

**DRAFT  
BIG TUJUNGA WASH  
MITIGATION BANK  
2006 END OF YEAR REPORT**

*Prepared for:*

**LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS  
900 South Fremont Avenue  
Alhambra, California 91803-1331  
(626) 455-6138**

*Prepared by:*

**CHAMBERS GROUP, INC.  
17671 Cowan Avenue, Suite 100  
Irvine, California 92614  
(949) 261-5414**

**March 2007**

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## **SECTION 1.0 – INTRODUCTION**

### **1.1 PURPOSE OF THE END OF YEAR REPORT**

The End of Year Report provides documentation of the work done at the Big Tujunga Wash Mitigation Bank during 2006 within the contract year for 2006/2007 (May 19 through December 31, 2006) and a summary of the progress or success of each of the programs. Control of weeds and exotic plants is critical to the success of the revegetation program and is a primary focus of monitoring. The removal of exotic wildlife, maintenance of the formal trail system, and the community awareness program are other key elements of the Master Mitigation Plan. The End of Year Report provides a brief update of the results of the maintenance monitoring visits and an overview of site conditions, community meetings and surveys. The document also provides information on any problems encountered on the site, actions taken to correct any observed deficiencies, and recommendations for additional maintenance measures.

### **1.2 SITE LOCATION**

The Big Tujunga Wash Mitigation Bank is located in Big Tujunga Wash, just downstream of the 210 Freeway overcrossing, near the city of Los Angeles' Sunland area, in Los Angeles County's San Fernando Valley. The site is bordered by the 210 Freeway on the north and east and by Wentworth Street on the south. The west side of the site is contiguous with the downstream portion of Big Tujunga Wash. The general vicinity of the site is shown in Figure 1-1. A map depicting the project location is shown on Figure 1-2.

### **1.3 SITE DESCRIPTION**

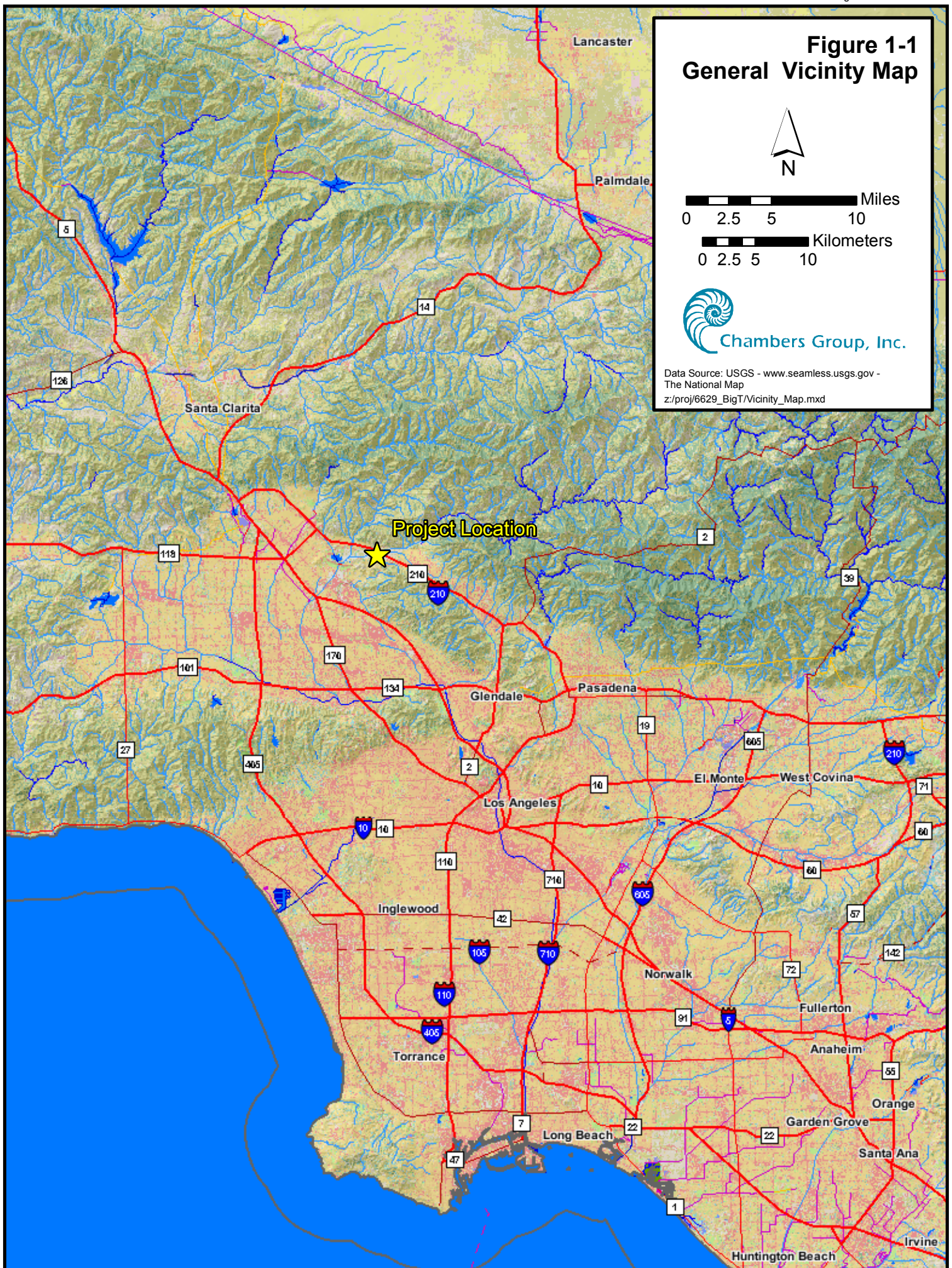
The Big Tujunga Wash Mitigation Bank consists of approximately 207 acres of native habitats. Several plant communities are found on the site including southern arroyo willow riparian woodland, oak/sycamore alluvial woodland, Riversidean alluvial sage scrub, mule fat scrub, coastal sage scrub, non-native grassland, and disturbed areas. The Tujunga Ponds are located in the northeast corner of the site. These ponds were originally created as part of the mitigation measures for the construction of the 210 Freeway and are currently under the jurisdiction of the Los Angeles County Department of Recreation and Parks.

