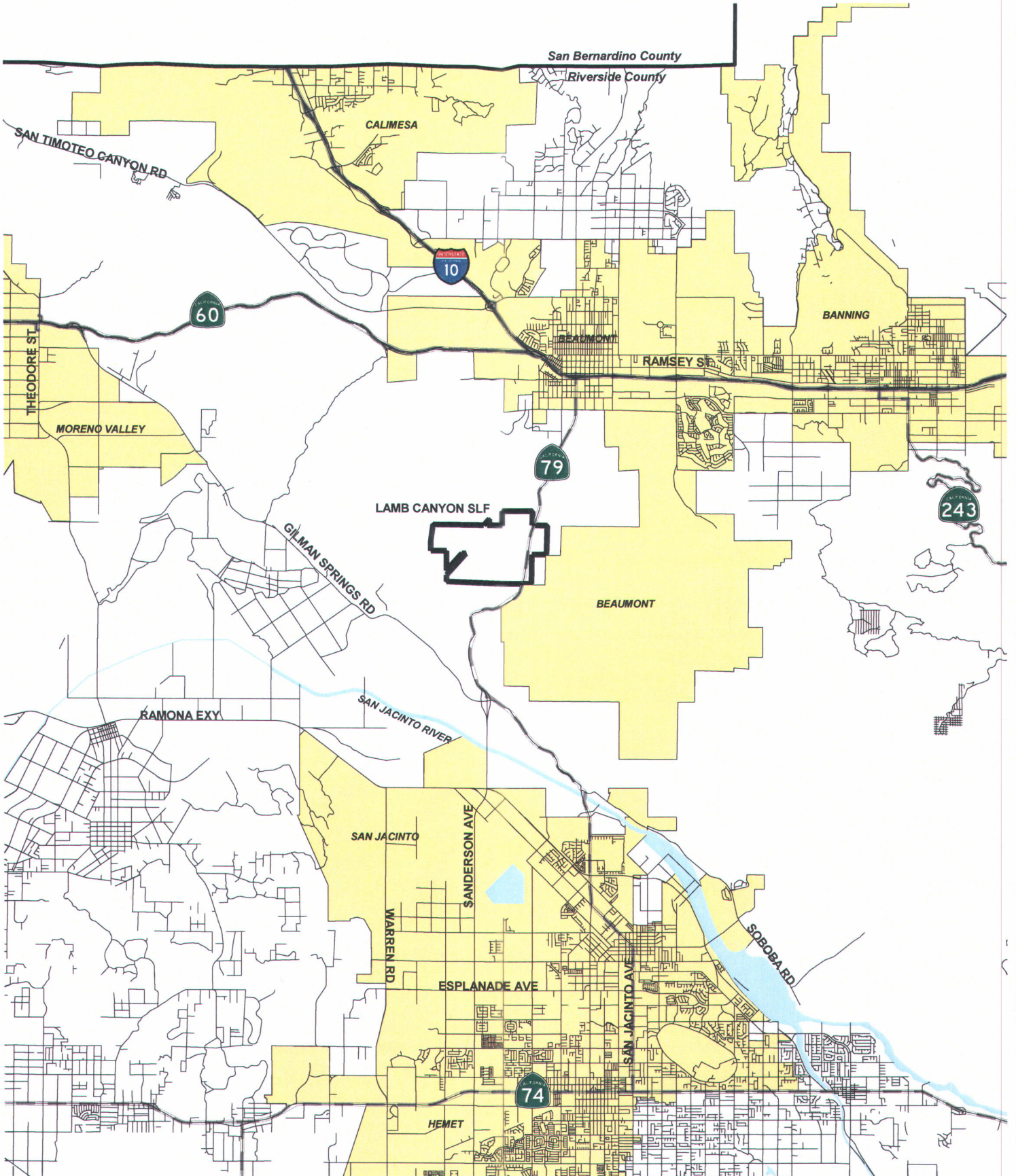


## Lamb Canyon Sanitary Landfill Regional Location Map

December 2009







## Lamb Canyon Sanitary Landfill Vicinity Map

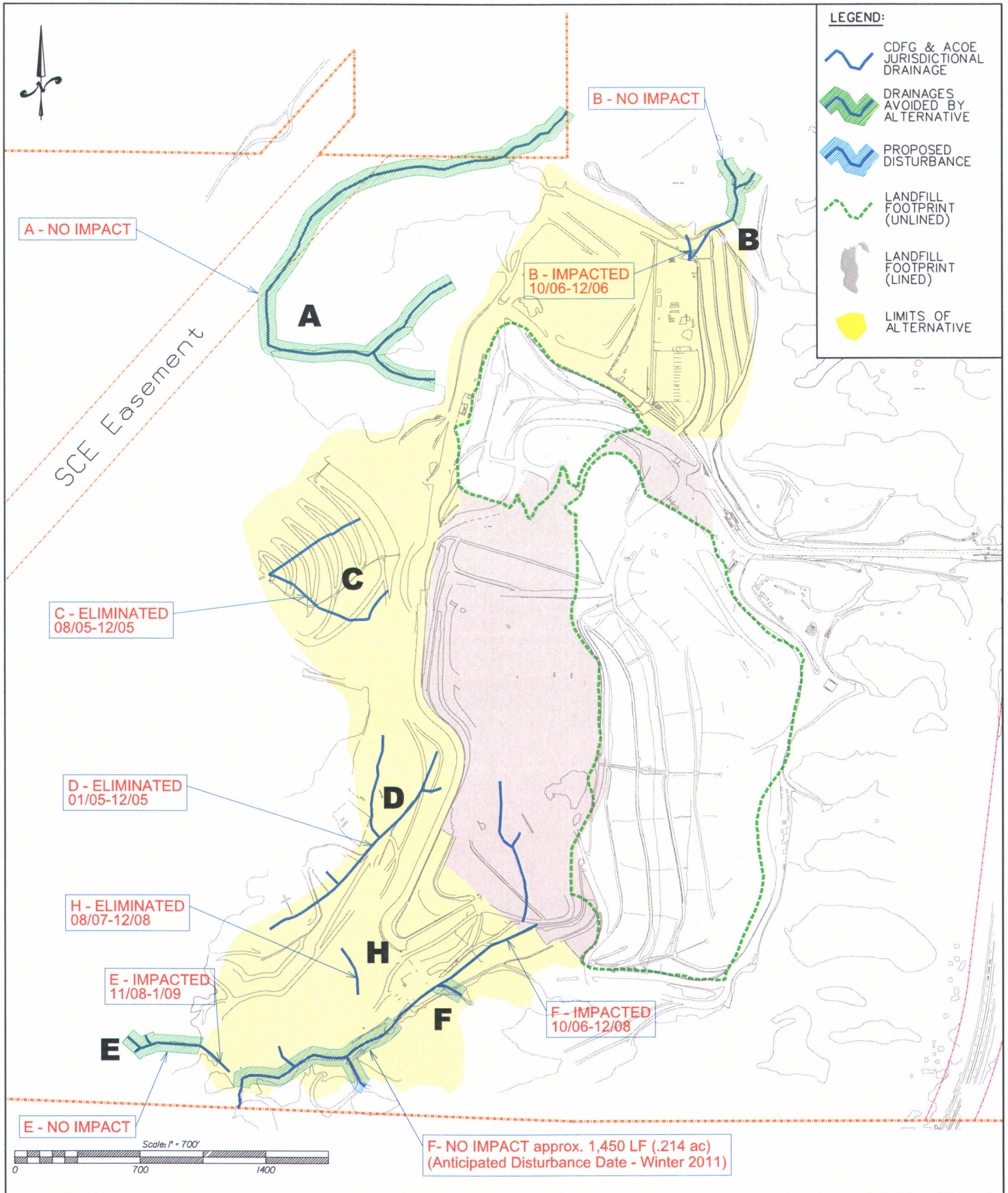
December 2009



Not To Scale

Exhibit 2





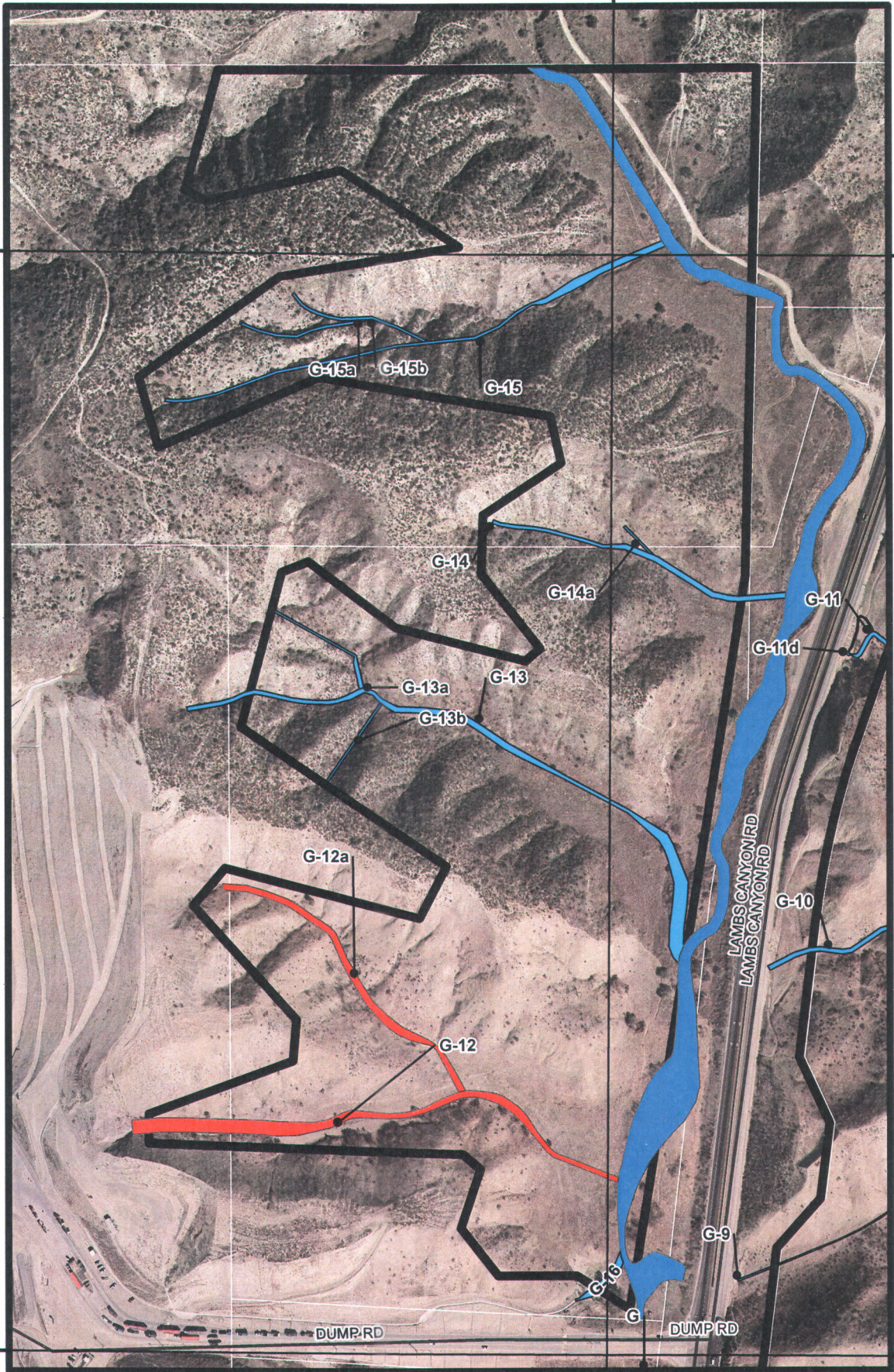




# Lamb Canyon Conservation Area Proposed Enhancement Area

33°53'30"N

33°53'30"N

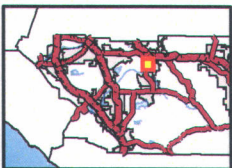


### CDFG\_Jurisdiction

#### TRIBUTARIES

- Committed to Phase 3 Mitigation
- Enhancement Area
- Ephemeral Tributaries to G
- LambCanyonConservationArea
- Roads
- Parcel

Date: 4-14-2011



33°53'00"N

33°53'00"N

116°59'30"W

Disclaimer: Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.





## Appendix A

### Mitigation Measures Status (2004 Agreement)

#### 1) Conservation Easement:

The onsite LCCA mitigation area will be protected through the recordation of a conservation easement to the RCA, as required under the 2004 Agreement. The Riverside County Waste Management Department (RCWMD) has obtained a legal description of the said property, as well as a title report. These documents, along with the draft conservation easement, have been sent to RCA for review. The RCWMD estimates that the easement will be fully executed by September 30, 2011.

#### 2) Fencing & Signage:

The fence installed along both sides of the Lamb Canyon Landfill entrance road, the “No Trespassing” signs and the heavy equipment tires (whole tires without rims or inner tubes) installed along the westerly boundary of the LCCA subarea have demonstrated to be effective in blocking/obstructing key entry points and has prevented illegal intrusion into the LCCA. The fence, signs, and heavy equipment tires were installed in 2008 as part of the MMR Provision 4, and were reported in the 2008 Annual Report. No additional fencing or signage is required.

#### 3) Enhancement within 4.192 acres:

The RCWMD achieved the success criteria of 5% or less of non-native vegetative cover within the 4.192 acre enhancement area. Therefore, the RCWMD has met its obligation under Sections 7(a) and 8 of the 2004 Agreement.

