



Coastal Dune Community Stewardship Project

Year 1 Report SCC 15-110 Explore the Coast Grant

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Prepared for: State Coastal Conservancy
1644 Maltman Ave
Los Angeles, CA 90026

Prepared by: The Bay Foundation
Rod Abbott, Watershed Programs Coordinator
Melodie Grubbs, Watershed Programs Manager
Karina Johnston, Watershed Programs Director



To restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, and protect the Bay's benefits and values.

P.O. Box 13336
Los Angeles, CA 90013
(888) 301. 2527
santamonicabay.org



Contents

Restoration Events.....	3
Year 1 Quantitative Outcomes.....	9
Vegetation Survey	9
Demographics	12
Outreach.....	18
Moving Forward	18

Appendix A – Event Photos

Appendix B – LAX Dunes Educational Handout

Appendix C – Media Outreach



This report provides a status update for activities that occurred during Year 1 (21 June 2016 to 30 June 2017) as part of the California State Coastal Conservancy (SCC) Grant #15-110: Coastal Dune Community Stewardship Project. Over the course of Year 1, 585 volunteers, over half of whom were students, participated in 13 educational restoration events at the LAX Dunes Preserve (LAX Dunes). TBF exceeded all Year 1 expected quantitative outcomes of number of volunteers, hours contributed by volunteers, and number of bags of non-native vegetation removed. Additionally, TBF was able to conduct broad outreach, attracting inland and underserved communities to the coastal project site.

Restoration Events

From 21 June 2016 to 30 June 2017, TBF held 13 restoration events at the LAX Dunes. Before each restoration event, an ecological and cultural history of the LAX Dunes was given. Ecological facts include the historical extent of the dunes (e.g. from the Palos Verdes peninsula to the City of Santa Monica); the discovery of 50,000 year old camelops bones on-site, an extinct member of the camel family (*Camelidae*) that once roamed the region; and a brief discussion of dune formation, morphology, ecology, and its connection to adjacent public beaches such as Dockweiler State Beach that lies below the restoration site. Cultural history includes how the dunes were transformed and degraded by development as Los Angeles expanded and urbanized.

What was once known as the beachside community of "Surfridge," a community of over 600 homes, eventually fell victim to the noise of nearby LAX as it entered the "Jet Age." After bitter complaints and litigation by homeowners, in the 1960s, the City of Los Angeles purchased the properties through eminent domain and required all homes to be removed or razed (Appendix A). Today, although many of the original residential streets still line the dune complex giving it a ghostly quality; the site, although impaired by development and disturbed soils, is now home to a host of native flora and fauna including the endangered El Segundo Blue Butterfly (*Euphilotes battoides allyni*) and their host plant, Seacliff buckwheat (*Eriogonum parvifolium*). The last portion of the on-site introduction includes a discussion of dune ecology, including some of the many functions this habitat provides such as a buffer from sea level rise, biodiversity hot spot, and home to rare plants and animals.

Each restoration event is summarized below and Table 1 includes detailed statistics for all events. **Appendix A – Event Photos** includes photos taken from all 13 events. Photos in Appendix A are ordered by date (first event to last).

Event on 9 July 2016 (Quarter 1)

The first event of this grant was held on 9 July 2016 in association with the Friends of the LAX Dunes (FOLD). As part of a coordinated effort to engage local companies, stakeholder groups, and youth organizations, TBF has developed relationships with several organizations and businesses. Companies have been giving employees the opportunity to attend regularly scheduled restoration events and when many participants are signed up, TBF will allocate a special dedicated day for the group. On this day, three employees of the accounting firm of Moss-Adams LLP participated. Also in attendance were representatives of the Audubon Society and California Native Plant Society (CNPS). Non-native vegetation removed from the site included 17 bags (32-33 gal) of Russian thistle (*Salsola tragus*).



Event on 13 July 2016 (Quarter 1)

On 13 July 2016, TBF hosted a special youth event for the International Youth Fellowship (IYF) summer program. Eight adult summer camp leaders and 64 students attended. Adults and students were from several states west of the Mississippi, Korea, and China. Because of privacy concerns, IYF did not want to disclose zip code information. Volunteers pulled Russian thistle, iceplant (*Carpobrotus edulis*), and acacia (*Acacia sp.*) and filled 47 bags.

Event on 6 August 2016 (Quarter 1)

The 6 August, 2016 event featured 15 volunteers from 10 unique zip codes. Five volunteers were from the CAMS Key Club, a service club that promotes student leadership and cooperation. This CAMS Key Club is stationed at the California Academy of Mathematics and Science (CAMS), located on the campus of California State University Dominguez Hills. Another volunteer was using the occasion for his Bar Mitzvah community service project. Also in attendance was a representative of CNPS. Volunteers pulled Russian thistle, iceplant, acacia, castor bean (*Ricinus communis*), and Geraldton carnation weed (*Euphorbia terracina*) and filled 26 bags.

Event on 17 September 2016 (Quarter 1)

The final event of Quarter 1 was held on 17 September 2017, as part of Coastal Cleanup Day (CCD), the world's largest single-day volunteer event. CCD was incredibly successful, and was TBF's largest event ever. Historically, CCD was initiated to prevent trash from entering waterways, but for this site, the emphasis was on invasive plants which "pollute" and harm our environment and sensitive habitats. Councilmember Mike Bonin (L.A. City, 11th District) welcomed and thanked the 132 volunteers from 37 unique zip codes. Volunteers included the Boys & Girls Club of Watts/Willowbrook (7), Bright Star School (charter middle school) (9), Crossroads Middle School (15), CSULA's Alpha Sigma Tau (25), Girl Scout Troop 2865 (8), and the LMU chapter of 'Engineers Without Borders' (4). Volunteers pulled 56 bags of Russian thistle and 150 bags of iceplant weighing more than 3,500 pounds.

Event on 1 October 2016 (Quarter 2)

The first event of Quarter 2 was held on 1 October, 2016 in association with the Friends of the LAX Dunes (FOLD). During this period TBF developed a relationship with California State University, Los Angeles's service fraternity Alpha Phi Omega who sent 10 members for this event. Also in attendance were three representatives of Montessori Academy's Dragon Kids, one from the Shire Pharmaceuticals, and nine others. 36 bags (32-33 gal) of iceplant and Russian thistle were removed from the targeted native dune area.

Event on 5 November 2016 (Quarter 2)

On 5 November, 2016, 17 volunteers removed 55 bags of iceplant, acacia (*Acacia sp.*), and Russian thistle. Participants included students from Franklin Elementary School, Lincoln Middle School, CSULA, and Loyola Marymount University. Boy Scout Dylan Channell installed three picnic tables he built for volunteers as part of his final Eagle Scout project.



Event on 5 December 2016 (Quarter 2)

The final event of Quarter 2 was held on 5 December, 2016. 16 volunteers removed 25 bags of iceplant monoculture in the targeted native dune area (Appendix B, Figures 1-3). One of the participants was from the organization ["Grades of Green's" Youth Corps Eco Leadership Program](#) who brought a middle school girl she is mentoring. TBF discussed bringing more "Grades to Green" students to the LAX Dunes since they are on many LAUSD campuses. Other participants included two families from an alternative Boy Scout organization and the California Native Plant Society. Students from Bishop Montgomery High School's "Green Team" (Torrance) signed up but had to cancel.

Event on 4 February 2017 (Quarter 3)

On 4 February 2017, 13 volunteers removed 27 bags of mustard (*Brassica spp.*), filaree (*Erodium botrys*), iceplant (*Carpobrotus edulis*), and Geradlton carnation weed. Participants included high school students from West Torrance High School's Interact Club (part of Rotary Club International), Loyola Marymount University's (LMU) Engineers without Borders Club, the California Native Plant Society, and family of LAWA staff. Staff met with a boy scout who will be implementing a project to build a secure tool chest for the site to hold restoration tools.

Event on 25 February 2017 (Quarter 3)

On 25 February, 2017, 20 volunteers removed 21 bags of mustard, filaree, and Geradlton carnation weed. This was a special Boy Scout event hosting troops from El Segundo and Westchester. Boy and Girl Scouts continue to show interest in LAX Dunes events and have participated in several events over the year. Volunteers focused on removing newly sprouted non-native vegetation growing as a result of heavy and consistent winter rainfall.

Event on 4 March 2017 (Quarter 3)

On 4 March, 2017, 11 volunteers removed 11 bags of mustard, filaree, Geradlton carnation weed, and non-native grasses. Participants included a civil engineering and philosophy student from LMU, a botany professor from El Camino College, and five new faces from Volunteer Match. Exceptional rain this during the winter caused high invasive plant growth on the dunes. Since there was so much new growth, volunteers focused on removing invasive plants of many species surrounding select native species to reduce competition and pressure on the natives.

Event on 1 April 2017 (Quarter 4)

TBF began Quarter 4 with an event on 1 April 2017 that brought 77 volunteers from 21 unique zip codes. Participants included LMU students, a group from John C Fremont High School (in association with the LA Neighborhood Land Trust), LAWA, and Delaware North (a LAWA food service company). Volunteers pulled 90 bags of filaree, mustard, and non-native grasses. This event continued to build TBF's effort in engaging local schools and youth groups to participate in restoration events.



Event on 6 May 2017 (Quarter 4)

On 6 May 2017, 47 volunteers removed 80 bags of Geradlton carnation weed. Participants included a large group of UCLA students participating in the event as part of a Restoration Ecology course. TBF has a history of conducting group student projects and guest lecturing for UCLA faculty and the participant of students in the Restoration Ecology course provided an opportunity for “real-world” hands-on restoration.

Event on 25 May 2017 (Quarter 4)

The 25 May 2017 event was the final event of Quarter 4 and concluded Year 1 of the grant. This event brought over 116 participants, mostly students, and resulted in 71 bags of iceplant removed off site. The Girls Athletic Leadership School (GALS) brought the entire school to participate in hands-on restoration. TBF spent several months reaching out to schools throughout LAUSD to engage them in local conservation and restoration efforts, and after conducting several classroom visits to share information on TBF’s activities, the GALS school became an enthusiastic partner on multiple projects. The GALS school provided their own transportation and after working hard pulling iceplant the school walked down to the beach to have lunch and play.



