



# Big T Wash Line

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## ABOUT THE BIG TUJUNGA WASH MITIGATION AREA

**“Big T” is a parcel of land located in the City of Los Angeles’s Sunland area (see Page 6).**

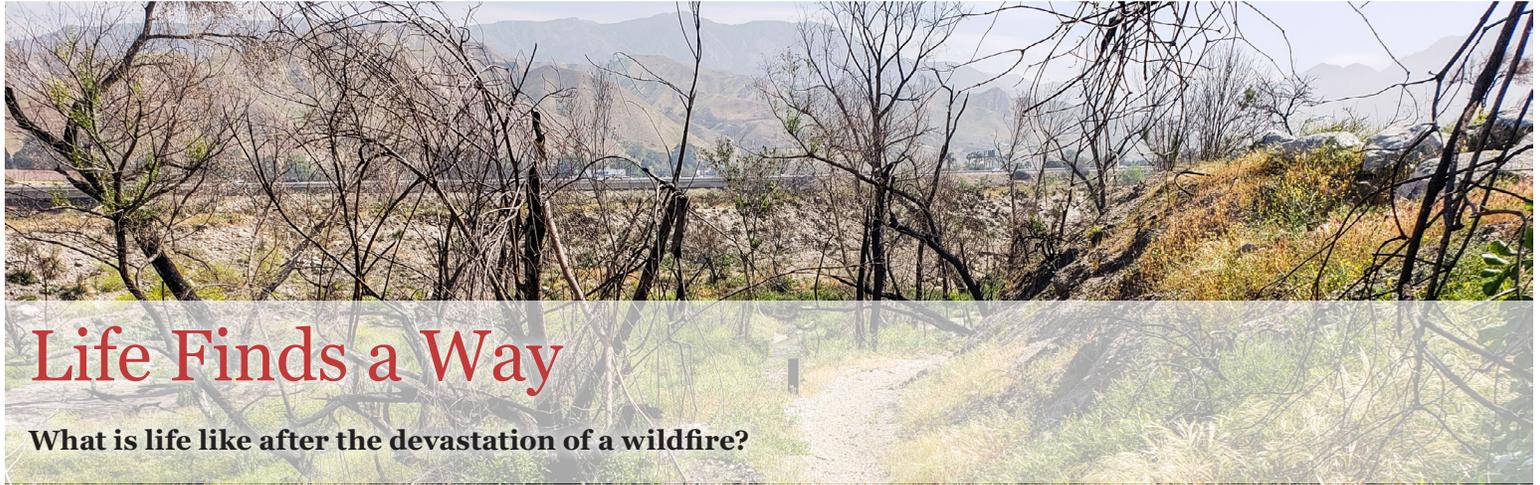
The Big Tujunga Wash Mitigation Area (Big T) covers an area of approximately 210 acres of sensitive habitat, encompassing the Big Tujunga Wash and Haines Canyon Creek. The site was purchased by the Los Angeles County Department of Public Works (LACDPW) in 1998 as compensation for habitat loss for other LACDPW projects.

LACDPW’s implementation of the Master Mitigation Plan for Big T has been underway since April 2000. Big T protects one of the most rapidly diminishing habitat types found in Southern California: willow riparian woodland. Big T is home to several protected species of

fish, including the Santa Ana sucker, Santa Ana speckled dace, and arroyo chub, and contains habitat for sensitive bird species such as the least Bell’s vireo and southwestern willow flycatcher.

The purpose of this newsletter is to provide updates to ongoing programs and to explain upcoming enhancement measures that will be implemented on the site. Newsletters are published on a semi-annual basis in the spring and fall.

**More information can be found at:**  
[dpw.lacounty.gov/wrd/projects/BTWMA](http://dpw.lacounty.gov/wrd/projects/BTWMA)



## Life Finds a Way

What is life like after the devastation of a wildfire?

