

Coastal Dune Community Stewardship Project

Quarter 4 (Year 2) Report SCC 15-110 Explore the Coast Grant

30 June 2018

Prepared for: Kara Kemmler

Project Manager, South Coast State Coastal Conservancy 17110 Nanette Street Los Angeles, CA 91344

Prepared by: The Bay Foundation

Rod Abbott, Watershed Program Coordinator Melodie Grubbs, Watershed Program Manager Karina Johnston, Director of Watershed Programs





The following is a status update for activities that occurred from 1 April 2018 through 30 June 2018 and Year Two demographic assessment.



RESTORATION EVENTS

During the Fourth Quarter (Year 2), nine restoration events were held (Table 6, Year 2, FORTH QUARTER). Thirty-five restoration events have been held since the inception of the grant. Before each restoration event, an ecological and cultural history of the LAX Dunes Preserve 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, and its connection to adjacent public beaches such as Dockweiler State Beach that lies below the Dunes.

Community restoration events that were held during Quarter 4 are detailed below and all other events held during Year 2 are available in the prior quarter reports. Year 1 events are available in the Year 1 report available at (link TBF Reports).

On 7 April 2018, 47 volunteers removed 40 bags of juvenile long-beaked filaree (*Erodium botrys*), mustard (*Brassica spp*), Terracina spurge

(Euphorbia terracina), and non-native grasses (Bromus spp.). Participants included students from LMU, UCLA, and Santa Monica College (Appendix A).

On 12 April 2018, 12 employees from AT&T's El Segundo office removed 13 bags of long-beaked filaree and Saharan mustard (*Brassica tournefortii*). This was the first of three scheduled events for the month April (Appendix B).

On 20 April 2018, Girls Athletic Leadership School–Los Angeles (GALS LA) returned to the LAX Dunes for a second year. The nearly 100 6th-grade girls removed 100 bags of Saharan mustard, filaree, and wild radish (*Raphanus sativa*) (Appendix C).

On 21 April 2018, 12 members of the Kent State Alumni Association removed 15 bags of wild radish, black mustard (*Brassica nigra*), and filaree (Appendix D).

On 24 April 2018, 36 employees from AT&T's El Segundo office removed 23 bags of black and Saharan mustards. This was the second of three scheduled events (Appendix E).

On 27 April 2018, 92 AT&T employees completed a third and final day of scheduled colunteers events removing 78 bags of filaree, black mustard, and wild radish (APPENDIX F).

On 5 May 2018, for the third year, the LAX Dunes was listed as a volunteer site for "Big Sunday." 49 volunteers removed 35 bags of black mustard, wild radish, and filaree (APPENDIX G).

On 19 May 2018, 20 members of the UCLA Silicon



Beach Alumni removed 35 bags of black mustard, wild radish, and filaree (APPENDIX H).

On 2 June 2018,w 15 volunteers removed 11 bags of black mustard, wild radish, and filaree. Participants

include students from LMU, Ventura Community College, and Stonebridge University. (Appendix I).

On 30 June 2018, three members of **CALE Now!** brought four students to the LAX Dunes. They pulled four bags of Russian thistle, Terracine spurge, and filaree (APPENDIX J). CALE Now! "provides youth with guidance and tools that will broaden their global perspective through international cultural experiences, and create global visionaries and leaders who will have a positive impact on the world economy, and who respect and comfortably operate within global constructs." With all expenses paid by the organization, students will travel to Singapore for ten days in August. Last years' students traveled to Italy (APPENDIX J).

OUTREACH

Continuing to build on the outreach success of TBF and FOLD restoration events, outreach primarily consisted of maintaining, posting upcoming

events at www.santamonicabay.org/events, Volunteer Match, social media including Facebook and Twitter, the neighborhoodsite Nextdoor, and LMU's community outreach listserv (Appendix K and Appendix L).