Figure 1. GALS LA School removing invasive iceplant.



Table 1. Summary data from volunteer events. Bags are approximately 32-33 gallons in volume.

Quarter	Date	# of Volunteers	Hours	# of Bags	Invasive Vegetation	Demographics
Quarter 1 (22 June 2016 - 30 Sept 2016)	7/9/2016	15	45	17	Russian thistle	7 unique zip codes. Participants represented the Audubon Society, California Native Plant Society, and accounting firm Moss Adams (90024)
	7/13/2016	79	237	47	Russian thistle, iceplant, acacia	Middle school & high school students attending the International Youth Fellowship's (IYF) summer camp program. IYF did not want to disclose student zip codes because of privacy concerns. IYF's L.A. office is in 90004. Students were from several states west of the Mississippi, Korea, and China.
	8/6/2016	15	42	26	Iceplant, Russian thistle, acacia, castor bean, Geradlton carnation weed	11 unique zip codes. 5 students from CAMS Key Club (CSUDH).
	9/17/2016	132	396	206	Iceplant, Russian thistle	37 unique zip codes
	Q1 Total	241	723	296	--	--
Quarter	Date	# of Volunteers	Hours	# of Bags*	Invasive Vegetation	Demographics
Quarter 2 (1 Oct 2016 - 30 Dec 2016)	10/1/2016	25	75	36	Iceplant, Russian thistle	14 unique zip codes. Participants represented CSULA's service-based fraternity Alpha Phi Omega (10), Montessori's Dragon Kids (90266), and Shire Pharmaceuticals.
	11/5/2016	17	51	55	Iceplant, acacia, Russian thistle	5 unique zip codes (4 abstention). Participants represented Franklin Elementary School (Santa Monica), Lincoln Middle School (Santa Monica), California State University Los Angeles, and Loyola Marymount University.
	12/5/2016	16	48	25	Iceplant	5 unique zip codes (1 abstention). Participants represented Grades of Green Youth Eco-Leadership Program (2 nd -12 th grades), California Native Plant Society, and several middle schools kids.
	Q2 Total	58	174	116	--	--



Quarter	Date	# of Volunteers	Hours	# of Bags*	Invasive Vegetation	Demographics
Quarter 3 (1 Jan 2017 - 31 Mar 2017)	2/4/2016	15	39	27	Mustard, filaree, iceplant, Geradlton carnation weed	11 unique zip codes. Participants represented West Torrance High School's Interact Club (Rotary Club), Loyola Marymount University's Engineer Without Borders club, Starbuck's Community Outreach, LAWA, and the California Native Plant Society.
	2/25/2017	20	60	21	Mustard, filaree, Geradlton carnation weed	7 unique zip codes (1 abstention). Participants included mostly members of three Boy Scout Troops – 16 boys and two girls.
	3/4/2017	11	33	11	Mustard, filaree, Geradlton carnation weed, non-native grasses	6 unique zip codes (1 abstention). Participants included Loyola Marymount University, El Camino College, Native Plant Society, and LAWA.
	Q3 Total	46	132	59	--	--
Quarter	Date	# of Volunteers	Hours	# of Bags*	Invasive Vegetation	Demographics
Quarter 4 (1 Apr 2017 – 30 June 2017)	4/1/2017	77	231	90	Filaree, mustard, non-native grasses	21 unique zip codes. Participants included Loyola Marymount University, John C Fremont High School (in association with LA Neighborhood Land Trust), LAWA, and Delaware North (LAWA food service company)
	5/6/2017	47	141	80	Geradlton carnation weed	7 unique zip codes. Participants included students from a UCLA restoration ecology course.
	5/25/2017	116	348	71	Iceplant	2 unique zip codes. Participants included Patagonia, the Girls Athletic Leadership School (GALS), and Loyola Marymount University.
	Q4 Total	240	720	241	--	--
	Year 1 Total	585	1755	712	12 invasive plant species	91 unique zipcodes

Year 1 Quantitative Outcomes

TBF exceeded all estimated outcomes specified in the work plan. Table 2 shows the predicted Year 1 work plan quantitative outcomes compared to the actual Year 1 outcomes.

Table 2. Year 1 quantitative outcomes (predicted vs. actual).

Outcome:	Predicted (Year 1)	Actual (Year 1)
# of volunteers and student participants	360	585
# of volunteer hours (at 3 hours per event)	1,080	1,755
Bags of invasive non-native vegetation removed	360	712

Vegetation Survey

TBF has developed a long-standing partnership with Loyola Marymount University (LMU) including both faculty and students, and because of this unique relationship has been able to engage many students from the Seaver College of Science and Engineering to participate in monitoring and research opportunities at the LAX Dunes. The experience provides students with valuable field survey experience and TBF with spatial data including elevation, vegetation cover (invasive and native), and landscape feature data (old roads, light posts, etc.). Since March 2016, over 10 undergraduate students studying environmental and civil engineering have participated in group projects. Additionally, LMU's Engineering without Borders organization has conducted surveys at the dunes (Figure 2). Surveys have utilized high-resolution GPS to collect elevation, land feature, and vegetation data on over 20 acres of the project site. Information from surveys has allowed TBF to prioritize areas that volunteers should focus efforts on during restoration events. Community restoration events have targeted an estimated 10 acres of the LAX Dunes with much of this area targeted again after winter rains (Figure 3). Due to the high degree of urbanization in the Los Angeles region, and the close proximity of the site to many areas with invasive vegetation species, restoration efforts often require multiple removal events per area to capture different growing seasons for the different species (e.g. late winter/early spring for filaree, iceplant, and wild radish; mid-spring for black mustard and Geraldton carnation weed; and summer for Russian thistle).



Figure 2. Left: LMU Engineers without Borders surveying project area (18 March 2017); Right: LMU civil engineering students surveying with Professor Jeremy Pal and TBF Staff (18 March 2016).



Figure 3. Map of original project boundary and Year 1 survey and community restoration event boundaries.

Heavy rains over the 2016-2017 winter caused substantial plant growth in the LAX Dunes. Unfortunately, many non-native species are highly adapted to respond quickly and grow much faster than their native competitors. TBF concentrated in maintaining a stronghold against non-native vegetation by covering areas again after winter rains and attempting to remove newly sprouted non-native vegetation before it went to seed. Figure 4 shows the dramatic results from just one restoration event removing non-native Geraldton carnation weed from an area in the LAX Dunes.

Restoration efforts have had a positive impact on the native vegetation on site; observations of native seedlings and juvenile plants including beach bur, evening primrose, sand verbena, phacelia, and even coastal buckwheat have been observed within the restoration area (Figure 5).



Figure 4. On the left, UCLA students and others prepare to remove a huge growth of Geraldton carnation weed (light green). After about two hours, most of it is removed leaving space for the native shrub Beach blue lupine (right).



Figure 5. When volunteers clear the area around native plants (left), native plants such as Beach evening primrose have room to thrive (right).

Vegetation surveys helped guide TBF to identify priority areas that volunteers should focus on during events. Table 3 summarizes the non-native species targeted during Year 1. Volunteers focused on removing iceplant, Russian thistle, filaree, Geraldton carnation weed, mustard, and wild radish during most restoration events. Restoration events during spring 2017 focused on removing non-native vegetation that had grown following winter rains, with a goal of removing growing weeds before they went into seed production.



Table 3. Targeted non-native species during LAX Dunes restoration events.

Species	Common Name
<i>Carpobrotus edulis</i>	Iceplant
<i>Brassica nigra</i>	Mustard
<i>Salsola tragus</i>	Russian thistle
<i>Euphorbia terracina</i>	Geraldton carnation weed
<i>Raphanus sativus</i>	Wild radish
<i>Ricinus communis</i>	Castor bean
<i>Erodium botrys</i>	Broad leaf filaree
<i>Bromus madritensis</i>	Foxtail brome
<i>Bromus diandrus</i>	Ripgut
<i>Avena fatua</i>	Wild oat
<i>Acacia cyclops</i>	Acacia
<i>Acacia retinoides</i>	

Demographics

From 21 June 2016 to 30 June 2017, TBF held 13 restoration events at the LAX Dunes. A total of 585 volunteers participated in the events, with 77% of all volunteers that provided demographic data identified as students. Figure 6 shows the total number of participants during each community restoration event with the most volunteers participating during the 13 July 2016, 17 September 2016, 1 April 2017, and 25 May 2017 events. These high numbers of participants are attributed primarily to events with more significant and specialized outreach conducted such as Coastal Cleanup Day, Big Saturday, and a large school group field trip.

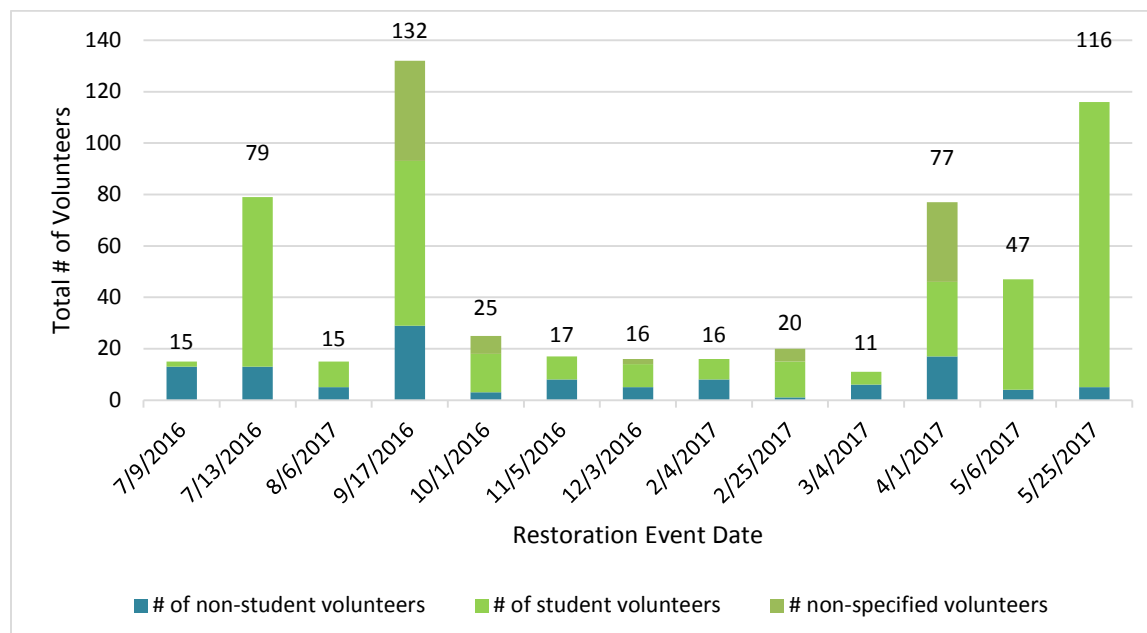


Figure 6. Total # of volunteer participants and identified students during each restoration event.