As Dr. Malcolm said memorably in Jurassic Park, “Life finds a way...” Signs of recovery can be seen everywhere at Big T since the Creek Fire burned through in December 2017. When biologists conducted their first post-fire vegetation surveys the following February, the results seemed somewhat grim. They found that over 80 percent of the native alluvial scrub vegetation had been burned in the wildfire. Additionally, most of the riparian trees and shrubs had completely burned to the ground or were totally scorched, leaving behind a seemingly sterile landscape. The thick, lush creek-side vegetation was gone. The soil was blackened and covered in thick ash. Most of



the site seemed like a barren and desolate landscape, bearing little resemblance to what had been there before. The losses seemed devastating, compounded by an already catastrophic California wildfire season. After suffering such loss, would Big T ever be the same?

Human environments are not very well adapted to wildfires, but the California native flora is. Many native plants have various adaptations to survive wildfires. The aboveground leaves, stems, and trunks will burn in the fire, but the soil protects the seeds and roots from the heat,

which helps the plants survive. Following the fire, these plants will “return” to the site when the rains come, and the ash acts like a fertilizer to give them nutrients to grow and flourish. The “fire followers” are plants whose seeds “lie-in-wait” until a fire comes, and only then can they germinate and grow. These plants will only live for a short time following a wildfire, just long enough to flower and disperse their seed into the soil and then wait patiently until the next wildfire. Some of the native “fire follower” species that flourished at Big T this spring were lupines, poppies, phacelia, horsetweed, and deerweed. The riparian trees and shrubs, which are the native plants growing right along the river banks, are able to resprout from their



roots. Like the “phoenix that rises up from the ashes”, many of these riparian species such as willows, cottonwoods, and sycamores can resprout from their root crown even when their aboveground vegetation has completely burned. These species are also emerging from seed, and countless little seedlings of willows, cottonwoods, and sycamores can be found all along Haines Canyon Creek and near the Tujunga Ponds. Although most of the native vegetation was burned last winter, many signs of native regeneration can be found at Big T!

But that’s not the whole story, that’s just the

“good guys”. There are also the “bad guys”, otherwise known as invasive weeds. Big T has many invasive weeds, and following the Creek Fire, there have been more weeds than ever! The weed seeds are germinating in higher quantities than in previous years. When the Creek Fire burned out the dense native trees and shrubs, it created a lot of space and light for weeds to thrive, where before there was dense native vegetation that prevented many of them from establishing. The burned ground and ash acts like fertilizer for the weeds as well, further stimulating the growth and establishment of weeds like European annual grasses, castor bean, lamb’s quarters, radish, mustard, tree tobacco, and prickly lettuce. Since invasive weeds can establish more rapidly and aggressively following a wildfire, they are very good at suppressing the recovery of the native California plant species. Without actively managing the weeds at Big T, the native plants at the site would be overrun by weed species. Weeds increase the fuel load for fires, so more weeds can lead to even more frequent and intense wildfires. Suppressing weed growth helps Big T to be more fire-safe! That makes the communities surrounding Big T more fire-safe as well.

The trail system at Big T was also heavily impacted by the Creek Fire. Before the fire, there was dense vegetation with trails that meandered through the riparian trees and shrubs along Haines Canyon Creek and to the Tujunga Ponds. In the aftermath of the fire, burned and toppled trees were blocking parts of the trails. Since the wildfire, Big T is more open and doesn’t have the thick tangles of native trees and shrubs. This has allowed people and horses to wander off-trail or take

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“short-cuts” that bypass the existing trail system and create new, unofficial trails that go straight to the Tujunga Ponds and cut through sensitive recovery areas.

The creation of unofficial trails can cause erosion problems, facilitate the trampling of reestablishing native vegetation (especially small seedlings), and spread weed seeds across the area. In fact, many new trails were identified by the tall non-native grasses that emerged from horse excrement left behind. Maintenance crews have been working hard to clear the downed trees from the existing trail system and stream crossings, redefine the existing trail system and block off the unofficial trails. Community members can help reduce erosion and the

spread of weeds by staying on the existing trail system when hiking or equestrian riding at Big T.