ADDITIONAL ACTIVITIES

As part of TBF's one-year contract with LAWA, TBF completed its vegetation monitoring and ecological

assessment of the northern LAX Dunes to determine if LAWA was in conformance with its 2013 Coastal Development Permit (CDP No. 5-12-263). Under the CDP, restoration activities included removing selected abandoned streets,

gutters, sidewalks, curbs, retaining walls, foundations, ground above utilities. non-native invasive plants, and subsequently planting approximately six acres of native coastal dune and coastal prairie vegetation within an area that was formally residential а subdivision.

The report found, "[T]he dune is stable, predominantly native with some seasonal variability, and supports an abundance of native wildlife and vegetation. Combined efforts by LAWA, TBF, and their partners have allowed for this restoration area be transformed from impervious roads and other cement and asphalt surfaces native. into thriving vegetated dune community."

LAWA submitted the report to the California Coastal Commission which was

required five years after the issuance of the CDP.



Marymount intern records field data.

LMU interns assess vegetation cover.

Finally, many interns of the Coastal Research Institute's (CRI) summer internship program assisted in scientific monitoring and/or general restoration work at the LAX Dunes. Interns include students from LMU and Marymount High School. CRI is a joint-venture of TBF and LMU's Seaver College.



DEMOGRAPHICS

From 5 August 2017 to 19 May 2018, TBF held 19 restoration events at the LAX Dunes. Since the start of the Coastal Dune Community Stewardship Project, TBF has held a total of 35 events. During Year 2, a total of 773 volunteers participated in the events, with 19.5% of all volunteers that provided demographic data identified as students. Figure 1 shows the total number of participants during each community restoration event with the most volunteers participating during the 19 August 2017, 16 September 2017, 2 December 2017, 3 February 2018, 7 April 2018, 20 April 2018, 27 April 2018, and 5 May 2018 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. Five more events were held during Year 2 compared to Year 1, and while overall community volunteer participation was up by 53.7% in Year 2, the percentage of student participants was lower than Year 1.

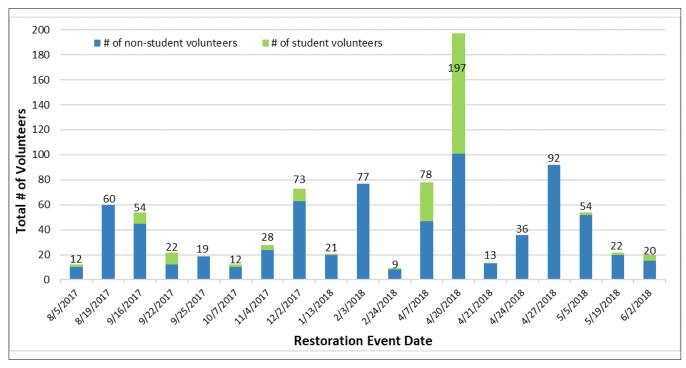


Figure 1: Total # of volunteer participants and identified students during each restoration event.

Table 1 shows a breakdown of participants per event. A total of 773 individuals participated in Year 2 restoration events, including 175 students. Collectively, the average number of individual participants per event was 38, with an estimated nine students per event. Large group events contributed to high participant numbers and included the Girls Athletic Leadership School (96 participants), volunteer service-based organizations, and company volunteer events (Patagonia, LAWA, and AT&T. 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 1. 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
_ L	11/5/2016	8	9	17
Year 1	12/3/2016	5	9	16
Ğ.	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 (Year 1)	116	385	585
	7/8/2017	9	15	24
	8/5/2017	10	2	10
	8/19/2017	60	0	60
	9/16/2017	36	9	45
	9/22/2017	2	10	12
	9/25/2017	20	0	20
	10/7/2017	8	2	10
	11/4/2017	20	4	24
	12/2/2017	53	10	63
7	1/13/2018	19	1	20
Year 2	2/3/2018	77	0	77
>	2/24/2018	6	1	7
	4/7/2018	15	32	47
	4/12/2018	12	0	12
	4/20/2018	5	100	105
	4/21/2018	13	0	13
	4/24/2018	36	0	36
	4/27/2018	92	0	92
	5/5/2018	50	2	54
	5/19/2018	18	2	20
	6/2/2018	10	5	15
	6/30/2018	3	4	7
	Total Volunteers (Year 2)	574	199	773
	Total Volunteers (All Years)	690	584	1358



