



TO: Darin Loughrey, Community Services Manager, City of Irvine
FROM: Dave Raetz, Deputy Director, Irvine Ranch Conservancy
DATE: February 1, 2019
SUBJECT: Quarterly Reporting

We are pleased to submit the Irvine Ranch Conservancy quarterly report, detailing activities performed on behalf of the City of Irvine during October, November, and December 2018. The reporting includes data and brief summaries across all functional areas of our Management Agreement. Additional information or clarification on any items can be requested at any time.

The report follows the quarterly reporting template approved with the Agreement for Open Space Management Services contract in 2015. We hope this reporting is informative. If you have any feedback on the reports and their content, please don't hesitate to contact me.

Attached:

1. Public Programs and Visitor Services
2. Communications and Public Outreach
3. Natural Resource Management and Monitoring
4. Planning, Infrastructure, and Operations

Q2 2019 Quarterly Report Summary

Highlights from this quarter's report.

Visitor Services and Volunteer Management

Conservancy staff and volunteers offered 222 activities this quarter. A total of 1,509 participants, of which approximately 44% were Irvine residents, enjoyed a variety of activities. From October 1 through December 31, 11 new volunteers became fully-trained volunteers and joined the Conservancy's highly trained group of 545 Certified Volunteers. In addition, three new volunteers joined the Orange County Fire Watch program, for a total of 323 active volunteers ready to be deployed and help deter wildfires on Red Flag days. A total of 3,114 hours were donated by Conservancy volunteers this quarter in support of activities, land stewardship, and trail management, with 347 of those hours dedicated to Fire Watch.

Communications and Public Outreach

Communications staff focused efforts this quarter on promoting activities, volunteerism, and celebrating the various holidays throughout the quarter. The Conservancy's Facebook page had 10,870 "Likes" as of December 31, 2018. The LetsGoOutside.org website continued to attract new visitors; during this past quarter, 4,855 new visitor accounts were created. The Conservancy's 24-hour migratory bird social media takeover had great engagement with users through various social media channels, and it generated great press in publications such as the OC Register, LA Times, NBC LA, among others.

Natural Resource Management and Monitoring

Habitat restoration activity included native planting, irrigation, and general habitat management. Monthly volunteer activities were initiated at all Irvine Open Space Preserve restoration projects. Restoration research tested methods for controlling non-native plant species within the parameters of the City's IPM policy. Annual wildflower seeds for the 2019 crop were sown at the Native Seed Farm while associated volunteer activities continued to attract public interest. Seasonal, reserve-wide invasive plant removal and management continued in accordance with the City's IMP policy. Invasive tree pest research and monitoring continued. The Shady Canyon Turtle Pond was managed. Wildlife activity monitoring continued. Complete analysis of wildlife activity was delayed by rain in December, but activity levels are expected to be within normal ranges once analysis is complete. In accordance with the City's IPM plan, no synthetic herbicides were used on the open space during this quarter.

Planning, Infrastructure, and Operations

Staging area management focused on trimming, cleanup, and drainage improvements for the Portola Staging area and Mountain Bike Skills area, and replacement signage at the south staging entrance to the Quail Hill Loop Trail. Improvements to the trail system included installation of barrier fencing at the Bommer Canyon Nature Loop Trail west of the 85' bridge (appx 70 lineal feet), and three-strand post and cable fencing (appx 700 lineal feet) at the south entrance to the Quail Hill Loop Trail. Continued planning assistance for the Bommer Meadows restoration site, and assisted City Staff with the submission for facilities review for the implementation of the approved connector trail between the existing Quail Hill Loop Trail and the University Paved Bikeway. This connector will provide beneficial seven-day access to the northern end of the Quail Hill Loop Trail.

Public Programs and Visitor Services

Updates and statistics from the Community Programs division

The Irvine Ranch Conservancy Community Programs division provided a diverse range of activities for the public with the help of its many volunteers. Activities included Wilderness Access Days in Bommer Canyon, mountain biking through Quail Hill and Shady Canyon, as well as full moon hikes, bird watching, children’s nature-focused activities, cardio hikes, and more. This quarter, the Conservancy trained and managed a robust group of new volunteers who have added a variety of talent to make our activities even better.

A. Visitor Services

Conservancy staff and volunteers offered a total of 222 activities for this quarter. There were 182 activities implemented, with a total of 1,509 participants. A complete summary of participation and activities for the quarter is provided as an exhibit to this report.

<i>YTD Total Activities Offered:</i>	<i>406</i>
<i>YTD Wilderness Access Days Offered:</i>	<i>6</i>
<i>Q2 Total Activities Offered:</i>	<i>222</i>
<i>Q2 Total Activity Participants:</i>	<i>1,509</i>
<i>Q2 Percent Irvine Residents:</i>	<i>44%</i>

B. Volunteer Training, Management, and Deployment

Overall activity-based volunteer deployment is noted in the Participation and Activity Summary on page 3 as “Activity Volunteers” and “Total Volunteer Hours.” Below is a tally of volunteer training and management activities for the quarter:

Irvine Ranch Conservancy Volunteers

<i>New Volunteer Orientation Sessions:</i>	<i>1</i>
<i>New Volunteers Certified:</i>	<i>11</i>
<i>Number of Volunteer Training Activities Held:</i>	<i>17</i>
<i>Total Number of Active and Supporter Volunteers:</i>	<i>545</i>
<i>Total Number of Conservancy-certified Volunteer Hours (Q2):</i>	<i>3,114</i>

Fire Watch Volunteers (serving as part of the Orange County Fire Watch Program)

<i>New Fire Watch Volunteer Orientation Sessions:</i>	<i>1</i>
<i>New Volunteers Certified:</i>	<i>3</i>
<i>Total Fire Watch Outreach Activities:</i>	<i>4</i>
<i>Total Number of Active Fire Watch Volunteers:</i>	<i>323</i>
<i>Total Number of Fire Watch Volunteer Hours (Q2):</i>	<i>347</i>

C. Community Stewardship Program

This quarter, students from the Irvine Unified School District’s Youth Action Team (YAT) program were scheduled to perform a variety of stewardship activities across the City of Irvine's Open Space Preserve. Unfortunately, the activity was cancelled due to a Red Flag Warning.

Q2 Total Community Stewardship Activities offered in COI (included in Total Programs):1
Q2 Total YAT students attending (included in Total Participants):0

Exhibits

- City of Irvine Participation and Activity Summary (page 3)
- City of Irvine Participation and Activity Reports (pages 4-9)



City of Irvine Participation and Activity Summary October - December 2018



	Programs Offered	Pre-Registrations	Actual Participants	Irvine Residents	IRC Staff	Activity Volunteers	Total Volunteer Hrs	Total Participant Hrs		
Fire Watch										
Implemented	45	0	0	0	3	143	347	0	<i>Note: Programs Offered includes both implemented and cancelled, as noted in the chart. Actual Participants includes walk-up visitors and excludes pre-registrants who did not show.</i>	
Cancelled	1	0	0	0	0	1	3	0		
Hiking & Fitness										
Implemented	53	736	517	390	2	241	776	957		
Cancelled	23	344	0	164	0	126	445	0		
Interpretive										
Implemented	21	161	249	54	10	170	369	687		
Cancelled	1	19	0	2	0	6	31	0		
Mountain Biking										
Implemented	8	110	67	27	1	24	104	226		
Cancelled	4	30	0	6	0	7	30	0		
Special Events										
Implemented	3	232	600	83	3	67	261	3,600		
Stewardship										
Implemented	34	102	76	34	24	97	370	208		
Cancelled	9	27	0	11	9	26	86	0		
Trail Work										
Implemented	1	0	0	0	0	5	23	0		
Training										
Implemented	17	0	0	0	25	181	263	0		
Cancelled	2	0	0	0	2	5	7.5	0		
Program Totals:	222	1,761	1,509	771	79	1,099	3,114	5,678		