By staying on the maintained trail system, we can reduce the spread of weeds, reduce erosion and allow native vegetation to reestablish without the risk of being trampled. This is one small thing we can all do to help create a healthy ecosystem at Big T.

The good news is that the native plants at Big T are coming back, and “life is finding a way” with human intervention to help the “good guys” (native plants) win over the “bad guys” (weeds). With good land management practices such as reducing invasive weeds, we can help Big T recover and become even healthier than it was before the Creek Fire.



## Invasive Aquatic Species

**Several common exotic species affect the aquatic ecosystems of Big T**

**B**ig T is a small island of habitat within a concrete jungle and contains several sensitive native species. Among these are fish species including: Santa Ana sucker (Federally Threatened), Santa Ana speckled dace (California Species of Special Concern; SSC), and the arroyo chub (SSC, USFS Sensitive). Like some of their names show, these fish are endemic to, or solely found in, the Santa Ana River and surrounding watersheds. Because fish can't fly to other surrounding habitats like birds or disperse their pollen and seeds over a wider area like plants, fish species are more prone to changes in their limited environments.

As discussed in the April 2018 edition of Big T Washline, adverse changes to aquatic environments can be caused by naturally occurring events such as the influx of ash and nutrients after seasonal wildfires, but even more damaging to the aquatic environments at Big T, are the continuous and purposeful introduction of exotic wildlife species for gaming purposes, and the dumping of unwanted aquatic pets into Haines Canyon Creek and the Tujunga Ponds. Although the introduced wildlife may survive and thrive in these waterways, they are still exotic species that alter the aquatic habitats upon which native fish species depend to survive. If nothing is done, the suckers, dace, and chub may be driven to extinction.

Some of the most commonly encountered exotic wildlife species at Big T are largemouth bass, green sunfish, bluegill, red swamp crayfish, and exotic turtles.



### Largemouth Bass

The largemouth bass (*Micropterus salmoides*) is an olive-green to grayish-green gamefish with a dark horizontal stripe along its sides and a whitish underside. They are native to waterways on the eastern half of the United States, from Canada to the Gulf of Mexico. Being apex predators, they remain hidden within aquatic vegetation and between rocks and roots until their prey moves by. Largemouth bass can feed on prey over half their body length and are aggressive and voracious eaters. As a result, the largemouth bass at Big T can decimate native fish populations, especially when the fish are trapped upstream of illegally constructed dams.



### Green Sunfish

The green sunfish (*Lepomis cyanellus*) is a bluish-green fish with a yellow underside. Native to watersheds from the Midwest to the Appalachian Mountains, green sunfish are commonly found in slow-moving lakes and streams where they are the natural prey of largemouth bass. It is for this reason that waterways are often stocked (including illegally at the Tujunga Ponds), with sunfish species along with largemouth bass. Sunfish serve as a food source for bass and as a bait fish for anglers, but they also outcompete native fish for resources such as food and breeding space, and feed on smaller fish.

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## Bluegill

The bluegill (*Lepomis macrochirus*) is an olive-green fish with a blue head, reddish-orange underside and vertical stripes on its sides. Although sometimes confused with the green sunfish, as both species have dark spots on their gill covers, the bluegill can be distinguished by a dark spot on its dorsal fin. The native habitat of the bluegill is in shallow waters east of the Rocky Mountains where they are also the natural prey of largemouth bass. Like the green sunfish, bluegill are also introduced to waterways as a food source and bait for largemouth bass. Not only do bluegill compete with native fish species for limited resources, they also breed in large spawning beds that alter the streambeds upon which native fish feed. When creating spawning beds, bluegill dig up the substrate which muddies the water and covers the algae that Santa Ana suckers feed on with silt.

