



# Impacts of COVID-19 on America's Urban Natural Areas: Full Report



# Contents

<b>Report Overview</b>	2
<b>What Are Urban Natural Areas?</b>	3
<b>About This Survey</b>	3
<b>Survey Outcomes</b>	4
New visitor regulations for urban park and natural areas due to COVID-19	4
How has COVID-19 impacted your ability to care for and manage urban natural areas?	6
How has COVID-19 impacted your current staffing and resources?	7
What are the projected impacts of COVID-19 on budget and resources?	9
How has public use of urban natural areas changed during COVID-19?	10
How have advocacy, communication, and partnership played a role during the COVID-19 pandemic?	12

## About the Natural Areas Conservancy

Created in 2012, the Natural Areas Conservancy (NAC) is a non-profit organization devoted to restoring and conserving New York City's forests and wetlands. We work in partnership with NYC Parks, representing an area 25 times the size of Central Park. New York City's natural areas offer immense environmental benefits, including improvements to air and water quality, providing New Yorkers access to nature, and strengthening communities. Our long-term goal is to bring our natural assets on par in quality and investment with the city's great cultural amenities and to ensure that residents and visitors enjoy world-class recreational opportunities, while simultaneously enjoying the environmental benefits that natural areas provide.

## Forests in Cities National Network Participating City Teams

Austin, TX; Baltimore, MD; Billings, MT; Chicago, IL; Indianapolis, IN; Minneapolis-St. Paul, MN; St. Louis, MO; New York, NY; Miami, FL; Tampa-Hillsborough County, FL; Seattle- Puget Sound, WA; Houston, TX.

## Participating Organizations

Baltimore City Urban Forestry Division	Hillsborough County, Florida
Baltimore Greenspace	Houston Parks and Recreation Department
City of Billings, Department of Parks, Recreation and Public Lands	Miami-Dade County
Chicago Park District	Minneapolis Park and Recreation Board
Chicago Region Trees Initiative	Natural Areas Conservancy
City of Austin, Urban Forestry, Parks and Recreation Department	New York City Department of Parks and Recreation
City of Indianapolis	Seattle Parks and Recreation, Green Seattle Partnership
City of St. Louis	
Forest Park Forever	The Trail Foundation
Forterra	

## Acknowledgements

Thank you to the respondents for participating in this survey.  
Funding for the creation of this report was provided by The JPB Foundation.

For more information contact [info@naturalareasnyc.org](mailto:info@naturalareasnyc.org)

**To cite this report:** Pregitzer, C. C., Plitt, S., O'Connell, T., Charlop-Powers, S., Impacts of COVID-19 on Natural Areas in American Cities. 2020. Report. Natural Areas Conservancy.

## Report Overview

The COVID-19 crisis has impacted the daily lives of the entire nation. As city residents face lockdowns, they have turned to their public parks and open spaces for respite from the confines of city living. While some are heading to lawns and playgrounds, many residents are utilizing and exploring their local forested natural areas during this stressful time. However, across the country, many major cities and the organizations that care for our urban parks and natural areas, are experiencing budget cuts, reductions in staffing, and a reduced ability to perform necessary maintenance and field work. More cuts to budgets and staffing are expected in the near future.

To better understand the impacts of the COVID-19 crisis on our country's urban natural areas and the organizations that care for them, the Natural Areas Conservancy conducted a survey in May 2020. The respondents to the survey include public agencies and NGOs in 12 American cities that are leaders in the management and care of urban natural areas. The findings of this survey are summarized below.

## Key Takeaways

- Across 12 cities in the United States, there has been an observed increase, relative to previous years, in public use of urban natural areas since March 2020. Residents are seeking out natural areas for local access to nature and as a less crowded type of urban parkland during stay at home orders.
- Despite increased visitation to natural areas, COVID-19 has resulted in a decrease in resources available and the ability of staff to care and maintain the urban natural areas in these cities.
- Long-term impacts on municipal and organizational budgets remain uncertain. These uncertainties could be a turning point for urban greenspace, and leadership, coordination, and collaboration are needed.