Stewardship Activities by Type:						
	Programs Offered	Sum of Total Visitors	IRC Staff	Activity Volunteers	Total Volunteer Hours	Public Participant Hrs
Citizen Science	9	0	3	16	62	0
Invasive Removal	7	10	7	23	81.5	30
Native Farm	12	37	14	51	193.5	111
Restoration	15	29	9	33	119.3	67
Grand Total	43	76	33	123	456	208

Registered Activity Participants

Legend:
■ Irvine Residents
■ Non-Residents



City of Irvine Participation and Activity Report

October - December 2018



Implemented Activities		IRC Staff	Activity Volunteers	Total Volunteer Hours	Pre-Registrations	Irvine Residents	Actual Participants
10/1/2018	Orchard Hills Evening Hike	0	3	8	16	10	16
10/2/2018	Native Plant Nursery at Quail Hill	0	2	5	4	3	3
	Fitness Hike in Bommer Canyon	0	5	10.5	11	7	6
10/3/2018	Mid Week Hike: Quail Hill	0	5	28	8	2	6
	It's Harvest Time! Collect Wildflower Seeds at the Native	0	6	24.5	7	2	3
	Meditative Yoga and Meadow Walk	0	4	10	25	12	18
10/4/2018	Orchard Hills Evening Hike	0	5	13	7	6	8
	Self-Paced Fitness Hike on Hicks Haul Road	0	4	8.5	12	8	9
10/9/2018	Orchard Hills Evening Hike	0	4	11	18	8	10
	Naturalist Notebook Series	4	27	17.5	11	4	6
	Bommer Canyon Habitat Restoration	1	2	7	4	2	3
10/10/2018	Mid Week Hike: Bommer Canyon	0	5	28	3	0	2
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	4	16	5	1	3
	Meditative Yoga and Meadow Walk	0	5	11	27	16	26
10/11/2018	Orchard Hills Evening Hike	0	5	13	11	7	6
	Thursday Morning Trek: Quail Hill	0	5	18.5	7	4	3
	Self-Paced Fitness Hike on Hicks Haul Road	0	6	12.5	14	8	14
10/12/2018	Weekday Slow-paced Mountain Bike Ride - Bommer/Sh	0	3	12.5	6	2	4
10/17/2018	Orchard Hills Evening Hike	0	3	8	16	4	14
	Mid-Week Hike: Agua Chinon and The Sinks	0	6	33.5	2	0	2
	Meditative Yoga and Meadow Walk	0	5	13	24	11	21
10/18/2018	Pulling Together at Quail Hill	1	4	14	3	1	2
	Self-Paced Fitness Hike on Hicks Haul Road	0	7	14.5	13	8	12
10/20/2018	Mountain Bike Ride in Bommer Canyon	0	2	7.5	11	1	8
	Wilderness Access Day: Bommer Canyon	1	21	78	60	16	200
	ABAT Workshop	0	6	9	0	0	0
10/21/2018	Agua Chinon Geology Hike to Both Sides of The Sinks	0	7	39	12	2	3
10/24/2018	Mid Week Hike: Orchard Hills	0	2	11.5	2	1	2
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	6	24	7	3	4
	Meditative Yoga and Meadow Walk	0	6	15.5	27	15	23
	Full Moon Hike: Orchard Hills	0	5	15.5	17	7	13
10/25/2018	Orchard Hills Evening Hike	0	3	8	10	7	6
	Thursday Morning Trek: Orchard Hills	0	5	20.5	9	5	5
	Self-Paced Fitness Hike on Hicks Haul Road	0	5	10.5	14	6	10
	Fitness Hike in Bommer Canyon	0	3	6.5	13	5	9
10/26/2018	Full Moon Hike: Bommer Canyon	0	4	12.5	19	9	21
10/28/2018	Mountain Bike Clinic - Terrain Skills	0	4	18.5	15	3	7
	Morning Trek: Agua Chinon and The Sinks	0	4	16.5	12	4	6
10/29/2018	Orchard Hills Evening Hike	0	4	10.5	15	12	11
10/30/2018	Fitness Hike in Bommer Canyon	0	5	9.5	11	7	6



City of Irvine Participation and Activity Report

October - December 2018



10/31/2018	Mid Week Hike: Quail Hill	0	5	28	6	4	4
	Meditative Yoga and Meadow Walk	0	5	10.5	26	13	24
11/1/2018	Orchard Hills Evening Hike	0	4	10.5	8	4	6
	Self-Paced Fitness Hike on Hicks Haul Road	0	5	10.5	15	9	11
11/2/2018	Distance Hike: Bommer to the Sea	0	6	39.5	9	5	4
11/3/2018	Hangman's Tree Monument Hike: Orchard Hills	0	5	23	17	6	12
11/4/2018	KIDS Mountain Bike Clinic- Rider Skills for Kids	1	2	8.5	23	8	21
11/5/2018	Orchard Hills Evening Hike	0	4	11.25	9	5	4
11/6/2018	Twilight Hike in Orchard Hills	0	5	13	12	10	9
	Quail Hill Loop Trail Enhancement	1	3	10.5	1	1	1
11/7/2018	Mid Week Hike: Bommer Canyon	0	5	22.5	10	4	6
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	2	8	7	2	6
	Meditative Yoga and Meadow Walk	0	4	8.5	27	16	13
11/10/2018	Distance Hike: Quail Hill	0	4	26.5	10	4	6
	Night Mercury Hike in Orchard Hills	0	7	21.5	15	1	3
	Art on the Landmarks: Orchard Hills Overlook	0	3	14	4	2	2
11/13/2018	Naturalist Notebook Series	2	31	21.5	2	1	1
11/14/2018	Art Meets Science	1	1	1.25	0	0	79
11/15/2018	Pulling Together at Quail Hill	1	4	14	3	1	3
	Orchard Hills Evening Hike	0	3	8	16	9	4
	Self-Paced Fitness Hike on Hicks Haul Road	0	4	8.5	20	8	10
11/16/2018	Better Birding Basics: Birds of Bommer Canyon	0	7	25	9	4	7
11/17/2018	Mountain Bike Ride in Bommer Canyon	0	2	7.5	6	2	2
	Wilderness Access Day: Bommer Canyon	1	23	96.5	76	34	200
	ABAT Workshop	0	5	10	0	0	0
11/20/2018	Native Plant Nursery at Quail Hill	0	2	4.5	11	2	7
	Full Moon Hike: Orchard Hills	0	6	18.5	18	4	12
	Bommer Canyon Habitat Restoration	1	4	14	3	1	3
11/21/2018	It's Harvest Time! Collect Wildflower Seeds at the Native	1	5	20	11	2	7
11/24/2018	Full Moon Hike: Bommer Canyon	0	5	18.5	17	2	6
11/25/2018	Mountain Bike Clinic - Terrain Skills	0	3	14	15	1	8
11/27/2018	Orchard Hills Evening Hike	0	3	8	18	11	14
11/28/2018	Mid Week Hike: Orchard Hills	0	2	11.5	9	7	5
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	3	12	8	2	8
	Meditative Yoga and Meadow Walk	0	6	15.5	27	16	21
12/2/2018	KIDS Mountain Bike Clinic- Rider Skills for Kids	0	4	16.5	20	8	7
12/3/2018	Orchard Hills Evening Hike	0	3	8	13	4	5
12/4/2018	Quail Hill Loop Trail Enhancement	1	5	14	3	1	2
12/5/2018	Art Meets Science	1	1	1.25	0	0	72
12/10/2018	Orchard Hills Evening Hike	0	2	5.5	16	11	6
12/11/2018	Twilight Hike in Orchard Hills	1	9	23	13	3	9
	Bommer Canyon Habitat Restoration	1	4	14	6	2	5
12/12/2018	Mid Week Hike: Bommer Canyon	0	7	39	15	9	10
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	4	16	4	1	2
	Meditative Yoga and Meadow Walk	0	6	12.5	24	16	20
12/13/2018	Orchard Hills Evening Hike	0	2	5.5	9	4	7
	Self-Paced Fitness Hike on Hicks Haul Road	0	6	12.5	13	4	12
12/15/2018	Wilderness Access Day: Bommer Canyon	1	23	86	96	33	200