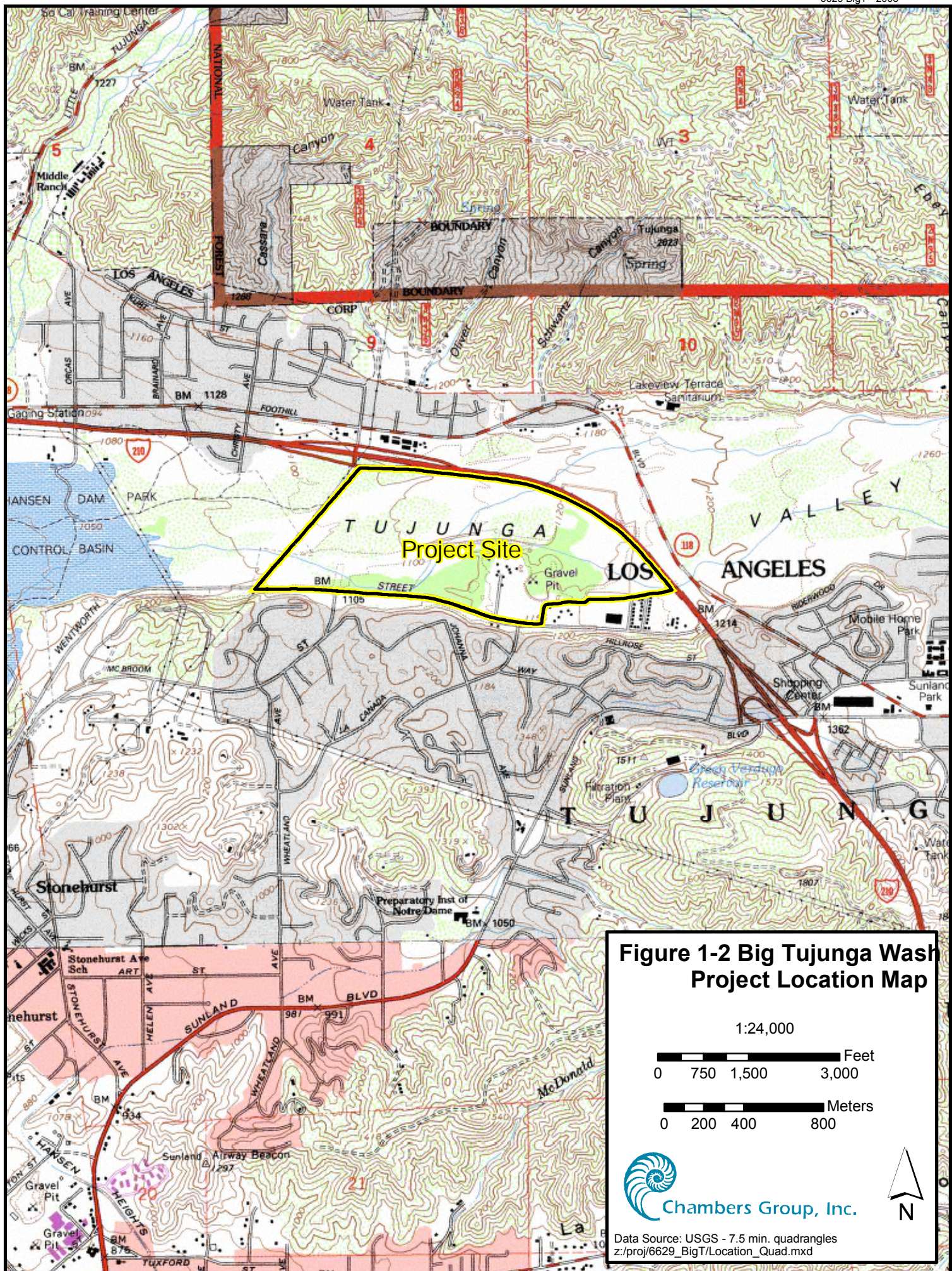
The Big Tujunga Wash Mitigation Bank supports two watercourses, one containing flow from Big Tujunga Wash proper, and the other conveying the flow from Haines Canyon to Big Tujunga Wash. The flow in Big Tujunga Wash, on the north side of the site, is partially controlled by Big Tujunga Dam and is intermittent based on rainfall amounts and water releases from the Dam. The flow in Haines Canyon Creek, located on the south side of the site, is perennial and originates from the Tujunga Ponds, which may be fed by groundwater and/or runoff from adjacent residential areas. The two drainages merge near the western boundary of the mitigation bank site and continue into the Hansen Dam Flood Control Basin, located approximately one-half mile downstream of the site. An aerial photograph showing Big Tujunga Wash, Haines Canyon Creek, and the Tujunga Ponds is shown on Figure 1-3.

