



Las Vegas Wash Education and Outreach Annual Report, 2023



SOUTHERN NEVADA
WATER AUTHORITY



LVWCC

Las Vegas Wash Education and Outreach Annual Report, 2023

1.0 SOUTHERN NEVADA WATER AUTHORITY Las Vegas Wash Project Coordination Team

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ABSTRACT

The Las Vegas Wash Coordination Committee (LVWCC) has been working on stabilizing and enhancing the Las Vegas Wash (Wash) for 25 years. Public outreach builds community awareness and support for the Wash project and the LVWCC's activities. This report describes annual outreach accomplishments and effectiveness monitoring results for 2023 separated into five main categories: community outreach, educational outreach, tours, volunteer events and web resources. Las Vegas Wash Project Coordination Team (Wash Team) staff reached more than 11,800 people during 31 outreach events in 2023, representing a nearly 50% increase in the number of events and more than seven times the number of attendees compared to 2022. Since the inception of the LVWCC, Wash Team staff have participated in more than 860 events, reaching more than 332,000 people. Outreach effectiveness was measured; in addition to substantial increases in community outreach participation and visitors to the lvwash.org website, students demonstrated greater Wash knowledge after educational outreach. Recommendations for the future include encouraging community outreach event attendees to sign-up for Wash web resources, surveying volunteer event participants and regularly updating lvwash.org.

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1.0 INTRODUCTION

1.1 Background

The Las Vegas Wash (Wash) is the final outflow of the Las Vegas Valley’s watershed carrying highly treated wastewater, shallow groundwater, urban runoff and stormwater to Lake Mead (Figure 1). The valley’s increasing population resulted in the discharge of perennial flows to the channel in the 1950s, which created wetland and riparian habitat. In subsequent years, the Wash experienced degradation and erosion from increasing daily flows and flood events. In 1998, the Las Vegas Wash Coordination Committee (LVWCC) was formed to protect and enhance this valuable waterway. The LVWCC developed the Las Vegas Wash Comprehensive Adaptive Management Plan (CAMP) to help guide management practices (LVWCC 2000). The CAMP outlined 44 action items, three of which pertain to public outreach. The CAMP also established the public outreach program, which is implemented by the Las Vegas Wash Project Coordination Team (Wash Team).



Figure 1. Wash location map.

The Wash Team published the Las Vegas Wash Outreach Plan, 2013 (Outreach Plan; Harris et al. 2013) to further guide its efforts. The Outreach Plan (1) lays out goals, (2) establishes core

messages, (3) describes strategies, (4) defines target audiences, (5) outlines program tactics, (6) discusses partnerships and partner efforts, and (7) describes methods to evaluate effectiveness and use that data to improve outreach implementation. Additionally, the Las Vegas Wash Long-Term Operating Plan (LTOP), created to direct CAMP implementation following the completion of capital construction in 2022, identifies seven public outreach actions (Table 1; LVWCC 2020).

Action No.	Description
15	Participate in at least four local outreach events annually, including staffing information booths and distributing informative materials and giveaway items to increase program awareness
16	Conduct at least three outreach events annually with Mabel Hoggard Math and Science Magnet School
17	Conduct two volunteer events on the Wash annually (plantings, weed pulls, or similar) and facilitate outreach with local schools for World Wetlands Day
18	Conduct at least four tours or field trips of the Wash annually as requested by interested groups, entities, and agencies
19	Provide information to the public by maintaining the lvwash.org website, with updates at least quarterly that include posting of documents (agendas, presentations, summaries) related to public meetings, electronically distributing a newsletter quarterly, updating and maintaining the Facebook site once per week, and using other social media tools
20	Prepare a general summary report of activities for the public biennially
21	Implement activities related to the increasing awareness component of the wildlife management plan; this includes developing wildlife education and outreach materials and distributing them at local events, participating in collaborative wildlife awareness events such as International Migratory Bird Day, and sharing data

Table 1. Public outreach actions to be completed annually during long-term operations.

1.2 Purpose and Need

Public outreach builds community awareness and support for the Wash project and the LVWCC’s activities. This report summarizes annual outreach accomplishments for 2023 and discusses effectiveness monitoring. The information from this annual summary will help guide the outreach program.