City of Irvine Participation and Activity Report

October - December 2018



	ABAT Workshop	0	7	40	0	0	6
12/16/2018	Mountain Bike Clinic - Rider Skills	0	4	18.5	14	2	10
12/17/2018	Orchard Hills Evening Hike	0	4	10.5	12	10	8
	Trail Love: Trailside Beautification	0	5	23	0	0	0
12/18/2018	Quail Hill Habitat Restoration	1	3	10.5	3	1	2
12/19/2018	Mid-Week Hike: Agua Chinon and The Sinks	0	4	17	6	3	5
	It's Harvest Time! Collect Wildflower Seeds at the Native	1	5	17	5	2	4
	Meditative Yoga and Meadow Walk	1	5	10.5	25	12	17
	Full Moon Hike: Orchard Hills	0	4	12.5	15	5	6
12/20/2018	Pulling Together at Quail Hill	1	3	9	2	1	2
	Thursday Morning Trek: Quail Hill	0	3	14	6	2	4
	Self-Paced Fitness Hike on Hicks Haul Road	0	6	12.5	18	8	10
12/22/2018	Full Moon Hike: Bommer Canyon	0	5	15.5	22	13	12
12/28/2018	Quail Hill Loop Trail Enhancement	1	2	7	5	3	6
Grand Total		31	541	1,717	1,341	588	1,509

Cancelled Activities

		IRC Staff	Activity Volunteers	Total Volunteer Hours	Pre-Registrations	Reason
Sat, Oct 13	Hangman's Tree Monument Hike: Orchard Hills	0	5	21	16	W
	Distance Hike: Bommer Canyon	0	7	43	13	W
Sun, Oct 14	Mountain Bike Clinic - Rider Skills	0	3	13	6	W
Mon, Oct 15	Orchard Hills Evening Hike	0	3	7	18	F
Tue, Oct 16	Native Plant Nursery at Quail Hill	0	1	2.5	2	F
	Twilight Hike in Orchard Hills	0	7	15	7	F
	Fitness Hike in Bommer Canyon	0	5	8.5	13	F
Wed, Oct 17	It's Harvest Time! Collect Wildflower Seeds at the Native Seed F	4	3	10.5	5	W
Fri, Oct 19	Distance Hike: Bommer to the Sea	0	7	43	8	F
Sat, Oct 20	Fire Watch Outreach Event: Wilderness Access Day - Bommer C	0	1	3	0	W
Mon, Oct 29	CPR/First Aid Class for Irvine Ranch Conservancy Volunteers - E	1	2	3	0	V
Tue, Oct 30	CPR/First Aid Class for Irvine Ranch Conservancy Volunteers - E	1	3	4.5	0	V
Wed, Oct 31	It's Harvest Time! Collect Wildflower Seeds at the Native Seed F	1	5	17.5	6	W
Wed, Nov 07	Youth Action Team Stewardship at Bommer Canyon	1	1	1.75	0	F
Thu, Nov 08	Orchard Hills Evening Hike	0	3	7	7	F
	Thursday Morning Trek: Agua Chinon and The Sinks	0	5	18.5	15	F
	Self-Paced Fitness Hike on Hicks Haul Road	0	6	10	19	F
Sun, Nov 11	Mountain Bike Clinic - Rider Skills	0	3	13	15	F
Mon, Nov 12	Orchard Hills Evening Hike	0	3	7	20	F
Tue, Nov 13	Bommer Canyon Habitat Restoration	1	4	12	4	F
Wed, Nov 14	Mid-Week Hike: Agua Chinon and The Sinks	0	6	31	9	F
	It's Harvest Time! Collect Wildflower Seeds at the Native Seed F	1	5	17.5	5	F
	Meditative Yoga and Meadow Walk	0	5	8.5	26	F
Thu, Nov 29	Orchard Hills Evening Hike	0	4	9	18	W
	Self-Paced Fitness Hike on Hicks Haul Road	0	7	11.5	22	W
Sat, Dec 01	Hangman's Tree Monument Hike: Orchard Hills	0	6	25	17	W
Mon, Dec 03	Science Camera Pick Up - IOSP Rte #2	0	2	7	0	W
Wed, Dec 05	Mid Week Hike: Quail Hill	0	6	31	10	W
	It's Harvest Time! Collect Wildflower Seeds at the Native Seed F	1	3	10.5	5	W
	Meditative Yoga and Meadow Walk	0	6	10	28	W
Thu, Dec 06	Orchard Hills Evening Hike	0	4	9	11	W
	Thursday Morning Trek: Bommer Canyon	0	6	22	12	W
	Self-Paced Fitness Hike on Hicks Haul Road	0	8	13	11	W
Fri, Dec 07	Distance Hike: Bommer to the Sea	0	6	37	12	W
Sat, Dec 08	Distance Hike: Bommer Canyon	0	7	43	17	W
Sat, Dec 15	Mountain Bike Ride in Bommer Canyon	0	1	4	5	W
Sun, Dec 16	Agua Chinon Geology Hike to Both Sides of The Sinks	0	6	31	19	W
	Weekend Trek: Agua Chinon and The Sinks	0	4	15	15	W
Sun, Dec 30	Mountain Bike Clinic - Terrain Skills	0	0	0	4	W
Mon, Dec 31	Science Camera Pick Up - IOSP Rte #2	0	2	7	0	W
Grand Total		11	171	602.8	420	

Reasons: P=Lack of public registrations; V=Lack of volunteer support; W=Inclement weather; F=Fire Watch deployment

Volunteer Only Activities

		IRC Staff	Activity Volunteers	Total Volunteer Hours		
Mon, Oct 01	Irvine Ranch Conservancy Community Programs Support - Octo	0	6	24		
Tue, Oct 02	COI/ Bommer Canyon - Invasive Removal	1	2	10		
Sat, Oct 06	Fire Watch Outreach Event: OCFA Open House	0	7	31.5		
Mon, Oct 08	Science Camera Pick Up - IOSP Rte #2	1	2	8		
Wed, Oct 10	COI/ Bommer Canyon - Invasive Removal	1	2	10		
	Citizen Science: Invasive Control - Quail Trail	0	1	6.5		
	Irvine Ranch Conservancy Volunteer Strategic Planning Recap F	2	20	10		
Mon, Oct 15	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	4	12		
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	6	18		
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3		
	Fire Watch Deployment Operations Center Support	0	1	2		
Tue, Oct 16	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	5	15		
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	4	12		
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3		
	Fire Watch Deployment Operations Center Support	0	2	3		
Fri, Oct 19	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	1	3		
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	4	12		
	Fire Watch Support - Ham Radio Communications / Net Control	0	0	0		
	Fire Watch Deployment Operations Center Support	0	3	5		
	Science Friday - October	1	6	3		
Sat, Oct 20	Irvine Ranch Conservancy New Volunteer Orientation	4	21	40		
	Fire Watch Outreach Event: South County Disaster Preparednes	0	2	10		
Mon, Oct 22	Science Camera Pick Up - IOSP Rte #2	0	2	8		
	CPR/First Aid Class for Irvine Ranch Conservancy Volunteers - E	1	10	15		
Tue, Oct 23	CPR/First Aid Class for Irvine Ranch Conservancy Volunteers - E	1	9	13.5		
Thu, Oct 25	Irvine Ranch Conservancy Public Interaction Workshop	1	6	9		
	Citizen Science: Trail Transects - COI-Bommer	1	1	4.5		
Sat, Oct 27	Irvine Ranch Conservancy Public Interaction Workshop	1	6	9		
Tue, Oct 30	Irvine Ranch Conservancy Public Interaction Workshop	3	4	6		
Thu, Nov 01	Citizen Science: Trail Transects	1	1	3.5		