### **1.4 MASTER MITIGATION PLAN**

In mid-1999, Chambers Group, Inc., prepared a Master Mitigation Plan (MMP) for the Big Tujunga Wash Mitigation Bank. The purpose of the MMP is to serve as a guide for implementation of the various enhancement programs and to fulfill the California Department of Fish and Game (CDFG) requirement for the preparation of a management plan for the site. The MMP encompasses strategies to enhance and protect existing habitat for wildlife and to create additional natural areas that will be utilized by wildlife and by numerous user groups. In addition, the MMP includes programs for the removal of exotic fish and amphibians from the Tujunga Ponds, trapping to control brown-headed cowbirds, plans for development

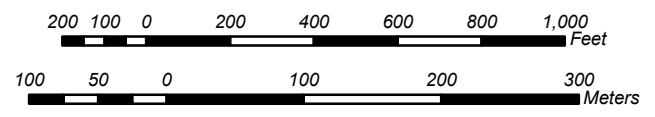
of a formal trails system, and development of a public awareness program at the site. Eradication of exotic plant species, including giant reed (*Arundo donax*) and tamarisk (*Tamarix* sp.), and habitat restoration and revegetation programs, which include planting and irrigation strategies, plant palettes, and long-term maintenance and monitoring of the site, are also included in the MMP. The MMP is designed to include a five-year program of implementation, maintenance, and monitoring of the enhancement strategies. Implementation of the MMP was initiated in late 2000.







**BIG TUJUNGA WASH  
MITIGATION BANK**  
Figure 1-3 Aerial Photograph



*This map is not intended  
for site-specific purposes.*

Prepared For:  
Los Angeles County  
Department of Public Works

Aerial Source:

Date: August 2004

Location:  
z:/proj/6629\_BigT/Fig1-3\_Aerial\_Photo.mxd



## **SECTION 2.0 – COTTONWOOD/WILLOW RESTORATION AREA MAINTENANCE PROGRAM**

### **2.1 INTRODUCTION**

The ultimate goal of the Big Tujunga Wash Mitigation Bank site is to provide for long-term preservation, management, and enhancement of the biological resources for the benefit of the state's fish and wildlife resources. In addition, the Bank will provide compensation for loss of similar resources elsewhere in the Los Angeles Basin. The cottonwood/willow restoration area consists of approximately 60 acres of southern arroyo willow woodlands along Haines Canyon Creek and the Big Tujunga Ponds. The southern willow riparian woodland is dominated by arroyo willow (*Salix lasiolepis*) occurring in the area surrounding the Tujunga ponds and follows the stream running along the southern section of the property (Haines Canyon Creek). Red willow (*Salix laevigata*) and black willow (*Salix gooddingii*) are well represented. Occasional individuals of Fremont cottonwood (*Populus fremontii*) and white alder (*Alnus rhombifolia*) are also found.

#### **2.1.1 Purpose and Goals**

Restoration is intended to improve the habitat value of an existing plant community. The goal of the cottonwood/willow maintenance plan is to remove invasive non-native weed species, such as giant reed, castor bean, and eupatory and to replant these areas with native riparian species as necessary. In addition, several extraneous equestrian trails throughout the riparian zone were retired and are being reclaimed with native riparian species. A total of approximately 40 acres of habitat along Haines Canyon Creek and 20 acres of habitat surrounding the Tujunga Ponds has been enhanced and is currently being maintained. The composition of the vegetation in the enhancement areas supports the breeding and foraging activities of a variety of sensitive riparian species.

The long-term goal is to create a site that provides habitat for common and listed species of wildlife, requires minimal maintenance, and is resistant to invasion by non-native plant species. The established communities will encourage biotic interactions from the micro-organismal to the macro-organismal level by maintaining nutrients within the organic matter and providing a self-sustaining system.

### **2.2 STATUS/RESULTS**

#### **2.2.1 Enhancement/Trail Reclamation**

In the 2006, the trails remained generally clear and free from obstacles and will continue to be enhanced throughout the year during periodic restoration area maintenance sessions and trails maintenance visits. Large rocks and overhanging branches are removed as necessary. These materials are placed alongside the trails to further delineate the path. The closed trails are being monitored and obstructive barriers will be replaced as needed. In 2006, Chambers Group performed trails maintenance visits on May 24, August 24, and November 24, 2006. A more detailed summary of the trail maintenance performed during these visits is included in Section 7.0.

#### **2.2.2 Maintenance, Monitoring and Reports**

Bill Neill, of Riparian Repairs, performed maintenance visits within the cottonwood/willow maintenance areas during 2006. A more detailed description of these visits is included in Section 3.0.

### **2.2.3 Overall Site Conditions**

The Big Tujunga Wash Mitigation Site has been much drier this year but plantings are still thriving from previous years rainfall. Vegetation cover in the cottonwood/willow maintenance areas has maintained a moderate level. Although many of the installed cuttings were not well developed in some of the areas, naturally recruited plants have emerged, adding to the vegetation cover on the site.

Weeds, such as giant reed (*Arundo donax*), eupatory (*Ageratina adenophora*), and castor bean (*Ricinus communis*), in the riparian planting areas are kept to a minimum during regular maintenance activities throughout the year. Resprouts of giant reed were observed and treated throughout the cottonwood/willow maintenance areas, along the stream, and along the trails. Furthermore, treatment of eupatory and castor bean during 2006 has been highly successful.

## SECTION 3.0 – EXOTIC PLANT REMOVAL PROGRAM

### 3.1 INTRODUCTION

The exotic plant removal program includes the removal of non-native plant species from Haines Canyon Creek, Big Tujunga Wash, the Tujunga Ponds, the cottonwood willow and the oak/sycamore areas.. These invasive weeds compete with the native vegetation for light, water and nutrients, and decrease the ecological value of the area. Native wildlife avoids using exotic vegetation for foraging, nesting and cover. Removal of invasive weed species will reduce competition pressure on the native southern arroyo willow plant community and allow for rapid recovery of the native habitat.