2.0 OUTREACH RESULTS FOR 2023

Results are separated into five categories: community outreach, educational outreach, tours, volunteer events and web resources.

2.1 Community Outreach

Community outreach includes local festivals, student fairs and other community events that provide an opportunity to reach valley residents on a large scale. At these events, the Wash Team



Figure 2. Wash Team staff teaching participants about different types of species found at the Wash during an outreach event.

staffs a table with informative displays, dispenses print materials, provides giveaways with the LVWCC logo and website address, and interacts with attendees (Figure 2). These events draw hundreds to thousands of people, so it is likely that the Wash Team only interacts with a portion of the total number of participants. Once attendees approach the table, staff either engages with them directly, or if staff is with other participants, the attendees can take printed materials and

other giveaways that will direct them to the website for more information. As a result, these events help increase awareness of the Wash and the LVWCC. Table 2 shows all community outreach events completed in 2023.

Community Outreach Events			
Month	Activity	Event Title	Number of Attendees
March	Information Table	CCSD Super Saturday	700
April	Information Table	CCWP Bioblast	621
May	Information Table	Las Vegas Science and Technology Festival	8,000
July	Information Table	CCWP Discovery Day	866
Total	4		10,187

Table 2. Community outreach events that Wash Team staff attended during 2023. CCSD=Clark County School District. CCWP=Clark County Wetlands Park.

2.1.1 Effectiveness Monitoring

Effectiveness of these types of events is measured by the number of attendees who sign up for other forms of media, specifically, web resources such as the Facebook page or e-newsletter. The two measurable objectives in the Outreach Plan (Harris et al. 2013) are:

- 5% of event attendees sign up for more information via web resources.
- Maintain or increase current level of participation.

Staff did not track sign-ups for web resources at each event. To measure whether the 5% metric (513 people) was met, 2022 data was compared to 2023 data. The Facebook page and e-newsletter did not have sufficient increases to meet the objective, but unique visitors to the lvwash.org website did increase significantly, by more than 3,000 in 2023. Section 2.5 discusses web resources in greater detail.

The Wash Team experienced a more than 1,800% increase in the level of participation from 2022 mainly by staffing an information table at the annual Las Vegas Science and Technology Festival which brought 8,000 members of the community to a single event.

2.2 Educational Outreach

Educational outreach is defined in the Outreach Plan (Harris et al. 2013) as those activities geared toward imparting detailed information about the Wash, the local watershed and/or the Wash environment. These activities also often provide the Wash Team more contact time with attendees than other forms of outreach. This category focuses on students and teachers from local schools, colleges and universities through presentations, field trips and the annual World Wetlands Day (WWD) event (Figure 3). Presentations are typically given in schools, while field trips occur at one or more Wash locations and include special activities such as handling live animals, water quality testing and collecting data on plants. The annual WWD event targets high school students with a wetlands-focused science symposium in the morning and either a planting or a walking tour of the Wash in the afternoon. Presentations to community groups and at conferences are also included in this category. Tours had fallen under this category in the Outreach Plan but have been moved into their own section. Although some educational outreach events include a tour in the schedule, they differ by also including additional activities and staff time. Table 3 shows all educational outreach events completed in 2023.



Figure 3. Students participate in a pole planting activity at WWD.

Educational Outreach Events			
Month	Activity	Event Title	Number of Attendees
January	Field Trip	Green Valley Christian School	26
January	Event	WWD	122
January	Presentation	Vassiliadis Elementary	75
January	Presentation	Colorado River Terrestrial and Riparian Biologists Meeting	100
February	Field Trip	Mabel Hoggard	29
February	Field Trip	Mabel Hoggard	25
February	Field Trip	Mabel Hoggard	27
March	Field Trip	Youth Conservation Council	22
March	Presentation	Springs Preserve Teacher Training	78
March	Presentation	Mark Kahre Reading Week	110
March	Field Trip	Our Lady of Las Vegas	66
March	Presentation	Cartwright Elementary	70
April	Presentation	Bishop Gorman Honors Biology	200
April	Presentation	Twin Lakes Elementary	100
April	Presentation	Twin Lakes Elementary	35
May	Presentation	Mabel Hoggard Elementary	70
September	Presentation	Tech Talk	64
October	Presentation	Springs Preserve Teacher Training	61
November	Field Trip	Mabel Hoggard	30
November	Field Trip	Mabel Hoggard	25
November	Field Trip	Mabel Hoggard	27
Total	21		1,362

Table 3. Educational outreach events completed during 2023.