	Irvine Ranch Conservancy Community Programs Support - Nove	0	7	23			
Fri, Nov 02	Irvine Ranch Conservancy New Volunteer Training Hike - Fremo	3	14	16			
Sat, Nov 03	Irvine Ranch Conservancy Trail Crew Training	2	12	16.5			
Sun, Nov 04	Irvine Ranch Conservancy New Volunteer Training Hike - Mesa	1	13	14			
Mon, Nov 05	Science Camera Pick Up - IOSP Rte #2	0	2	8			
	Fire Watch Outreach - City of Irvine - Wildfire Readiness Preser	0	17	17			
Wed, Nov 07	Irvine Ranch Conservancy New Volunteer Training Hike - Orcha	0	11	13			
Thu, Nov 08	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	3	9			
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	3	10			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	0	3	10			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3			
	Fire Watch Deployment Operations Center Support	0	2	2.5			
Fri, Nov 09	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	2	6			
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	4	12			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	0	4	12			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3.5			
	Fire Watch Deployment Operations Center Support	0	6	10			
Sat, Nov 10	IRC Native Seed Farm Docent Orientation: Site and Program Tra	1	6	12			
	Irvine Ranch Conservancy New Volunteer Training Hike - Augus	1	13	16			
Sun, Nov 11	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	3	9.25			
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	3	9			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	0	0	0			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3.5			
	Fire Watch Deployment Operations Center Support	0	4	6.5			
Mon, Nov 12	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	4	10			

	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	4	12.75			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	0	3	8			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3.5			
	Fire Watch Deployment Operations Center Support	0	4	6.5			
Tue, Nov 13	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	2	6			
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	2	7.25			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	1	0	0			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3.5			
	Fire Watch Deployment Operations Center Support	0	3	5			
Wed, Nov 14	City of Irvine Open Space # 2 (Quail Hill Trailhead)	0	3	8			
	City of Irvine Open Space # 3 (Bommer Canyon Trailhead)	0	2	6			
	City of Irvine Open Space # 1 (Laguna Canyon Road)	2	2	6			
	Fire Watch Support - Ham Radio Communications / Net Control	0	2	3			
	Fire Watch Deployment Operations Center Support	0	5	8.5			
Sat, Nov 17	Irvine Ranch Conservancy New Volunteer Training Hike - Bommer Canyon	1	8	9			
Sun, Nov 18	CPR/First Aid Class for Irvine Ranch Conservancy Volunteers - Irvine Ranch	2	11	31			
Mon, Nov 19	Science Camera Pick Up - IOSP Rte #2	0	2	8			
Tue, Nov 20	Citizen Science: Invasive Control	0	2	9			
Thu, Nov 29	Citizen Science: Invasive Control	0	3	15.5			
Sat, Dec 01	Native Seed Farm Introduction for Irvine Ranch Conservancy Volunteers	1	14	10.75			
	Irvine Ranch Conservancy Community Programs Support - December	0	6	19			
	Native Seed Farm Fall Season for Irvine Ranch Conservancy Volunteers	1	17	29			
Tue, Dec 04	Citizen Science: Invasive Control - Bommer Canyon	1	1	5			
Mon, Dec 17	Science Camera Pick Up - IOSP Rte #2	0	2	8			
Wed, Dec 19	Citizen Science: Invasive Control - Bommer Canyon	1	1	5			
Grand Total		37	387	794.5			

Communications and Public Outreach

Statistics and updates from the Communications division.

In addition to standard weekly social media campaigns such as Wildlife Wednesday and Trivia Tuesday, the Conservancy focused on promoting activities, volunteerism, and celebrating the various holidays throughout the quarter. The Conservancy also experimented with a new email that alerted LetsGoOutside.org users when the winter activities had been posted to the site. This email had great engagement and resulted in a reduction of emails to the Conservancy’s Info email from users regarding full activities. The notification email gave everyone an equal opportunity to register for popular activities.



This past quarter, the Conservancy hosted a 24-hour Migratory Birds Social Media Takeover that included a giveaway. This campaign featured a different migratory bird from the Irvine Ranch Natural Landmarks every hour. Overall, the campaign resulted in 29 new followers and over 18,000 impressions. This campaign also generated media coverage, with articles featured in the OC Register, Daily Bulletin, NBC LA, LA Times, Destination Irvine, and the Irvine Standard, among others. The campaign proved to be an effective way to engage with and educate the public about migratory birds and the importance of the Irvine Ranch Natural Landmarks.

ENVIRONMENT

Go bird watching from your computer

Irvine Ranch Conservancy to host 24-hour 'virtual bird watch' starting Tuesday morning

By Martin Wiscko
mwiscko@scng.com
[@MartinWiscko](https://twitter.com/MartinWiscko) on Twitter

Do you love birds but will be stuck at a computer Tuesday?

The Irvine Ranch Conservancy is hosting a 24-hour "virtual bird watch," beginning at 9 a.m., featuring a new migratory specimen each hour. A photograph and background information on each featured bird will be posted.

The bald eagle, Cassin's kingbird, hooded oriole, Cooper's hawk and great blue heron are among those to be highlighted.

With more than 150 migratory birds visiting the nearly 40,000 acres overseen by the conservancy, the postings will include an explanation of where to look for each bird on conservancy turf. Additionally, one of the featured bird posts will be accompanied by a sweepstakes entry opportunity to win binoculars, a conservancy hat and an Orange County bird-watching book.

The social media event can be seen on Irvine Ranch Natural Landmarks' Facebook, Instagram and Twitter pages.

Peak migratory season is under way, with birds sightings typically increasing into the winter. "Winter rains rejuvenate the landscape, providing food and shelter for the birds," said Dave Raetz, deputy director of the conservancy. "The birds become more active as a result, so you're more likely to see them when you're out on the landmarks."

The open space of the historic Irvine Ranch land has been declared a natural landmark by both the state and federal government, with the conservancy denoting 18 specific "landmarks" within the territory. They range from Whiting Ranch Wilderness Park and Coal Canyon Nature Reserve in the mountains and foothills of Cleveland National Park to the coastal Crystal Cove State Park and Laguna Coast Wilderness Park.

The landmark areas are visited by more than 160,000 people each year and the conservancy hosts numerous programs daily, including bird-watching and geology tours, full-moon and photo hikes, guided horse and mountain bike rides, and habitat restoration sessions.

For more about the area and activities there, visit letsgetoutside.org.



FILE PHOTO


The bald eagle, seen here with nestlings near Irvine Lake, will be featured during the virtual bird watch.

4

Go 'Virtual Bird Watching' at an OC Paradise

Venture to 'OC's only National Natural Landmark' via its social pages, and admire oodles of migratory birds.

By Alysa Gray Pariser
 Published Nov 10, 2018 at 6:50 AM



2018 Stephen Francis Photography

Visit the Irvine Ranch Natural Landmarks social pages and admire oodles of migratory birds.

WHAT TO KNOW

- Nov. 20 at 9 a.m. to Nov. 21 at 9 a.m.
- Irvine Natural Landmarks social media pages
- Free

Thanksgiving is often portrayed as one of the easiest-going-est of holidays, at least after the dinner prep is done, and the kitchen is clean, and you've found a couch to nap upon, if you've finished your tidy-up chores (or pushed them to later).

But the days before the Holiday o' Gratitude? Quite rushed. Very hurried. Brimming with bustle, and gotta-get-it-done-ness.

There is a way, via the screen in your hand or the one on your desk, to take a brief respite, and a lovely nature vacation, at least for a few minutes, all while getting to know an especially gorgeous and wild section of Orange County.

South Orange County, California

GREEN LOCAL NEWS

Including Lake Forest, Mission Viejo, Laguna Hills, Laguna Niguel, Laguna Ranch, Orange Beach, San Juan Capistrano, San Clemente, Aliso Viejo, Pothill Ranch and Rancho Santa Margarita

Irvine Ranch Conservancy invites the community to discover different migratory birds by registering for a public program on the open spaces

Posted on November 1, 2018

Bird lovers can also catch a glimpse of these migratory birds on the Landmarks during a 24-hour virtual bird watching experience through the Irvine Ranch Natural Landmarks' social media pages. The 24-hour virtual takeover begins Tuesday, November 20 at 9:00 a.m. and ends Wednesday, November 21 at 9:00 a.m.