## Red Swamp Crayfish

The red swamp crayfish (*Procambarus clarkii*) is a dark red, freshwater crayfish native to slow-moving waterways in the Gulf states. Being an opportunistic omnivore, the crayfish will eat whatever is available, be it fish and other animals, plant matter, or decaying organic materials (detritus). Crayfish also dig burrows along the banks of creeks, and during burrow construction they churn the sediment, releasing nutrients into the water and causing eutrophic (nutrient-rich) conditions. Eutrophic conditions can lead to a lack of oxygen in the water, which causes dieback of the algae that some native fish species depend on.



## Red-Eared Slider

By far, the most common exotic turtle encountered at Big T is the red-eared slider (*Trachemys scripta elegans*). Native to the Mississippi River tributaries, the red-eared slider typically measures less than a foot long, and gets its name due to the red stripe behind its ears. This turtle is the most common species of pet turtle and can live for over 30 years, so it's no surprise that it is also the most common species of turtle abandoned in nearby waterways when no longer wanted as a pet. When released, red-eared sliders will feed on any fish they can catch and on aquatic vegetation.

Exotic species not only compete with native fish species on an individual basis but can completely take over native fish habitats in short periods of time due to their high reproductive rates. These high reproductive rates lead to more and more exotics competing with a lesser number of native fish for the same limited resources. The introduction of exotic species into native fish populations can also introduce bacteria and diseases which native fish species are often unable to cope with.



Not only does releasing exotic wildlife adversely affect the ecosystems into which they are dumped, it is also illegal. California Department Fish and Wildlife (CDFW) Citation 14 CCR § 671.6. Release of Animals into the Wild (a) states:

*No person shall release into the wild without written permission of the commission any wild animal (as defined by Section 2116 of the Fish and Game Code), including domestically reared stocks of such animals, which: (1) is not native to California; (2) is found to be diseased, or there is reason to suspect may have the potential for disease; (3) may be genetically detrimental to agriculture or to native wildlife; (4) has not been successfully introduced prior to 1955.*

Violations of this regulation may result in a fine starting at \$250.

If you see biologists out in the water or in the ponds, they are there for a reason: providing exotic species maintenance throughout the year in an effort to restore native species balance in Haines Canyon Creek within Big T.



# 12th Annual Trail Cleanup Day

Last year's 11th Annual Cleanup Day was a huge success with dozens of volunteers included community members, County employees and Chambers Group employees working together to collect over forty full trash bags of debris. Hundreds of metallic cans, plastic containers, plastic bags, clothing items, boxes, paper, diapers, tarps, toys, fishing line, rope, cable, and other debris items were removed from Haines Canyon Creek and the surrounding trails. Bulky trash items, including several mattresses, tires, wooden pallets, coolers, suitcases, and dozens of shopping carts, were also removed. We hope you will join us for the 12th Annual Trail Cleanup Day scheduled for Saturday November 3rd at 8:00 a.m. Please come prepared with comfortable clothing, closed-toed shoes, gloves, a hat, sunblock, and insect repellent if desired. Water, snacks and trash bags will be provided. If there is rain or poor weather on November 3rd, the event will be rescheduled to Sunday November 4th.

We are looking forward to another opportunity to help beautify Big T while making it a cleaner and safer place for human visitors and wildlife alike! See you there!

## Trail Reestablishment

One of the biggest threats to aquatic wildlife at Big T is the degradation of sensitive stream habitat. Any time a stream is disturbed or altered there is potential for negative consequences to wildlife to follow. Disturbances to stream habitat can include actions as simple as skipping rocks into the stream, or even more destructive, building rock dams, swimming and recreating in the stream and yes, even crossing the stream on horseback or on foot. As mentioned in the Invasive Aquatic Species article (see page 3), any action that stirs up the stream bottom or alters the natural stream flow in Haines Canyon Creek can cause negative impacts to sensitive native fish species including Santa Ana sucker, arroyo chub and Santa Ana speckled dace. These fish are struggling, and they depend on healthy stream habitat if they are ever to thrive again.