2.2.1 Effectiveness Monitoring

The purpose of evaluating educational outreach effectiveness is to quantify its success in increasing awareness and understanding of the Wash. The Outreach Plan (Harris et al. 2013) recommended a survey of participants and listed two measurable objectives:

- The number of respondents is 90% or greater.
- Respondents correctly answer at least 80% of the questions.

The primary method that is currently used to evaluate effectiveness is a pre- and post-field trip assessment that is given to all fifth-grade Mabel Hoggard students. Improvements in assessment scores show that students are understanding what is being taught during field trips. Comparing the results from the pre- and post-assessment scores, students' average grade improved from 60% to 80%. Given the post-assessment results, the two measurable objectives for educational outreach as described above have been met.

2.3 Tours

The number of tours given at the Wash varies annually and is dependent on requests received. Participants include classes from local schools, colleges and universities; delegations from other countries; organizational teams; and professional conference groups, among others. Stakeholders are taken on a Wash tour annually, as well. A major benefit of this type of outreach is the amount of time spent with those in attendance. Tours are usually performed in small groups and generally last 1–4 hours. With this much time, participants gain valuable information on the Wash and can interact with specialists in the areas of biology, hydrology, engineering and outreach. Table 4 shows all tours that were performed during 2023.

Although both educational outreach and tours welcome students and teachers, tours typically consist of visiting one or more Wash sites while 1–2 staff talk about the LVWCC and the Wash's importance. Field trips include additional activities and generally require more staff.

Tours			
Month	Activity	Event Title	Number of Attendees
April	Tour	LVWCC Annual Tour	43
October	Tour	American Water Works Association	42
December	Tour	Colorado River, Mexico Delegation	12
Total	3		97

Table 4. Tours completed during 2023.

2.3.1 Effectiveness Monitoring

Since tours were included in the educational outreach category in the Outreach Plan (Harris et al. 2013), the purpose and objectives are the same as listed in Section 2.2.1. The Wash Team did not conduct surveys or assessments of tour participants in 2023.

2.4 Volunteer Events

Since 2001, the LVWCC has hosted volunteer planting events known as Wash Green-Ups (Figure 4). These events focus on connecting the community to the Wash through active participation while enhancing native vegetation along the channel. In 2022, the Wash Team began implementing the LTOP and reduced the number of Green-Up events each year from two to one, adding a second volunteer event. This second event can be a planting, weed pull, clean-up, etc. Table 5 shows all volunteer events that were performed during 2023.



Figure 4. Volunteers plant native trees and shrubs during annual Wash Green-Up.

Volunteer Events			
Month	Activity	Event Title	Number of Attendees
March	Planting	Spring Green-Up Event	155
April	Planting	Hilton Corporation Planting Event	15
October	Planting	Howard Hughes Planting Event	20
Total	3		190

Table 5. Volunteer events completed during 2023.

2.4.1 Effectiveness Monitoring

Effectiveness monitoring for volunteer events seeks to determine if participants understand the importance of the Wash and the purpose of the volunteer project they are participating, or participated, in. The Outreach Plan (Harris et al. 2013) recommended a survey, with questions addressing the following:

- Can participants identify ecological resources of the Wash?
- Do participants understand the importance of their participation?
- Has volunteering increased the feeling of ownership in participants?
- How often have volunteers participated in Wash activities?
- Do participants understand the hydrology of the Las Vegas Valley?
- Can participants identify ways to help enhance and protect the Wash?

The Outreach Plan also listed six measurable objectives; however, Wash Team staff did not conduct surveys of volunteer event participants in 2023.

2.5 Web Resources

Followers of the Wash Facebook page (facebook.com/lvwash) increased to 1,518 individuals. This page provides the Wash Team with an easy way to engage with the public, give updates on projects, share photos and recruit Wash Green-Up volunteers. Wash posts were also shared on the SNWA Facebook and Instagram platforms for greater exposure. In 2023, social media posts about the Wash generated high numbers of key metrics: 310,091 impressions, 3,778 engagements, 614 post link clicks and 47,546 video views.