Virtual takeover participants can look forward to posts that will include a picture of one of the 150 migratory bird species that visit the landmarks every year. By following the Irvine Ranch Natural Landmarks' Facebook, Instagram and Twitter pages, wildlife enthusiasts can learn more about what makes these birds so special and check out links to programs on the Landmarks, where visitors have a chance to see wildlife firsthand in the natural habitat. Follow the full 24-hour takeover on one of the three social media channels for a chance to participate in a unique "bird watching" giveaway.

Irvine Ranch Natural Landmarks
 Published by Sprout Social | 191 · November 21, 2018

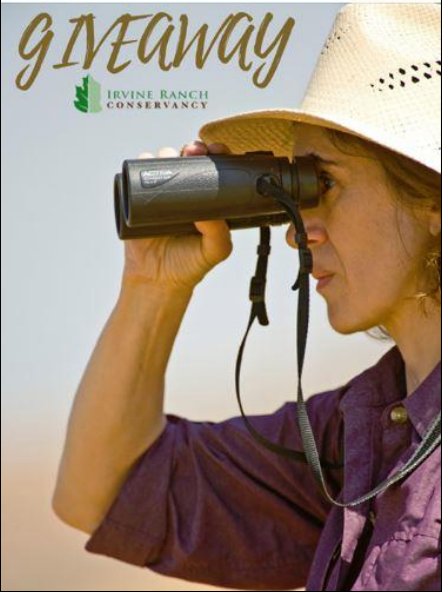
GIVEAWAY

Our 24-hour Migratory Birds Takeover has come to an end and we'd like to thank all who have followed along with a special bird watching prize!

Comment on this post with your favorite migratory bird from the takeover for a chance to win:

- Irvine Ranch Conservancy hat
- A pair of binoculars
- American Birding Association 'Field Guide to Birds of California' by Alvaro Jaramillo

Winner will be announced Monday, 11/26.



GIVEAWAY

IRVINE RANCH CONSERVANCY

ocmountainstosea • Follow
 Irvine, California



117 likes

ocmountainstosea Great Egret: This bird became the symbol for the Audubon Society after conservationists saved them from extinction. For more information on the Audubon Society and their efforts to protect birds in North America, visit the link in our bio.

Irvine Ranch Natural Landmarks
 Published by Sprout Social | 191 · November 20 at 5:00 PM

Bald Eagle: Arguably the most well-known bird in America, Bald Eagles, including the ones pictured here, have been known to migrate near Irvine Lake to nest and hunt.



2,158 People Reached

266 Engagements

ocmountainstosea • Follow
 Irvine, California

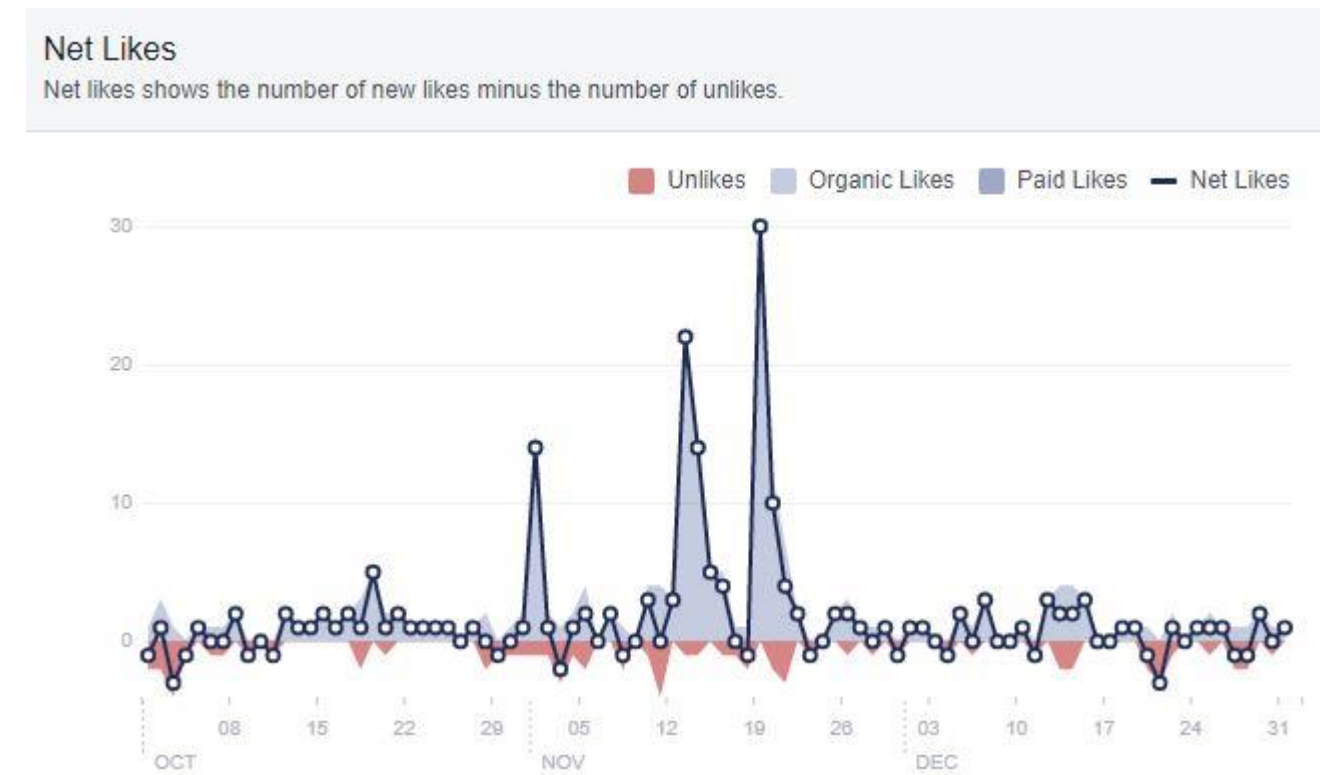


A. Irvine Ranch Natural Landmarks Facebook Page

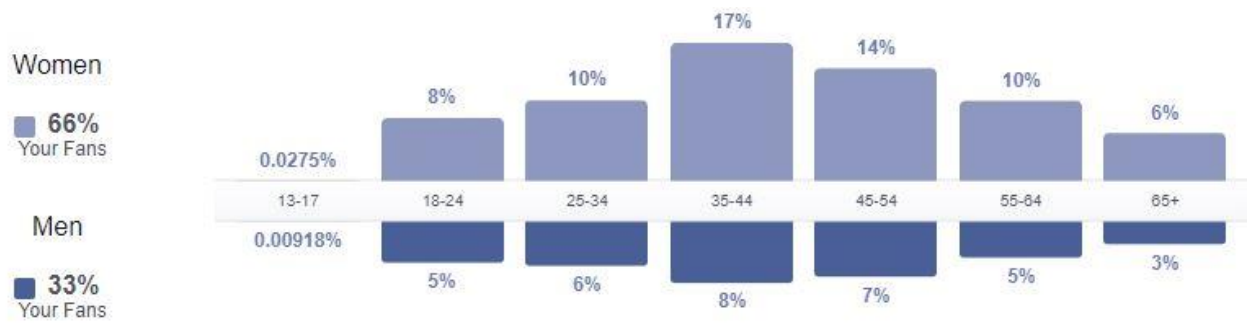
There were 10,870 Facebook “Likes” for the Irvine Ranch Natural Landmarks page as of December 31, 2018. At the end of the previous quarter, the count was 10,730. This represents a 1.3% increase. The graph below shows October through December 2018 growth.



The graph below shows net “Likes” over the quarter.



The following graph shows the basic demographics of the people who have “Liked” the Irvine Ranch Natural Landmarks Facebook page.