Table 4 shows a breakdown of participants per event. A total of 585 individuals participated in restoration events, including 385 students. Collectively, the average number of individual participants per event was 45, including an average of 30 students. Large group events contributed to high participant numbers and included the International Youth Fellowship (72 participants), California State University Los Angeles – Alpha Sigma Tau (25 participants), John C Freemont High School (24 participants), University of California Los Angeles (43 participants), and the Girls Athletic Leadership School (113 participants). Other notable groups that participated in restoration events include: Marymount High School, California Native Plant Society, Los Angeles Audubon, Moss Adams LLP, Loyola Marymount University – Engineers without Borders, Loyola Marymount University students, Torrance High School - CAMS Key Club, Crossroads School, Watts/Willowbrook Boys & Girls Club, Rise Kohyang Middle School, Boy Scouts of America, Girl Scouts of America, Los Angeles World Airport (LAWA), Montessori Academy, California State University Los Angeles – Alpha Phi Omega, Lincoln Middle School, Franklin Elementary, Immaculate Heart, Kentwood School, and Patagonia.

Table 4. Total number of non-students and students that participated in restoration events.

Event Date	# of Non-Student Participants	# Students Participants	# of total Participants
7/9/2016	13	2	15
7/13/2016	13	66	79
8/6/2016	5	10	15
9/17/2016	29	64	132
10/1/2016	3	15	25
11/5/2016	8	9	17
12/3/2016	5	9	16
2/4/2017	7	8	15
2/25/2017	1	14	20
3/4/2017	6	5	11
4/1/2017	17	29	77
5/6/2017	4	43	47
5/25/2017	5	111	116
Total Volunteers	116	385	585



This Explore the Coast grant specifically focuses on bringing students and youth to participate in LAX Dunes restoration events. Of the total number of students participating in all events (385), 71.2% were K-12 students and 25.5% were college and university level students (Table 5). Over 65% percent of the students were female, most likely in part due to the participation of the GALS School on 25 May 2017 which brought 111, 6th grade, female students to the event. Male students comprised approximately 35% of all students that attended events during Year 1.

Table 5. Student participants in restoration events.

Total # of Students	# of K-12 Student	# College and University Students	# Did Not Identify if K-12 or College/University Student	# Students Female	# Students Male
385	274	98	13	254	128

With a goal of bringing more people, especially youth from disadvantaged communities, to the coast, TBF used participant recorded zip codes and geographic information systems (GIS) analysis to anonymously measure the breakdown of participants based on distance away from the project site (or approximate distance from the coast) within Los Angeles County. Figure 7 shows the number of participants by zip code that participated in LAX Dunes restoration events and distance away from the project site. Year 1 restoration events have had a far reach inland with the highest number of volunteers (147) residing 15-20 miles from the LAX Dunes. Over 80% of all participants traveled more than 5 miles to reach the coast. Participants came from a total of 91 zip codes throughout Los Angeles County. The zip code of 91402 in the area of Panorama City brought in the most participants (111), all associated with the GALS School field trip. A few out of area volunteers participated in events including an individual from San Nicolas Island, three individuals from Northern California, and one individual from Oregon. Table 6 identifies the total number of zip codes, volunteers, and students by distance away from the project site. Participants that did not release their zip code information and those participants out of Los Angeles County were not included in the demographics analysis.

Table 6. Number of total volunteers and students by zip code measured by distance away from project site (only includes totals for those who released their zip code information).

	Distance from LAX Dunes					Total
	0-5 miles	5-10 miles	10-15 miles	15-20 miles	20-40 miles	
# of zip codes reached	7	24	22	19	19	91
# of total volunteers	90	105	111	147	27	480
# of students	51	73	94	134	15	367

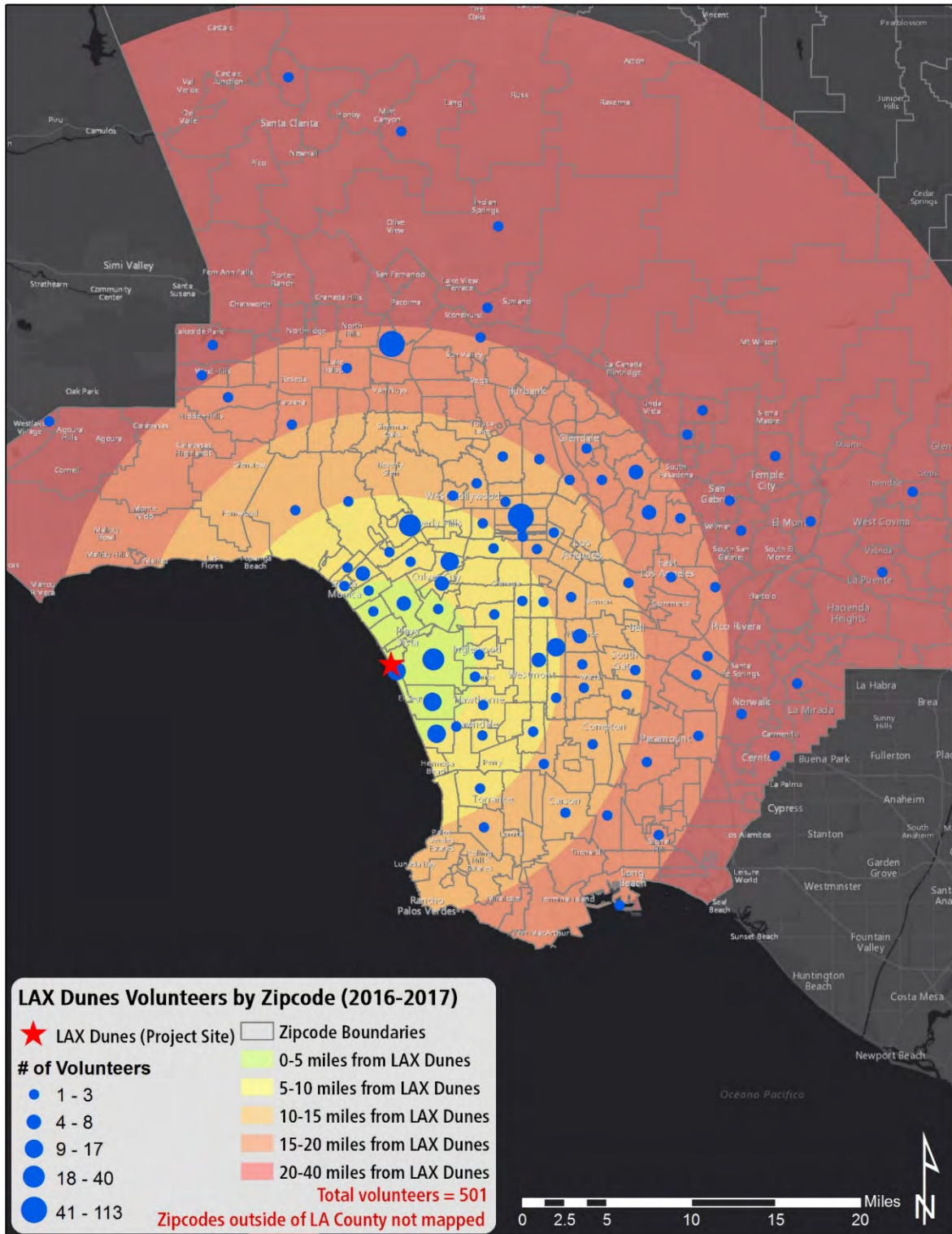


Figure 7. LAX Dunes volunteers by zip code and distance away from project site.



To measure the demographics of the communities where LAX Dunes restoration event participants reside, TBF used the Disadvantaged Communities (DAC) Mapping Tool developed by Integrated Regional Water Management (IRWM). DAC data were downloaded and used to analyze participant demographics in GIS. The DAC dataset uses census data (US Census American Community Survey (ACS) 5-Year Data: 2010-2014) to determine Disadvantaged Communities (DAC) and Severely Disadvantaged Communities (SDAC). DAC designations include geographies with an annual median household income (MHI) that is less than 80% of the statewide annual MHI and SDAC designations have an annual MHI that is less than 60% of the statewide annual MHI. Figure 8 identifies the DAC and SDAC communities where at least one individual participated in an LAX Dunes restoration event. A total of 22 Disadvantaged Communities (DAC) and 23 Severely Disadvantaged Communities (SDAC) were reached as part of Year 1 volunteer restoration events at the LAX Dunes. The minimum median household income (MHI) for participants based on zip code census data was \$17,443 and came from South Los Angeles in the Inglewood area. The maximum median household income (MHI) for participants based on zip code census data was \$154,000 coming from Pacific Palisades.

Student participants from Disadvantaged (DAC) and Severely Disadvantaged Communities (SDAC) are shown in Table 7. The highest number of student participants from DAC and SDAC areas came from 10-15 miles and 15-20 miles away from the LAX Dunes site. Nearly half of all students that participated in restoration events came from SDAC areas. In total, 70.8% of all students that participated in restoration events came from a DAC or SDAC area.