The LVWCC’s website (lvwash.org) hosted 10,525 unique visitors in 2023. Data managers uploaded project reports to the site’s document library, and the monthly e-newsletter was delivered to 274 subscribers.

2.5.1 Effectiveness Monitoring

Three of the five measurable objectives for web resources in the Outreach Plan (Harris et al. 2013) can be addressed:

- 10% annual increase in subscribers to both the Facebook page and Email Update (i.e., e-newsletter).
- 10% annual increase in unique visitors to the lvwash.org website.
- 25% increase in interest in the Wash from web resources year over year.

The Wash’s Facebook page saw a 4.8% increase in followers from 2022 to 2023. Subscribership to the e-newsletter remained basically flat, increasing by just 2 or less than 1%. While the Facebook page and e-newsletter underperformed compared to the stated objective, the number of unique visitors to lvwash.org increased by more than 40% from 2022 to 2023, from 7,421 to 10,525. This addresses both the objective for the website and for the 25% increase in interest in the Wash, as the Outreach Plan (Harris et al. 2013) states, “effectiveness of web resources will be determined by the number of people signed up, the amount of knowledge they gain, and, in the case of the Facebook page and Email Update, whether they elicit further interest in the Wash, driving traffic to lvwash.org.” The more than 40% year-over-year increase was likely helped by social media posts.

The other two objectives for web resources from the Outreach Plan (Harris et al. 2013) cannot be measured at this time, as they relate to a recommended annual survey that Wash Team staff have not yet developed.

3.0 DISCUSSION

During 2023, the Wash Team completed 31 outreach events that reached more than 11,800 people, representing a 48% percent increase in events and more than seven times the number of attendees from the previous year, when staff participated in 21 events reaching more than 1,600 people. Wash Team staff have been teaching the public about the importance of this valuable resource for 25 years. Since 1998, staff have participated in more than 860 events, reaching more than 332,000 people.

In addition to substantial increases in community outreach participation and visitors to the lvwash.org website, students demonstrated greater Wash knowledge after educational outreach demonstrating that the Wash’s outreach program is effective at spreading the core messages of the LVWCC.

While visitors to lvwash.org increased significantly from 2022 to 2023, this metric had been on a general decline for many years as the site’s design fell out of style and an unwieldy platform made regular updates difficult. The website had once hosted approximately 15,000–25,000 unique visitors per year but declined to only about 7,500 in 2022. Wash Team staff completed a major

redesign and update in 2021, moving the site to an easy-to-update platform and giving it a modern look. With these changes, visitors to lvwash.org will hopefully continue to increase.

4.0 RECOMMENDATIONS

The Wash Team should continue to distribute pre- and post-field trip assessments for Mabel Hoggard students and should expand this to all students that go on a field trip to the Wash. During community outreach events, staff should encourage participants to sign-up for Wash web resources through the e-newsletter or Facebook page. Special giveaways can be used as an incentive and given out once someone signs up for one of these resources.

Prior to 2020, Wash Team staff had begun distributing a survey during volunteer events to evaluate their effectiveness. Staff should update the survey and once again make it available for participants. Most Green-Up events have a Wash information table on site which is the perfect place to have this survey. Like community outreach, staff can use special giveaway items as incentives to encourage volunteers to take the survey. Staff can also send the survey out to all registered participants in the thank-you email that is sent out after each event. Another way the Wash Team can monitor effectiveness is to create a survey that is sent out twice a year to everyone who is registered for the e-newsletter.

The Wash website underwent a major renovation a few years ago and is in the process of being updated again. Staff should continue to regularly update the look and information that is presented on the website, so visitors know it is current and evolves as technology and website design improve.

5.0 CONCLUSION

The LVWCC has worked to stabilize and enhance the Wash since 1998. Public outreach builds awareness and support for the Wash project and the LVWCC's activities. The Wash Team reached more than 11,800 people during 31 outreach events in 2023, which is a significant increase compared to 2022. In 25 years, Wash Team staff have participated in more than 860 events, reaching more than 332,000 people. Outreach effectiveness was measured; along with substantial increases in community outreach participation and visitors to the lvwash.org website, students showed greater Wash knowledge after educational outreach. Recommendations for the future include encouraging community outreach event attendees to sign-up for Wash resources, surveying volunteer event participants and regularly updating lvwash.org.

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