## APPENDIX B- SPECIES COMPENDIUM

Common Names	Scientific Names
Wildlife	
American kestrel	<i>Falco sparverius</i>
American Crow	<i>Corvus brachyrhynchos</i>
Common raven	<i>Corvus corax</i>
Red-tailed hawk	<i>Buteo Jamaicensis</i>
House sparrow	<i>Passer domesticus</i>
Mourning dove	<i>Zenaida macroura</i>
Northern mockingbird	<i>Mimus polyglottos</i>
ground squirrel	<i>Spermophilus beecheyi</i>
Plants	
Short-pod mustard*	<i>Hirschfeldia incana</i>
Black mustard	<i>Brassica nigra</i>
Common wheat	<i>Triticum sp.</i>
Rip-gut brome	<i>Bromus diandrus</i>
Brome	<i>Bromus sp.</i>
Cheeseweed	<i>Malva parviflora</i>
London Rocket	<i>Sisymbrium irio</i>
Radish	<i>Raphanus sativus</i>
Common fiddleneck	<i>Amsinkia intermedia</i>
Alkali Heliotrope	<i>Heliotropium curassavicum</i>
Knotweed	<i>Polygonum arenastrum</i>
Persian Knotweed	<i>Polygonum argyrocoleon</i>
Filaree	<i>Erodium cicutarium</i>
Ryegrass	<i>Lolium mutiflorum</i>
Curly Dock	<i>Rumex crispus</i>
Monkey flower	<i>Mimulus aurantiacus</i>
Russian Thistle*	<i>Salsola tragus</i>
Spergularia	<i>Spergularia sp.</i>
Millet	<i>Piptatherum miliaceum</i>
Canary grass	<i>Phalaris minor</i>
English Plantain	<i>Plantago lanceolata</i>
Bur-clover	<i>Medicago polymrpha</i>
Sunflower	<i>Helianthus annua</i>
Wild oats	<i>Avena sp.</i>
Elderberry	<i>Sambucus Mexicana</i>
Cryptantha	<i>Cryptantha sp.</i>
Deerweed	<i>Lotus scoparius</i>
Black sage	<i>Salvia mellifera</i>
Bushmallow	<i>Malacothamus fasciculatus</i>
Tree Tobacco*	<i>Nicotiana glauca</i>
Tocolota *	<i>Centaurea melitensis</i>
Laurel sumac	<i>Malosma laurina</i>



**Habitat Mitigation and Monitoring Plan**  
**Streambed Alteration Agreement Notification No. 1600-2010-0177-R6**  
**Lamb Canyon Landfill: Completion of Phase 2**

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Match weed	<i>Gutierrezia californica</i>
Fescue	<i>Vulpia myuros</i>
Horehound	<i>Marrubium vulgare</i>
Miner's lettuce	<i>Claytonia perfoliata</i>
Brittle bush	<i>Encelia farinose</i>
Chia	<i>Salvia columbariae</i>
Croton	<i>Croton californicus</i>
Artemisia	<i>Artemisia California</i>
Coast live oak	<i>Quercus agrifolia</i>
Tamarix *	<i>Tamarix ramosissima</i>
Mule fat	<i>Baccharis salicifolia</i>
Telegraph weed	<i>Heterotheca grandiflora</i>
Cudweed	<i>Lessingia filaginifolia</i>
Buckwheat	<i>Eriogonum fasciculatum</i>

\* Target Non-native Invasive Species



## APPENDIX C- SITE PHOTOS



**PHOTO A: Looking west along G-12 showing burnt debris**

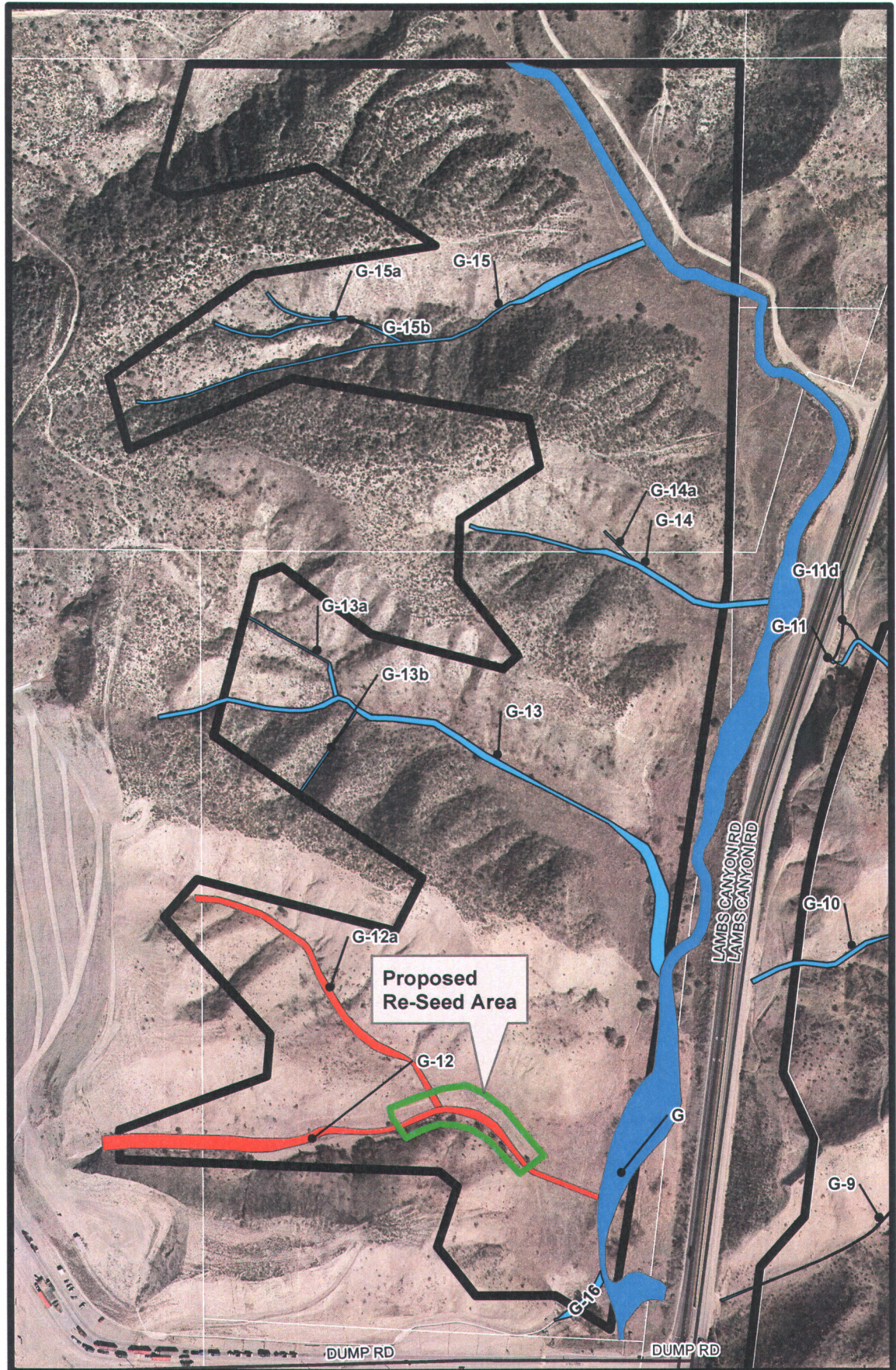


**PHOTO B: Drainage G-12, looking east**





# Lamb Canyon Conservation Area Proposed Enhancement Area



**CDFG\_Jurisdiction**

**TRIBUTARIES**

- █ Committed to Phase 3 Mitigation
- █ Enhancement Area
- █ Ephemeral Tributaries to G
- LambCanyonConservationArea
- Roads
- Parcel

Date: 4-14-2011



Disclaimer: Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.





**LAMB CANYON LANDFILL CONSERVATION AREA  
HABITAT MITIGATION  
AND  
MONITORING PLAN**



Prepared for:

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Waste Management Department  
14310 Frederick Street  
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Submitted by:

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January 11, 2008



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## Lamb Canyon Landfill Conservation Area Habitat Mitigation and Monitoring Plan

### 1.0 INTRODUCTION

The Habitat Mitigation and Monitoring Plan (HMMP) has been prepared for the 207.1-acre Lamb Canyon Conservation Area (LCCA) located at the Lamb Canyon Landfill on behalf of the Riverside County Waste Management Department (RCWMD) pursuant to California Department of Fish and Game (CDFG) Section 1602 Streambed Alteration Agreement (Notification No. 1600-2005-0100-R6) executed in December 2005. The Lamb Canyon Landfill is located at 16411 Lamb Canyon Road, in an unincorporated area of Riverside County on the boundaries of the City of Beaumont (Map 1). The LCCA, situated on the eastern edge of the Landfill property, is located in a portion of Section 29, Township 3 South, Range 1 West, of the Beaumont and El Casco California 7.5 Minute Series U.S.G.S. Topographic Quadrangles (APN# 421-170-034, 421-220-014, 421-220-023, 421-220-026, 421-220-025, 421-230-009, and 421-230-008).

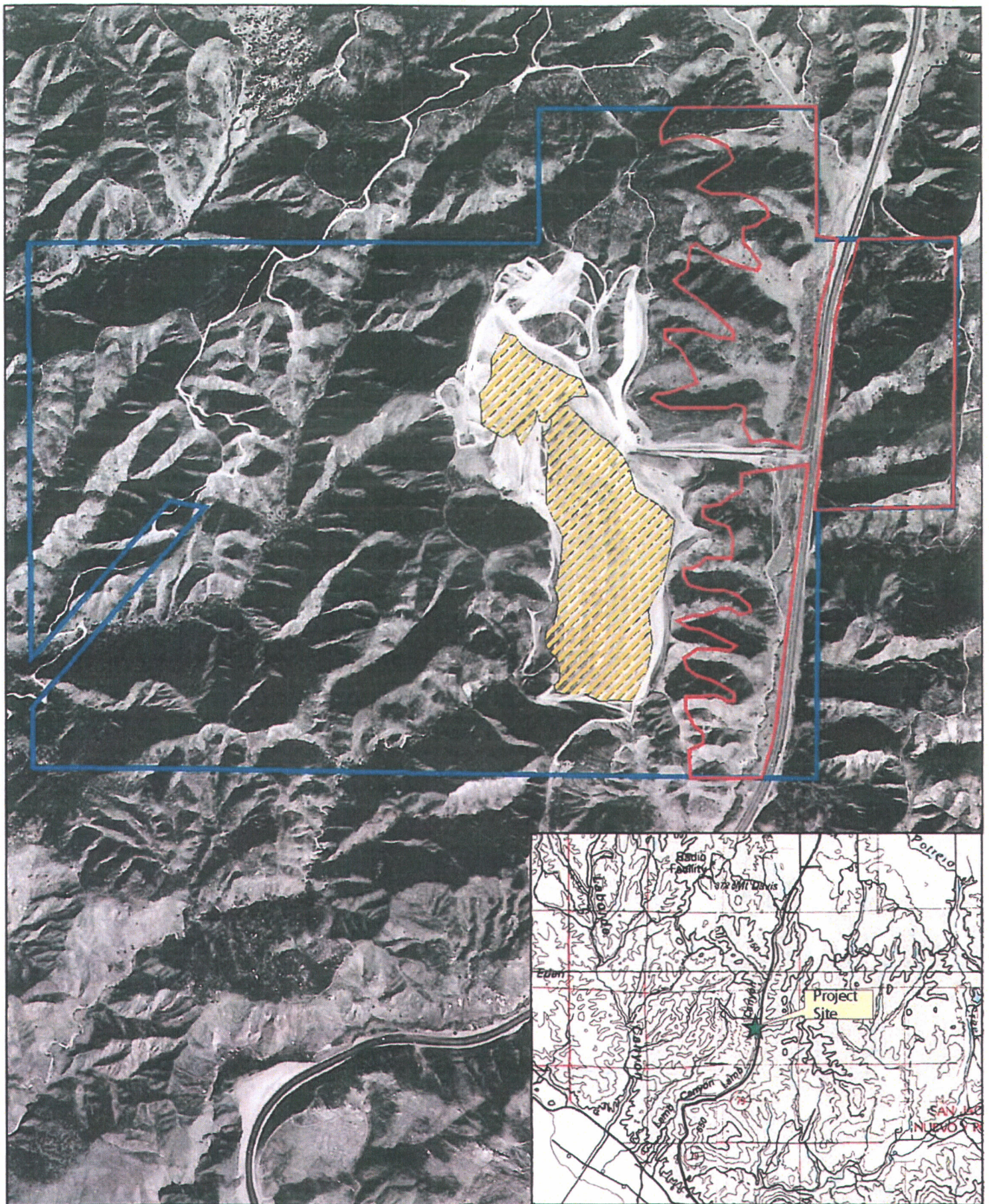
This HMMP is based on the Jurisdictional Delineation report prepared by TeraCor Resource Management (TeraCor), dated December 2, 2002; and the Biological Resources Assessment Report (BRAR) prepared by AMEC Earth & Environmental Inc. dated August 29, 2007. Both studies were conducted within the 207.1-acre LCCA. The HMMP addresses the objective of restoration/enhancement of 4.192 acres of CDFG jurisdictional ephemeral streambeds within the LCCA. The objective will be met by removing invasive non-native plant species from the CDFG jurisdictional ephemeral streambeds resulting in 5% cover or less of invasive non-native plant species. This objective will meet one of the mitigation requirements for permanent impacts to 1.174 acres of sparsely vegetated (mulefat, *Baccharis salicifolia*) as a result of the Phase II landfill expansion project.