#### 3.1.1 Purpose and Goals

Enhancement is intended to improve the habitat value of an existing plant community. The overall goal of the riparian enhancement plan is to remove invasive non-native weed species such as giant reed and to replant these areas with native riparian species. The enhancement plan consists of various tasks designed to remove the non-native species, prepare the areas prior to planting, and to install cuttings and container plant materials of the desired native species after the exotic species have been removed.

### 3.2 STATUS/RESULTS

#### 3.2.1 Maintenance Visits

Bill Neill, of Riparian Repairs, performed exotic plant removal during maintenance visits during 2006. These maintenance visits are summarized in the Table 3-1.

Table 3-1  
2006 Site Maintenance Visits

Date of Site Visit	Areas Treated
September 9	Treated eupatory within the Riparian areas
October 15	J5 and K4, and the adjacent small corner areas of J4 and K5
October 21 and 22	The pond area in sections K4, L4 and L5, and continuing westward along the stream channel in I5 and H5
December 1	Treated eupatory within the Riparian areas

#### 3.2.2 Giant Reed Removal

Some regrowth of giant reed was noted in various areas occasionally throughout 2006. The regrowth was successfully treated with herbicides during maintenance visits. Regrowth of giant reed will be monitored and any new growth will be treated during the maintenance visits.

#### 3.2.3 Eupatory Removal

Aggressive efforts were made to remove eupatory during 2006. During the maintenance visits, eupatory was treated with herbicide and this treatment will continue until the eupatory has been completely eradicated from the site or until the end of the project term (May 18, 2007). At this time, approximately 95% of the eupatory on site has been successfully eradicated.

#### 3.2.4 Castor Bean Removal

Removal of castor bean was accomplished by herbicide and by hand pulling in the restoration areas and along trails during maintenance visits in the third quarter. The restoration areas will continue to be monitored during the fourth quarter for resprouting and new germination and castor bean removal activities will continue as needed. At this time, the castor bean on site has been almost completely eradicated with no sign of regermination.

### **3.2.5 Other Exotic Species Removal**

Some removal of other exotic plant species, such as mustard (*Brassica Spp.*) and tree tobacco (*Nicotiana glauca*) was accomplished by hand pulling during maintenance visits. No water hyacinth or regrowth of tamarisk was observed during 2006. Monitoring of exotic plants in the restoration areas during maintenance periods will continue.

## SECTION 4.0 – BROWN-HEADED COWBIRD PROGRAM

### 4.1 INTRODUCTION

#### 4.1.1 Purpose and Goals

The brown-headed cowbird (*Molothrus ater*) is an obligate brood-parasitic bird species, meaning this species does not build its own nests or tend to its own young. Instead, female cowbirds deposit one or more eggs into a host species' nest, often removing or destroying some of the host eggs. Brown-headed cowbird parasitism has been linked to the decline of numerous native bird species and therefore poses a major threat to many songbirds. Additionally, some host species, including the California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher (*Empidonax traillii extimus*), have also had to contend with habitat loss and fragmentation, which increase the risk of being parasitized (Harris 1991; Laymon 1987; Mayfield 1977; Stafford and Valentine 1985). Cowbird trapping has been successfully employed as a method of controlling cowbird numbers and the level of parasitism on threatened bird species. The goal of the brown-headed cowbird trapping and removal program at the Big Tujunga Wash Mitigation Bank site is to increase the overall value of the site as a conservation bank by allowing the sensitive riparian bird species to successfully reproduce without being parasitized by cowbirds.

### 4.2 STATUS/RESULTS

#### 4.2.1 Program Status

The sixth year of cowbird trapping at the Big Tujunga Wash Mitigation Bank was completed on July 30, 2006. A total of 64 cowbirds, consisting of 38 males, 24 females, and 2 juveniles, were trapped within the Big Tujunga Wash Mitigation Bank site and vicinity. Additionally, 94 non-target birds were captured. No non-target bird died in the traps and none of the non-target birds captured were considered sensitive species by the resource agencies.

Traps were checked and maintained daily during the trapping season including all weekends and holidays falling within this time frame. Trappers collected data on the numbers of cowbirds captured, dead, and/or missing. Data on non-target birds was also recorded. Cowbird and non-target data was recorded by hand on data sheets. Newly captured cowbirds were counted and all cowbirds placed in a temporary holding cage. Non-target birds are then flushed from the trap. Daily maintenance included the cleaning and replenishment of seed and water dishes, adjustment of perches, removal of weeds within the traps, and placement of additional shade cloth as-needed.

## SECTION 5.0 – EXOTIC WILDLIFE REMOVAL & NATIVE FISH SAMPLING PROGRAMS

### 5.1 INTRODUCTION

Dr. Dan Holland, Dr. Camm Swift, and Mr. Robert Goodman conducted initial surveys at the site to determine the most appropriate method of eradication of exotic wildlife species and enhancement for native fishes and amphibians. The MMP provides direction for the eradication of exotic aquatic wildlife and also contains a more detailed description of the various methodologies available for exotic wildlife removal.

#### 5.1.1 Purpose and Goals

At present, suitable habitat on the project site for sensitive native aquatic vertebrates is almost exclusively confined to the portions of Haines Canyon Creek downstream from the ponds. The Tujunga ponds essentially do not provide good habitat for most native vertebrate species because they support a large population of non-native predatory amphibians, fishes, and crayfish. In addition, the ponds likely contribute to substantial negative impacts on the native vertebrate fauna downstream by fostering the presence of a source population of non-native invertebrates bullfrogs and fishes. These exotic species may directly affect native species through predation or competition, or indirectly through transmission of pathogens and/or parasites. Additionally, modification of the stream environment by the creation of cobble dams (for “swimming holes”) along Haines Canyon Creek continues to be problem for native species. These modifications exacerbate problems with control of exotic species in the stream by creating large areas of habitat suitable for exotic species and less suitable or unsuitable for native species. Removal of these cobble dams and prevention of further construction is a high priority.