## Why This Matters

Reduced funding for city parkland and reduced support of healthy urban nature could have significant social and ecological consequences for the health and sustainability of urban life — especially in times of crisis. This pandemic has reinforced the importance of access to healthy and high-quality nature. As cities begin to recover and reopen and municipal and organizational budgets are determined, we must look ahead to envision a future that includes support for natural areas in cities.

## What Are Urban Natural Areas?

Urban natural areas are the forests, wetlands, and grasslands that exist within a city's limits. They are places that provide important ecological and social benefits to the city residents. In the United States, there are over 1.6 million acres of urban natural areas — and they account for 84% of city parkland in the 100 most populous cities in the United States<sup>1</sup> (Totaling 64 million people).



*Kennedy Forest, Forest Park, St. Louis, MO. Photo credit: Amy Witt*

## About This Survey

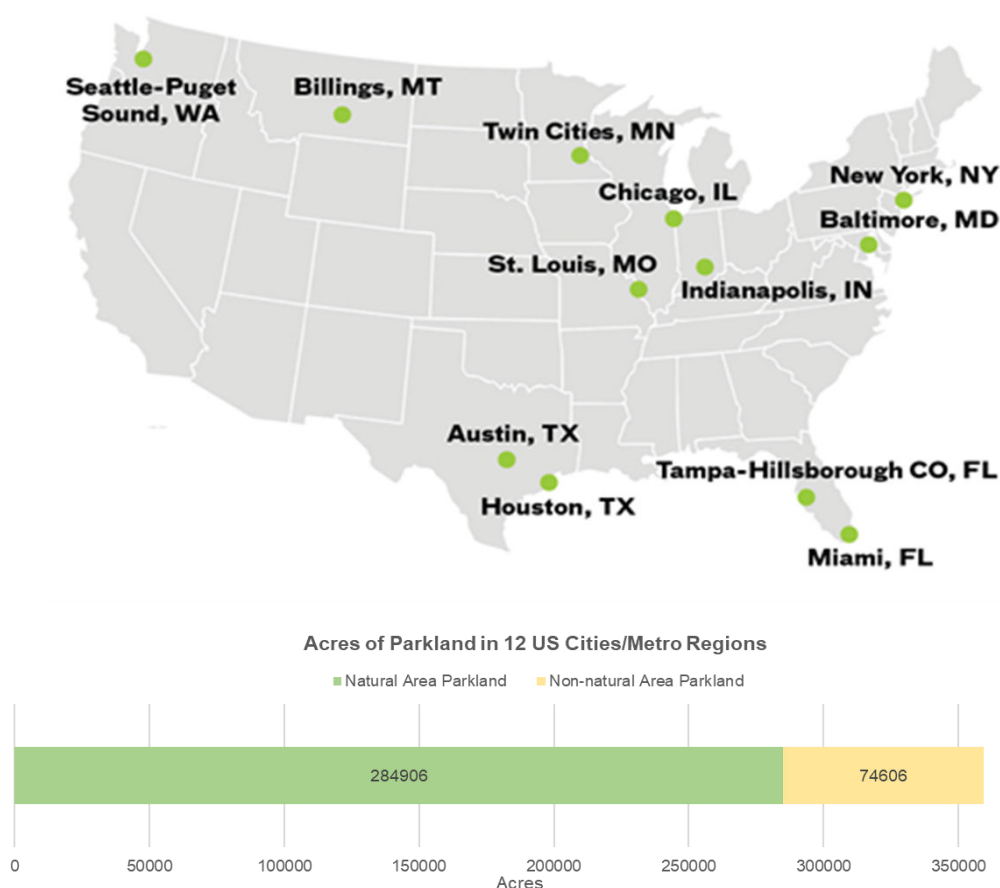
This report reflects responses from organizations working specifically in urban forested natural areas in 12 U.S. cities (Figure 1). The Natural Areas Conservancy has been collaborating with these 12 cities since 2019 to advance the science and practice of managing urban forested natural areas. When COVID-19 began to affect cities across the U.S. we called on our partners in these 12 cities to learn how people were using urban natural areas and how their ability to care for them had been impacted. The responses to the survey (18 total) represent those from municipal government, county government, and nonprofit organizations. Across these 12 metro

---

<sup>1</sup> Trust for Public Land, Center for City Park Excellence, 2017, [www.tpl.org](http://www.tpl.org).



regions there are 284,906 acres of urban natural area parkland and over 18 million people live within these cities.