### 2.0 EPHEMERAL STREAMS AND RIPARIAN HABITATS

#### 2.1 Hydrology and Climate

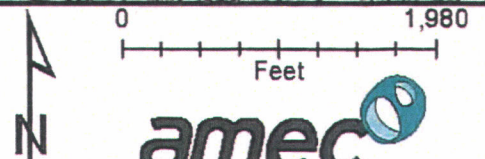
The LCCA was the subject of a jurisdictional delineation performed by TeraCor in 2002. TeraCor field personnel characterized the drainages onsite as ephemeral streams based on the infrequent flows, the predominance of upland vegetation and lack of hydrophytic vegetation. Streambeds and potential jurisdictional "waters" were delineated in three sub-areas under consideration for conservation and/or mitigation to offset potential impacts within the expansion area. Within the conservation area the total jurisdictional area (Stream Segment G) includes 4.192 acres of CDFG jurisdictional streambed area and 2.643 acres of USACOE potential jurisdictional area (a subset of CDFG streambed).



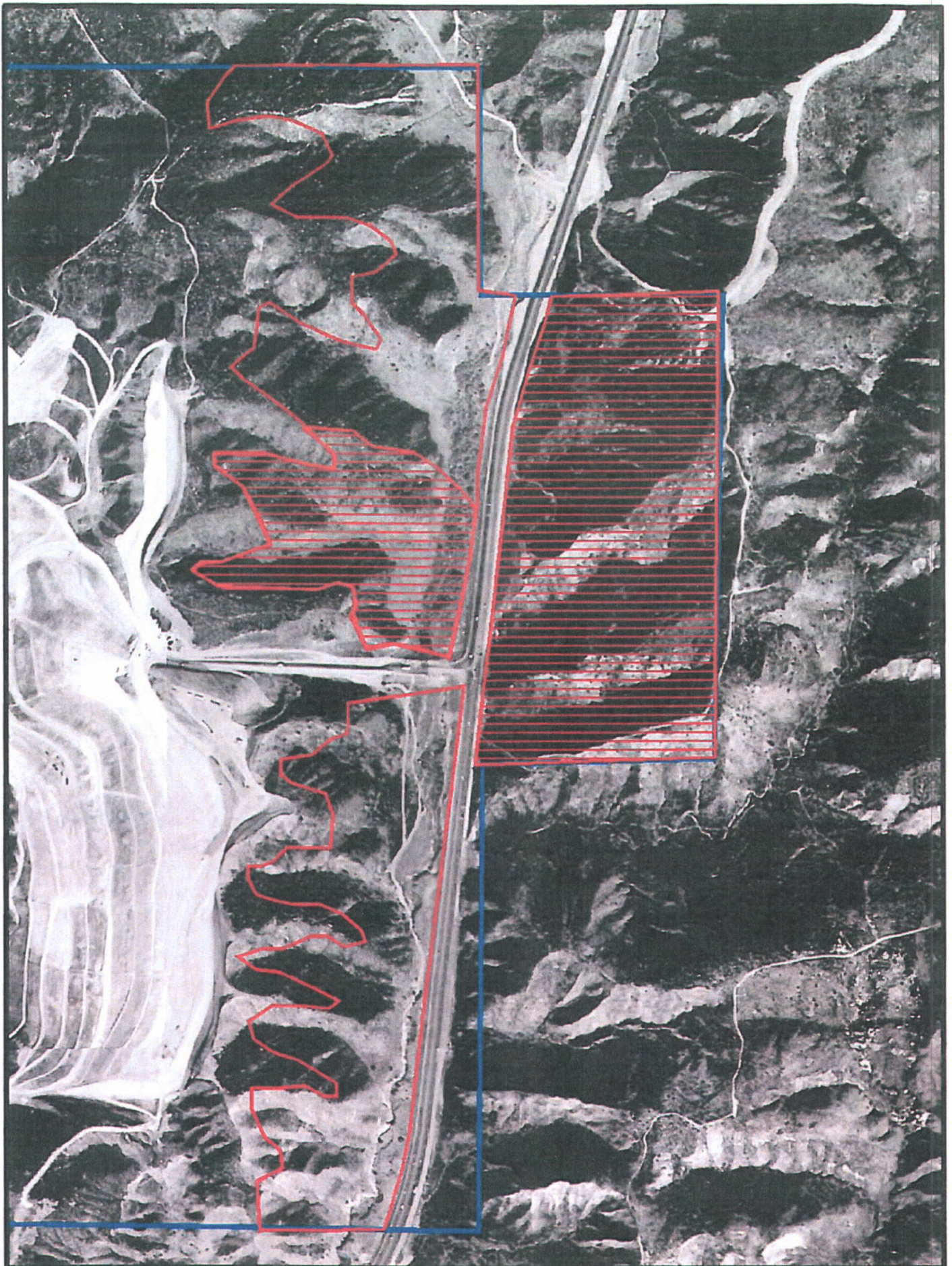


Map 1. Lamb Canyon Conservation Area: Vicinity & Location

- Unlined Disposal Area
- Conservation Area
- Landfill Boundary





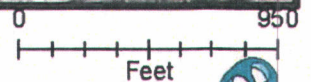


Map 2. Lamb Canyon Conservation Area: Burn Areas

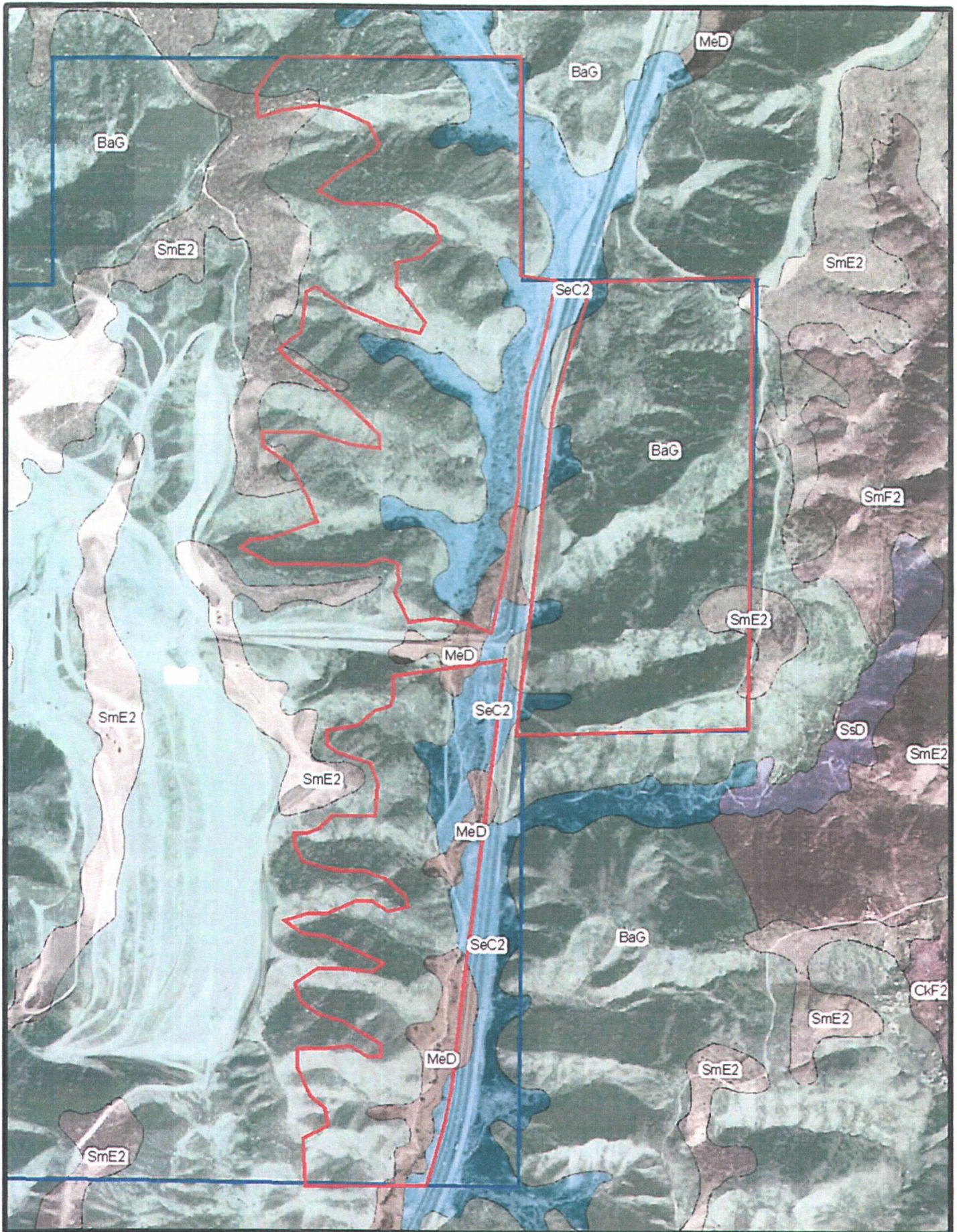
- Landfill Boundary
- Conservation Area

- Burn Areas - 91.5 Acres  
Esperanza fire oct 26-30 2006

Map Source: maptech:33117H13.PHT33116H84.PHT33117G12.PHT33116G81.PHT & riverside county WMD esperanza fire (oct 26-30 2006)







Map 3. Lamb Canyon Conservation Area: Soils

- Conservation Area
- Landfill Boundary

SmE2 San Timoteo loam, 8 to 25 percent slopes, eroded  
 MeD Metz loamy sand, channeled, 0 to 15 percent slopes  
 SeC2 San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded  
 BaG Badland

Map Source: maptech:33117H13.PHT33116H84.PHT33117G12.PHT & riverside county WMD esperanza fire (oct 26-30 2006) soilmu\_a\_ca679

0 600  
 Feet



Ephemeral streams are known from arid and semi-arid parts of the world and have been studied extensively in Africa, Australia, Israel and the American southwest. These streams are dry for the majority of the year, flowing briefly in response to winter storm events which may be intense and short-lived. Bed surfaces or *substrates* within ephemeral channels tend to be composed of gravelly or sandy soil types.

Flooding events in arid regions may be substantial, resulting in channels which tend to be larger when compared with streams in more humid environments. Sediment loads may be high in arid streams, causing changes in channel width. When a stream exists in a state of dynamic equilibrium, net erosion and deposition are balanced, a condition termed "graded". A graded stream can be disrupted or altered by any number of physical changes in the stream's baseline conditions, which results in degradation (lowering of a channel bed) or aggradation (buildup of a channel bed). Ephemeral channels often store large quantities of sediments following major storm events, gradually releasing them to downstream reaches.

Within watersheds such as the Badlands, ephemeral drainages form the majority of the channel system. Though flowing for only a few days each year, ephemeral channels influence downstream reaches through movement of sediment, water and organic compounds. Recharge of surface waters and groundwater within and along ephemeral channels can be considerable.

## 2.2 Riparian Habitat

Riparian habitats are created and shaped by complex interactions between a number of factors including climate, geology, soils, hydrology, biotic and ecological components. Functions are performed by and within these habitats include:

- Trapping sediments;
- Changing water levels by increasing deposits of sediment;
- Flood and erosion control;
- Wildlife habitat support;
- Shading;
- Bank stabilization;
- Uptake of nutrients;
- Input of decomposing plant materials;
- Retention of organic matter; and
- Contribution of large woody debris.

In evaluating degraded riparian ecosystems it is necessary to take a watershed perspective that includes upstream and downstream reaches, tributaries and surrounding uplands. A single small portion of stream passing through a degraded riparian ecosystem cannot be evaluated in isolation from the rest of the channel system. Instability along one part of the drainage system can spread to other areas. Riparian habitats tend to be linear in nature and visibly distinct from surrounding upland habitats. Ecological interconnectivity within linear riparian areas is crucial because upland environments do not support riparian plant and animal species.



The LCCA is within an area locally described as "The Badlands", a geomorphic complex of highly erodable, unconsolidated sediments thrust upward along the San Jacinto Fault. This area occurs within the San Jacinto Watershed Basin. The LCCA is divided in 3 sections. Two sections and the main LCCA drainage are on the west side of Highway 79. The northwest portion of the LCCA consists of 80.4 acres north of Landfill Road. South of Landfill Road is the southwest 50.1 acres of the LCCA. The third section with 76.6 acres occurs east of Highway 79, most of it north of Landfill Road.

There is one main ridgeline immediately to the west of the LCCA. East of the ridgeline the main ephemeral drainage of the LCCA runs north-south. This is an unnamed U.S.G.S designated blue-line stream. The main drainage flows under Landfill road through a 36" culvert. There are several sub-drainages passing under Highway 79 from the east side of the LCCA. On the east side of Highway 79 there are 4 sub-drainages that flow west through two 36" culverts under the highway into the main drainage in the northwest section of the LCCA. There are also two culverts that drain from the eastern side of Highway 79, under the highway into the southwest section of the LCCA.

Hydrology within the LCCA depends solely upon rain events. The rainfall is initially absorbed into the soil. Following upland soil saturation, water drains from ridgelines northwest and northeast of the LCCA into numerous small tributaries and finally, into drainage G. Exiting the LCCA, drainage G flows south through a well developed willow riparian area, later passing under Gilman Springs Road and into the San Jacinto State Wildlife Area.

The first action of the Habitat mitigation began with a biological resources assessment of the entire 207.1-acre Lamb Canyon Conservation Area (LCCA). The results of the biological resources assessment can be found in the Lamb Canyon Landfill Conservation Area Biological Resources Assessment Report (AMEC 2007). Based on the results of this assessment, conservation and mitigation goals have been established for the LCCA. The primary conservation goal for the LCCA is the enhancement of biological value within the 4.2-acre riparian scrub portion, including forage, cover, nesting sites and connectivity between wilderness areas. This is to be accomplished through the reduction of invasive weedy plant species, which will provide an opportunity for native species onsite to re-populate by both vegetative and reproductive means.