Table 7. Student participants from Disadvantaged (DAC) and Severely Disadvantaged Communities (SDAC).

	Distance from LAX Dunes					Total
	0-5 miles	5-10 miles	10-15 miles	15-20 miles	20-40 miles	
Total # of student participants	51	73	94	134	15	367
# of student participants from DAC (% of student participants from DAC)	0 (0%)	2 (2.7%)	75 (79.8%)	4 (3%)	4 (26.7%)	85 (23.3%)
# of students participants from SDAC (% of student participants from SDAC)	27 (52.9%)	19 (28.8%)	15 (17%)	114 (85.1%)	0 (0%)	175 (47.7%)
# of students DAC and SDAC (% of students from DAC and SDAC)	27 (52.9%)	21 (28.8%)	90 (95.7%)	118 (88.1%)	4 (26.7%)	260 (70.8%)

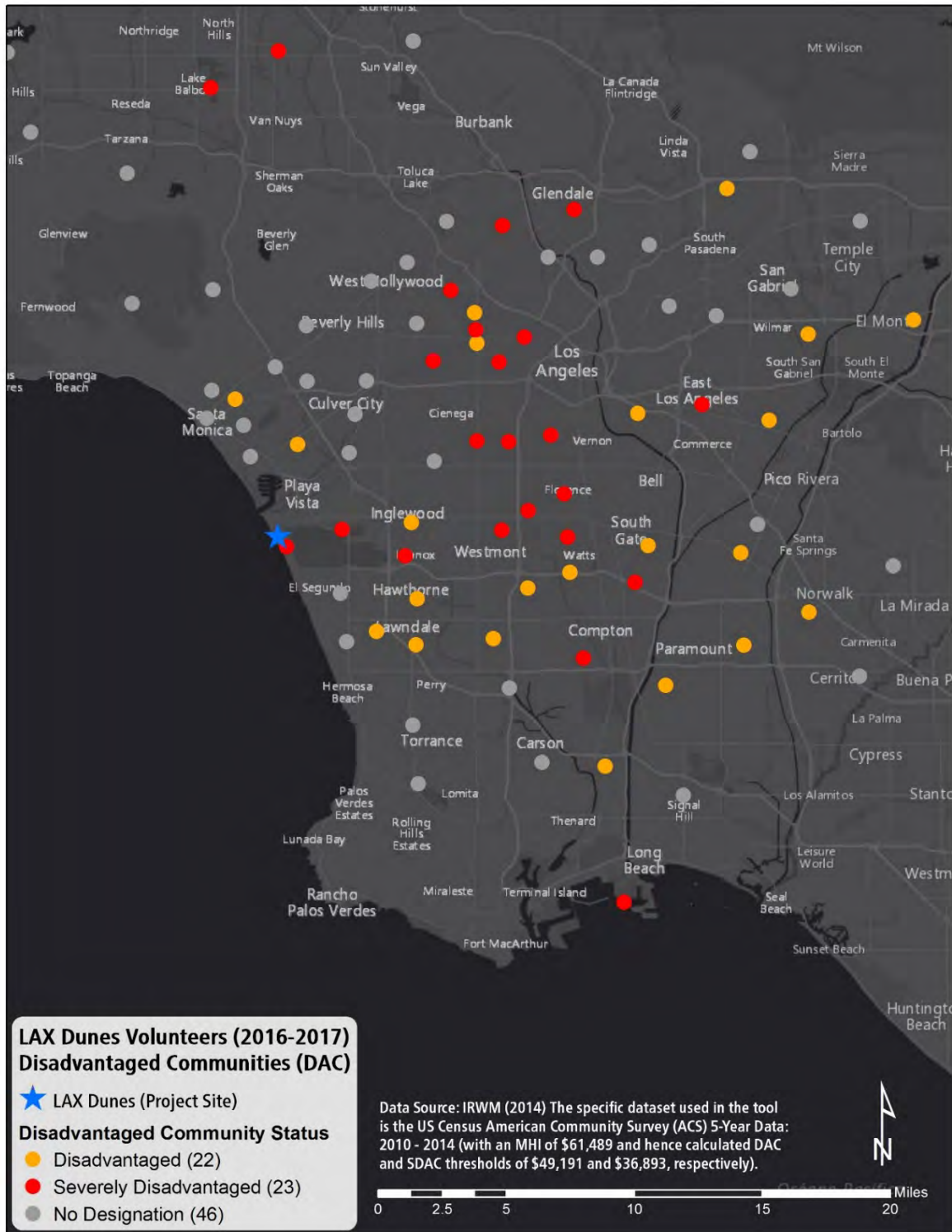


Figure 8. Map of Disadvantage Communities (DAC) and Severely Disadvantaged Communities (SDAC) reached through LAX Dunes events.



Outreach

Continuing to build on the growing outreach success of TBF and FOLD restoration events, outreach consisted of posting upcoming events at www.santamonibay.org/events, Volunteer Match, social media including Facebook and Twitter, the neighborhood site Nextdoor, and LMU's community outreach listserv (**Appendix C – Media Outreach**). Additional outreach continued through media postings, newsletters, list serves, direct engagement, and word-of-mouth. Similarly, TBF began reaching out and notifying schools in the area of the opportunity to engage more student groups in upcoming events, especially during the summer. TBF plans to continue leveraging opportunities to bring students to the LAX Dunes through networking and connections made from other projects.

An informational handout about the LAX Dunes was created to supplement outreach and educate volunteers (**Appendix B – LAX Dunes Educational Handout**). The handout features the Conservancy's logo, history and accompanying visuals of the dunes, native plant and invasive plant identification, and wildlife present on site. TBF plans to publish the informational handout on its [LAX Dunes](#) webpage. The LAX Dunes webpage features event photos, information about the Adopt-A-Dune Program and FOLD, and information to sign up for upcoming restoration events. Documents including reports on the LAX Dunes and recovery plans for the El Segundo Blue Butterfly are also linked to the LAX Dunes webpage.

TBF has made concerted efforts to broaden partnerships as a component of implementing this project. TBF recruited, interviewed, and selected two paid LMU internship positions who are conducting monitoring research and aiding in restoration events at the LAX Dunes throughout the summer. Funding for the internship positions is matching from US EPA. TBF is also partnering with Patagonia who contribute two part-time staff at approximately 16 hours per week through their [Environmental Internship Program](#), to conduct hands-on restoration at the LAX Dunes. Combined, these efforts should allow for an increase in both the effectiveness and outreach capacity of restoration events.

Moving Forward

TBF is excited about the success the LAX Dune project has achieved in Year 1. Through this ETC grant, TBF has been able to reach community members, especially youth, in underserved inland communities and give them an opportunity to experience hands-on stewardship of a unique coastal habitat. TBF plans to use experience gained from Year 1 of this grant and develop new strategies for increasing the number of volunteers per event and engaging K-12 schools to participate in field trips on site. TBF has had success with large school groups and will continue efforts to recruit inland schools in underserved communities. TBF also plans to continue engaging LMU students in surveying efforts and internship opportunities.

Restoration Event Photos (1st Quarter)

July 9, 2016



Photo 1. Volunteers removing juvenile Russian thistle (*Salsola tragus*) before they go to seed.



Photo 2. One of the LAX Dunes native residents was found, California common scorpion (*Paruroctonus silvestrii*). Non-lethal but can still sting.



Photo 3. Volunteers included students from Marymount High School and Loyola Marymount University, representatives from the Audubon Society and California Native Plant Society, and employees from a local accounting firm Moss-Adams.

Restoration Event Photos (1st Quarter)

July 13, 2016



Photo 4. A student from the International Youth Fellowship proudly hoists a large acacia branch he struggled to remove.



Photo 5. Students spread out in search of invasive vegetation.



Photo 6. This group attacked a large monoculture of iceplant.



Photo 7. Proud volunteers!

Restoration Event Photos (1st Quarter)

August 6, 2016



Photo 8. Then LAWA site manager Peggy Nguyen instructs volunteers on how to remove mature Russian thistle (*Salsola tragus*).



Photo 9. Juvenile Russian thistle before seed.



Photo 10. Mature Russian thistle.



Photo 11. Besides lots of Russian thistle, California Academy of Math & Science (CAMS) students and others also pulled acacia, castor bean, and *Euphorbia terracina*.

Restoration Event Photos (1st Quarter)

September 17, 2016



Photo 12. September 17, 2016. Coastal Cleanup Day volunteers get ready to pull iceplant.



Photo 13. September 17, 2016. In a short time, mounds of iceplant line the road that LAWA grounds maintenance will pick the following week.



Photo 14. September 17, 2016. Los Angeles Councilmember Mike Bonin welcomed volunteers (Photo: H. Johnson, LAWA)



Photo 15. September 17, 2016. This Coastal Cleanup Day was our largest volunteer event to date!

Restoration Event Photos (2nd Quarter)

October 1, 2016



Photo 16. Targeting iceplant!



Photo 17. Disturbed soils are easily prone to invasive plants.



Photo 18. What a difference a few volunteers make.



Photo 19. Ready for LAWA grounds maintenance to pick up.

Restoration Event Photos (2nd Quarter)

November 5, 2016



Photo 20. Looking a little ghostly for this restoration event.



Photo 21. Volunteers tackle iceplant and other invasives.



Photo 22. A significant amount of iceplant was cleared in a short time.



Photo 23. Besides mounds of iceplant left in place, several bags of acacia and Russian thistle were culled.

Restoration Event Photos (2nd Quarter)

December 3, 2016



Photo 24. Another monoculture of iceplant being removed.



Photo 25. Native *Lupinus chamissonis* (upper middle left) is given some room from encroaching iceplant.



Photo 26. Great progress!



Photo 27. Participants included Grades of Green Youth Eco-Leadership Program, California Native Plant Society, and several middle school students.