The ultimate goals of this project are:

1. To restore or create and maintain habitat for native fishes and other sensitive vertebrate species;
2. To eliminate, diminish, and/or restrict habitat which fosters the maintenance of exotic species; and
3. To engage in localized or site-by-site direct control efforts for exotic species to complement goals 1 and 2.

The exotic wildlife removal program consists of the removal of non-native fishes, bullfrogs (*Rana catesbeiana*), red-eared sliders (*Pseudemys scripta elegans*) and red swamp crayfish (*Procambarus clarkii*) from Haines Canyon Creek and the Tujunga Ponds. Bullfrogs are not native to the area and pose a major threat to native wildlife because they have voracious appetites and prey upon the sensitive fishes, frogs, toads, and birds.

### 5.2 METHODOLOGY

#### 5.2.1 Exotic Wildlife Removal

Six (6) distinct methods are used to capture the aquatic organisms, including gill nets, small seines, crayfish and minnow traps, spear fishing, dip/lift nets, and turtle traps. “Standard” gill nets, namely five (5) larger meshed nets that range from 1.5 inch (3.7 cm), 1 inch (2.5 cm), and 0.5 inch (1.2 cm), are sometimes used. Visual observations and surveys are also made. Traps are typically baited with small cans of mackerel with tomato sauce and “seafood grill” cat food with holes punched in the cans.

### **5.2.2 Native Fish Monitoring**

Each native fish collection transect is blocked at the upper and lower end with a 0.125-inch mesh seine. This is done with minimal disturbance to the transect. Then, two (2) people seine for at least one (1) hour with a variety of techniques to exhaustively sample all of the fishes. Native fishes are held in large buckets and oxygenated frequently. At the end of each collection, the native fishes are counted, their sizes are estimated to the nearest ten (10) centimeters, and then are released back into the transect area. In addition to collecting data on the fishes, habitat features including water temperature, substrate type, depth, width, available cover, canopy, and gradient or slope are also measured and recorded.

## **5.3 STATUS/RESULTS**

Exotic wildlife removal efforts and native fish sampling efforts were not performed during 2006. These efforts are planned for the fourth quarter (February 19 – May 18, 2007). The objective will be to remove potential non-native breeding/spawning wildlife prior to their reproduction cycle, thus minimizing propagation of their species in the ponds.

## SECTION 6.0 – TERRESTRIAL WILDLIFE MONITORING

### 6.1 PURPOSE AND GOALS

The ultimate goal of the Big Tujunga Wash Mitigation Bank site is to provide for long-term preservation, management, and enhancement of the biological resources for the benefit of the state's fish and wildlife resources. The project site is presently used by various common and sensitive wildlife species. The primary goal of the Big Tujunga Wash Mitigation Plan is to establish breeding and foraging habitat for resident and migratory wildlife species associated with the riparian, alluvial scrub, and aquatic habitats. Observations of common wildlife and plant species within the mitigation area have been documented in previous surveys. In addition, wildlife monitoring surveys are conducted in order to document use of restoration areas by sensitive wildlife species. Use of restored habitats by the following sensitive wildlife species will be considered progress indicators of revegetation success.

### 6.2 STATUS/RESULTS

#### 6.2.1 Least Bell's Vireo

Surveys for least Bell's vireo were not conducted during 2006. Qualified wildlife biologists who are familiar with the songs, calls, and visual identification of the least Bell's vireo (*Vireo bellii pusillus*) will conduct a presence/absence survey. This survey will be conducted during the fourth quarter (February 19 – May 18, 2007). Biologists will survey all areas of suitable riparian habitat in one (1) day. The surveyors will conduct the surveys by walking all suitable riparian habitats as well as stationing themselves in the best locations within the riparian habitat in order to listen and look for vireo.

#### 6.2.2 Southwestern Willow Flycatcher

Surveys for least southwestern willow flycatcher were not conducted during 2006. A permitted biologist familiar with the habits, appearance, and vocalizations of the southwestern willow flycatcher (*Empidonax traillii extimus*) will conduct a presence/absence survey for the southwestern willow flycatcher. This survey will be conducted simultaneously with the least Bell's vireo survey during the fourth quarter (February 19 – May 18, 2007). Biologists will survey all areas of suitable riparian habitat in one (1) day. The surveyors will conduct the surveys by walking all suitable riparian habitats as well as stationing themselves in the best locations within the riparian habitat in order to listen and look for the birds.

#### 6.2.3 Arroyo Southwestern Toad

Surveys for least arroyo toad were not conducted during 2006. Qualified wildlife biologists familiar with the habits, appearance, and vocalizations of the arroyo southwestern toad will a presence/absence survey for the arroyo toad (*Bufo californicus*). The survey will include both daytime and nighttime components conducted within the same 24-hour period during the fourth quarter (February 19 – May 18, 2007).

The daytime portion of the survey will be conducted by walking slowly along stream margins and in adjacent riparian habitat, visually searching for (but not disturbing) eggs, larvae, and juveniles. The nighttime portion of the survey (assuming eggs, larvae, and/or juveniles have not been detected) will be conducted by walking slowly and carefully on stream banks. Surveyors will stop periodically and remain still and silent for approximately 15 minutes at appropriate sites to wait for arroyo toads to call. The nighttime survey portion will be conducted between one (1) hour after dusk and midnight, when air temperature at dusk is 55 degrees Fahrenheit or greater.