**Figure 1. Representatives from 12 cities and metro regions included in this report. There are at least 284,906 natural area acres in these metro regions.**

## Survey Outcomes

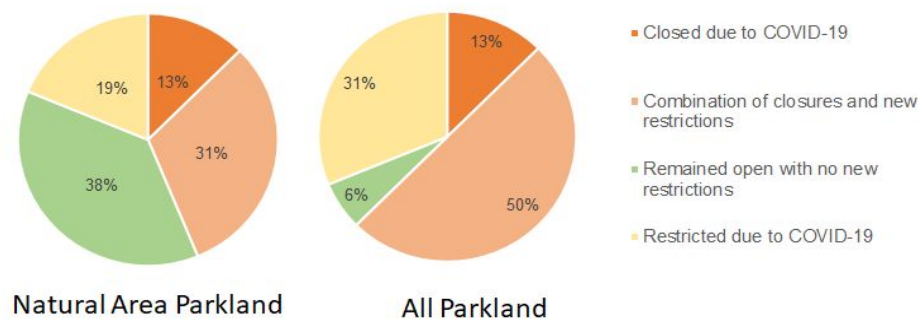
In the text and figures below, we describe the responses from organizations that work in and manage the natural areas that exist in 12 American cities.

### New visitor regulations for urban park and natural areas due to COVID-19

As the COVID-19 pandemic reached the U.S., cities and states across the nation implemented stay-at-home orders resulting in the closing of business, schools, and public spaces. We wanted to understand how access to city parkland and natural areas changed during the start of the pandemic in the U.S. We asked if any new closures or restrictions were put in place for all city parkland and for just natural area parkland from March 1, 2020 to May 30, 2020.

Overall, the majority of cities (87%) had parks and natural areas under some combination of closures or restrictions. While many natural areas were restricted, overall, natural areas were less restricted during COVID-19 compared to urban parkland in general (Figure 2).

### New visitor regulations to urban natural areas and parkland in 12 US Cities



**Figure 2. Responses about new visitor regulations to urban park and natural area access during COVID-19 in March to May 2020.**

The restrictions were established as a safety precaution to reduce crowding, while at the same time recognizing people were eager to spend time outdoors and could do so while social distancing.

*“Parks remained open for hiking and biking; however, citizens were encouraged to maintain social distance and wear face masks. Certain amenities, particularly those involving shared surfaces or confined space, were closed. These included recreation centers, swimming pools, bathrooms, and playgrounds.” – Austin, TX*

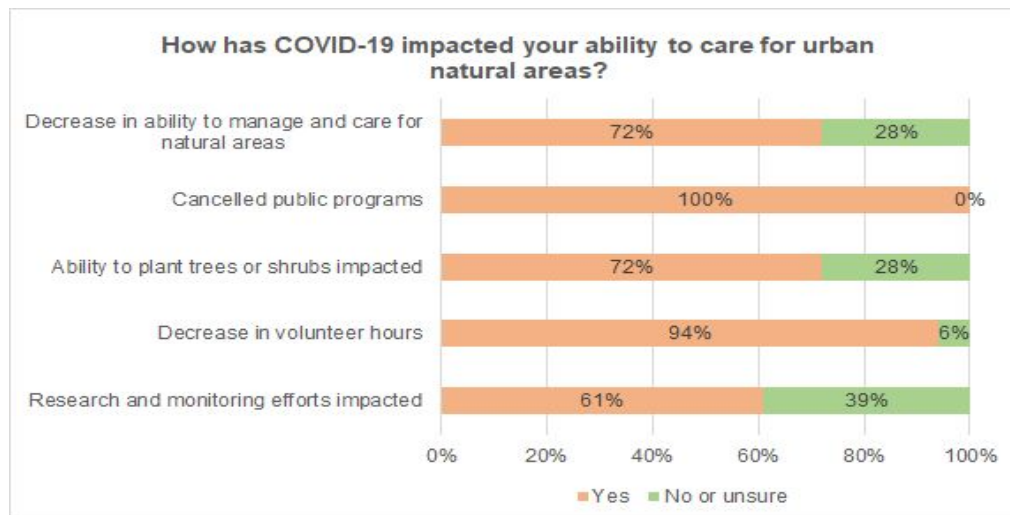
*“Some parks were closed, some parks had new rules, some parks folks are out and about as if they are invulnerable to the virus.” – Baltimore, MD*