### **2.3 Biological Importance**

Ephemeral streams serve a number of biological functions, depending on the amount of water and riparian vegetation present. Relative to adjacent dry upland areas, riparian zones tend to be rich in food and insects, and are included in the territory of many upland species. Because mammals use riparian areas for food sources and denning, and may also use them as travel corridors, multiple layers of vegetation and a substantial canopy are advantageous. Many bird species use riparian areas for breeding, nesting and rearing of young, as well as for escape and protection from raptors and other predators. During hotter times of the year, riparian



corridors tend to remain cooler than surrounding hillsides. Predators (i.e., raccoons, raptors, snakes) utilize hillslope habitats near riparian areas, so changes in a riparian area can result in changes to upland predator-prey system dynamics. Riparian areas provide temporary refuges for species after a fire which will eventually recolonize upland areas. Riparian areas may also provide seed sources for downstream colonization

## **2.4 Community and Watershed Setting and Context**

Riparian corridors and their adjacent uplands are intrinsically connected. Channel events such as debris flows, landslides, incision, and erosion affect hillslopes, and upland vegetation may influence the amount of light and wind (therefore temperature) of the riparian zone. Ecological interconnectivity within linear riparian areas is crucial because upland environments do not support riparian plant and animal species. In areas such as the Badlands, slope stability is an issue connected with the viability of nearby riparian areas. Sediment and runoff from unvegetated and highly erodible hillslopes and unstable channel banks may lead to large fluctuations in the amount of sediment carried during a flow event, causing changes along an ephemeral channel.

## **3.0 LCCA SITE DESCRIPTION**

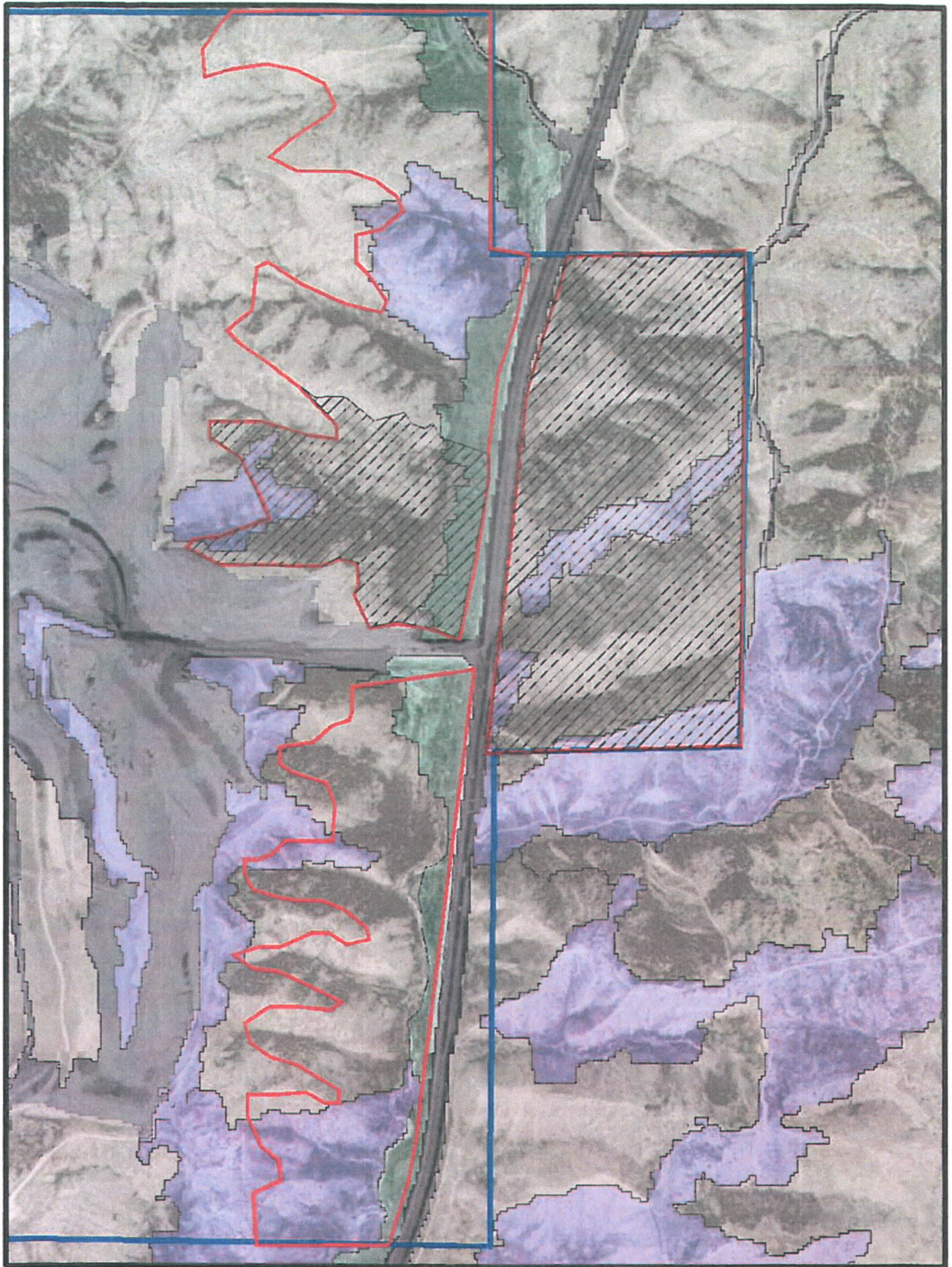
The mapping classification used for this HHMP is based on the Holland (1986) terrestrial vegetation descriptions for California. Three native vegetation communities are present in the LCCA. Riversidean Sage Scrub, Southern Mixed Chaparral, and Disturbed Annual Grassland mixed with Riparian Scrub (Map 4). The majority of the drainage vegetation is mulefat scrub, with only a small amount of willow scrub habitat near the southern boundary of the LCCA.

Two wildfires in the last ten years (1998, 2006) have burned areas of the Landfill property including portions of the LCCA. The Esperanza Fire, which occurred in October 2006, burned areas of the landfill property, including portions of the LCCA. The Esperanza Fire changed the condition of at least 100 acres of the LCCA by burning approximately 13 acres of the 35 acres of Riversidean Sage Scrub, 75 acres of the 134 acres of Southern Mixed Chaparral, and 4 acres of the 15 acres of Southern Willow Scrub (Map 4).

Soil types present on the LCCA site are identified in Map 3. The northern portion of the riparian area is comprised of San Emigdio fine sandy loam, becoming interspersed with Metz loamy sand near the landfill entrance road and transitioning entirely to Metz loamy sand further south where the riparian channel exits the LCCA property.

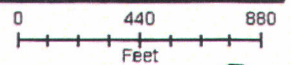
The ephemeral drainages which are central to the LCCA have been impacted (degraded). The construction of Highway 79 increased the amount of impermeable surface area which drains to the channel, so that rain events have a greater tendency to cause rapid runoff into the channels. At the points where the drainages pass under the highway and the landfill access road culverts have been installed which may interrupt the natural processes of sediment





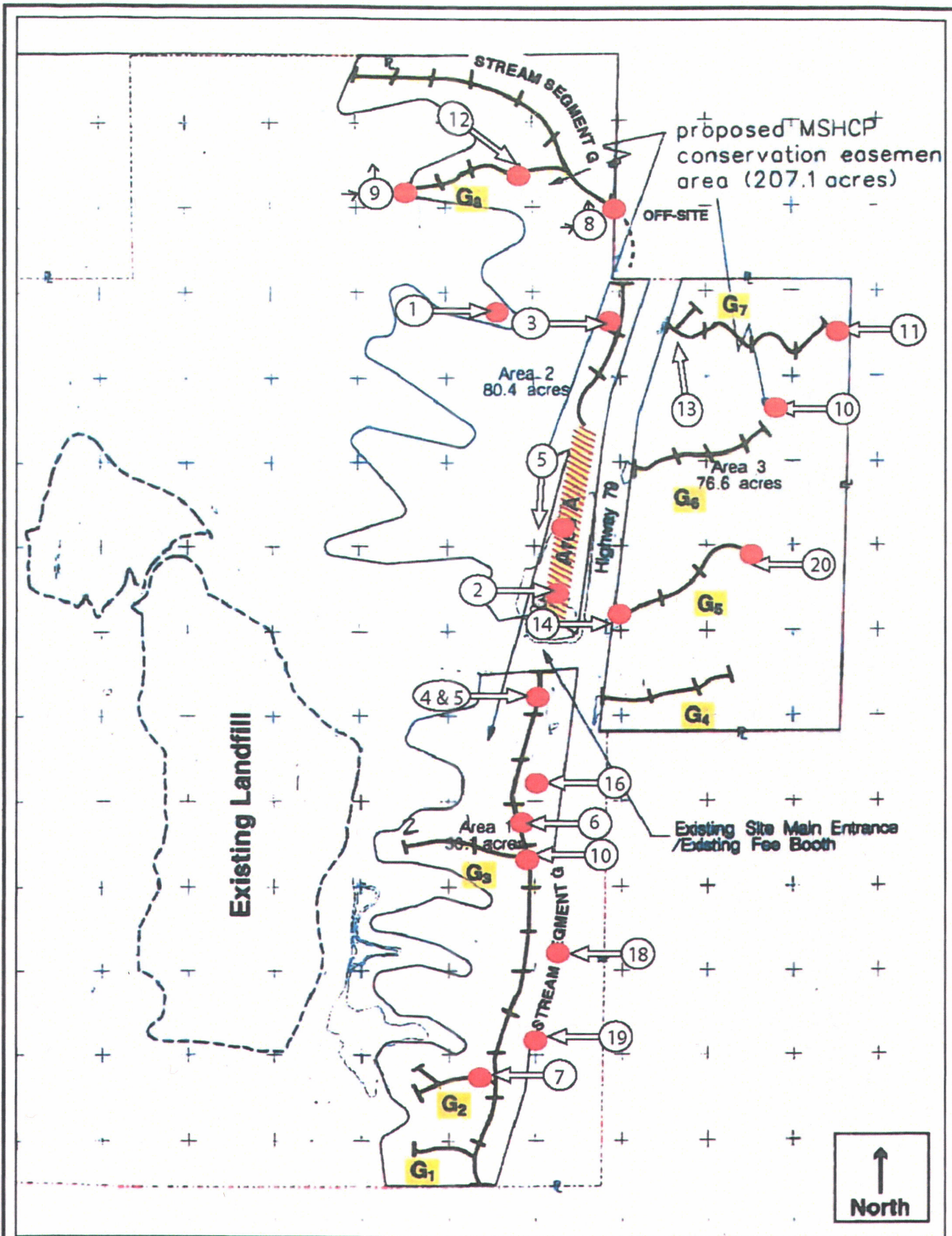
Map 4. Lamb Canyon Conservation Area: Vegetation

- Conservation Area
- Landfill Boundary
- Burn Areas
- Riparian Scrub
- Riversidean Sage Scrub
- Chamise/Chaparral



Map Source: maptech:33117H13.PHT,33117G12.PHT,33116G81.PHT & riverside county WMD esperanza fire (oct 26-30 2006),EvegTile53B\_03\_v1





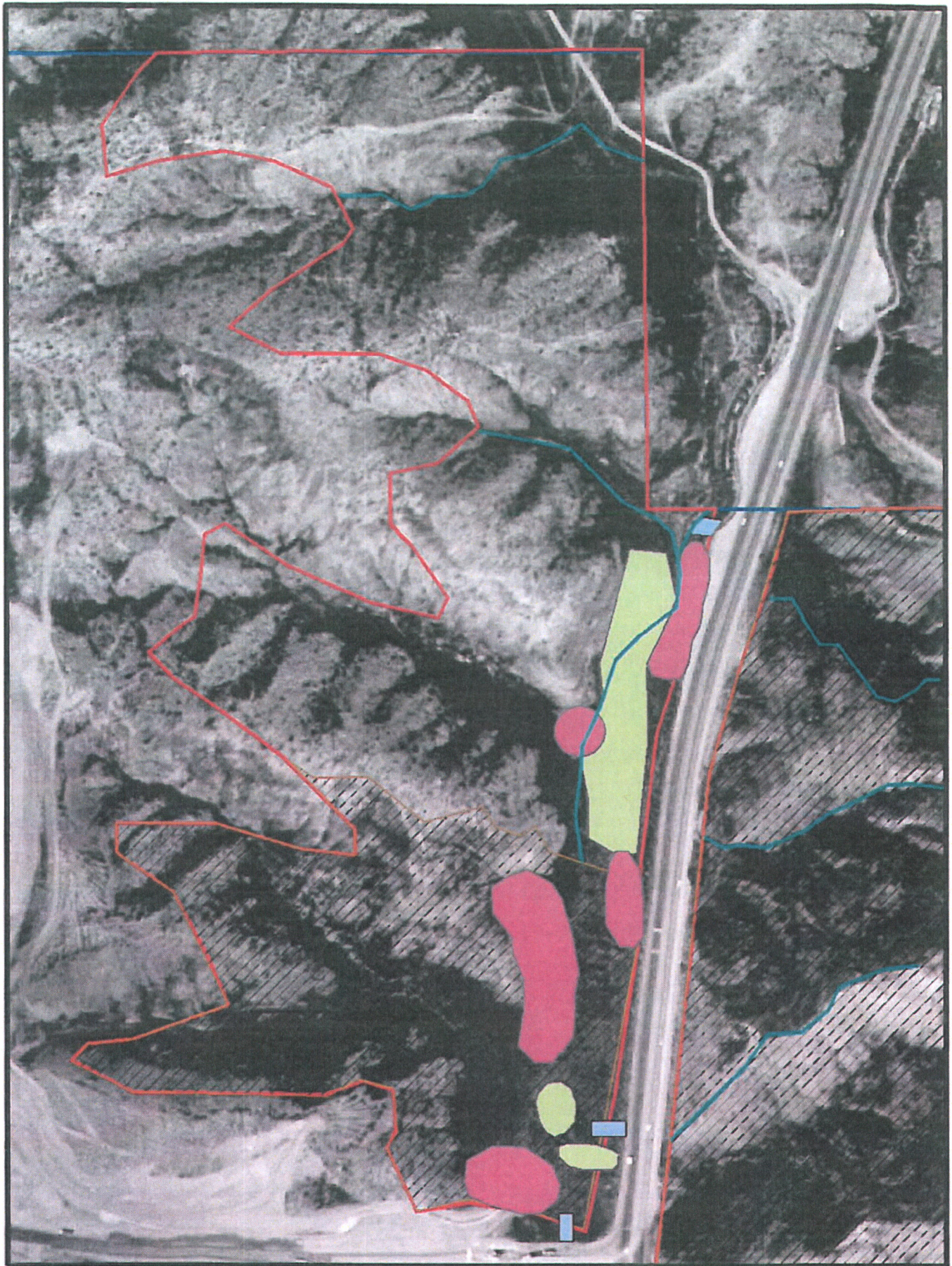
Map 5. Lamb Canyon Conservation Area: Photo Stations & Jurisdictional Stream Segments