## **SECTION 7.0 – TRAILS PROGRAM – RIPARIAN AND UPLAND**

### **7.1 INTRODUCTION**

#### **7.1.1 Purpose and Goals**

The overall goal of the trail system is to allow for recreational activity while minimizing impacts on the habitat quality at the Big Tujunga Wash Mitigation Bank site. Essential to this process is the effort of returning unnecessary trails to their natural condition for the overall improvement of habitat quality. Trails occur in the riparian habitat along Haines Canyon Creek and the Tujunga Ponds as well as in the Upland areas. The closure of several trails was essential to the success of restoration and enhancement of the site. Therefore, the trails program is an integral part of the evaluation process to help determine the success of the overall restoration and enhancement program. Thus, the regular maintenance and monitoring of the trail system is evaluated and reported quarterly. Monitoring of the trail system also essential for determining if recreational use is having negative impacts on the success of the site, or if wildlife use of the site is being compromised. The following sections describe tasks that were conducted during the third quarter of this year, problems that were encountered, and future proposed tasks.

### **7.2 STATUS/RESULTS**

#### **7.2.1 General Trail Conditions**

The trail system has improved greatly in 2006. Trails which were previously flooded and unusable are now dry and have been cleaned of debris. Trail debris and fallen trees were removed during normal maintenance visits and during trail walks.

Trails were monitored on a quarterly basis during the 2006 portion of the 2006/2007-contract year. Trail walks were conducted on May 24, August 24, and November 24, 2006. All trails, in both the riparian and upland areas, were walked in an effort of document and correct any problem areas. The general condition of the each trail was assessed and any debris blocking the trails was removed. Problem areas, such as areas with low hanging branches or fallen trees blocking the trail, were noted for future removal. All trails were checked for vegetation overgrowth and debris. All overhanging branches and plant materials that obstructed the trails were trimmed back as necessary.

Several trails were re-established and trash was removed during a trail enhancement day on July 8, 2006 and Chambers Group created a new trail on November 29, 2006. This trail was created along the north side of the Big Tujunga River, near the Wheatland entrance, and was designed to replace the trails that were washed out during the 2005 flooding. Additionally, an unauthorized footbridge was installed along the western edge of the Tujunga Ponds to replace the one washed out by storms. Because this footbridge is not causing any impacts to the water flow and will likely be replaced if removed, it was not removed during scheduled trail maintenance visits.

#### **7.2.2 Unauthorized Overnight Campers and Trail Safety**

Use of the site by unauthorized overnight campers continues to be a potential issue. Although some evidence of the presence of overnight campers has been apparent, no unauthorized encampments were observed during trails maintenance visits in 2006.

#### **7.2.3 Trash Receptacles and Portable Toilets**

Previous Clean-up Day activities have been very successful in removing trash from the site. Additionally, Chambers Group has removed trash from the site during all scheduled visits and little trash was observed outside of the acceptable receptacles during the quarterly trail visits. The portable toilets appear to be in good condition.

## **SECTION 8.0 – PUBLIC AWARENESS AND OUTREACH PROGRAM**

### **8.1 INTRODUCTION**

Public awareness and involvement are major components of the MMP process. The local community generally supports the Big Tujunga Wash Mitigation Bank project and has been pro-active in its planning and implementation. Due to the community's history of taking care of the site for years, there is every reason to believe that with the proper education and training, local residents will continue to be dedicated caretakers of the site.

### **8.2 STATUS/RESULTS**

#### **8.2.1 Community Advisory Committee**

The CAC meetings are being held on a semi-annual basis during the 2006/2007 contract. The CAC consists of residents and representatives from local community organizations as well as agency and elected officials. The first CAC meeting that Chambers Group attended in 2006 was held on Thursday, September 28 at the Hansen Yard in Sun Valley.

The site advisory panel present at the meeting included Belinda Kwan and Crystal Franco of LADPW and Larry Freeberg and Jenny McGee of Chambers Group. The agenda for the meeting included a review of the action items from the previous CAC meeting (April 2006), an overview of programs to be implemented prior to the end of the contract, and site maintenance issues. A brief summary of the key points discussed at the meeting and the full text of the meeting minutes and attendance is provided in Appendix A. The next CAC meeting is scheduled for 6:30 to 8:30 p.m. on Wednesday, March 28, 2007 at the Hansen Yard.

## **SECTION 9.0 – WATER QUALITY MONITORING PROGRAM**

### **9.1 INTRODUCTION**

In order to address both upstream and downstream water quality issues at the Big Tujunga Wash site, a water quality-monitoring program was implemented in 1999. The monitoring program addresses specific water quality issues, such as pesticide/fertilizer percolation and run-off and subsequent groundwater contamination, which may occur due to upstream development, including the Angeles National Golf Club (formerly known as Canyon Trails Golf Course). Monitoring for elevated levels of nitrogen and organophosphates in the flow entering the site will help determine whether nitrate-laden irrigation water or pesticide run-off from upstream developments are affecting the Big Tujunga Wash Mitigation Bank. The water quality monitoring program at Big Tujunga Wash will complement the monitoring program requirement of the upstream Angeles National Golf Club.

### **9.2 STATUS/RESULTS**

An experienced Water Quality Specialist collects samples semi-annually, and the samples are taken to Montgomery Watson Laboratories, Pasadena, California, to be analyzed within the standard limits after sampling is completed. The results of the water quality analyses are summarized and will be included in an annual report distributed to Public Works, CDFG, Regional Water Quality Control Board (RWQCB), and USFWS at the end of the calendar year.

In addition to water quality monitoring, discharge measurements in the outlet of Big Tujunga Ponds and in Haines Canyon Creek leaving the site will be estimated. Stream velocities in these areas are estimated using a simple field procedure that uses a float (an object such as a ping-pong ball, pine cone, etc.) to measure stream flow.

The first of the two samplings was conducted on July 11, 2006 and the draft report was submitted in September. The second sampling was conducted in December and the report will be submitted to LADPW upon completion.