Country	Your Fans	City	Your Fans	Language	Your Fans
United States of America	9,828	Irvine, CA	1,321	English (US)	9,458
Mexico	229	Los Angeles, CA	786	Spanish	578
Indonesia	135	Orange, CA	433	English (UK)	268
Malaysia	42	Santa Ana, CA	406	Indonesian	115
Philippines	37	Anaheim, CA	372	Spanish (Spain)	113
India	33	Mission Viejo, CA	309	French (France)	62
France	28	Huntington Beach, CA	305	Traditional Chinese (Ta...	40
United Kingdom	28	Tustin, CA	273	Arabic	28
Taiwan	23	Lake Forest, CA	236	Turkish	23
Argentina	19	Costa Mesa, CA	233	Malay	17

B. LetsGoOutside.org Website

The Irvine Ranch Natural Landmarks website, managed by the Conservancy, serves as a conduit for landowners, nonprofit organizations, and other partner groups to post information and activities. The site manages registration for activities led by Conservancy volunteers on behalf of the City of Irvine.

Registering for programs requires a visitor account, for tracking attendance and for easy repeat registration for the visitor. As of December 31, 2018, there were more than 32,495 visitor accounts on the site, and 4,855 new visitor accounts were created in Q2 2019 (October-December 2018). This does not include volunteer or staff accounts.

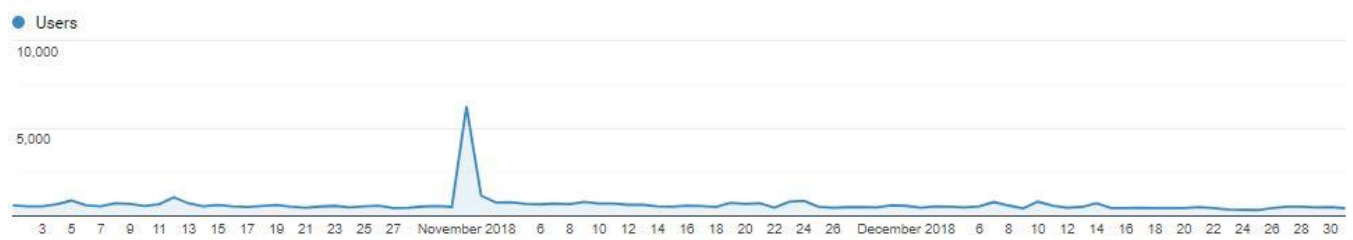
Below are additional statistics for the LetsGoOutside.org site. Please refer to the list of Google Analytics Definitions (Exhibit 1) for explanation of terms used in these illustrations.

Note: Internal traffic from Conservancy offices is filtered out of all usage reporting for LetsGoOutside.org. The site is used extensively by staff for volunteer management and activity tracking, so that access data would skew the numbers meant to reflect public use.

Website User Activity totals for October-December 2018.



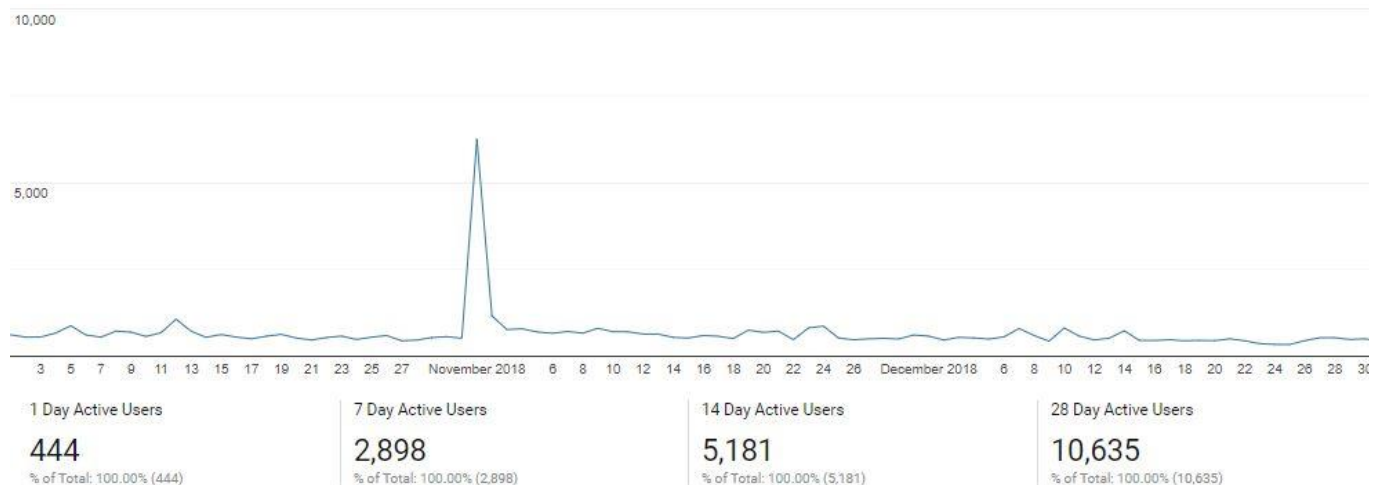
Number of daily site users for October-December 2018. Each point represents a single day, and the highest points are typically Fridays. This added traffic is generated by the weekly email newsletter version of the “Let’s Go Outside!” Activity Guide, which is sent Friday afternoons. In November, the LetsGoOutside.org site received a spike in users attempting to register for the OC Parks Reindeer in the Redwoods activity.



Top 10 pages on the LetsGoOutside.org site for October-December 2018 based on page views. Most outreach materials direct people to either the homepage (1) or the Activities page (2, 7). Also, the My Activities page (3) and Account page (4) serve as the starting points for all volunteers and frequent participants. The high level of interest in several OC Parks events pushed many of our location pages, including Quail Hill and Bommer Canyon, out of the top 10 (Reindeer in the Redwoods, and Free Irvine Park Kids Fishing Clinic).

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	347,310 % of Total: 100.00% (347,310)	234,339 % of Total: 100.00% (234,339)	00:01:03 Avg for View: 00:01:03 (0.00%)	73,269 % of Total: 100.00% (73,269)	46.91% Avg for View: 46.91% (0.00%)	21.10% Avg for View: 21.10% (0.00%)	\$0.00 % of Total: 0.00% (\$0.00)
1. /	37,664 (10.84%)	25,205 (10.76%)	00:00:48	21,452 (29.28%)	39.70%	32.31%	\$0.00 (0.00%)
2. /activities/	29,288 (8.43%)	18,621 (7.95%)	00:00:55	6,253 (8.53%)	33.95%	15.19%	\$0.00 (0.00%)
3. /account/my-activities/	20,425 (5.88%)	11,126 (4.75%)	00:01:07	1,059 (1.45%)	38.93%	18.73%	\$0.00 (0.00%)
4. /account/	17,685 (5.09%)	10,606 (4.53%)	00:00:32	617 (0.84%)	18.67%	5.98%	\$0.00 (0.00%)
5. /activities/2018/11/24/reindeer-in-the-redwoods-registration-required/	16,973 (4.89%)	6,948 (2.96%)	00:01:16	6,549 (8.94%)	37.35%	28.57%	\$0.00 (0.00%)
6. /register/?redirect_to=https://letsgooutside.org/activities/2018/11/24/reindeer-in-the-redwoods-registration-required/	7,538 (2.17%)	3,491 (1.49%)	00:01:44	140 (0.19%)	36.43%	10.69%	\$0.00 (0.00%)
7. /activities/?action=search_events&pno=2	5,838 (1.68%)	4,077 (1.74%)	00:00:56	188 (0.26%)	56.91%	11.41%	\$0.00 (0.00%)
8. /explore/limestone-canyon-nature-preserve/	4,217 (1.21%)	3,383 (1.44%)	00:01:22	2,801 (3.82%)	59.12%	50.30%	\$0.00 (0.00%)
9. /account/resources/list/	3,802 (1.09%)	991 (0.42%)	00:00:56	82 (0.11%)	39.02%	7.73%	\$0.00 (0.00%)
10. /activities/2018/12/08/irvine-park-kids-fishing-clinic/	3,778 (1.09%)	2,650 (1.13%)	00:01:45	2,438 (3.33%)	67.06%	58.31%	\$0.00 (0.00%)

Active Users report for October-December 2018. Each point on the graph represents a single day, and the highest points are Fridays. This added traffic is generated by the weekly email newsletter version of the “Let’s Go Outside!” Activity Guide, which is sent Friday afternoons. The LetsGoOutside.org site also received a spike in early November due to interest in the Reindeer in the Redwoods activity.