Restoration Event Photos (3rd Quarter)

February 4, 2017 (No January 2017 event because of rain)



Photo 28. Recent rains turned the ecologically semi-arid dunes into a verdant plain of mostly invasive plants. (Photo: H Johnston, LAWA)



Photo 29. Concurrent with volunteer efforts, students with Loyola Marymount University's Engineers Without Borders mapped portions of the dunes. (Photo: H Johnston, LAWA)



Photo 30. Volunteers targeted filaree, iceplant, mustard, and *Euphorbia terracina*. (Photo: H Johnston, LAWA)



Photo 31. Present were West Torrance High School's Interact Club (Rotary Club), LAWA, and the California Native Plant Society (Photo: H Johnston, LAWA)

Restoration Event Photos (3rd Quarter)

February 25, 2017



Photo 32. Recent rains caused the normally semi-arid LAX dunes to spring to life with acres of invasive plants. Local Boy Scout Troops pitched in to stop this.



Photo 33. Despite the prolific carpet of filaree (*Erodium Botrys*) throughout much of the dunes, native plants such as this Beach evening primrose (*Camissoniopsis cheiranthifolia*) were in full bloom.



Photo 34. Volunteers young and old meticulously removed filaree before it went to seed.



Photo 35. Boy and Girl Scout troops have been good friends to the LAX Dunes.

Restoration Event Photos (3rd Quarter)

March 4, 2017



Photo 36. Where to begin???



Photo 37 Volunteers rescued native plants by removing wide swaths of invasive plants around them.



Photo 38. An example of native Deerweed (*Acmispon glaber*) given some room to breath.



Photo 39. Included were students from Loyola Marymount High School and El Comino College, and regular participation by the California Native Plant Society.

Restoration Event Photos (4th Quarter)

April 1, 2017



Photo 40. Volunteers bag invasive filaree (*Erodium botrys*), black mustard (*Brassica nigra*), and grasses (*Brome spp.*).



Photo 41. Volunteers are shown a California legless lizard (*Anniella pulchra*), a California Species of Special Concern that lives at the LAX Dunes.



Photo 42. All volunteers including LAWA, Delaware North, and John C Fremont High School.



Photo 43. Students from John C Fremont High School in coordination with Los Angeles Neighborhood Land Trust.

Restoration Event Photos (4th Quarter)

May 6, 2017



Photo 44. Former LAX Dunes site manager Peggy Nguyen demonstrates proper tool use to UCLA students and other volunteers.



Photo 45. Volunteers are shown a California legless lizard (*Anniella pulchra*), a California Species of Special Concern.



Photo 46. BEFORE: UCLA students target an area of *Euphorbia terracina* crowding native plants such as Beach blue lupine (*Lupinus chamissonis*).



Photo 47. AFTER: The difference is remarkable!

Restoration Event Photos (4th Quarter)

May 25, 2017



Photo 48. Girls Athletic Leadership School (GALS LA) students work together to haul heavy bags full of iceplant up the dunes.



Photo 49. Students search for patches of iceplant and other invasives.



Photo 50. GALS LA students dig and get to work



Photo 51. Student teams stand behind their bags.

LAX DUNES

Appendix B



LAX DUNES FACTS

- Largest dunes complex in Southern California
- Once extended from Palos Verdes to Santa Monica
- About 50,000 years old
- Bones of an extinct member of the camel family were found (*Camelops*, *Camelops hersternus*)
- The neighborhood north of the dunes was once called 'Palisades del Rey,' today Playa del Rey
- The neighborhood that once inhabited the dunes was called 'Surfridge'
- In the 1920s, 'Palisades del Rey' was the place to be; Spanish-style villas housed the rich & famous
- 1928 — Mines Field opened, a small airport later to be known as LAX (1941)
- 1930s — The area fell into decline after the Great Depression
- 1940s—1950s — After WWII, the area revived and 600 more modest homes were built
- As LAX grew and planes got louder, Surfridge residents started to complain about noise and soot. Since nothing could be done to alleviate the problem, through eminent domain, the City of LA purchase all the homes and forced residents to move, a process that happened from the late-1960s to the early 1980s.
- Today, the LAX Dunes (aka El Segundo Dunes) is about 300-acres, mostly designated a protected wildlife Preserve.



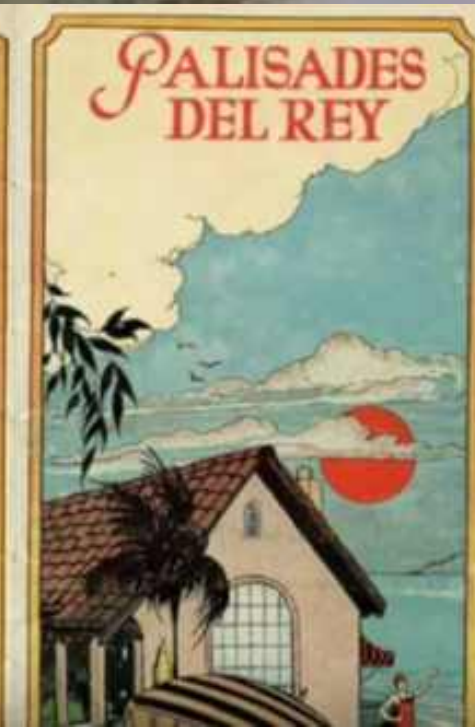
LAX DUMPS

Camelops
(extinct)