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 Year 2 events (175), 64% were K-12 students, and 34.3% were college and university level students (Table 2). Over 77% percent of the students were female, most likely in part due to the participation of the GALS School on 20 April 2018 which brought 96, 6th grade, female students to the site. Male students comprised approximately 17% of events during Year 2. Student participation during Year 2 events was lower than Year 1 events; however, overall there were substantially more volunteers during Year 2. Overall 560 students have participated in restoration events during Year 1 and 2, with 69% K-12 students and 28.2% college and university students. The participation of LMU students during Year 2 can be attributed to TBF's partnership with LMU and the development of the Coastal Research Institute (CRI).

Table 2. 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
Year 1	385	274	98	13	254	128
Year 2	199	112	60	2	136	30
Total	584	386	158	15	390	158

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 2 shows the number of participants by zip code that participated in LAX Dunes restoration events (Year 1 and Year 2 combined) and distance away from the project site. Compared to Year 1, Year 2 showed increase participation from volunteers located between 0-10 miles and 15-40 miles from the project site. Students have been traveling from further inland to participate in restoration events. Over 80% of all participants traveled more than 5 miles to reach the coast. Participants came from a total of 161 zip codes throughout Los Angeles County, an increase from the 91 unique zip codes during Year 1. Similar to Year 1, Year 2 also had several participants outside Los Angeles County, including visitors from Sacramento, Alaska, and as far as Spain. Table 3 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 3. 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								
	0-5 miles	5–10 miles	10-15 miles	15-20 miles	20-40 miles	Total				
# of zip codes	10	36	22	37	43	148				
# of total volunteers	296	280	145	189	178	1088				
# of students	79	96	68	136	117	523				



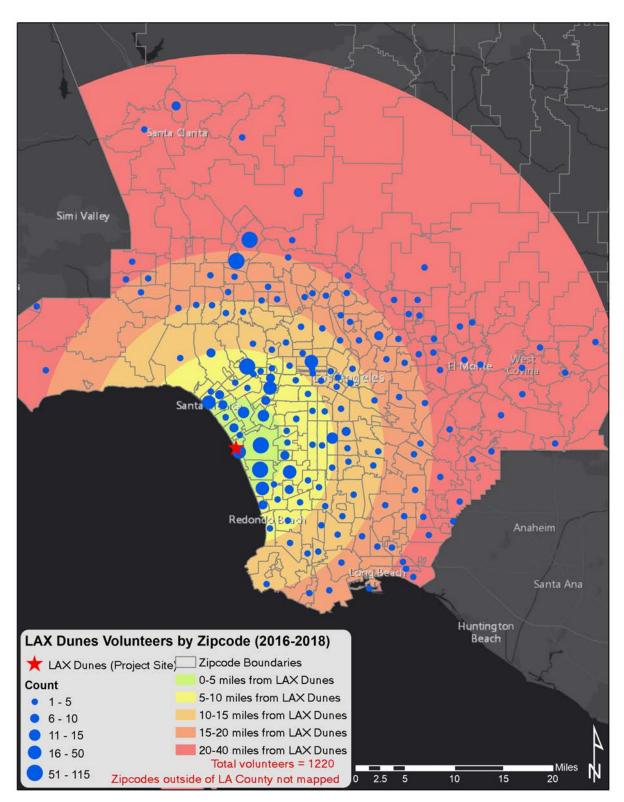


Figure 2: LAX Dunes volunteers by zip code and distance away from project site.