Exhibits

1. Google Analytics Definitions
2. “Let’s Go Outside!” Fall 2018 Activity Guide

Exhibit 1: Google Analytics Definitions

Website statistics are provided by Google Analytics. Below is a list of terms and definitions provided by Google. Since some of these terms are used to represent different sets of data by different analytics providers, the definitions below are provided to clarify the data provided in this report.

Active Users: The number of unique users who initiated sessions on the website. The timeframes shown are relative to the last day of the report, going back 1 day, 7 days, 14 days, and 28 days. This is to provide a benchmark for comparison against any other data from the same number of days. For instance, the “14 Days” number in this report references the total active users for the timeframe of December 17-31, 2018.

Avg. Time on Page: The average amount of time users spent viewing a specified page or screen, or set of pages or screens.

Avg. Session Duration: The average length of a session.

Bounce Rate: The percentage of single-page visits (i.e. visits in which the person left your site from the entrance page without interacting with the page).

Entrances: The number of times visitors entered your site through a specified page or set of pages.

Pages/Session: The average number of pages viewed during a session. Repeated views of a single page within one session are counted.

Pageviews: The total number of pages viewed. Repeated views of a single page are counted.

Sessions: Total number of sessions within the date range. A session is the period time a user is actively engaged with your website, app, etc. All usage data (screen views, events, ecommerce, etc.) is associated with a session.

Unique Pageviews: The number of visits during which the specified page was viewed at least once. A unique pageview is counted for each [page URL + page Title] combination.

Users: Users that have had at least one session within the selected date range. Includes both new and returning users.

% Exit: A calculation of [(number of exits) / (number of pageviews)] for the page or set of pages. It indicates how often users exit from that page or set of pages when they view the page(s).

% New Sessions: An estimate of the percentage of first time visits.

Exhibit 2: “Let’s Go Outside!” Fall 2018 Activity Guide

A copy of the activity guide is included as an attachment to this report. If this report is transmitted digitally, a print copy is available upon request.

Natural Resource Management and Monitoring

Narrative reports and updates from the Science and Stewardship division. These activities are contained and described in the Operations Plan for the Irvine Open Space Preserve that forms the Scope of Work for the Management Agreement.

A. Threat Intervention: Habitat Restoration

Restoration Project: Bommer Canyon

Restoration activities at Bommer Canyon focused on the 1.5-acre East Fork Restoration Site. Conservancy staff irrigated plants that were installed last winter and removed broadleaf weeds such as black mustard (*Brassica nigra*) and Russian thistle (*Salsola tragus*). Approximately 600 additional container plants were installed this quarter. Due to past problems with herbivory from pocket gophers and rabbits, each new plant was installed with a wire mesh root protector and a tree tube to protect aboveground vegetation.

The Conservancy initiated monthly volunteer stewardship events at the Bommer Canyon restoration site this quarter, and the volunteer activity focused on the planting of native perennial shrub species, removal of invasive tree tobacco (*Nicotiana glauca*), and raking of thatch to encourage natural recruitment of native seedlings. Public participants were also provided an overview of ecological restoration and its role in the management of the Irvine Open Space Preserve.

Restoration Project: Quail Hill

Restoration activities at the Quail Hill project site focused on general management of weeds and planting of native container plants including Palmer's goldenbush (*Ericameria palmeri*), Menzie's goldenbush (*Isocoma menziesii*), common sandaster (*Corethrogyne filaginifolia*), ragweed (*Ambrosia psilostachya*), California mugwort (*Artemisia douglasiana*), blue-eyed grass (*Sisyrinchium bellum*), and elderberry (*Sambucus nigra*). Monthly restoration stewardships were also initiated at the Quail Hill site, with volunteers participating in native container planting and weed removal. Public participants were also provided an overview of ecological restoration and its role in the management of the Irvine Open Space Preserve.

Restoration Project: Mule Deer

The Mule Deer restoration is now considered complete and has been transitioned into long-term management. Projects under long-term management will be visited annually, and actions will be taken as needed. Minimal activity was required at Mule Deer this quarter.

Restoration Research Project: Solarization

Experimental research on weed removal through solarization continued this quarter at trial plots within the Bommer Canyon restoration area (East Fork). Plastic tarping was removed from three experimental plots, and the area was seeded with a mix of native wildflower and shrub species. Initial results indicate that significantly fewer weeds are germinating in these plots compared to the surrounding untreated areas, and annual non-native grasses appear to have been mostly eliminated by this procedure. The Conservancy will continue to monitor the effectiveness of this methodology in Q3.

Restoration Research Project: Organic Herbicide

The Conservancy continues to test the effectiveness of various organic herbicides on controlling non-native plant species in a restoration setting. The initial plots primarily consisted of non-native grasses, and three additional trial plots were established this quarter that primarily consist of non-native broadleaf weeds (forbs). The new plots are adjacent to the existing plots along the East Fork trail in Bommer Canyon. Plots were treated in December using 10 oz. Fiesta, 64 oz. Avenger, 16 oz. Suppress, and 52 oz. Final San O. Plots will continue to be monitored, and results will be summarized in a future report.

Native Seed Farm

Conservancy staff and volunteers at the Native Seed Farm focused primarily on seeding the 2019 crop of annual wildflowers, which will include: California goldfields (*Lasthenia californica*), Purple owl's clover (*Castilleja exserta*), Arroyo lupine (*Lupinus succulentus*), Parry's phacelia (*Phacelia parryi*), whispering bells (*Emmenanthe penduliflora*), littleseed muhly (*Muhlenbergia microsperma*) and others. They also harvested the last of the late-season 2018 seed from shrub species such as California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and Palmer's goldenbush. Seed cleaning of the 2018 harvest continued, and the finished product was added to the Conservancy's physical inventory, available to support current and future restoration throughout the Irvine Open Space Preserve. Weekly stewardship events held at the Native Seed Farm provided volunteers and the public the opportunity to participate in all seasonal activities.

B. Threat Intervention: Invasive Species Management

Invasive Species Management: Plants

Artichoke thistle (*Cynara cardunculus*) and tree tobacco continued to be primary targets for control this quarter. Artichoke thistle populations under long-term management in Bommer Canyon and Quail Hill Loop were controlled by manually cutting the stalks and removing mature seed heads from the site. Monthly volunteer stewardships aimed at controlling artichoke thistle continued at Quail Hill. Volunteers and staff treated 1,443 artichoke thistle plants covering 331 m² and 271 tree tobacco plants covering 216 m². Small, isolated populations of fennel (*Foeniculum vulgare*), white horehound (*Marrubium vulgare*), castor bean (*Ricinus communis*), and Spanish broom (*Spartium junceum*) were also manually treated by staff.

No Early Detection/Rapid Response (EDRR) surveys were conducted this quarter, although Conservancy staff identified Sahara mustard on agricultural land immediately adjacent to the gate at Mule Deer. Staff will monitor this area and work to prevent the infestation from spreading into the Irvine Open Space Preserve.