Some of these decisions were made in response to crowding, and in other cases they were a precaution. For example, in Tampa, natural areas remained open during the first months of COVID-19, even when other parks remained closed. This caused a significant increase in visitation to natural areas. This overuse led to the decision to close the natural areas in early May. Indianapolis also chose to close their largest, most popular park as people were failing to follow social distancing guidelines. Some cities closed more popular natural areas, while others allowed the natural areas to remain open but restricted the use of amenities such as bathrooms and recreation centers. Some parks enforced social distancing by limiting the number of visitors or by hiring staff to enforce the new guidelines.

*“Seattle Parks has posted a lot of signs and hired ambassadors for parks to keep people moving or keep people out if closed.” – Seattle-Puget Sound, WA*

## How has COVID-19 impacted your ability to care for and manage urban natural areas?

We asked the organizations how the COVID-19 crisis has changed their programmatic work. Across the board, we found that these organizations and their ability to care for urban natural areas have been affected.



**Figure 3. Responses to a question about the impact of COVID-19 on an organization's ability to care for and manage urban natural areas.**

Overall, we found that a majority (72%) of the organizations have experienced a decreased ability to care for and manage urban natural areas. Additionally, partner and volunteer engagement have been critical components of their management strategies. But, with almost all volunteer programs and events cancelled, there has been a great loss in service performed in the spring of 2020.

*"Due to the suspension of all volunteer activities, our ecological restoration efforts have been significantly reduced."* – Austin, TX

*"Forests have less management and our expert partners are less able to provide on-site assistance. We can't run in-person events that stay connected to site activities."*  
– Baltimore, MD

*"Almost all work done in natural areas is done by volunteers. We could not leverage volunteers during the pandemic, and several cleanups, invasive species control, and trail building projects were cancelled."* – Billings, MT

Spring tree plantings are a common activity in urban natural areas, and they were significantly impacted for a majority of the organizations. For example, New York City did not plant thousands of trees as was originally planned for the spring 2020 season. Additionally, research and monitoring efforts can have important schedules that need to be followed, and these were



also affected. Many of these activities have been deemed “non-essential” which has resulted in cutting these programs entirely. For example, staff in Seattle have had to reduce or eliminate all research and monitoring efforts in natural areas during this time.

This reduced ability to care for natural areas is in part due to work from home and safety measures. Most respondents reported working from home and a reduced ability to work out in the field and perform regular management and maintenance activities. In some cities, there has been a moratorium on field work, and in other cases, natural areas management staff are getting creative when it comes to continuing work in the field. For example, in Chicago, staff are continuing to plant trees in a distanced fashion:

*“Our team is all working from home. However, tree plantings require creative solutions, like ramps for one person to move a tree from the truck to the site and assembly line planting: one person digs the hole, another plants the tree, another mulches and waters. Partners are continuing to provide basic services while keeping staff spaced.”*