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 a LAX Dunes restoration event. A total of 30 Disadvantaged Communities (DAC) and 39 Severely Disadvantaged Communities (SDAC) were reached as part of Year 1 and Year 2 volunteer restoration events at the LAX Dunes. During Year 2, an additional eight DACs and 16 SDACs were identified and included in the volunteer demographic analysis. 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 4. The highest number of student participants from DAC and SDAC areas came from 10 or more miles away from the LAX Dunes site. More than half of all students that participated in restoration events came from SDAC areas. In total, 76.7% of all students that participated in restoration events came from a DAC or SDAC area.

Table 4. Student participants from Disadvantaged (DAC) and Severely Disadvantaged Communities (SDAC).

	Distance from LAX Dunes					
	0–5 miles	5–10 miles	10-15 miles	15–20 miles	20–40 miles	Total
Total # of student participants	79	96	95	136	117	523
# of student participants from DAC (% of student participants from DAC)	3 (0.04%)	12 (12.5%)	76 (12.5%)	5 (12.5%)	5 (12.5%)	176 (12.5%)
# of students participants from SDAC (% of student participants from SDAC)	54 (12.5%)	21 (12.5%)	15 (12.5%)	114 (12.5%)	96 (12.5%)	300 (12.5%)
# of students DAC and SDAC (% of students from DAC and SDAC)	57 (12.5%)	33 (12.5%)	91 (12.5%)	118 (12.5%)	101 (12.5%)	401 (12.5%)





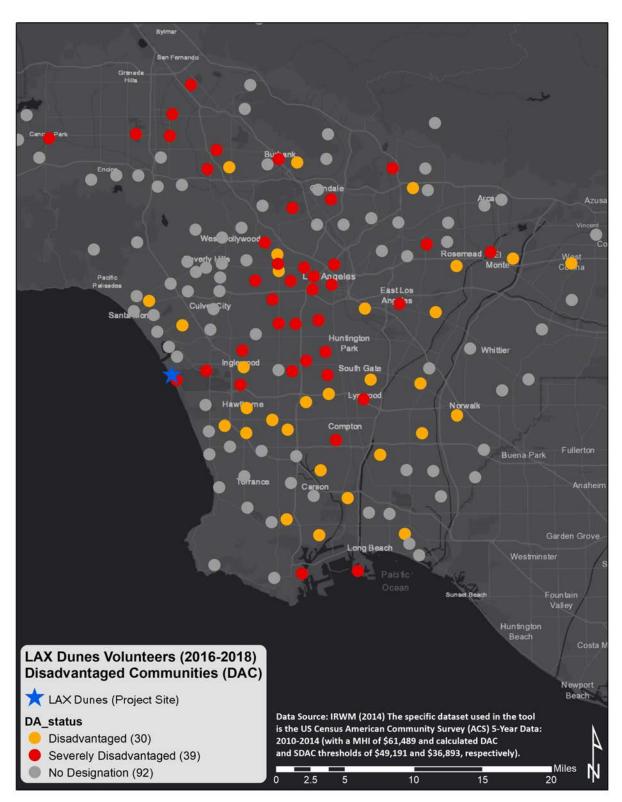


Figure 3: Map of Disadvantage Communities (DAC) and Severely Disadvantaged Communities (SDAC) reached through LAX Dunes events.



MOVING FORWARD

While Year 2 student participation was relatively low compared to Year 1, there was a substantial increase in overall participation, an increase in unique zipcodes reached, and more participants attending events from inland and underserved communities.

The Coastal Dune Community Stewardship Project has grown during Year 2, and Year 3 efforts will focus on increasing outreach strategies to engage more youth to participate in events.