● Photo Stations

Map Source: TeraCor: Resource Management exhibit 7

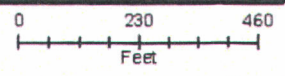






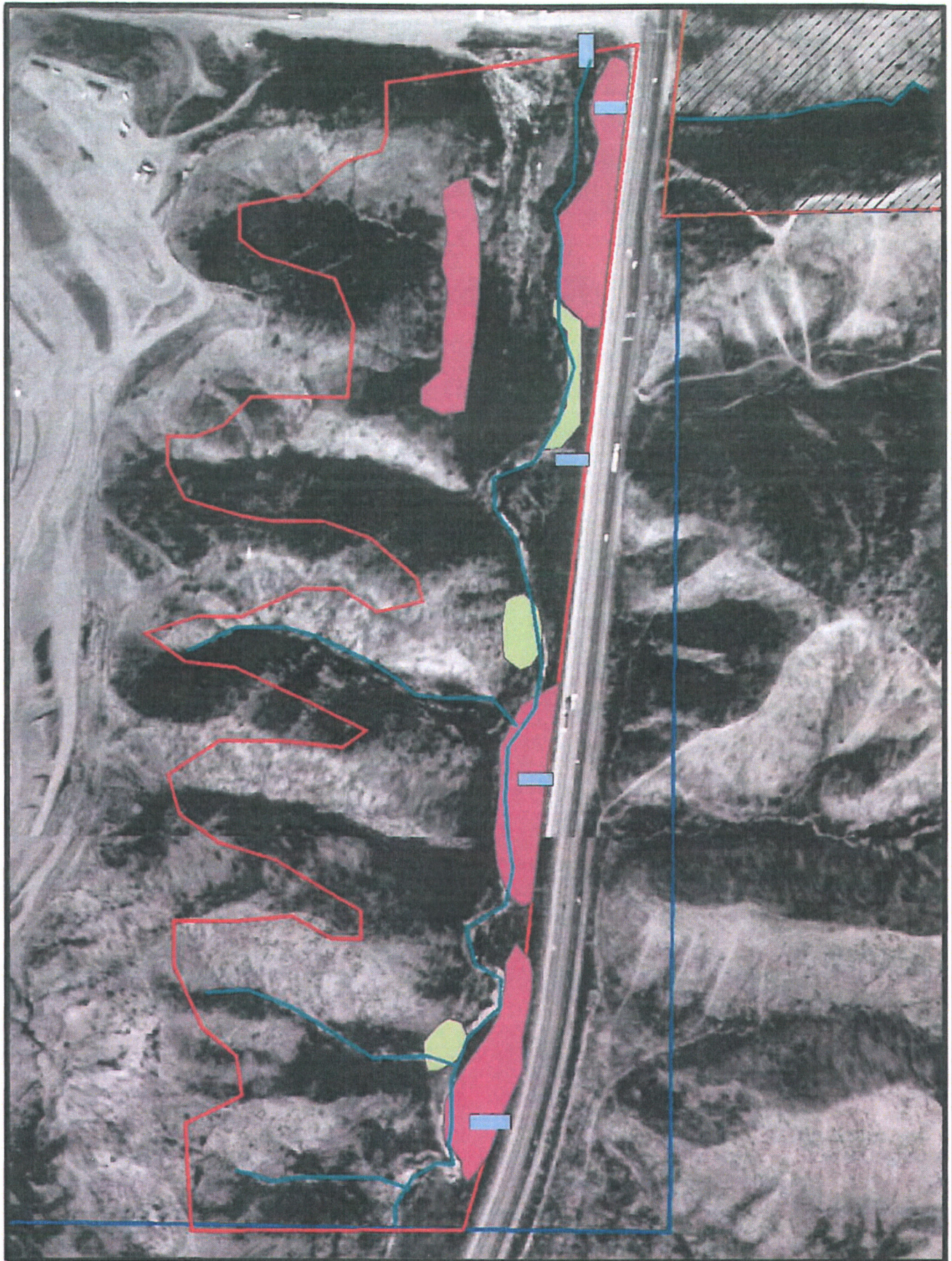
Map 6a. Lamb Canyon Conservation Area: Streams, Culverts, & Weeds(north)

- Conservation Area
- Landfill Boundary
- Burn Areas
- CEME- *Centaurea melitensis* (tocalote) & HIIN - *Hirschfeldia incana* (short-pod mustard) - 3.27 acres
- NIGL- *Nicotiana glauca* (tree tobacco) - 4.25 acres
- ~ Streams
- ▭ Culverts



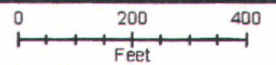
Map Source: Terraserver:2002, riverside county WMD esperanza fire (oct 26-30 2006),EvegTile53B\_03\_v1





Map 6b. Lamb Canyon Conservation Area: Streams, Culverts, & Weeds(south)

- Conservation Area
- Landfill Boundary
- Burn Areas
- CEME- *Centaurea melitensis* (tocalote) & HIIN- *Hirschfeldia incana* (short-pod mustard) - 5.07 acres
- NIGL- *Nicotiana glauca* (tree tobacco) - 0.96 acres
- Streams
- Culverts



Map Source: Terraserver:2002, riverside county WMD esperanza fire (oct 26-30 2006), EvvegTile53B\_03\_v1



transport and/or concentrate storm flows resulting in an increase in water velocity. This results in an increase in the energy of water exiting the culverts and a greater tendency for erosion to occur on the downstream side of the culvert. Normally, the natural profile of a channel would be rough and relatively flat in cross-section, but the road crossings tend to result in down cutting, creating v-shaped channels downstream. Prior to construction of the landfill, the flatter portions of the site were used for grazing. Long term use of drylands by hooved animals can cause degradation of the soil and encourage growth of invasive weeds, such as Tocolote (*Centaurea melitensis*), and Short-pod Mustard (*Hirschfeldia incana*). South of the landfill entrance road there are a number of points along the western bank of the drainage which show erosion damage most likely resulting from animal traffic. In these areas, cave-ins are common and the banks of the drainage high and nearly vertical. The winter and spring LCCA biological resources assessment (AMEC 2007) found non-native plant species interspersed with native mule fat scrub and southern willow scrub habitats within the jurisdictional drainages. The most prevalent exotic plant species are Tocolote, covering about one acre or 25% of the CDFG jurisdictional area within the LCCA (Maps 4, 6a & 6b) and Short-pod Mustard which is mixed in with the Tocolote and riparian areas. Both of these species have moderate invasiveness and impacts upon native species (CAL-IPC).

While Tocolote and Short-pod Mustard are prevalent on portions of the upland bench adjacent to the riparian area, the exotic invasive species causing the greater direct impact to riparian function is Tree Tobacco (*Nicotiana glauca*), which occurs throughout the drainage along the west side of Highway 79. In some portions of the LCCA drainage, Tree Tobacco is the dominant shrub (Photos), and may cover a total of up to 0.5 acre within the LCCA. Tree Tobacco often spreads from old homesteads, where it was planted as an ornamental species. It is a moderately invasive species in California, with substantial and apparent ecological impacts on physical processes, plant and animal communities, and vegetative structure. This species in dense infestations can produce over 1,000 viable seeds per square meter annually, and the survivability of seeds in soil is unknown. Seeds are produced in a capsule, dropping from the tree in response to vibration (e.g., water flowing, animal rubbing) and capable of being carried long distances in water or tangled within the coat of animals. Tree Tobacco spreads vegetatively, resprouting easily when cut, grazed or burned.

#### 4.0 HABITAT RESTORATION DEFINITIONS

**Mitigation:** the restoration, creation, or enhancement of riparian scrub habitat to compensate for permitted riparian habitat losses.

**Restoration:** the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions. For the purpose of tracking net gains in acres, restoration is divided into:

- *Rehabilitation:* the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions of degraded habitat. Rehabilitation results in a gain in function, but does not result in a gain in acres.

- *Re-establishment*: the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former wetland. Re-establishment results in recreating an ephemeral stream and results in a gain in ephemeral stream acreage.

**Enhancement**: the alteration of the physical, chemical, or biological characteristics of a habitat (undisturbed or degraded) site with the purpose of heightening, intensifying, or improving specific function(s) or for a purpose such as water quality improvement, flood water retention or wildlife habitat. Enhancement results in a change in function(s) and value(s), but does not result in a gain in acres.

**Protection/Maintenance**: the removal of a threat to, or preventing decline of, natural habitat conditions. Such measures may include conservation easement, repairing water control structures or fences, or structural protection. This term also includes activities commonly associated with the term preservation. Protection/Maintenance does not result in a gain of acres or function.

## 5.0 HABITAT MITIGATION

Because uplands and adjacent riparian areas are functionally linked, a comprehensive evaluation of any riparian area must include a significant amount of the watershed, taking into consideration the condition of surrounding uplands, upstream and downstream reaches and tributaries. A realistic assessment of the potential for restoration/re-establishment to a historical condition must consider all of the 'givens', and factor these into a mitigation plan. Within the LCCA there may be limits on the feasibility of returning to a purely historical condition, including grazing impacts, roadway impacts, drought cycles and prevalence of invasive exotic plant species. In considering the goals of restoration, the LCCA site was compared with a reference area in the same drainage, located further to the south and just off the landfill property boundary.

In the restoration field there is a growing trend toward passive restoration techniques, that is, removal or mitigation of obstacles to recovery, followed by allowing an area to return to a natural state and re-establish equilibrium with a minimum of intervention.

"... natural regeneration is often the restorationist's strongest ally, and fostering natural re-growth should be the aim of most riparian mitigations.... Riparian revegetation can be misused when the area is fully capable of coming back naturally." (Fischer)

On many restoration projects where passive restoration has resulted in a prolific re-growth of natural revegetation, the following factors have been consistently present:

- Minimal channel instability;
- Minimal changes in soil salinity;
- Low frequency of direct impacts;
- Seed sources located in or adjacent to the site; and
- Large flood events producing conditions suitable for natural establishment of riparian species.



## 6.0 RESTORATION/ENHANCEMENT OBJECTIVES AND METHODS

### 6.1 Objectives

The goals for the LCCA HMMP are as follows:

- Protection and management of existing mulefat riparian habitat within the LCCA;
- With minimal impacts, kill and/or remove invasive exotic species, encouraging growth of native riparian species (mulefat, arroyo and narrowleaf willow, Fremont's Cottonwood);
- In areas of former weed-dominated habitat where eradication efforts have been successful, encourage succession of native vegetation in order to increase the linear extent of woody riparian vegetation along drainages where hydrology allows;
- Increase habitat connectivity and quality between areas of riparian habitat within and adjacent to the LCCA;
- Reduce amount of Tocolote, Tree Tobacco and Short-pod Mustard to no more than 5% cover within three (3) years from initial treatment.
- Maintain and encourage increase in populations of plant and animal riparian species; and
- Avoid and minimize impacts to riparian habitats within the LCCA and landfill watersheds.

As discussed above, passive riparian habitat restoration is preferable to more invasive methods for the LCCA. Passive restoration may for some streams encourage reestablishment of stable channels and floodplains, and allow re-growth of riparian vegetation and improve in-stream habitats. This results in a minimum of degradation impacts which may stem from restoration projects, such as soil compaction and vegetation losses from foot traffic, or encouragement of weed growth resulting from soil disturbance.

In order to ensure low maintenance and thus long-term viability of the LCCA enhancement project, this plan attempts to minimize the use of high maintenance of the site. Designing for self-sustainability favors ecological integrity, because an ecosystem in good condition is more likely to have the ability to adapt to changes.

### 6.2 Target Areas

The focus for measures described in this Plan is to enhance the mulefat scrub riparian portion of the LCCA. Areas immediately adjacent to these drainages are also considered, due to the fact that they provide wildlife habitat and sources for both native and weedy exotic plants. Tree Tobacco occurs throughout the tributaries and main portion of drainage G, although it is more concentrated north of the landfill access road. Within the riparian scrub areas, coverage of Tree Tobacco ranges from 10-100%. Within substantial portions of drainage G as well as adjacent upland areas, Tocolote has become established as the dominant species with coverage of 50-100%. Short-pod Mustard occurs sparsely in the drainage and upland areas at 1-5% cover. These areas are shown on Maps 6a & 6b.

### 6.3 Methods

Taking into account all factors present in the LCCA, it was determined that the best way to approach mitigation would be through enhancement, in this case by removing species that were not part of the native riparian plant community. The objective of the restoration/enhancement component of the mitigation is to allow the ephemeral streambed habitat to return to the natural state where native species dominate the habitat with a low occurrence of weeds (less than 5%).