– Chicago, IL



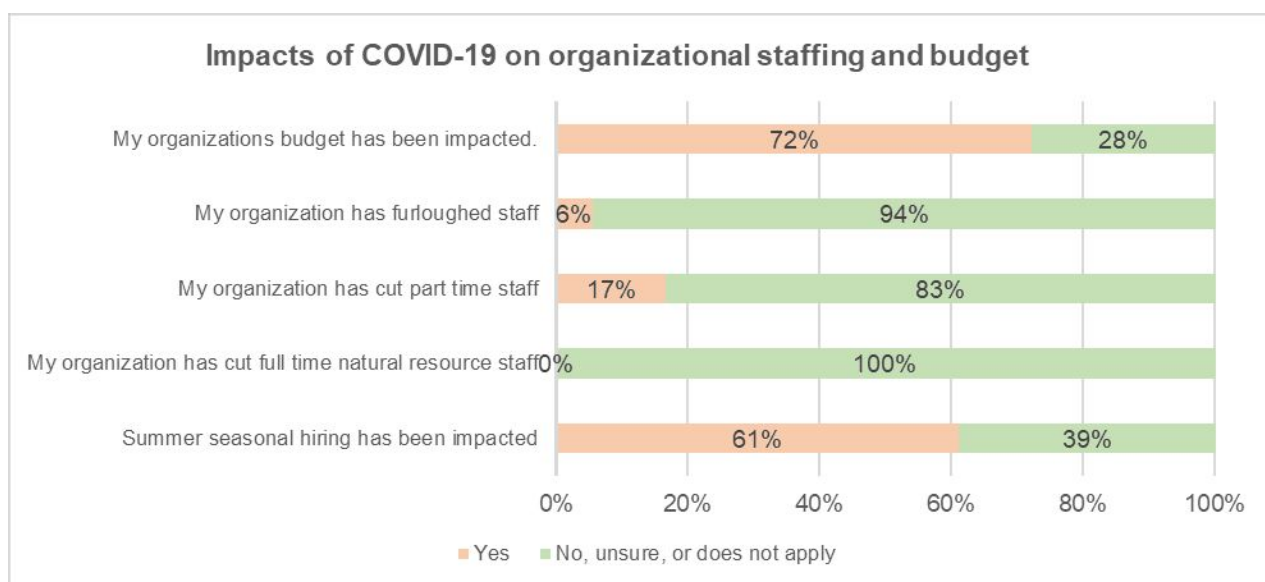
*Planting trees during a pandemic. McCormick Bird Sanctuary, Chicago, IL. photo credit: Chicago Park District*

Many organizations have described adaptations and modification to field protocols to ensure safety while continuing to advance their mission as much as possible. Other cities are altering

their schedules and timelines in order to ensure social distancing in the field while caring for natural areas. For example, in St. Louis, staff have staggered start times and report to separate start locations. In Seattle, crews were initially working every other week to reduce the total number of staff coming into the crew quarters. Staffing and budgets have also played a significant role in the current ability to care for natural areas and is projected to get worse in the future.

## How has COVID-19 affected your current staffing and resources?

COVID-19 has had a significant impact on our nation's economy, and it is affecting budgeting and capacity across sectors. In the survey, we sought to better understand how the pandemic has affected the budgeting and staffing of the organizations that are caring for urban natural areas. We asked several questions related to the short-term impacts of staffing in spring 2020, and the projected financial and staffing impacts into 2021. As of May 2020, a majority of the responding cities reported some loss of staff capacity due to COVID-19, but primarily in summer seasonal hiring. And the majority of organizations (72%) reported that their budget had already been affected.



**Figure 4. Impacts of COVID-19 on staffing levels as of May 2020.**

Many of the cities that responded, including Austin, Baltimore, Seattle, and New York City, have experienced hiring freezes — suggesting future consequences of the pandemic on parks staff.

*“All hiring is frozen, including three Natural Area Crew positions that were set to start the first week of the COVID-19 crisis, and we have limited volunteer programming including stipend work with youth and elders.” – Seattle, WA*

Others respondents have lost or were unable to hire seasonal staff, and they reduced or cut current contract work.



*“We have cut seasonal hires as well as reduced our budget for contractor work. This has resulted in deferred maintenance at a number of sites.” – Chicago, IL*

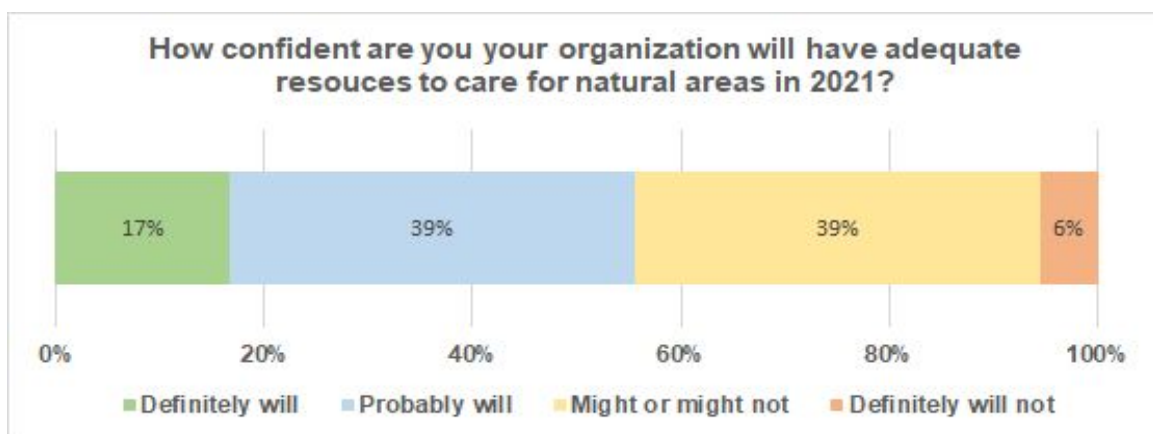
*“Our planned summer internship program for NYC college students has been reduced (number of positions) and scope of work has shifted from training and conducting fieldwork to directly supporting our municipal partner (NYC Parks) in natural area management work.” – New York, NY*