Table 5. Events & Activities

FIRST QUARTER

22 June 2016 – 30 September 2016

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
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	45	26	Iceplant, Russian thistle, acacia, castor bean, Terrinca spurge	11 unique zip codes. 5 students from CAMS Key Club (CSUDH).
9/17/2016	132	396	206	Iceplant, Russian thistle	37 unique zip codes
TOTAL	241	723	296	_	_





SECOND QUARTER 1 October 2016 – 31 December 2016

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS	
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.	
12/3/2016	16	48	25	Iceplant	5 unique zip codes (1 abstention). Participants represented Grades of Green Youth Eco-Leadership Program (2nd-12th grades), California Native Plant Society, and several middle schools kids.	
Total	58	174	116	-	_	



November 5, 2016



THIRD QUARTER

1 January 2017 - 31 March 2017

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
2/4/2017	15	45	27	Mustard, filaree, iceplant, Terrinca spurge	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, Terrinca spurge	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, Terrinca spurge, non-native grasses	6 unique zip codes (1 abstention). Participants included Loyola Marymount University, El Camino College, Native Plant Society, and LAWA.
Total	46	138	59	_	_





FOURTH QUARTER 1 April 2017 – 30 September 2017

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DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
4/1/2017	77	231	90	Filaree, mustard, non-native grasses	21 unique zip codes. Participants included Loyola Marymount University, LAWA, and John C Freemont High School.
5/6/2017	47	141	80	Terracina spurge	Participants included mostly UCLA students who did an amazing job of removing <i>Euphorbia terracina</i> from around Dune lupine.
5/25/2017	116	348	71	Russian thistle, iceplant, non-grasses, Terrinca spurge	"2 unique zip codes. Participants included Patagonia, the Girls Athletic Leadership School & LMU.
TOTAL	240	720	241	-	-
YEAR ONE TOTAL	585	1755	712	_	-



May 25, 2017



FIRST QUARTER 1 July 2017 – 31 September 2017

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
7/8/2017	24	72	21	Russian thistle, Acacia,Terrinca spurge, non- native grasses	"Acacia,Terrinca spurge, non-native grasses. 8 unique zip codes. Partiwcipants included CaleNow, Girl Scouts, Culver City High School, LMU interns, Santa Monica College, LAWA.
8/5/2017	10	30	8	Russian thistle, iceplant, non- native grasses	7 unique zip codes. Participants included Apple Store (Glendale), Farmers Insurance (Playa Del Rey), LMU, and regulars.
8/19/2017	60	180	52	Russian thistle, iceplant, non-grasses, Terrinca spurge	11 unique zip codes (many listed their religious center's zip code). Participants included JustServe affiliated volunteers.
9/16/2017	45	135	56	Russian thistle, iceplant, non-grasses, Terrinca spurge	19 unique zip codes.
9/22/2017	12	36	15	Russian thistle, iceplant, non-native grasses	7 unique zip codes. Participants included LMU Environmental Business class.
9/26/2017	20	60	55	Iceplant, Russian thistle, acacia, non- native grasses	4 unique zip codes (although most listed work zip code). Participants included most of the employees of Patagonia, Santa Monica Store.
Q1 Total	171	513	207	-	-



July 8, 2017



SECOND QUARTER 1 October 2017 – 31 December 2017

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
10/7/2017	10	30	10	Russian thistle, Iceplant	7 unique zip codes. Participants included a noted CSUDH/Guggenheim Fellow photographer, UCLA students, Mountains Recreation and Conservation Authority, Playa Del Rey neighbors, and LAWA
11/4/2017	24	72	16	Russian thistle, Terracina spurge, non- native grasses	16 unique zip codes. Participants included students from LMU, UCLA, Santa Monica College, Brentwood School, Santa Monica High School, and Boy Scouts of America.
12/2/2017	63	189	77	Russian thistle, Iceplant, filaree	34 unique zip code. Participants included students from LMU, UCLA, Brentwood School, St Anasiasia School, the Meetup group "I wanted to do thatjust not alone!"
Q2 Total	97	291	103	_	-