Impacts of multiple fires and the proximity to the highway have contributed to the increase of invasive plant species in the LCCA. Use of herbicide on the non-native invasive plant species seedlings within the CDFG jurisdictional areas will be the initial method used to restore/enhance the ephemeral streambeds shown on Map 5. Once the non-natives are reduced competition with the native vegetation will decrease, providing an opportunity for native plant species to re-establish naturally.

One of the most prevalent weeds within the LCCA is Tocolote. The primary method (most effective and cost effective) for control of Tocolote is by herbicide treatment before it sets seed in May or June (Bossard 2000). The Short-pod mustard is also invasive, but less noxious from an aesthetic standpoint. The most effective mustard removal method is hand-pulling prior to setting seed (March-May). Tree Tobacco is the prevalent exotic plant present in the drainages, and its eradication is intended to enable the natural southern willow/ mulefat scrub community to re-colonize the area. The Tree Tobacco is mildly invasive and easily controlled by cutting it and spraying herbicide on the cut stump.

The herbicide treatment of invasive plant species will be performed and/or supervised by a licensed herbicide applicator. The applicator(s) are trained to recognize the Tocolote at all growth stages. The herbicide will be spot sprayed only on the Tocolote. Native plant species will not be sprayed.

### 6.4 Work Plan

#### 6.4.1 Year One

The first year of the LCCA HMMP will be 2007. Tasks for this first year are as follows:

1. Initial treatment of Tree Tobacco with basal bark application of Garlon 4. Re-spray as necessary following re-sprouting or seed germination. Leave all specimens in place to continue to provide cover and perching spots while minimizing soil disturbance.
2. Depending upon rainfall and resulting germination of Tocolote, chemically or mechanically eradicate this species in and adjacent to riparian areas. Treat during the spring season when plants are actively growing but less than six (6) inches tall or before flowering, whichever comes first. In any year where there is negligible germination and/or growth of this species, defer treatment until the following year.
3. Document all activities and results of the HMMP in an annual report to be sent to CDFG.



#### **6.4.2 Year Two**

1. Conduct at least two site visits (recommended during spring and summer) to assess and document percent cover and condition of Tree Tobacco, Tocolote and Short-pod Mustard and need (if any) for re-treatment. Evidence of succession of native species in previously treated areas will also be documented.
2. If determined to be necessary, re-treat Tree Tobacco by cutting the plant first and applying the herbicide on the cut stump.
3. If rainfall has resulted in germination of Tree Tobacco, Tocolote and Short-pod Mustard, treat prior to flowering by manually removing or spraying with 1% Glyphosate, Clopyralid (Transline) or another appropriate compound. If no germination has occurred, defer this task to Year 3.
4. Document all activities and results of the HMMP in an annual report to be sent to CDFG.

#### **6.4.3 Year Three**

1. Conduct at least two site visits (recommended during spring and summer) to assess and document percent cover and condition of Tree Tobacco, Tocolote and Short-pod Mustard and need (if any) for re-treatment. Evidence of succession of native species in previously treated areas will also be documented.
2. If determined to be necessary, re-treat Tree Tobacco by cutting the plant first and applying the herbicide on the cut stump.
3. If rainfall has resulted in germination of Tree Tobacco, Tocolote and Short-pod Mustard, treat prior to flowering by manually removing or spraying with 1% Glyphosate, Clopyralid (Transline) or another appropriate compound. If no germination has occurred, defer this task to Year 4.
4. Document all activities and results of the HMMP in an annual report to be sent to CDFG.

#### **6.4.4 Year Four**

1. Conduct at least two site visits (recommended during spring and summer) to assess and document percent cover and condition of Tree Tobacco, Tocolote and Short-pod Mustard and need (if any) for re-treatment. Evidence of succession of native species in previously treated areas will also be documented.
2. If determined to be necessary, re-treat Tree Tobacco by cutting the plant first and applying the herbicide on the cut stump.
3. If rainfall has resulted in germination of Tree Tobacco, Tocolote and Short-pod Mustard, treat prior to flowering by manually removing or spraying with 1% Glyphosate, Clopyralid (Transline) or another appropriate compound. If no germination has occurred, defer this task to Year 5.
4. Document all activities and results of the HMMP in an annual report to be sent to CDFG.

#### 6.4.5 Year Five

1. Conduct at least two site visits (recommended during spring and summer) to assess and document percent cover and condition of Tree Tobacco, Tocolote and Short-pod Mustard and need (if any) for re-treatment. Evidence of succession of native species in previously treated areas will also be documented.
2. Treat any surviving or seedling of Tree Tobacco, Tocolote and Short-pod Mustard, if necessary.
3. Year five will provide an indication of HMMP success. The goal is to see no more than 5% cover of Tree Tobacco, Tocolote, and Short-pod mustard.
4. Document all results in an annual report to be submitted to CDFG.

### 7.0 MONITORING

Following the initial mitigation efforts, a comprehensive long-term monitoring plan will take successional processes into account. Increases in both the habitat structure and species diversity of the riparian area are two key components of the desired outcome of the enhancement. Periodic observations of riparian habitat functions as evidenced by plant and animal species richness will be the key components of the qualitative monitoring plan.

Starting in year 2007 and ending in year 2011, annual monitoring will be performed in the CDFG jurisdictional areas (shown on Map 5) within the LCCA before and after the annual non-native invasive plant treatment to determine if the methods selected are achieving the goals of enhancing the function and value of the ephemeral streams.

Analyzing quantitative biological monitoring results during the spring of year 5 and comparing them to the performance standards will determine project success. Restoration/enhancement of the site will be considered successful if the treatment areas are reduced to 5% or less exotic plant species cover within five years.

Two types of monitoring will be performed: horticultural (qualitative) and biological (quantitative). Horticultural monitoring will be performed to identify and correct problem areas in regard to weed growth. Biological monitoring will be performed to quantitatively measure establishment of vegetation within the CDFG jurisdictional areas.

Data will be collected for relative percent canopy cover of vegetation and plant-species diversity. Vegetation cover data will be collected using 50-meter line-intercept transects, which will be randomly placed throughout the CDFG jurisdictional areas. The transect locations will be noted on a map and photos will be taken from the permanent photo stations. Plant-species diversity data will be collected by compiling a complete list of species observed within the revegetation site.

Horticultural (qualitative) monitoring will be conducted twice annually, once before weed removal and once after. In addition to these monitoring activities, a general assessment of



germination (volunteers of native species) will be made during monitoring site visits. Photos will be taken from permanent photo locations (Map 5).

## **8.0 MAINTENANCE**

Continued annual treatment of invasive plant species by a licensed herbicide applicator within the CDFG jurisdictional areas will take place from years 1 through 5. Each year the location of invasive/exotic plants will be re-evaluated, and removal and/or treatment techniques will be decided based on evaluation of past years' exotic removal results and current site conditions. Should the removal/treatment technique appear to be ineffective, other methods will be evaluated and selected after approval from the RCWMD is obtained.

## **9.0 CONTINGENCY MEASURES**

The best-case scenario for this LCCA HMMP is for Tocolote, Tree Tobacco, and the Short-pod mustard to be successfully reduced to 5% or less cover within three years, and to for native species to begin to colonize these areas (Map 6a and 6b). Within drainage G, no recurrence of invasives and an increase in native riparian species will be strong indicators of the HMMP's success. The worst-case scenario for this program would be a persistence of both of the target invasive species, or, following successful eradication, either a marked increase in the density of another weedy species or simply the failure of native plants to re-colonize in a timely fashion. The amount and timing of rainfall will determine to a large extent the outcome of this HMMP.

## **10.0 ANNUAL REPORTS**

The following details and results will be reported in the Annual CDFG report:

- Date and time (start-up) of invasive plants removal events;
- Number of hours worked;
- Frequency and timing of removal and treatment;
- Number of employees that worked during the event;
- Description/list of invasive plants removed;
- Amount of invasive plants removed;
- Description of techniques (including the use of herbicides) and tools used to remove invasive plants;
- Description of method of disposal of invasive plants that were removed;
- Before and after photos from designated photo stations;

## **11.0 CONCLUSIONS AND RECOMMENDATIONS**

Annual Conclusions will be stated in the Annual Report submitted to CDFG based on the current year and past results. All changes and trends will be reported including any site trespass and erosion issues, should they occur.

Recommendations regarding weed control activities and future monitoring and maintenance of the site will be provided to improve the success of the mitigation activities.

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**APPENDIX A**  
**LCCA SITE PHOTOS**



Photo 1. View of drainage with Fremont's Cottonwood (*Populus fremontii*) in drainage to right and Tocolote (*Centaurea melitensis*) on upland bench. May 11, 2007.





Photo 2. View south down drainage showing Tree Tobacco (*Nicotiana glauca*) on left, Fremont's Cottonwood (*Populus fremontii*) in center background, and Mulefat (*Baccharis salicifolia*). May 11, 2007.





Photo 3. Drainage south of landfill entrance road with large infestation of Tree Tobacco.  
May 11, 2007.





Photo 4. Tobacco Tree basal bark treatment with Garlon 4. July 24, 2007.





Photo 5. Tobacco Tree three months after herbicide treatment.  
November 29, 2007.





# **Habitat Mitigation and Monitoring Plan**

## **Lamb Canyon Landfill 202.2-acre Expansion Project**

**Unincorporated Riverside County, California**

Riverside County Waste Management Department  
14310 Fredrick Street  
Moreno Valley, CA 92553  
Contact: Ryan Ross  
Telephone: 951.486.3351

August 2012

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**EXECUTIVE SUMMARY**

This Habitat Mitigation and Monitoring Plan (HMMP) has been prepared for the replacement and enhancement of ephemeral drainages as mitigation for the 202.2 acre Lamb Canyon Landfill Expansion Project, located within a larger 1,189-acre Lamb Canyon Landfill Property, situated in the unincorporated area of Riverside County, California. Approximately 1.167 acres of Waters of the U.S. and of the State, under the jurisdiction of the Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB), and 2.739 acres of waters of the State under the jurisdiction of the California Department of Fish and Game (CDFG) will be impacted as a result of project implementation. Impacts are to low quality, ephemeral drainages.

As mitigation for impacts to jurisdictional features, the Riverside County Waste Management Department (RCWMD) proposes the following:

1) On-Site Mitigation:

The on-site habitat mitigation area is located within the Lamb Canyon Landfill property, east of the 202.2 acre active landfill area, within the Lamb Canyon Conservation Area. Mitigation will focus on restoring the riparian habitat by removing exotic non-native vegetation as well as applying a native hydroseed mix and planting riparian container stock to increase the connectivity of the 6.56 acres riparian corridor (Drainage G). Improving connectivity of the riparian corridor, in addition to exotic removal, will provide increased habitat functions and values, as well as promote new riparian habitat, and reduce exotic encroachment.

2) Off-Site Mitigation

In-lieu fees purchased from the Santa Ana Watershed Association In-Lieu Fee Program is proposed at a 2:1 ratio (2.34 acres). This bank allows for the creation, restoration, and enhancement of riparian habitat for projects located within the Santa Ana River Drainage area. Approximately 3.1 acres of USACE jurisdictional waters will be enhanced onsite as part of our on-site mitigation efforts.

Therefore, a total of 8.89 acres of habitat mitigation is proposed for impacts associated with the Lamb Canyon Landfill Expansion project. This results in 3.25:1 mitigation ratio for impacts to CDFG jurisdictional features, and 4.7:1 for impacts to USACE jurisdictional features.



## Section 1 – PROJECT INFORMATION

### 1.1 PROJECT DESCRIPTION

**Table 1 - Project Information**

<b>Project Name</b>	Lamb Canyon Landfill Expansion Project
<b>Applicant</b>	Riverside County Waste Management Department Ryan Ross. 951.486.3351 rmross@co.riverside.ca.us
<b>Total Project Impacts to Waters</b>	1.167 acres of "waters" of the United States (USACE) and of the State of California (RWQCB) 2.739 acres of waters of the State of California (CDFG)
<b>Total Mitigation</b>	6.56 acres of onsite mitigation (restoration) 2.34 acres of replacement mitigation through mitigation bank (in-lieu) fees <b>Total Mitigation : 8.9 acres</b>
<b>Project Schedule</b>	Lamb Canyon expansion project scheduled to begin late 2012. Mitigation implementation to begin in 2013.
<b>Project Location</b>	16411 Lamb Canyon Rd, Riverside, CA 92223

#### Location of Project

The Lamb Canyon Landfill is owned and operated by the RCWMD. The Lamb Canyon Landfill expansion project is a 202.2-acre site and is located at 16411 Lamb Canyon Road, off of State Highway 79 (SH79), between the City of Beaumont and City of San Jacinto, in an unincorporated area of Riverside County. The project site is accessed from State Highway 79, which links Interstate 10 to the north with Gilman Springs Road and State Highway 74 to the south (Exhibit 1, Regional Location Map, and Exhibit 2, Vicinity Map).

The Lamb Canyon Landfill property encompasses 1,189 acres. Within the 1,189-acre property, 580.5 acres are permitted by the current Solid Waste Facility Permit (SWFP) for landfill operations and associated activities. The 202.2-acre Site is hereby defined as the 202.1 acre "Expansion Area", plus a 0.062 acre area located immediately adjacent to the 202.1 acre "Expansion Area" (Exhibit 3, Proposed Project Map). The project site lies within Sections 29, Township 3 South, Range 1 West of the San Bernardino Base and Meridian. The project site is also located at 33°52'51" N, 117°0'12" W, on the United States Geological Survey (USGS) 7.5' El Casco Quadrangles (Exhibit 4, USGS Map).

#### Project Summary

The RCWMD proposes to conduct landfill operations and supporting activities within the 202.2-acre Site. For the purpose of this report, "project area," "project site," or "impact footprint" will

refer to the 202.2-acre site. The 202.2-acre project site will be used for landfill operations and supporting activities in order to meet current and future waste disposal demands in the region.