*“We could potentially lose dozens of new seasonal staff. They were originally only hired for a one-year program, but we were hoping that program would continue. Now given COVID-19, that seems incredibly unlikely.” – New York, NY*

## What are the projected impacts of COVID-19 on budget and resources?

While the impacts of COVID-19 have been significant in the short-term, many impacts will be faced in the future as city and organizational budgets are determined. We asked organizations how confident they are that their organization will have adequate funding to continue work in natural areas in 2021.

We found that only 17% of organizations were confident that they will have adequate funding to continue their work in urban natural areas in 2021, and most were uncertain.



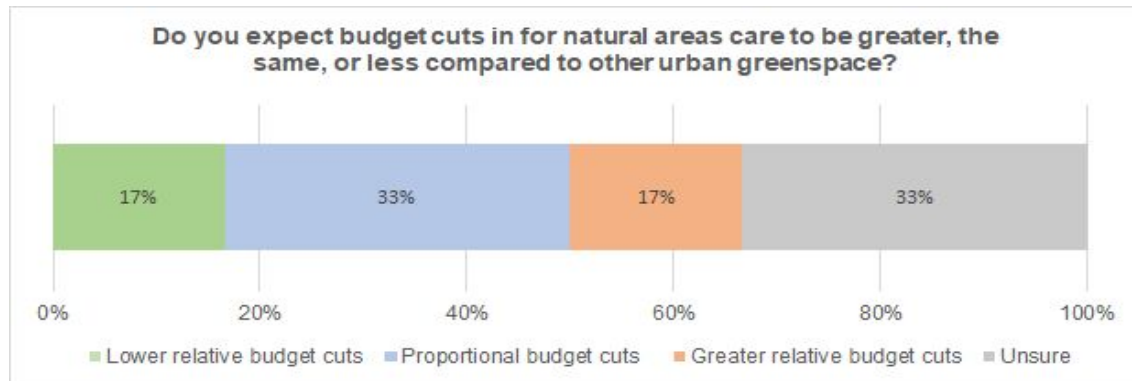
**Figure 5. Organizational confidence in future budgets to care for urban forested natural areas**

While about half of the respondents suggested they will or probably will receive adequate funding, the other half were less confident, and some certain they would not have adequate funding in the future to care for urban natural areas.

*“With cities in our area experiencing budget cuts, there are less opportunities and funding right now to grow our Green Cities program to new cities.” – Seattle, WA*

*“Our two major fundraising events (gala and 5k race) have either been changed or cancelled in a way that will severely impact our restoration work.” – Austin, TX*

As budget cuts are expected as a result of COVID-19, we asked if respondents expected natural areas to receive more, less, or the same budget cuts compared to other park or green-space types (e.g. pools, playgrounds) in 2020 through 2021.



**Figure 6. Budget expectations as a result of the COVID-19 pandemic.**

*“The city is looking into budget cuts across departments.” – Houston, TX*

*“Natural areas will continue to be managed through special funding available for Regional Parks (larger parks which serve the metro region).” – Twin Cities, MN*

## **How has public use of urban natural areas changed during COVID-19?**

We asked participants to share if and how COVID-19 has resulted in observed changes in the public's use of natural areas in their city or region. We found that 83% of organizations observed an increase in public use of natural areas during COVID-19 (11% reported no change and 6% reported a decrease). Many cities have observed an uptick in natural areas use. Staff in Houston, New York City, and the Twin Cities specifically noted that natural areas trails were much busier than usual on weekdays.