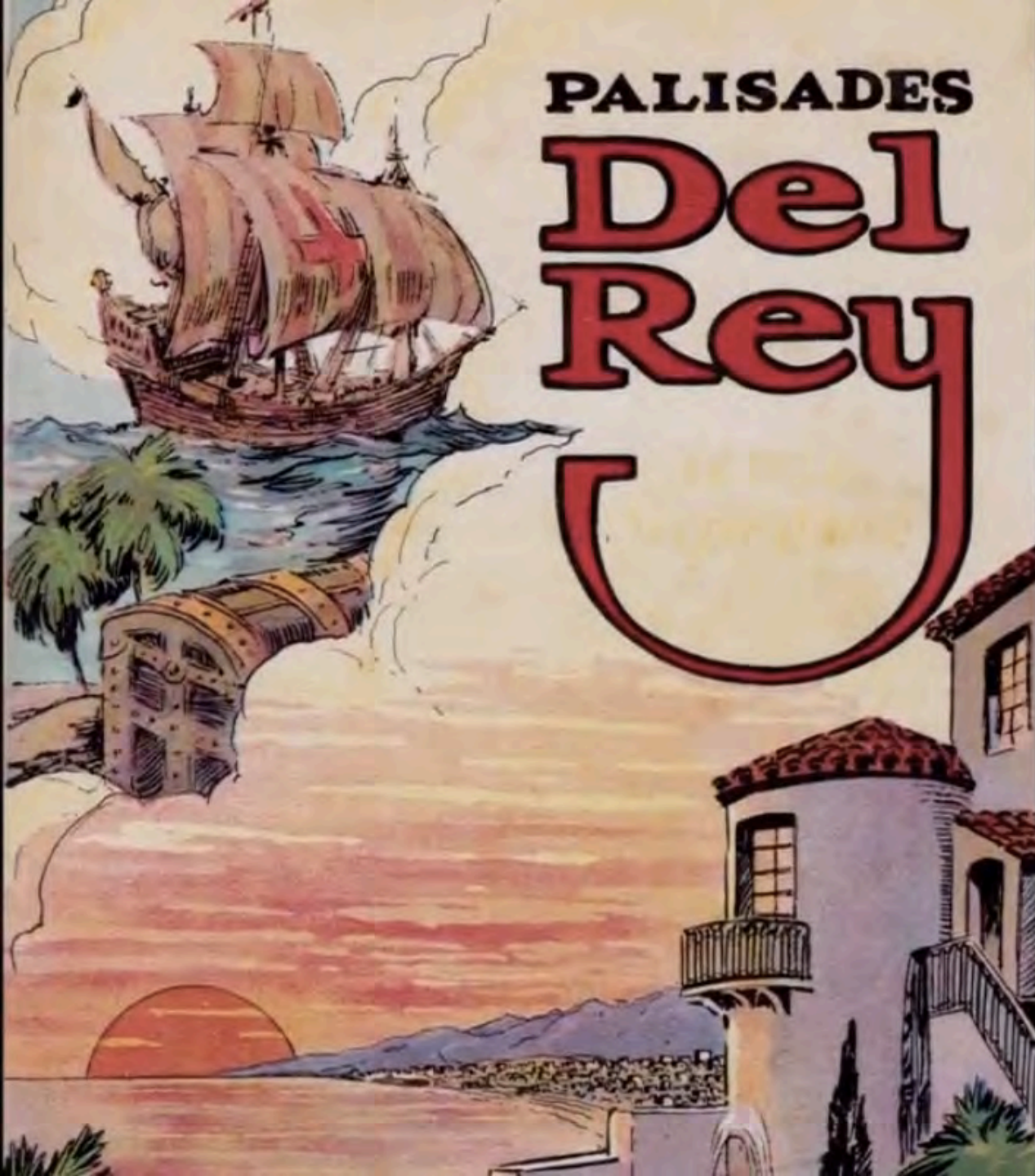


Modern camels

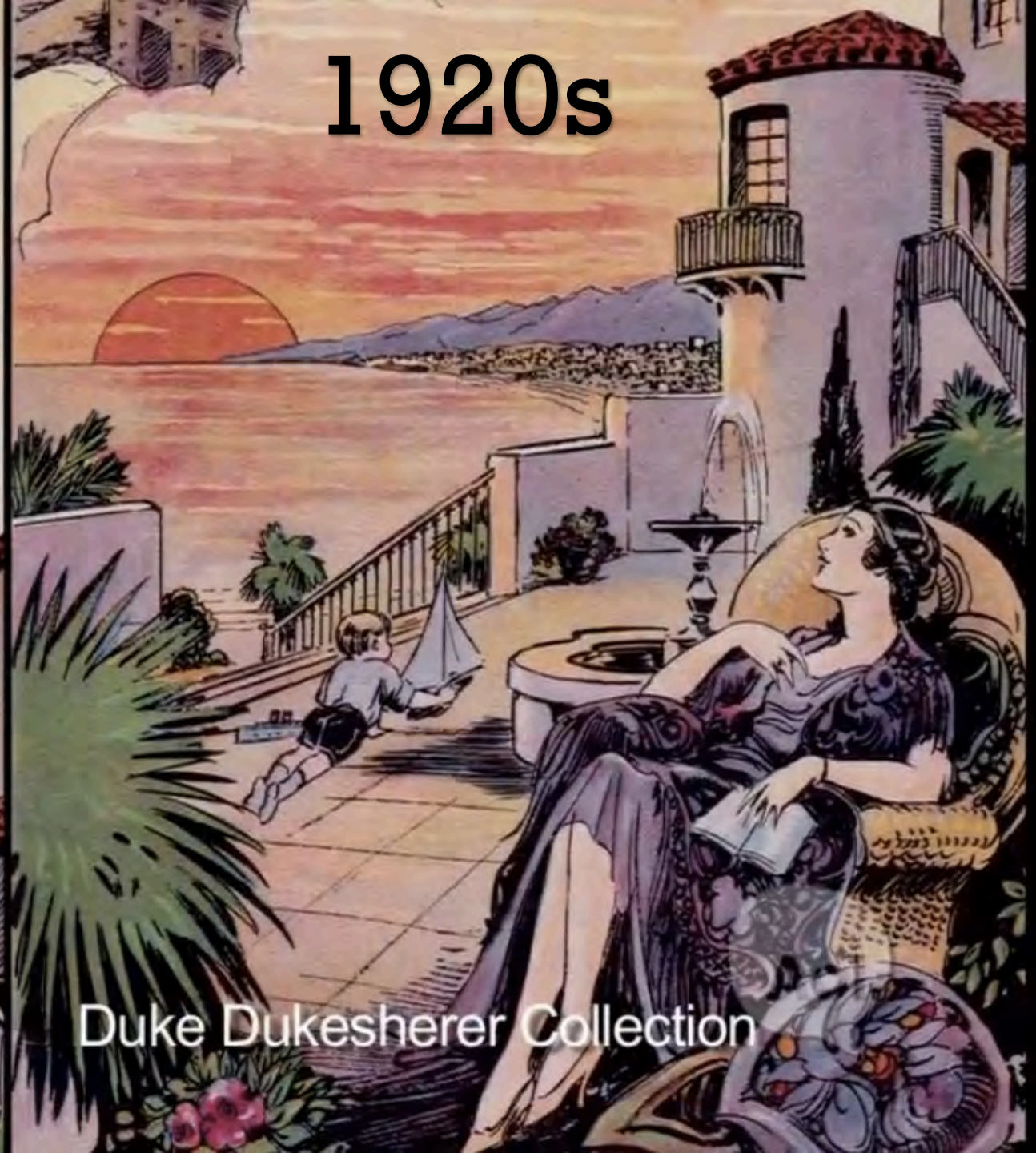




PALISADES
**Del
Rey**



1920s



Duke Dukesherer Collection



All the original homes were topped with red tile.

Part of the LAX Dunes can be seen to the right.



The home on the right was one of the original homes built in 1925.

It still stands today at 200 Waterview St., just a block from the beach (above).

1950s & 60s



Before



Vista del Mar



After



Vista del Mar



1940s



Los Angeles
Municipal Airport

NO Hyperion
Water Treatment
Plant

LAX Dunes
Restoration
Area

Del Rey
Lagoon

Ballona
Wetlands

Ballona Creek
NO Marina del
Rey



2017

Hyperion Water Treatment Plant

LAX Dunes Restoration Area

Del Rey Lagoon

Ballona Creek/Marina del Rey

Ballona Wetlands

LAX

Los Angeles International Airport (LAX)

1496 ft

Data CSUMB SFML, CA OPC
Image © 2017 TerraMetrics
Data USGS



PALISADES DEL REY AND SURFRIDGE

LEGEND
LIGHT GREEN -
LANDING AREAS
BLUE -
WATER AREAS
ORANGE -
DENSE
DARK GREEN -
PARKS
SEE MAP FOR RESTRICTIONS



Before





After



SOME OF THE LAX DUNES' NATIVE PLANTS



El Segundo Blue Butterfly
male (L) & female (R)



Cliff Buckwheat
(*Eriogonum parvifolium*)





Beach Evening Primrose

Camissoniopsis cheiranthifolia

Photos taken at the LAX
Dunes on May 6, 2017

Native



California Croton

Croton californicus



Native





Deerweed
Acmispon glaber

Native

Jimson Weed

Datura wrightii

Native



Sand Verbena

Abronia umbellata



*THIS BABY SAND
VERBENA IS GROWING
ON THE SANTA MONICA
SITE PATAGONIA
SPONSORED LAST
YEAR!*



Native





Silver Beach Bur

Ambrosia chamissonis

Native

South Coast Branching phacelia

Phacelia ramosissima

Native



INVASIVE PLANTS!!





Acacia Trees

Acacia cyclops

Acacia retinoides

Invasive

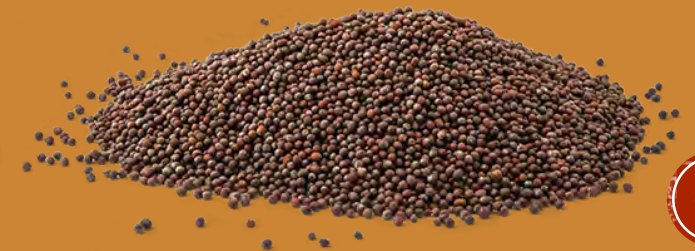


Black Mustard

Brassica nigra



Invasive





Foxtail Brome

Bromus madritensis

Invasive





Iceplant

*Carpobrotus
edulis*

Invasive





Ripgut

Bromus diandrus

Invasive



Russian thistle

Salsola tragus

Invasive



Wild Oat

Avena fatua

Invasive





Wild Radish

Raphanus sativus

Invasive



Geraldton carnation weed *Euphorbia terracina*

Invasive



*Environmental Weeds
of Australia*



NATIVE CRITTERS



San Diego Horned Lizard

Phrynosoma coronatum blainvillii



Native



California Silvery Legless Lizard

Anniella pulchra



Native

California Common Scorpion

Paruroctonus silvestrii



Native



May 6, 2017
Friends of the LAX Dunes
Volunteer Day

Lighter green *Euphorbia terracina* scrubs surround the darker green native shrubs



Two hours later,
much of the
Euphorbia has been
removed!



Appendix C – Media Outreach



Download Latest Issue

PARK LABREA NEWS BEVERLY PRESS

Serving the Park Labrea, Atwood Hill, Hancock Park, Beverly Hills and West Hollywood communities since 1916.



NEWS CRIME DINING & ENTERTAINMENT LIFE, STYLE & ART SCHOOLS



SEPTEMBER 15, 2018

Volunteers sought for Coastal Cleanup Day

The Bay Foundation (TBF) will host its 12th annual Coastal Cleanup Day on Saturday, Sept. 17 from 9 a.m. to noon. The event will be held on the dunes between Los Angeles International Airport and El Segundo.



(photo courtesy of the Bay Foundation)

The goal is to remove invasive species of non-native plants. TBF is partnering with Friends of LAX Dunes to help restore Los Angeles County's largest remaining dune system. Last year, the event included 70 volunteers who collected over 2,000 pounds of invasive vegetation.

The clean-up is part of the greater annual Coastal Cleanup Day (CCD), which draws over 14,000 volunteers to hundreds of events across Los Angeles County. To volunteer, visit www.santamonicabay.org.

CCD coincides with the launch of National Estuaries Week. TBF encourages people to participate in the national #EstuariesWeek social media campaign by posting photographs of their participation in CCD on social media from Sept. 17 through Sept. 24. For information, visit www.santamonicabay.org.



just a prick
FreeMeningitisVax.org



← Previous Post
Art Project Los Angeles hosts benefit

Next Post →
Project Angel Food to honor supporters at gala

[Home](#) » [Featured](#) » [Cleaning up the Dunes](#)

Cleaning up the Dunes

September 30, 2016 11:27 am by: Staff Report Category: Featured [Leave a comment](#) [A+](#) / [A-](#)

The Bay Foundation (TBF) hosted its 12th Annual Coastal Cleanup Day event Saturday, September 17, returning to the LAX Dunes, to remove invasive species of plants with a record year of attendance reached, almost double last years' volunteers.

TBF's event was part of the greater annual Coastal Cleanup Day (CCD), which draws over 14,000 volunteers to hundreds of events across Los Angeles County.

TBF's dunes event drew over 130 volunteers who collected over 3,500 pounds of invasive vegetation.

CCD coincides with the launch of National Estuaries Week (NEW), the nation's largest volunteer event for estuaries in our country, which celebrates beaches and estuaries – the vibrant coastal areas where rivers meet the sea. TBF helps educate about the connection between the watersheds that feed, or drain into, the Santa Monica Bay.

City of Los Angeles Councilmember Mike Bonin welcomed and thanked volunteers as efforts got underway, with volunteers from both The Bay Foundation and Friends of LAX Dunes taking part in the event.

TBF coordinates this event to help restore Los Angeles County's largest remaining dunes system. The invasive species take space away from healthy and native species of plants, much as trash invades our beaches, parks and streets.

California Coastal Cleanup Day began in 1985 to combat the increasing marine debris along our shorelines, and is coordinated in Los Angeles County by Heal the Bay in conjunction with the California Coastal Commission (statewide) and the Los Angeles County Department of Beaches & Harbors. For more information head to: santamonicabay.org

October 1, 2016 | 9am to 12pm
(Gate must be locked by 9:15am, but early exit can be arranged)



Help Restore the

LAX Dunes!