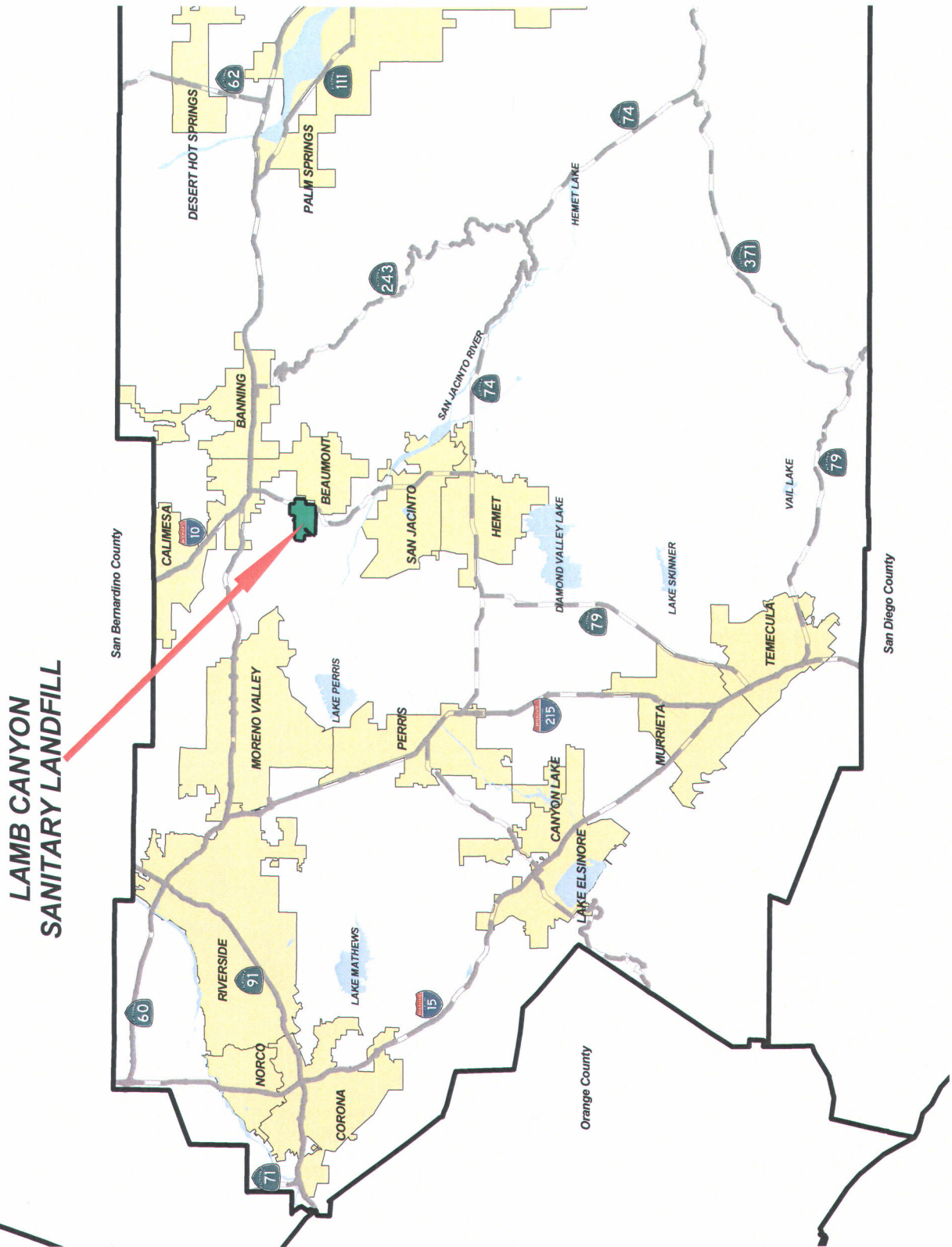
### **Responsible Parties**

This HMMP was prepared as part of the requirements to procure environmental permits from federal and state agencies. RCWMD will be the responsible party for implementing the habitat mitigation project.

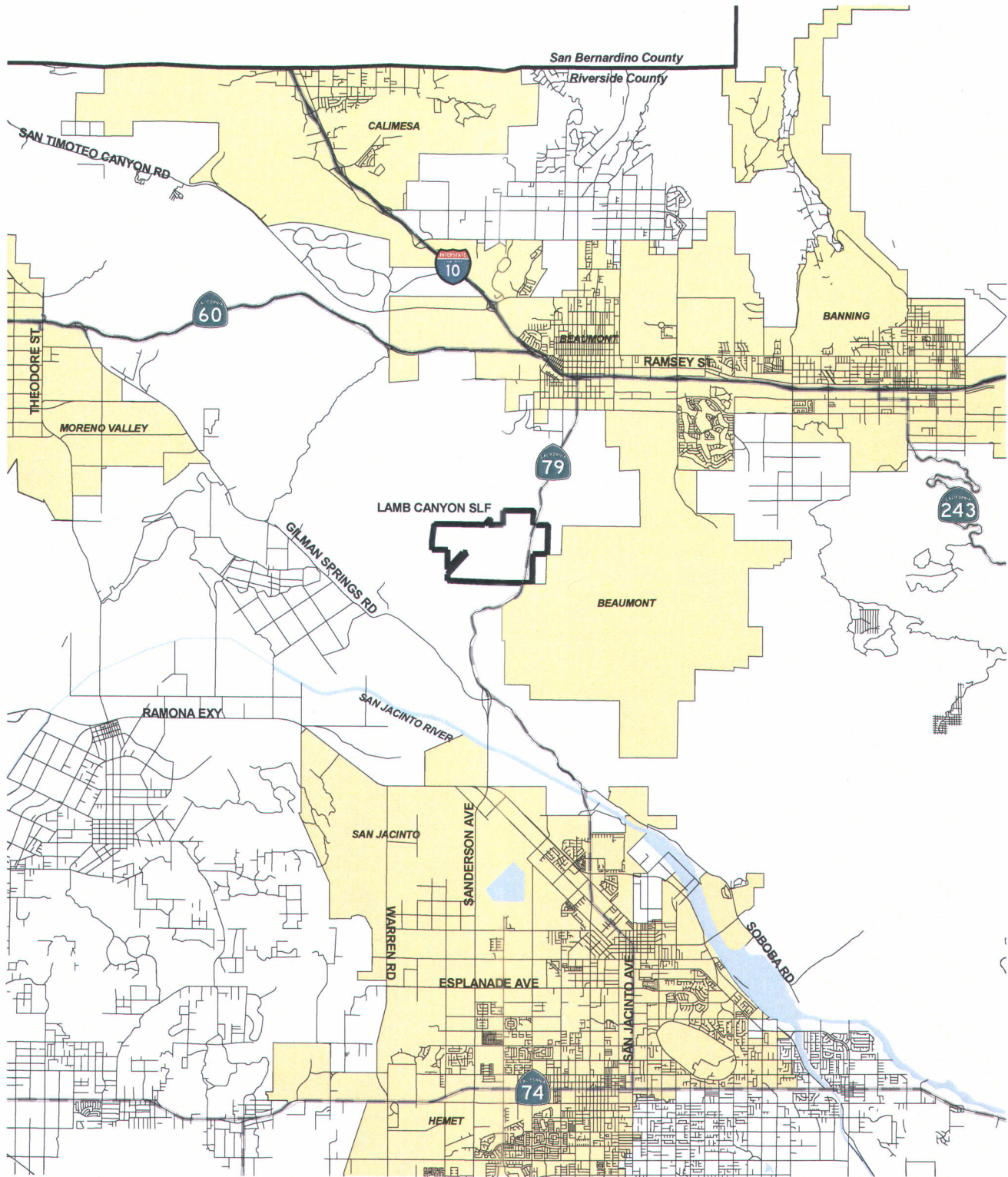
### **1.2 - JURISDICTIONAL DELINEATION & IMPACTS**

An unnamed ephemeral drainage channel runs through the center of the project site in a north-south direction, which supports numerous tributaries that are connected directly to the main drainage. The ephemeral streams throughout the project area are unvegetated and typically surrounded by upland habitats such as Riversidean sage scrub (RSS), chaparral and non-native grasslands. A total of 1.167 acres of waters of the US regulated by the USACE and waters of the State regulated by the RWQCB and 2.739 acres of waters of the State regulated by the CDFG are present within the project limits. All drainages will be impacted as a result of project implementation (Exhibit 5 and Exhibit 6, Jurisdictional Areas).