October 7, 2017



THIRD QUARTER 1 January 2018 – 31 March 2018

DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
1/13/2018	20	60	5	Long-billed filaree, Saharan mustard	4 unique zip codes.Participants included students from LMU, UCLA, Santa Monica College, and the Brentwood School.
2/3/2018	77	231	10		16 unique zip codes. Participants from LMU, UCLA, Meetup.com, and individuals.
2/4/2018	10	30			CNPS Conference Tour. No restoration activities.
2/24/2018	7	21		Long-billed filaree,Saharan mustard	Boy Scout Troop, Thunderbird Disctric
3/3/2018					Canceled because of rain
3/10/2018					Special UCLA Silicon Beach Alumni Event. Canceled because of rain.
3Q TOTAL	114	342	15	_	_



January 13, 2018



FOURTH QUARTER

1 April 2018 – 30 June 2018

	-				•
DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
4/7/2018	47	141	40	Filaree, black mustard, Terracina spurge	18 unique zip codes. Particants included students from LMU, UCLA, and SMC. Others included a Chapman University professor and a CNPS member.
4/12/2018	12	36	13	black mustard, filaree	The first of three volunteer events for AT&T's El Segundo office employees. All participants listed their office zip code.
4/20/2018	105	315	100	Wild radish, filaree, Saharan mustard	Nearly 100 sixth-graders from an all- girls LAUSD charter school. School staff listed only the school's zip code, but most of the students are from the area in predominately low-income neighborhoods.
4/21/2018	13	39	15	Filaree, black mustard, wild radish	7 unique zip codes. A private event for the local Kent State Alumni Associate.
4/24/2018	36	108	23	Black mustard, Saharan mustard	11 unique zip codes. The second of three volunteer events for AT&T's El Segundo office employees.
4/27/2018	92	276	78	Wild radish, black mustard, filaree	41 unique zip codes. The third of three volunteer events for AT&T's El Segundo office employees.

Year Two, 'Fourth Quarter' continued on next page



April 4, 2018



FOURTH QUARTER continued

			201101110100		
DATE	Volunteers	Hours	Bags	Invasive Vegetation	DEMOGRAPHICS
5/5/2018	52	156	35	Wild radish, filaree, black mustard	33 unique zip codes. Third year in a row as a "Big Sunday" volunteer site. Partipcants included Kaiser Permanente employess, Meetup.com members, and a student from the Brentwood School.
5/19/2018	20	60	17	Filaree, Black Mustard, Terracina spurge	13 unique zip codes. UCLA Silicon Beach Alumni
6/2/2018	15	45	10	Filaree, Terracina spurge, black mustard, brome grass	8 unique zip codes. Participants include students from LMU, Ventura Community College, and Stonebridge University.
6/30/2018	7	21	4	Russian thistle, wild radish, filaree	3 unique zip codes. This is the second year CALE Now! has brought its students.
4Q Total	399	1197	335	-	-
YEAR-1 TOTAL	773	2343	660	_	_
TOTAL TO DATE	1366	4098	1372	-	-



LMU & Marymount High School interns learn vegetation assessment methods (6/28/2018).



APRIL 7, 2018



Great volunteers!



One bag at a time...



Not a bad place to work!

APRIL 12, 2018



AT&T employees really cleaned up.



The wind did not dissuage the volunteers.



The area is rid on non-native.

APRIL 20, 2018



Impressive 6th-graders!



Pulling non-native mustards.



Great teamwork!

APRIL 21, 2018





"I see you, filaree!"



Tis mustard season.

APRIL 24, 2018



A large turnout of AT&T employees.



"Together" for good!



Clearing weeds from native deerweed.

APRIL 27, 2018



"Operation Weed Removal"



Beautiful beach-evening primrose yellow blooms surround AT&T volunteers.



Focused on the task.

MAY 5, 2018



Big Sunday is a favorite event!



Liberating deerweed from non-native grasses.



Non-native kept from spreading.

MAY 19, 2018



UCLA Silicon Beach Alumni



Patiently plucking filaree.



Looking for weeds gorwing without native plants.

JUNE 2, 2018



LMU interns, LAWA staff, and dedicated regulars



Teamwork at its best!



An intense volunteer!

Appendix J



JUNE 30, 2018



















Appendix K















Appendix L