Invasive Species Management: Emerging Tree Pests

The Conservancy continues to actively monitor for Polyphagous Shot Hole Borer (PSHB) and Kuroshio Shot Hole Borer (KSHB), collectively known as Invasive Shot Hole Borer (ISHB), within the Irvine Open Space Preserve. No additional surveys were performed this quarter. Shannon Lynch of UC Santa Cruz and Dr. Akif Eskalen of UC Davis, in collaboration with the Conservancy, completed data collection associated with long-term shot-hole borer monitoring plots. Analysis of this data will help the Conservancy to better understand the beetle-*Fusarium* disease complex and to more accurately monitor the extent of the infestation in Orange County open space preserves. Furthermore, Conservancy staff continues to participate in local and regional coordination of forest pest management by attending technical meetings and participating in and providing updates for the Orange County Emerging Tree Pests Task Force as well as the Forest Pest Council.

C. Other Natural Resources Threat Interventions

Sensitive Species: Shady Canyon Turtle Pond

The Shady Canyon Turtle Pond continues to be managed by Conservancy staff. This quarter, activity focused on ensuring an adequate water supply in the pond and controlling non-native plant species. Supplemental water was added every two weeks on average to maintain required water levels.

Wildlife Monitoring

The Conservancy continued to manage nine motion-activated cameras to monitor wildlife activity throughout the Irvine Open Space Preserve. This program is supported significantly by volunteer participation. Data are entered for only four of twelve months each year (March, June, September, and December). Due to the rain in December, some camera cards containing photos of the last two weeks of December have yet to be retrieved, so **the following activity rates and photos numbers do not contain all photos captured in December**. The Conservancy will include the complete summary of Q2 wildlife activity in the Q3 report.

Twenty-two photos of domestic dogs were captured on the City of Irvine Open Space Preserve in December 2018: 16 from the entrance to Quail Trail near the Shady Oaks neighborhood, one at the Mule Deer trail, three on Serrano Ridge, and two from the camera on West Fork. Photographs of a total of two bobcats, 28 coyotes, 10 mule deer, one striped skunk, and one gray fox were recorded during the month of December (Figure 1); the photo of the gray fox is the first of that species to ever be captured on the wildlife cameras in the Irvine Open Space Preserve. Activity rates in the City of Irvine for December were as follows: 0.01 bobcats per day, 0.13 coyotes per day, and 0.036 mule deer per day. Bobcats and mule deer were both captured most often at the entrance to Quail Trail, and coyotes were captured most often on the Mule Deer trail in Shady Canyon. For bobcats and coyotes, these levels of activity from December are lower than last quarter but within the range of variation observed over the last decade. Bobcats and coyotes have no apparent seasonal activity cycle, so fluctuations are expected. The mule deer activity is lower than average, but this is simply likely due to missing photos.



Figure 1. Select photos of wildlife from remote camera traps on the Irvine Open Space Preserve

D. Monitoring and Mapping

Mapping Services

- Processed and managed all invasive control activities reported in Calflora Weed Manager.
- Produced map of trail closures within City of Irvine Open Space Preserve.
- Provided topographical map of Quail Hill for trail planning purposes.
- Provided map of invasive plants for invasive control planning meeting.
- Provide invasive plant data for EDRR planning.
- Provided summary table of ISHB-infested tree survey data and maps for management decisions.
- Provided summary data and maps of trail use, invasive control, and projects for annual NCCP report.

Planning, Infrastructure, and Operations

Narrative reports and updates from the Field Operations division.

A. Visitor Facilities: Staging Area Management and Operation

Ongoing management and operation of five staging areas (Bommer Canyon, Quail Hill, Orchard Hills, Portola, and temporary Hicks Haul) to serve visitor access into the City of Irvine Open Space Preserve. The parking and visitor gathering areas of the staging areas received regular inspection, and kiosks, picnic tables, and signs were repaired/ refurbished when needed. Portable restrooms were serviced weekly, or more often when warranted due to increased use. Weed abatement and control within designated parking areas was performed as needed and by mechanical means only. Various native plants around the staging areas were watered and trimmed.

Portola Staging Area:

Managed vegetation on the connector trail to Agua Chinon. Performed quarterly assessment of the Mountain Bike Skills area and performed repairs and improvements as necessary. Addressed issues related to water intrusion and began work on modifying the drainage from the service overflow lot directly across from the staging area that has impacted the staging area. Modifications focused on reducing water intrusion into the decomposed granite interpretive area during seasonal rains. Area will be monitored and additional modifications will be performed as needed. and additional modifications will be performed as needed.

B. Visitor Facilities: Trail Management

Regularly monitored and inspected approximately 31 miles of trails (single, double-track, utility, and paved) in the Irvine Open Space Preserve. Single and double-track trails were mowed to control vegetation and provide access for visitors and management/patrol vehicles, and brush along the trail edges was trimmed to established designated trail clearance. Mowing and trimming was performed on October 18 and 25, and November 1. Area trails were not accessible for a total of 13 days in October and November due to red flag extreme fire weather conditions, and eight days in December due to rain and wet, muddy conditions.

Nature Loop Trail:

Installed approximately 70' of post and rope fence at the Nature Loop switchbacks at the west side of the 85' trail bridge. Barriers were installed to deter and reduce ongoing off-trail short-cutting of the switchbacks and to allow native vegetation to re-establish through the growing season.

Bommer Pass Trail:

Cleared existing drains at the northern half of the trail to improve drainage prior to seasonal rains.

Quail Hill Loop Trail:

Installed 700 lineal feet of post and wire-rope (three strands) at the south end of the loop adjacent to the information kiosk. Fencing installed to help deter frequent off-trail use by photographers and others, and to assist the passive restoration and reestablishment of native vegetation. Additional active restoration enhancements on this trail will be performed at a future date. Refreshed signage at the decomposed granite entry trail from the monument viewing area and installed new Open Space Conservation interpretive signage at the southern trail kiosk. Replaced rope at the barrier post and rope fencing at the Vista Point overlook within the Quail Hill Loop trail.

C. Visitor Facilities: Land Management

Continued to monitor and document the occurrence of social (unauthorized) trails along the upper segment of the Turtle Ridge and Quail Hill Loop trails. Continued with placement of natural barriers utilizing native plants to reduce occurrence of social trails which destroy native habitat.

Surveyed and cleared downed branches and trees at various locations within the northern and southern open space preserve areas due to 13 days of heavy wind and red-flag fire weather conditions.

Continued monitoring of the Veeh Creek area for non-authorized activities in coordination with the Open Space Patrol. None were identified during the period.

D. Planning and Monitoring

This quarter, Field Operations staff continued its monthly coordination meetings with City of Irvine Community Service staff. Field Operations staff provided background to Community Services and received input regarding the Bommer Cattle Camp restoration project.

Finalized the infrastructure planning for the upcoming Bommer Meadows active restoration site. The site encompasses approximately 9.2 acres to be restored to natural habitat. Field Operations will install barrier post and rope fencing in the first quarter of 2019 to delineate and protect the 10-year restoration project.

Continued planning and materials acquisition for the Quail Hill Loop/University Bikeway connector trail to be implemented when approved by the City. The approximate 1,100' connector trail will create a seven-day connection from the northern end of the existing Quail Hill Loop trail to the paved University Bikeway and will help reduce social trails in the area. Post and cable fencing to match existing fencing will be installed to deter access to the adjacent native habitat areas included in the 1996 NCCP/HCP Central/Coastal Sub-region plan that the City is responsible for protecting. Portions the trail plan are currently under City of Irvine Facilities review.

The human access monitoring program continued this quarter. Eighteen cameras, placed strategically throughout the City of Irvine Open Space Preserve, collected 127,001 images. These images provided data on human access as well as wildlife activity. Data on unauthorized activity were gathered, analyzed, and shared with City of Irvine Open Space Patrol and Irvine Police Department staff to help schedule targeted trips to the field and more efficient patrol schedules. The Conservancy and Irvine Open Space Preserve Ranger Dave Cardon met monthly to share information on user trends and plan for responses.

Exhibits

Selected Field Operations Photos and Monitoring Camera Images.



Quail Hill Loop South Entrance Signage



Quail Hill Trail South Fencing Installation



Quail Hill Trail South Fencing Installation



Vista Point Post and Rope Fence Repair



Social Trail Management



Monitoring Camera Images



Monitoring Camera Images