First Saturday of the Month and Special Days
from 9 AM to Noon

About

The LAX Adopt-a-Dune Program provides an opportunity for volunteers to help care for and learn about their natural environment. The LAX El Segundo Dunes is the largest remaining fragment of the El Segundo Dunes complex, and provides habitat for over 900 species, some of which cannot be found anywhere else on Earth. It is home to the federally endangered El Segundo Blue Butterfly, and other rare plant, animal and insect species. Your help is needed to remove invasive plant species so native plants in the preserve can thrive in the spring.

Where

The LAX Dunes entrance is across from Trask Ave meets Waterview St. Parking on-site.
Google Map: <http://bit.ly/LAXDunes-map>

Bring

Water bottle, hat, sunscreen, and wear closed-toed shoes (required). Tools and gloves will be provided, but bring you favorite gardening gloves if you have them. Snacks and water will be provided.

More Information: rabbott@santamonicabay.org | www.friendsoftheLAXDunes.org





Seaver Update (Week of September 6-September 11, 2016)

News:

- Along with Dorothea Herreiner, Anna Bargagliotti and Jeff Phillips have received an award from NSF to the LMU Collaborative Research on Evaluating, Advancing, and Transforming Education in STEM (CREATE-STEM) group. The "Breaking the Boundaries in STEM Education" project will bring together scholars in discipline-based education research and in the scholarship of teaching and learning to create a hub in Southern California that will enable these researchers to learn from and collaborate with each other.

Center for Student Success Update:

- **New Team of Student Liaisons:** The Center for Student Success welcomes Amy Cheng '18 (Health & Human Sciences), Steve Chengyu '18 (Civil Engineering), Emily Cuzner '17 (Mechanical Engineering), Natalia Dibbern '18 (Mathematics & Computer Science), Justina Esuola '18 (Biology), Sara Gibson '17 (Mechanical Engineering), Luciano Manfredi '18 (Physics & Mathematics), Kevin Nguyen '18 (Biology & Biochemistry minor), Claire Ortega '18 (Computer Science), Xaida Wright '18 (Biochemistry) and Cristina Zebeljan '18 (Mechanical Engineering). Student Liaisons contribute to the administrative and support functions of the Center for Student Success (CSS) and Dean's Office. This stellar group of Seaver undergraduates works at the front desk of Pereira 100 and shares their student perspective to any visitors to our college. They also assist Seaver undergraduate students identify resources and opportunities for personal and academic growth through the center's activities and events.
- **Update from Career & Professional Development (CPD):** The Seaver Career Coach Nina Cox is on maternity leave in Fall 2016 and will return in Spring 2017. For career coaching related to Computer Science and Technology-related areas, please refer students to seeCarolynn Grainger: carolynn.grainger@lmu.edu. For career coaching related to Science, Engineering, Environment, please refer students to Gregory James: gregory.james@lmu.edu. For faculty, Lucas Bierlein (lucas.bierlein@lmu.edu) is still the CPD point-person for all matters related to building and sustaining industry partnerships for your department. Any SCSE student can make a CPD appointment via [LionJobs](#), the campus web portal to search for internships, entry-level positions and on-campus jobs.

Events this Week:

- **Ballona Community Iceplant Removal Project:** Volunteers are needed to help remove invasive iceplant from an area south of Culver Blvd on Sept. 8th. Shifts are from 9am to noon, or 2-5pm. More info: <http://bit.ly/2bti6b9>.
- **2016 California Adaptation Forum:** The Mediterranean City Climate Change Consortium (MC-4), housed at the LMU Center for Urban Resilience, will be hosting a panel on Wednesday, Sept. 7 from 8:30 to 9:45am in Long Beach called Picking up the Pace: Accelerating Just and Equitable Adaptation in Mediterranean-climate Cities. Register online at www.californiaadaptationforum.org
- **Seaver New Student Welcome BBQ:** Please help welcome the newest members of the Seaver community on Thursday, Sept. 8 from 5pm to 6:30pm in Pereira Quad. New Seaver shirts will be available. RSVP: <http://bit.ly/2c8PPoG>.

- **Seaver College Fall Meeting:** This meeting for all Seaver faculty and staff takes place on Friday, Sept. 9 from 3:30-4:30pm in the Life Sciences Building Auditorium. Reception to follow.
- **Chemistry Seminar:** Alumnus Guy Goodman '11 will talk about the pharmaceutical industry, potential career paths, and how best to utilize the tools available at LMU in his talk titled, "[From Small Molecules to Billion Dollar Drugs](#)" on Friday, Sept. 9 from 1:50-2:50pm in Seaver 200.
- **ACTI Short Film Night:** The Academy for Catholic Thought and Imagination and the School of Film and Television invite LMU faculty, staff and guests to an evening of short films and discussion. Films from a variety of religious and cultural contexts will be screened. Heavy appetizers, wine, beer and dessert will be provided. The event takes place on Friday, Sept. 9 from 6:30-9:30pm at the Von der Ahe Suite in Hannon Library. More info: <http://bit.ly/2bazWln>.

Upcoming Events:

- **Mass of the Holy Spirit:** President Timothy Law Snyder invites the LMU community to attend the Mass of the Holy Spirit on Thursday, Sept. 15 at noon in Sacred Heart Chapel. Luncheon to follow in the Sculpture Garden. Questions can be directed to [Nick Islas](#).

Recently Published:

- **Wendy Binder**, Kassandra Cervantes, Julie Meachen, "[Measures of Relative Dentary Strength in Rancho La Brea *Smilodon fatalis* over Time](#)," PLOS One. *Kassandra Cervantes is a former LMU research student*
- **O.S. Es-Said**, J. Alcisto, J. Guerra, E. Jones, A. Dominguez, M. Hahn, **N. Ula**, L. Zeng, B. Ramsey, H. Mulazimoglu, **Yong-Jun Li**, M. Miller, J. Alrashid, M. Papakyriakou, S. Kalnaus, E.W. Lee, and W.E. Frazier, "[Effect of Cadmium Plating Thickness on the Charpy Impact Energy of Hydrogen-Charged 4340 Steel](#)," Journal Materials Engineering and Performance.

Previously Mentioned:

- **Summer Activities:** What did you do over the summer? We want to hear from Seaver's faculty and staff! Send a quick email to [Tiffany Jonick](#) about what you did over the summer with a photo and you could be featured on Seaver's social media channels ([Facebook](#), [Instagram](#) & [Twitter](#))!
- **Seaver Ice Cream Social during Alumni BBQ:** Join Seaver College alumni, staff, faculty and families for a casual ice cream social on Sunday, Sept. 25 from 3-4pm in Pereira Quad. RSVP by Monday, Sept. 19 to [Lety Stassi](#).
- **The Bay Foundation's Coastal Cleanup Day:** Volunteers are needed to help remove invasive plants at the LAX Dunes as a part of this world-wide day of volunteering. The event takes place on Saturday, Sept. 17, 9am-noon at the LAX Dunes. More info: <http://friendsofthelaxdunes.org/>.
- **El Salvador Engineering & Architecture Conference:** The University of Central America José Simeon Cañas (UCA, the Jesuit university in El Salvador) has extended an invitation to Seaver students and faculty to present research at their annual Engineering & Architecture conference in San Salvador, October 5-6, 2016. Those interested in attending the conference in El Salvador should contact Victor Carmona (Victor.Carmona@lmu.edu) for more information.

If you have any updates, news or events that you'd like to share with the rest of the college, please send them my way!

Tiffany Jonick

Communications Manager

Dean's Office
Frank R. Seaver College of Science and Engineering

North Hall 103A
1 LMU Drive
Los Angeles, CA 90045-2659
www.lmu.edu | [Privacy](#) + [Legal](#)

Office 310.338.4461

Email tiffany.jonick@lmu.edu





MEDIA ALERT

Contact: Julie Du Brow, Communications
310-922-1301
jdubrow@santamonicabay.org

The Bay Foundation's 12th Coastal Cleanup Day Event (Sept. 17) Will Clean 'Trash' of the Plant World...Invasive Species

Event Coincides with 'National Estuaries Week' Kickoff

LOS ANGELES (August 30, 2015) – On Saturday, September 17, from 9:00am-12:00pm, The Bay Foundation (TBF) will host its 12th Annual Coastal Cleanup Day event. TBF is returning to the dunes between LAX and El Segundo beaches, also known as the LAX Dunes, to remove invasive species of plants. These invasives take space away from healthy and native species of plants, much as trash invades our beaches, parks and streets. TBF will once again partner with Friends of LAX Dunes (FOLD) to help restore Los Angeles County's largest remaining dune system. Registration is now open and filling up fast.

Last year, TBF's dunes event drew 70 volunteers who collected over 2,000 pounds of invasive vegetation. TBF's event is part of the greater annual Coastal Cleanup Day (CCD), which draws over 14,000 volunteers to hundreds of events across Los Angeles County. To volunteer, please [CLICK HERE](#), or visit Events at www.santamonicabay.org. For questions on volunteering, please contact Rod Abbott, rabbott@santamonicabay.org.

CCD is an international event with over 90 countries around the world participating, making it one of the largest volunteer efforts on the planet. California CCD began in 1985—following the first such event in Oregon in 1984—to combat the increasing marine debris along our shorelines, and is coordinated in Los Angeles County by Heal the Bay in conjunction with the California Coastal Commission (statewide) and the Los Angeles County Department of Beaches & Harbors.

"I love working at the LAX Dunes," says Tom Ford, TBF Executive Director. "It's the largest expanse of coastal dunes that remains in Southern California, so the potential for the restoration work is huge. And people really get a thrill out of working on the dunes with its spectacular view of the Bay. It's always a rewarding day."

CCD coincides once again with the launch of National Estuaries Week (NEW), which celebrates beaches and estuaries—the vibrant coastal areas where rivers meet the sea. TBF, as a member of the EPA's National Estuaries Program, helps educate about the connection between the watersheds that feed, or drain into, the Santa Monica Bay. TBF encourages everyone to take part in the national #EstuariesWeek social media campaign during that week, starting with pictures of their participation in CCD on Sept. 17, and continuing through Sept. 24.

www.SantaMonicaBay.org



NEW is the nation's largest volunteer event for [estuaries](#) in our country, and this year marks the 28th anniversary of the first National Estuaries Day in 1988. More than a quarter century later, we now have even more evidence that estuarine ecosystems serve as natural barriers to buffer against storms and floods, absorb and store carbon, and provide critical habitat for commercial and recreational fisheries.