## **SECTION 10.0 – LONG-TERM MAINTENANCE AND MONITORING PLAN**

### **10.1 INTRODUCTION**

The ultimate goal of the mitigation bank is to provide for the long-term preservation, management, and enhancement of the biological resources and for the benefit of the state's fish and wildlife resources. The long-term goal of the project is to provide a site that provides habitat for common and listed species of wildlife, requires minimal maintenance, and is resistant to invasion by non-native plant species.

The Long-Term Monitoring and Maintenance Plan (LTMMP) provides a summary of the restoration actions and planning and sketches the outline for actions and planning efforts that will take the management of the mitigation site into the long term management phase, in association with the goals of the mitigation bank. A preliminary draft of the LTMMP was submitted to LADPW in 2004.

### **10.2 STATUS/RESULTS**

Chambers Group prepared a second draft of the LTMMP in the second quarter of the 2006/2007-contract year incorporating comments from LADPW. Copies of this LTMMP were submitted to both LADPW and CDFG on October 27, 2006.

## **SECTION 11.0 – FORMAL MITIGATION BANKING AGREEMENT**

### **11.1 INTRODUCTION**

In order to establish a method of keeping track of credits used in the Bank, LADPW must enter into a Banking Agreement with the CDFG. This agreement established the mechanism for determining available credits and a system for tracking use of these credits. In addition, the agreement includes all of the rules for using the bank as mitigation for other LADPW projects. A first draft of the Formal Banking Agreement was prepared in 2001.

### **11.2 STATUS/RESULTS**

Sharon Lockhart prepared a second draft of the Formal Banking Agreement, following the latest CDFG format, during the third quarter of 2006. Meetings were held with the attorney for LADPW and CDFG was consulted. The key element to be resolved is how to assure funding for maintenance of the Bank in perpetuity. LADPW charter and funding mechanisms do not allow a commitment of funds in perpetuity.

## SECTION 12.0 – REFERENCES

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1993     *Final Report, Brown-Headed Cowbird Trapping and Elimination Program*. Prepared for the International Boundary and Water Commission United States and Mexico United States Section, El Paso, TX, and Chambers Group, Inc.
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## **APPENDIX A**

### **CAC MEETING MINUTES AND ATTENDANCE**

**BIG TUJUNGA WASH MITIGATION BANK  
COMMUNITY ADVISORY COMMITTEE MEETING MINUTES  
SEPTEMBER 28, 2006  
HANSEN YARD 7 – 9 P.M.**

**I. Welcome / Introduction**

1. Welcome
2. Review of agenda

**II. Site Maintenance Issues and Discussion of Action Items from Previous Meeting**

1. General Site Signage: “Restriction of Activities” signage was extensively discussed regarding where to place the signs and what restrictions to place on the signs. Belinda Kwan explained that “restriction” must be those, which have municipal codes that will enable enforcement. After a long discussion it was decided that due to a reasonable sized signs and the limited space of that signs, the restrictions would be limited to the most important five items. The consensus of the five most important restrictions were:
  - No Wheeled Vehicles
  - No Guns
  - No Fires
  - No Alcohol
  - No SwimmingThese signs are to include the hours the site is open and when it closes. The CAC asked that the sign be printed in English and Spanish. Signs near ponds will be replaced to discourage overnight campers. Front entrance sign should also be replaced. There was also a discussion regarding adding a statement like: *You are a guest to this wildlife area and/or You can be asked to be removed at anytime.*
2. Jurisdiction and Enforcement: A discussion was held regarding what organization/agency is responsible for the enforcement at Big T and who should called for enforcement.
  - The site is the jurisdiction of the City of Los Angeles
  - Enforcement could be the responsibility of the Special Services police (Park enforcement), General Services (all City police), or Office of Public Safety (Sgt. Torres).
  - The responsible police and who to call will be determined.
3. Tamayo Property: The Tamayo Property was briefly mentioned, but due to the negotiations currently underway, it is not appropriate for LADPW to discuss it at this time. The actual boundaries of Tamayo property and the DPW power line right of way have not been completely defined as of yet.
4. Website: The website site is up and running. CAC members asked for it to be updated with the most recent information.
5. Unauthorized Overnight Campers: The enforcement code for trespassing, hours of operation and other restrictions must be posted. Enforcement must begin to discourage camping overnight. The City has jurisdiction for enforce, not the County of LA. Contact

Sergeant Torres with the Office of Public Safety. Belinda (LADPW) will research enforcement of the Big T site and determine appropriate enforcement codes for posting.

6. Trails: Wheatland Vista Trail washout area. CAC members expressed concern that multiple trails would be developed due the road/trail washout. Chambers is to mark a new trail with stones, sticks, and etc.
7. Wheatland Kiosk: The Kiosk will not be replaced due to constant vandalism
8. Cottonwood Area as a Staging Area: Topic not discussed
9. Cottonwood road: Topic not discussed
10. Trash removal: Topic not discussed