*“People have been out walking the trails much more and during the week.”*  
– Houston, TX

Respondents noted that more people sought out natural areas as they were looking for local places to get out of the house, and these spaces allowed for easy social distancing. This has led to increased interest in wildlife and birding.

*“Less accidental public use and an increase of intentional public use — people birding, going on family walks in the woods, etc.” – St. Louis, MO*



*“More people are using ALL parks, but especially natural area trail systems as they try to stay close to home and don't have access to county or federal public lands.”*  
– Seattle, WA

Unfortunately, some negative impacts have been observed as a result of this increased use. Impacts include littering, increased dog waste, and poaching of plant material.

*“We are hearing of people poaching flowers and materials to take home.”* – Chicago, IL

**We asked the cities to share any hopeful observations, stories and/or feedback from their constituents about the role of natural areas in their city during COVID-19. Below is a sample of the responses:**

*“Appreciation for trails and natural areas and for keeping the parks open.”* – Houston, TX

*“People are certainly spending more time outdoors which will hopefully translate into an increase in green space philanthropy in the future.”* – Austin, TX

*“Friend I know went fishing for the first time.”* – St. Louis, MO

*“People are paying attention more and asking questions.”* – Twin Cities, MN

*“Many, many people have told us that they are so grateful for their green spaces, forests, and gardens because they are their sanctuaries and spaces for sanity.”* – Baltimore, MD

*“I think a lot more people than normal are out bird watching this year and birdwatching is a great way to make people aware of habitat and natural area management in general.”*  
– Billings, MT

*“People are anxious to get into natural areas and find mental respite. Unfortunately, many of these spaces have closed due to overuse or overcrowding.”* – Chicago, IL

*“Hopefully this will create renewed and sustained appreciation of the importance of natural areas to the community.”* – Austin, TX

*“It is wonderful to see so many people out and in parks and walking in neighborhoods. We are hoping this makes them more aware of the importance of nature in our cities and neighborhoods.”* – Chicago, IL

*“The amount of migratory ocean life that was observed was constantly in the news including schools of eagle rays, an endangered sawtooth fish, and more.”* – Miami, FL

*“The natural areas are now, more than ever, an important place for people to get outside, connect with nature and stay healthy, especially for those that don’t have their own backyards or greenery around their home.” – Seattle, WA*

*“With the increase in use, it’s been heartening to see people finding comfort in nature.”  
– New York, NY*



*Butler Hike and Bike Trail, Austin, TX. Photo credit: The Trail Foundation*

## **How have advocacy, communication, and partnership played a role during the COVID-19 pandemic?**

As organizations have looked to adapt their work to new realities during COVID-19, we asked if there had been any increased efforts regarding communication, partnership, or advocacy.

First, we asked: has your organization engaged in advocacy with regards to budgets, staffing, or regulations for natural areas or parkland during this period? We found that the majority of organizations (67%) reported engaging in budget and staffing advocacy during this time.

Some of the advocacy activities that cities have engaged in include meeting with funders, writing letters of support, and working to justify support of natural areas management programs



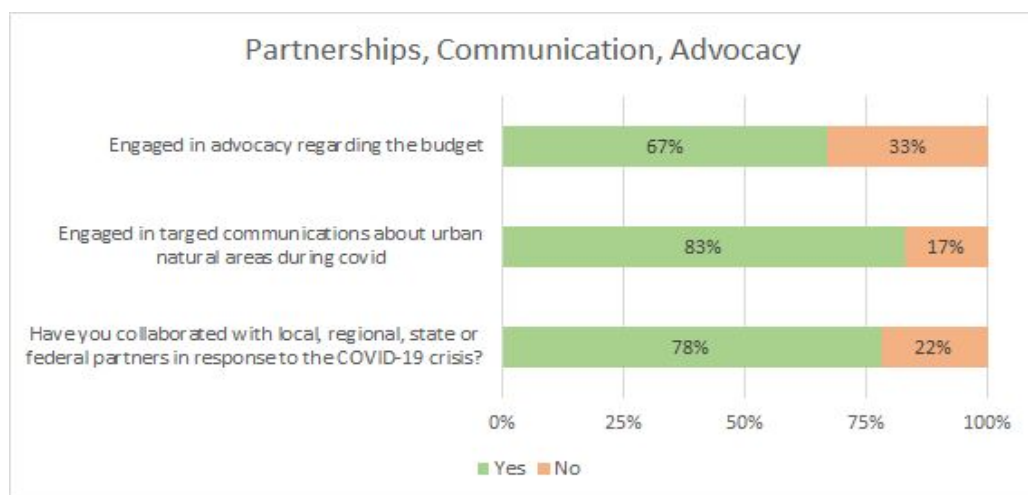
to higher-ups. One outstanding example has been the formation of a parks advocacy group in New York City which has brought together a number of local nonprofit organizations that work within green space to advocate for moderated budget cuts to NYC Parks.