That being said, healthy streams cannot exist on their own and require the health of a larger system that provides inputs into streams. At Big T the larger system is the cottonwood-willow riparian habitat that can be found along Haines Canyon Creek and the inputs are the nutrients or organic matter (think leaf

litter, decaying wood, insects etc.) this habitat provides to the creek. In addition to inputs of nutrients, well-developed riparian vegetation provides shading to the creek which controls things like water temperature and aquatic plant growth, and can help limit erosion by providing stability along the creek's banks.



As you can see, these processes are all interconnected and complicated, and while we could discuss stream ecology for days, let's just cut to the chase... we need your help. We need visitors at Big T to stay on authorized trails no matter how tempting it is to "go your own way". Maintenance crews have been working hard to clean up and reestablish authorized trails that were damaged during the Creek Fire. Part of this process has included blocking off unauthorized trails

County of Los Angeles Department of Public Works  
and  
Los Angeles County Flood Control District



## Big Tujunga Wash Mitigation Area

Join us for the 12th Annual  
*Trail Cleanup Day*  
November 3, 2018 at 8am

Water, snacks, and trash bags will be provided

### Please Bring:

- Comfortable clothes
- Closed-toe shoes
- Gloves
- Hat
- Sun block
- Bug repellent



If there is rain or poor weather on the 3rd, the event will be rescheduled to the 4th.  
For more information contact Yi Sak Kim at (626) 458-6327 or [btwma@dpw.lacounty.gov](mailto:btwma@dpw.lacounty.gov)

where sensitive vegetation communities are reestablishing. With a lack of dense vegetation after the burn, it has become convenient for hikers and equestrian users to make new trails in unauthorized areas. Maintenance crews have attempted to block unauthorized trails with vertical mulch (cut branches and plant materials); however, they return to find that the vertical mulch has been moved aside and that visitors continue to "go their own way".

In the coming weeks, maintenance crews will be out at Big T reestablishing trails and installing signage to help keep visitors on the right track while recreating at Big T. Trail reestablishment is expected to include approximately 1,300 feet of new trails in the cottonwood-riparian habitat north of Haines Canyon Creek and the removal of several stream crossings in order to protect sensitive stream species. New trails will be delineated using fallen trees, branches and rocks collected during trail establishment and have been designed to avoid large patches of poison oak, which will allow for a more enjoyable trail experience. If you are visiting Big T and you come across a blocked trail or signage indicating that a particular trail is unauthorized, please respect these efforts to improve Big T and stay on authorized trails.

## KID'S CORNER

Help restore Big T!  
Color the stream  
and forest to how  
you'd like to see  
them again.



### EMERGENCIES? INCIDENTS? QUESTIONS?

CALL 911 TO REPORT ANY EMERGENCY  
SUCH AS FIRE OR ACCIDENT

- To report minor incidents or regulation infractions contact the Sheriff's Department at 1-800-834-0064. (Please DO NOT use 911.)
- Do not attempt to enforce regulations yourself; please allow law enforcement to handle the situation or incident.
- For emergency follow up or to report minor incidents, obtain information, or get questions answered during weekday work hours (8:00 a.m. to 5:00 p.m., Monday through Thursday), please contact:

**Crystal Franco, Stormwater Engineering Division**  
County of Los Angeles Department of Public Works  
900 S. Fremont Avenue  
Alhambra, CA 91803  
Email: BTWMA@dpw.lacounty.gov  
Phone: (626) 458-6158

## Where is the Big Tujunga Wash Mitigation Area?

Downstream of Big Tujunga Canyon, right in Lake View Terrace and south of the 210 freeway, you'll find a native riparian (water loving plant) natural area filled with cottonwoods, willows, and pools of water that support many native aquatic species.

Check out the Big T website for more information at:

- [dpw.lacounty.gov/wrd/projects/BTWMA](http://dpw.lacounty.gov/wrd/projects/BTWMA)