For 2016, NEW continues to focus on the connections between our estuaries and our economy. With growing concern about our nation's financial health, it is important to recognize the value that protecting and restoring our estuaries delivers to our national economy. In fact, coastal counties provide more than half the nation's gross domestic product and support more than 69 million jobs—that's about 40% of U.S. employment!

Returning CCD sponsors include Starbucks (coffee), Chipotle (free food vouchers), and Patagonia (raffle prizes!). Various snacks will be available throughout the event.

TBF's Coastal Cleanup Day will be funded by a grant from the State Coastal Conservancy.

About The Bay Foundation (TBF)

The Bay Foundation is a 501(c) 3 non-profit environmental group founded in 1990 to restore and enhance the Santa Monica Bay (from the LA-Ventura county line to the Palos Verdes Peninsula) and local coastal waters. The Foundation is the non-profit partner of the Santa Monica Bay Restoration Commission, raising and expending funds for research, education, planning, cleanup efforts and other priorities identified in the Commission's Santa Monica Bay Restoration Plan. As advocates for the Bay, TBF works collaboratively with a broad group of stakeholders, including government agencies, industry, environmental groups, and scientists, to implement innovative policies and projects that clean up the waterways, create green spaces and natural habitats in the Los Angeles region. The TBF conducts research and mentors student intern and volunteers through its Center for Santa Monica Bay Studies at Loyola Marymount University. <http://www.santamonicabay.org/>
###



Los Angeles World Airports

LAX VNY

P.O.Box 92216
Los Angeles CA 90009-2216
www.lawa.aero

News Release

CONTACT: Frederick Badlissi
(424) 646-5260

LOS ANGELES WORLD AIRPORTS TO WORK WITH SANTA MONICA BAY RESTORATION AUTHORITY TO KEEP LAX DUNES HABITAT HEALTHY

(Los Angeles, California – January 10, 2017) Demonstrating its continued commitment to environmental stewardship, the Los Angeles Board of Airport Commissioners (BOAC) today approved a three-year Memorandum of Understanding (MOU) with the Santa Monica Bay Restoration Authority (SMBRA) to continue habitat maintenance and restoration efforts in a 48-acre northern portion of the LAX Dunes.

“A big part of our mission is to protect our environment,” said Los Angeles Board of Airport Commissioners Vice President Valeria Velasco. “The LAX Dunes nature preserve is a local treasure, and we’re excited to have the Santa Monica Bay Restoration Authority by our side to protect and restore it.”

“Los Angeles World Airports is excited to work with the Santa Monica Bay Restoration Authority to strengthen and preserve the LAX Dunes ecosystem for future generations,” said Los Angeles World Airports (LAWA) Chief Executive Officer Deborah Flint. “Together, we are committed to preserving this precious natural habitat, which is home to the endangered El Segundo Blue Butterfly and many other unique plant and animal species.”

“Restoring the LAX Dunes is a once in a lifetime opportunity. LAWA’s care of this valuable ecosystem has given rare dune species a chance to thrive, and we are thrilled to be an active partner in this important habitat restoration project,” said Tom Ford, Executive Officer of the SMBRA. “We look forward to expanding our current efforts through more frequent volunteer restoration days, as well as encouraging community members and students to learn and actively participate in restoring the health

–more–

LAX Dunes Memorandum of Understanding – Page 2 of 3

of a habitat all but lost in Southern California.”

The MOU follows the ongoing efforts of both LAWA and non-profit volunteer groups to restore the habitat for plant and wildlife species. The MOU will support increased activity on the site allowing for greater community involvement and an expansion of restoration efforts. Removing invasive plants is important to the restoration of the dunes. LAWA and the SMBRA will continue to host monthly volunteer events on the first Saturday of every month. In 2016, 467 volunteers weeded and dispersed seeds throughout 17 events.

SMBRA will also provide a variety of other services to accomplish maintenance and restoration objectives in conformance with conditions set forth by the California Coastal Commission (CCC), as part of LAWA’s 2013 permit to remove former roads, driveways, and other hardscape in the area. LAWA removed over 32,000 square feet of abandoned streets, curbs, gutters and utilities associated with the dunes’ past history as a residential area. These areas were replaced with graded soil to provide permeable areas for seeding native plants.

Additionally, SMBRA will advise LAWA’s Maintenance Services Division on grass control and tree-removal methods. SMBRA will also prepare the initial and subsequent monitoring reports on the progress of habitat restoration for the CCC during the term of the MOU on behalf of LAWA.

The LAX Dunes Preserve is the largest remaining coastal dune area in Southern California. The 308-acre preserve also supports the 203-acre El Segundo Blue Butterfly Habitat Restoration Area, which is south of the MOU-affected area.

About Los Angeles International Airport (LAX)

LAX is the seventh busiest airport in the world and third in the United States. LAX served more than 74.9 million passengers in 2015. LAX offers 742 daily nonstop flights to 101 cities in the U.S. and 1,280 weekly nonstop flights to 77 cities in 42 countries on 64 commercial air carriers. LAX ranks 14th in the world and fifth in the U.S. in air cargo tonnage processed, with more than 2.1 million tons of air cargo valued at over \$101.4 billion. LAX handled 655,564 operations (landings and takeoffs) in 2015.

An economic study based on 2014 operations reported LAX generated 620,610 jobs in Southern California with labor income of \$37.3 billion and economic output (business revenues) of more than \$126.6 billion. This activity added \$6.2 billion to local and state revenues and \$8.7 billion in federal tax revenues. The study also reported that LAX’s ongoing capital-improvement program creates an additional 121,640 annual jobs with labor

LAX News Release – LAWA/SMBRA Memorandum of Understanding – Page 3 of 3

income of \$7.6 billion and economic output of \$20.3 billion, \$966 million in state and local taxes, and \$1.6 billion in federal tax revenues.

LAX is part of a system of two Southern California airports – along with Van Nuys general aviation – that are owned and operated by Los Angeles World Airports, a proprietary department of the City of Los Angeles that receives no funding from the City's general fund.

For more information about LAX, please visit www.lawa.aero/lax or follow on Twitter @flyLAXAirport, on Facebook at www.facebook.com/LAInternationalAirport, and on YouTube at www.YouTube.com/laxairport1. Information about LAX's ongoing multi-billion-dollar LAX Modernization Program, as well as tips and shortcuts to help navigate LAX during construction, are available at www.LAXisHappening.com.

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services, and activities. Alternative formats in large print, braille, audio, and other forms (if possible) will be provided upon request.

###

Photos from previous volunteer events (High-Resolution files available upon request):





Facebook Posts

 **Santa Monica Bay Restoration Foundation**
July 9, 2016 - Los Angeles, CA - 🌐

Restoration at the LAX Dunes! Next 8/6 9am to noon @SCE
@LAX_Community @ca_coastal @FOLDvolunteer @LAAudubon



 **Santa Monica Bay Restoration Foundation** shared LAX Community Relations's post.
July 24, 2016 - 🌐

We were thrilled by such a great day, thank YOU all!



LAX Community Relations added 2 new photos.
July 15, 2016 - 🌐 👍 Like Page

On July 9th and 13th, Los Angeles World Airports' staff Raha Azarmehr and Nancy Price, respectively, participated with the Santa Monica Bay Restoration Foundation, Friends Of The LAX Dunes and the International Youth Fellowship Organization at the LAX Dunes in removing 55 bags of non-native plants such as tumble weeds, ice plant and mustard plants. The LAX Dunes Preserve is an important habitat for many animals including the El Segundo Blue Butterfly (ESBB), whose sole food source is the Coastal Buckwheat. By removing non-native plants, it allows an opportunity for the Coastal Buckwheat to grow, thus, being able to support the ESBB.

FOLD hosts a restoration event at the LAX Dunes on the first Saturday of every month from 9 a.m. to 12 p.m. (unless it is a holiday weekend or it's raining). For more information on volunteering, please visit <http://friendsofthelaxdunes.org/>.

Thank you Santa Monica Bay Foundation and International Youth Fellowship Organization!



Santa Monica Bay Restoration Foundation added 4 new photos.

September 17, 2016 · 🌐

An amazing morning! Thanks to over 100 folks who've come out to clear out invasive plants at LAX Dunes with us, in partnership with Friends Of The LAX Dunes for Coastal Cleanup Day 2016! Thx to Mike Bonin for coming out and showing his support for #CCD2016, too! A perfect day!



Santa Monica Bay Restoration Foundation

September 17, 2016 · 🌐

Over 100 volunteers are here to help remove invasive plants from the LAX Dunes!! #ccd2016





Santa Monica Bay Restoration Foundation

September 20, 2016 · 🌐

Thanks to all of the volunteers who made the launch of National #EstuariesWeek 2016 a success--it just happened to be our Coastal Cleanup Day event! We could not have done it without you! Results? 130+ volunteers pulled lots of iceplant and Russian thistle, 206 bags = 3,580 lbs, to be exact...WOW!

Have a picture from when you volunteered for #EstuariesWeek? Be sure to include #EstuariesWeek (which is ALL this week) and tag us!



Santa Monica Bay Restoration Foundation shared LAX

Community Relations's post.

April 3 · 🌐

Great day at The LAX Dunes Saturday!



LAX Community Relations added 4 new photos.

April 3 · 🌐

👍 Like Page

Employees at Los Angeles International Airport (LAX) joined the Friends Of The LAX Dunes and the Santa Monica Bay Restoration Foundation volunteers to continue habitat maintenance efforts in the 48-acre northern portion of the LAX Dunes on April 1. Volunteers focused on removing ground cover plants such as ice plants and other invasive plants. During Saturday's LAX Dunes Cleanup, volunteers found a California legless lizard (*Anniella pulchra*), a species that is native to the LAX Dunes.