*“Keeping natural areas open for public physical/mental health. Fighting for budget dollars for staffing and operations in the downturn of tax dollars.” – St. Louis, MO*

*“We coordinate with city leadership on trail counter data to understand use rates and advocate for trail one-way restrictions.” – Austin, TX*

*“[We’ve written] letters of support for federal assistance to parks and natural areas.” – Chicago, IL*

We also asked respondents to share if they engaged in targeted communications (press, social media, or email marketing) about the value of natural areas, or promoted visitation of natural areas during this period.



**Figure 7. Changes in partnership, communication, and advocacy of those managing urban natural areas during the COVID-19 pandemic.**

We found that 83% of organizations were in communication with their partners and the public about the urban forested natural areas visitation and regulations during the pandemic. Some examples of these communications efforts include social media posts, newsletters, and e-communication. Many groups reached out to promote the safe use of parks and introduce their constituency to natural areas or lands that were open and may be less visited.

*“Seattle Parks and Recreation and Green Seattle Partnership have used social media to promote appropriate park use. GSP used Instagram to take requests for recommendations per neighborhood, which allowed us to highlight some more obscure greenspaces on social media.” – Seattle, WA*

*“The Department of Recreation and Parks, as a whole, collaborated on ideas for engaging community members in the outdoors, particularly during Earth Week.”*  
– Baltimore, MD

*“Newsletters, e-communication sent out regarding visiting park areas that are not as frequently used as popular parks with playgrounds, ball fields etc.”* – Twin Cities, MN

We then asked about collaborating with local, regional, state or federal partners in response to the COVID-19 crisis, including sharing guidance on safety precautions for staff and volunteers, collaborative fundraising, and discussions about organizational mergers. We found that a majority (78%) of the respondents are currently collaborating across sectors (with local and regional state and federal partners) to respond to the COVID-19 crisis.

*“The Forestry division, as a part of the Department of Recreation and Parks, has collaborated with other local City agencies and the State and Federal government.”*  
– Baltimore, MD

*“We are sharing best practices for safe operation during the pandemic, including sharing and discussing sanitary tool use, truck sharing, and working in the field while maintaining social distancing.”* – Chicago, IL

*“The non-profit partners (Foreterra) hosted a Green Cities Network Zoom call in March to bring together regional partners to consider closure impacts and next steps.”*  
– Seattle, WA

## **Conclusion**

This survey provides a window into one of the many ways that COVID-19 has impacted social, economic, and ecological life in America’s cities. While this data provides a snapshot in time and profiles only 12 U.S. metro-regions, we believe that these responses are indicative of a broader pattern within the country, and perhaps globally.

More people are visiting natural areas, but funding for their care is in jeopardy. The COVID-19 crisis has highlighted the importance of natural areas in cities and sustained advocacy, funding and management are needed in order to ensure that they are able to best serve people in cities now and in the future.





*Prairie Restoration Project in Sylvan Rodriguez Park, Houston, TX. Photo credit: Cassidy Kempf, Houston Parks and Recreation Department*



*Biker enjoying a ride through a ponderosa pine forest. Rehberg Ranch Natural Area Park, Billings, MT. Credit: Steve McConnell*





*Castilleja coccinea* blooming in a restoration site in April. Deer Lake Savanna, Forest Park, St. Louis, MO. Credit: Amy Witt



Butler Hike and Bike Trail, Austin, TX. Credit: The Trail Foundation