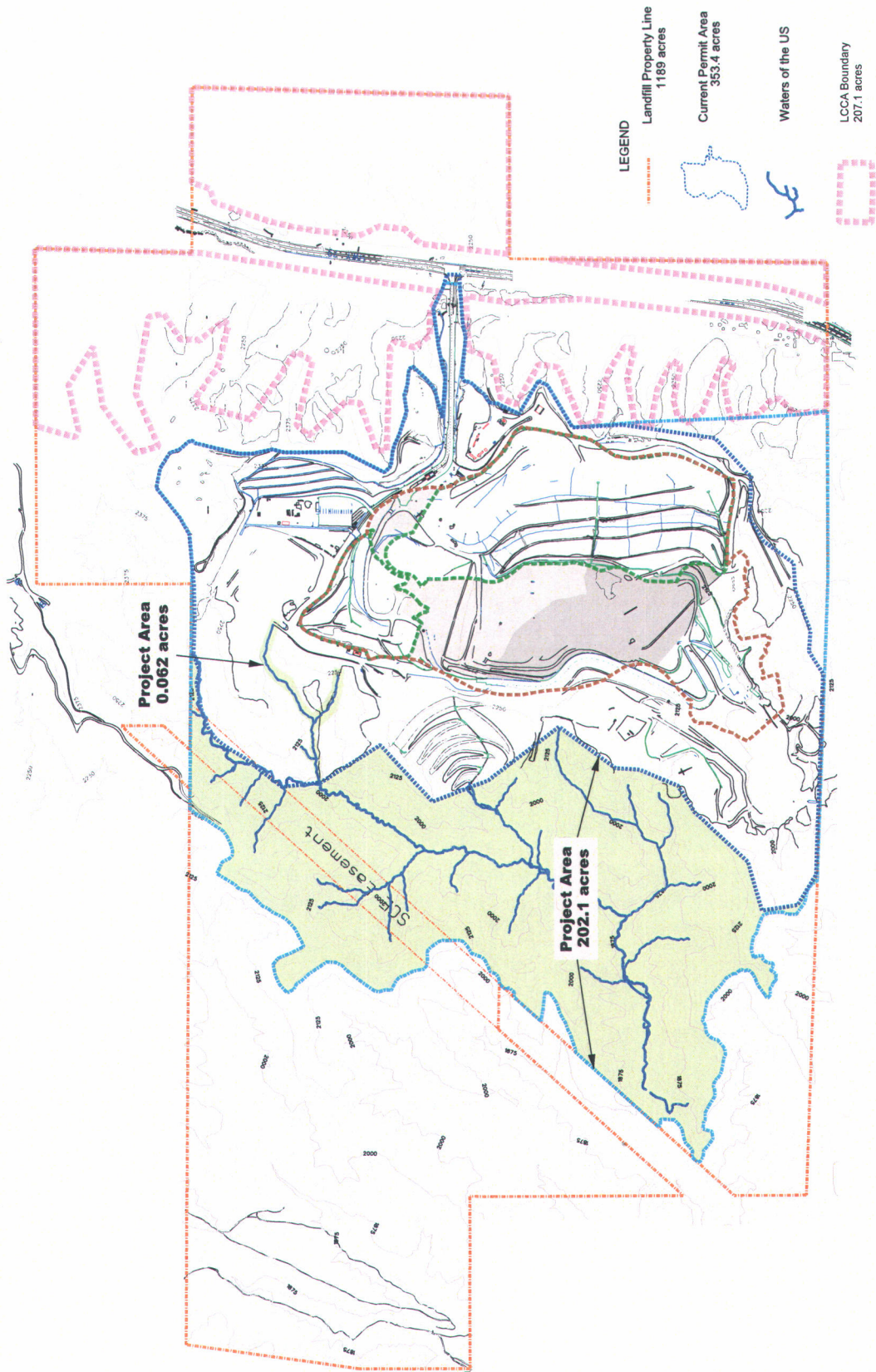




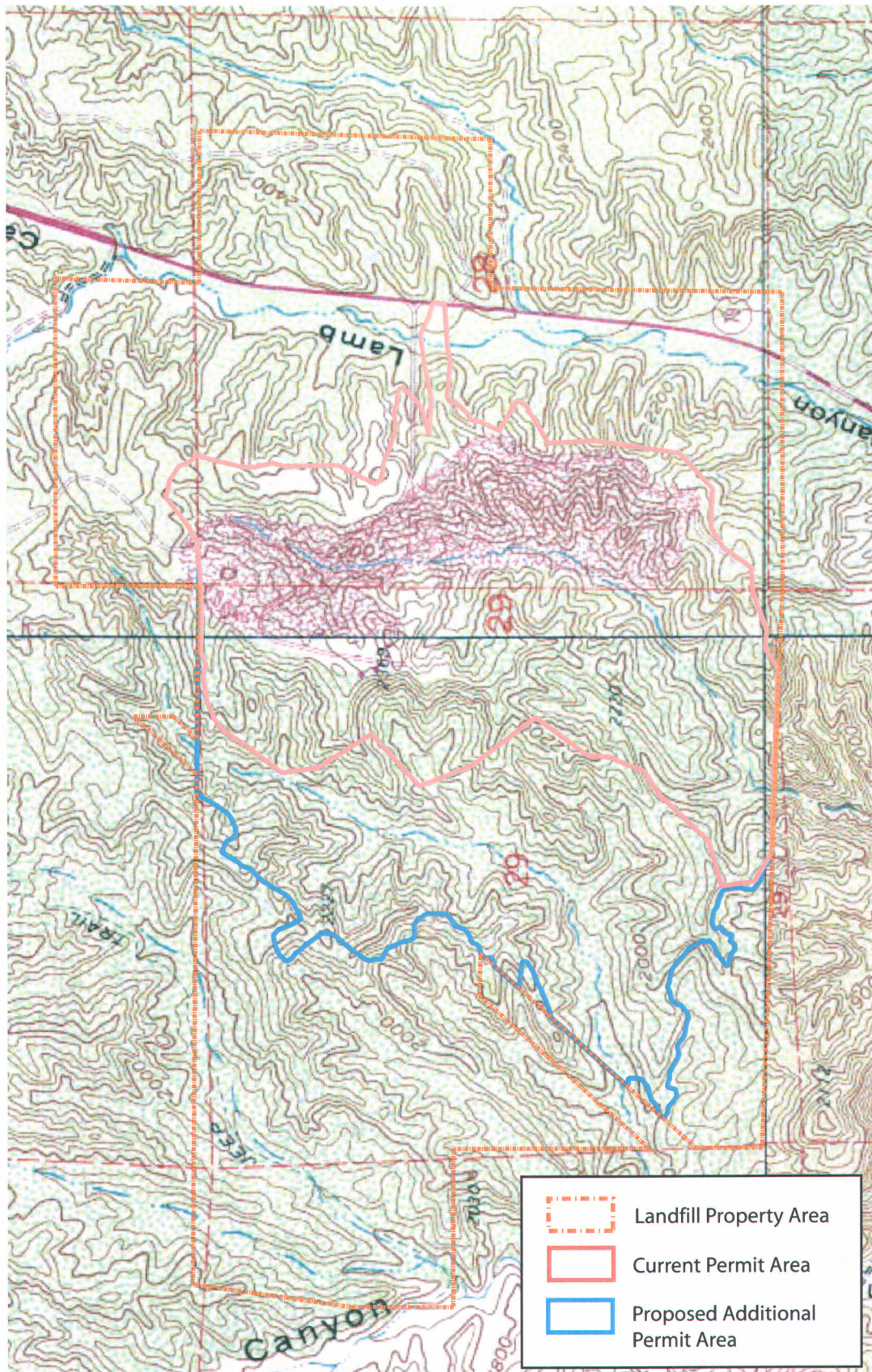












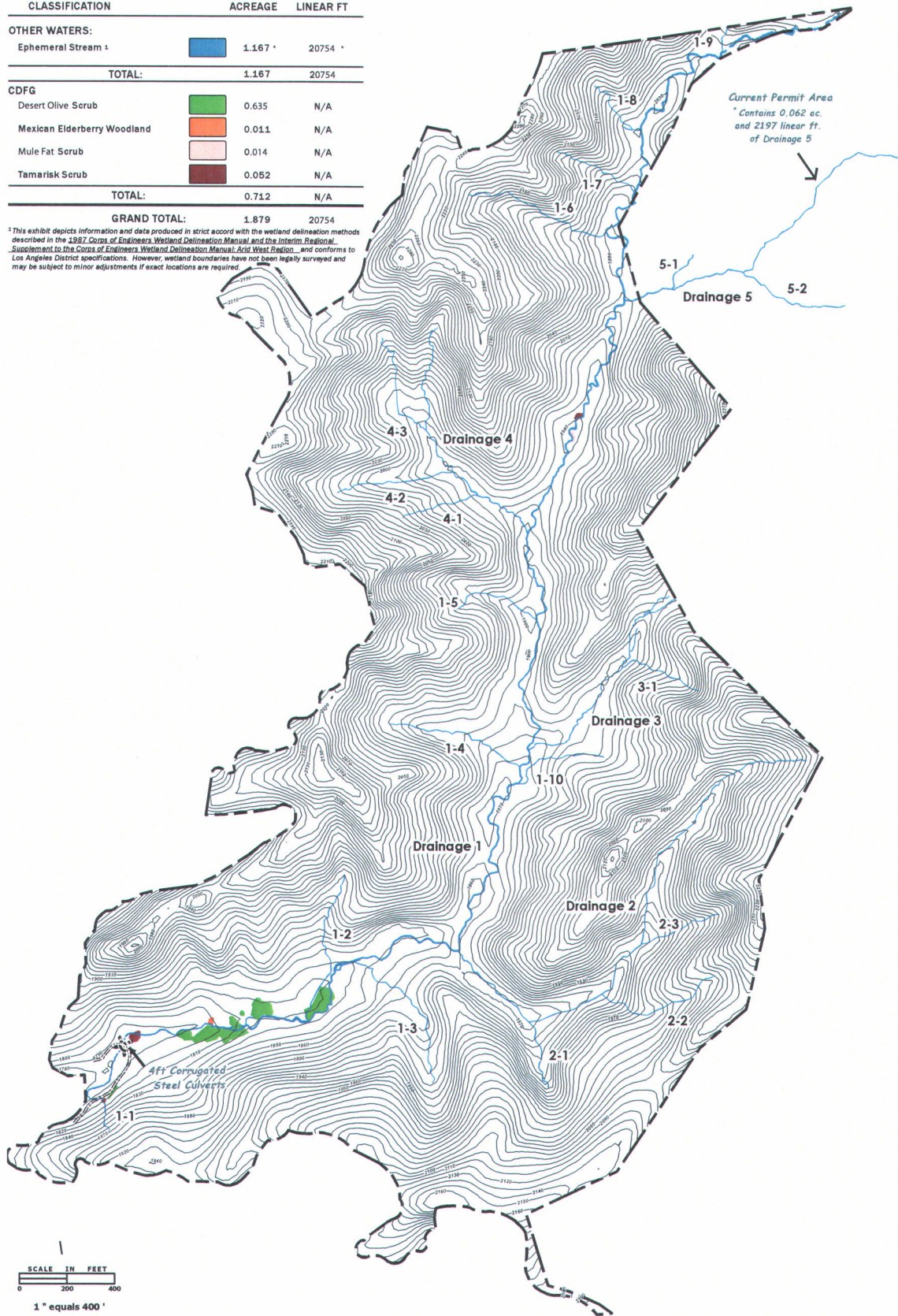


**WATERS OF THE U.S. ACREAGE**

Topo: Interpolated from USGS 10m DEM (Approximate)

CLASSIFICATION	EXISTING ACREAGE	EXISTING LINEAR FT
<b>OTHER WATERS:</b>		
Ephemeral Stream <sup>1</sup>	1.167	20754
<b>TOTAL:</b>	<b>1.167</b>	<b>20754</b>
<b>CDFG</b>		
Desert Olive Scrub	0.635	N/A
Mexican Elderberry Woodland	0.011	N/A
Mule Fat Scrub	0.014	N/A
Tamarisk Scrub	0.052	N/A
<b>TOTAL:</b>	<b>0.712</b>	<b>N/A</b>
<b>GRAND TOTAL:</b>	<b>1.879</b>	<b>20754</b>

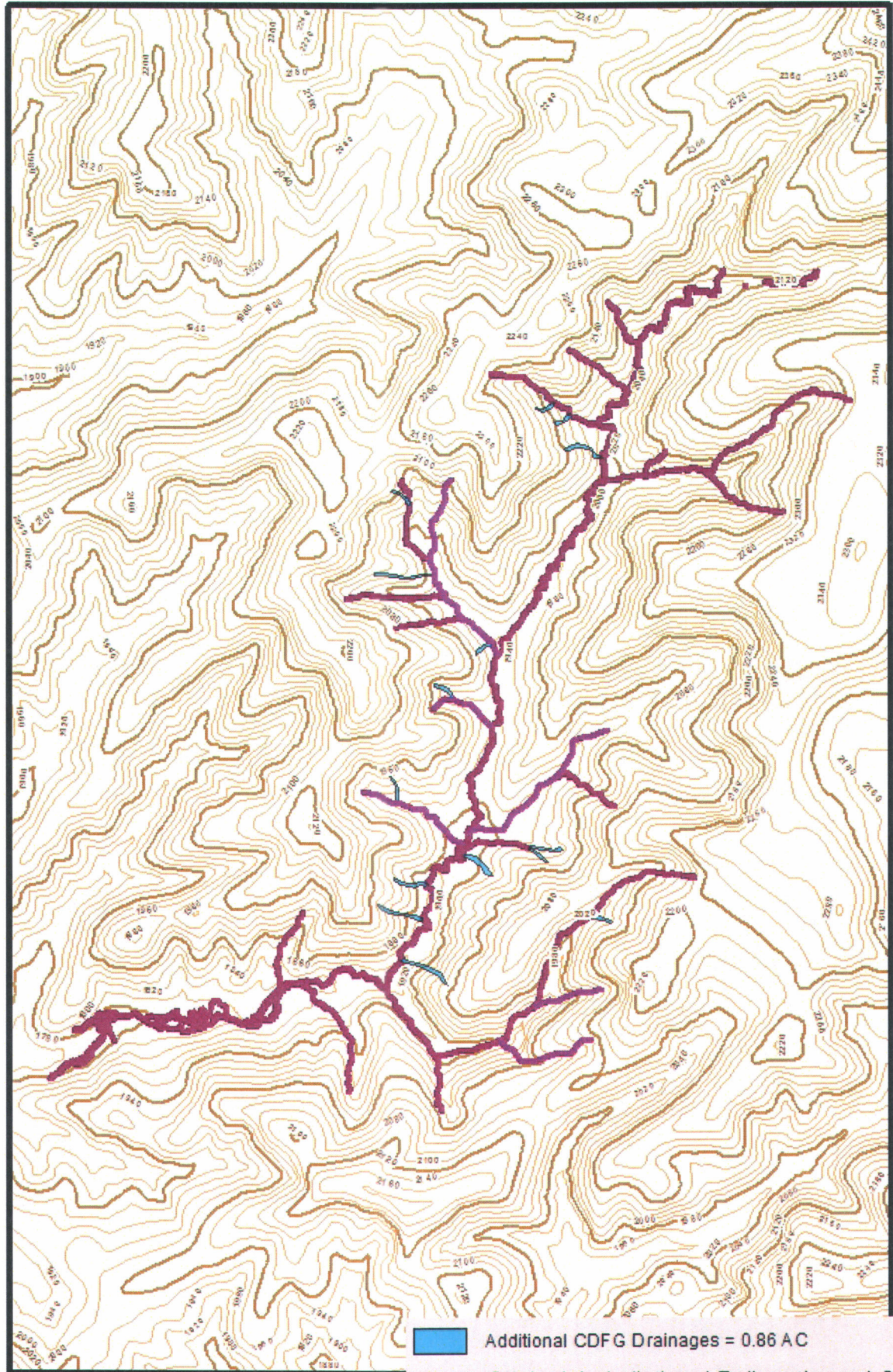
<sup>1</sup> This exhibit depicts information and data produced in strict accord with the wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, and conforms to Los Angeles District specifications. However, wetland boundaries have not been legally surveyed and may be subject to minor adjustments if exact locations are required.



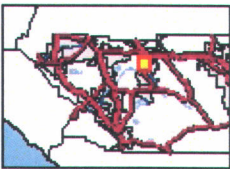




# Lamb Canyon Expansion Area 2011 Jurisdictional Update



July 2012



Disclaimer: Maps and data are for informational purposes only. The State of Massachusetts does not warrant the accuracy or completeness of the data. The State of Massachusetts is not responsible for any errors or omissions in the data. The State of Massachusetts is not responsible for any damages or losses resulting from the use of the data. The State of Massachusetts is not responsible for any claims or liabilities arising from the use of the data.



**Additional CDFG Drainages = 0.86 AC**  
**Original Jurisdictional Delineation = 1.879 AC**  
**Total Acres = 2.739 AC**



## Section 2 – OBJECTIVES/MITIGATION GOALS

### 2.1 - GOAL OF THE MITIGATION PROGRAM

The goal of the habitat mitigation program is to replace functions and values lost as a result of project implementation. The onsite goal is to improve existing habitat within the Lamb Canyon Landfill Conservation Area (LCCA) by performing restoration activities, including exotic removal, hydroseeding, and hand planting, along the existing riparian corridor (Drainage G).

### 2.3 – HABITAT MITIGATION SUMMARY

Mitigation for the loss of jurisdictional drainages which will result from project implementation will be achieved through a combination of habitat creation, enhancement and restoration activities within the LCCA situated east of the project site and within the 1,189-acre landfill property (Exhibit 7, LCCA Onsite Habitat Enhancement Areas). This includes restoration of 6.56 acres within Drainage G. In addition to onsite mitigation, RCWMD shall purchase 2.34 acres (2:1 ratio) of mitigation bank (*in-lieu* fee) credits from the Santa Ana River Wetlands Mitigation Bank, a bank approved by the USACE, RWQCB, and CDFG.

### 2.3 - RESTORATION DEFINITIONS

Restoration is a general term for the rehabilitation of natural systems. More specifically, it has been defined by the Society of Ecological Restoration (SER) as “the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed” (SER, 2002). For the purpose of this report, habitat restoration, creation, enhancement, and management are terms that will describe the different type of restoration activities to take place, as defined by Lewis (1990), taken from the US Army Corps of Engineers Special Public Notice on Restoration Guidelines and Monitoring Requirements (2004).

- **Restoration** - the return to a pre-existing condition.
- **Creation** - the conversion of a persistent non-wetland habitat into wetland (or other aquatic) habitat. Two recognized subdivisions include artificial (requiring irrigation) and self-sustaining.
- **Enhancement** - the increase in one or more functions due to intentional activities (e.g. plantings).
- **Passive Re-vegetation** - allowing a disturbed area to naturally re-vegetate without plantings.
- **Management** - includes actions that ensure the project goals will be met, both in the long- and short-term.