### III. Current Status of Programs and Program Implemented in 2006

#### Activities Summary

1. Exotic Plant Removal: Jenny McGee (CGI) briefly discussed the use and effectiveness of Round-up for treating Eupatory. Round-up (Aquamaster) is the only herbicide authorized in the riparian area by the CA DFG Permit. Round-up control will be used for eupatory, castor bean, poison oak, and re-sprouting giant reed (*Arundo donax*). The cut and stump herbicide application method will be used to treat the Arundo (herbicide application immediately following cutting). Two other herbicides have been identified that are desired for use against arundo and eupatory, but they would have to be approved by the CA DFG. Pathfinder/Garlon is very effective on arundo and Bill Neill has extensive experience in using it near riparian areas. Timeline is an herbicide that is selective to the family Asteraceae, of which eupatory is a member. This family is the composite flower family, for example sunflowers and dandelions. The application of Timeline for eupatory eradication would have little, if any collateral damage to native plants in the riparian area of the Big T site.
2. Riparian Habitat Restoration:
  - Jenny McGee briefly explained that additional planting is planned for the winter/spring of 2007.
  - Planting in the restoration sites will be conducted during the wet portion of 2007. Seeding will follow in the areas where the eupatory is treated. Willows and cottonwoods will be the primary trees to be planted.
  - CAC questioned if the County could use the "Treepeople" to plant in Big T. "Treepeople" are planting native trees at Hanson Dam, November 4<sup>th</sup>. They do this at no charge. The Santa Monica Mountains Conservancy could possibly donate tree trees to Big T.
  - Success of the mitigation bank prompted a question regarding public access/success criteria. A discussion followed regarding the potential impact of public access and use on the success of the mitigation site, e.g. Least Bell's Vireo's significance in Big-T's success. Jenny McGee clarified that presences of various desired species (Vireo, willow flycatchers, and etc.) is a goal of the mitigation site, but it is not a requirement for success.
  - Locations of areas where work is going to be performed will be noted on a grid map. CGI will provide copies of grid map to LADPW

3. Exotic Wildlife Removal/Monitoring: Topic not discussed
4. Water Quality Report/Analysis:
  - Barbara Turnowski confirmed that all her water quality instruments are calibrated prior to sampling. The manufacturer recommends calibration every 2 years.
  - Montgomery Watson took water quality samples on July 11, 2006. There will be two water samplings this year. The second sampling will be in the winter/spring of 2007.
5. Trails Restoration/Maintenance: Topic not discussed

#### **IV. Additional Topics Discussed**

1. LA Water Plan: There was a brief discussion following Mary Bensons question if LADPW was involved in the development of this plan.
2. Exotic Plant control:
  - CAC members identified the location of ivy plants (south of the pond outlet bridge) that they are concerned about continued propagation. The issue is that Rodeo is not effective on ivy and any attempt to treat the ivy would endanger all the surrounding native plants. Chambers to investigate a method to control the mentioned ivy.
  - Poison oak was also discussed and CAC members asked that it be trimmed back from the trail in selected areas. Larry Freeberg explained that poison oak is a native plant, not an exotic. He also discussed human allergic reactions and that there commercial products that help inhibit contact dermatitis. He offered to provide the names and samples of these products. LADPW asked that poison oak be trimmed in select areas of the trails. Chambers agreed they would trim with herbicides, as it is less dangerous to employees and would be more effective over time.
  - Castor beans: CAC members voiced their concern about the castor bean infestation. Larry explained that it is a result of the flooding from the 2004/2005 winter flooding. The seed were washed in from upstream and are now spread through out the site. Chambers has been controlling the smaller plants by pulling them out where possible, but the larger establish plants will have to be treated with herbicides. Barbara Turnowski explained that she has been mechanically removing the plants and hauling them out of the riparian area. Larry cautioned the members not to break the plant off as they will re-grow with many more branches. The root system must be pulled out and removed or the plant will grow back as a bush and produce many more beans. Also, be careful not to spread the beans about while moving the plants. If beans are present, remove them and place them in a plastic bag, before moving the plants. Herbicide treatment by cutting the stock and treating the stock with Rodeo is planned. This is to minimize collateral damage from topical spraying. Bean removal is already in progress. The upland castor beans will be treated with topical rodeo were collateral damage is unlikely.

#### **V. Schedule Next CAC Meeting**

1. The next regularly scheduled CAC meeting is scheduled to take place from 6:30-8:30pm March 29<sup>th</sup> 2007. A meeting reminder will be mailed to all stakeholders with the meeting date, time and place.

#### **VI. Comments, Questions, and Answers (Panel)**

No additional comments or questions

# **BIG TUJUNGA WASH MITIGATION BANK COMMUNITY ADVISORY COMMITTEE MEETING September 28, 2006**

	NAME	ADDRESS	PHONE/FAX	EMAIL	AFFILIATION
1	Larry Freeberg	17671 Cowan Ave Ste 100, Irvine, CA 92614	949) 261-5414	lfreeberg@chambersgroupinc.com	Chambers Group
2	Jenny McGee	17671 Cowan Ave Ste 100, Irvine, CA 92614	949) 261-5414	jmcgee@chambersgroupinc.com	Chambers Group
3	Dawn Gue	420 W 47th St, LA 90013	213 576-5733	dawngue@caltrans.ca.gov	Caltrans
4	Carol Koper	9635 La Canada blvd S.H. 7090	818 353 5534		SHARPA
5	Robert Koper	10344 DAWSON DR - 90940	818-352-6220	carol.koper@caltrans.ca.gov	SHARPA
6	Debra Disten	18511 Mahoney Dr	353 5994	ajish@juno.com	SHARPA
7	James G. Gue	10511 Mahoney Dr	11	11	11
8	Terri Koper	10354 McBrown ST SH 91040	262-0315	HD COUCERIS@COMCAST.NET	ETL SHARPA
9	Barbara J. Jankowski	10410 Las Lunitas Ave, TuJunga, CA 91042	(818) 352-8294	bobbi_bash@hotmail.com	FOLAR
10	Crystal Franco	9806 Fremont Ave, Alhambra CA 91803	(626) 458-6142	cfranco@ladpw.org	LADPW
11	Belinda Koon	900 S. Fremont Ave Alhambra	(626) 458-6135	bkoon@ladpw.org	LADPW
12	MARY BENSON	11070 STELDON ST SUN VALLEY	(818) 767-5996	e-maryben@aol.com	LATRACS
13	Angela Motte	7747 Foothill Blvd. TuJunga 91042	818-352-3287	angela.motte@city.org	CD2 Party
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