ARIZONA
STATE PARKS & TRAILS

ARIZONA TRAILS 2020

A Statewide Motorized and Non-Motorized Trails Plan

LOST DUTCHMAN STATE PARK

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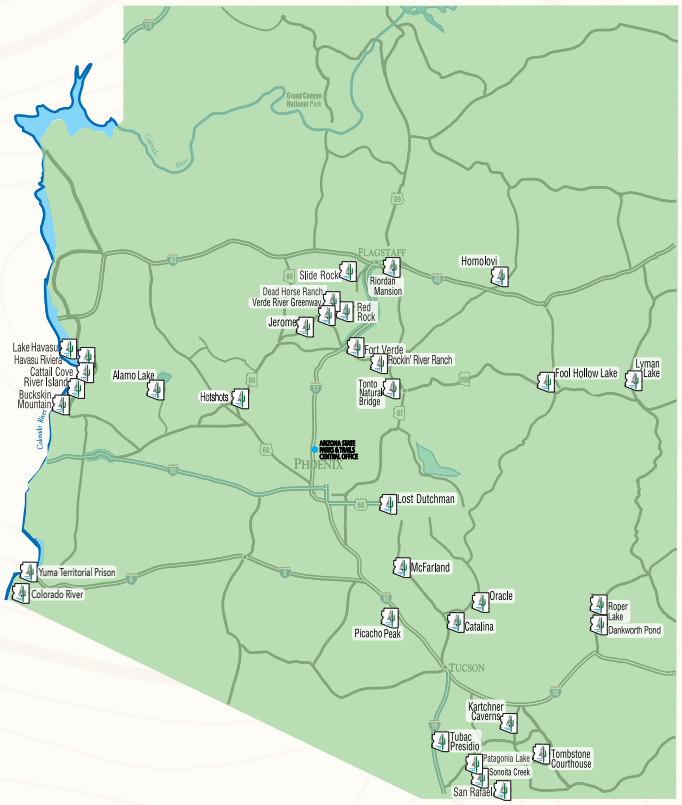

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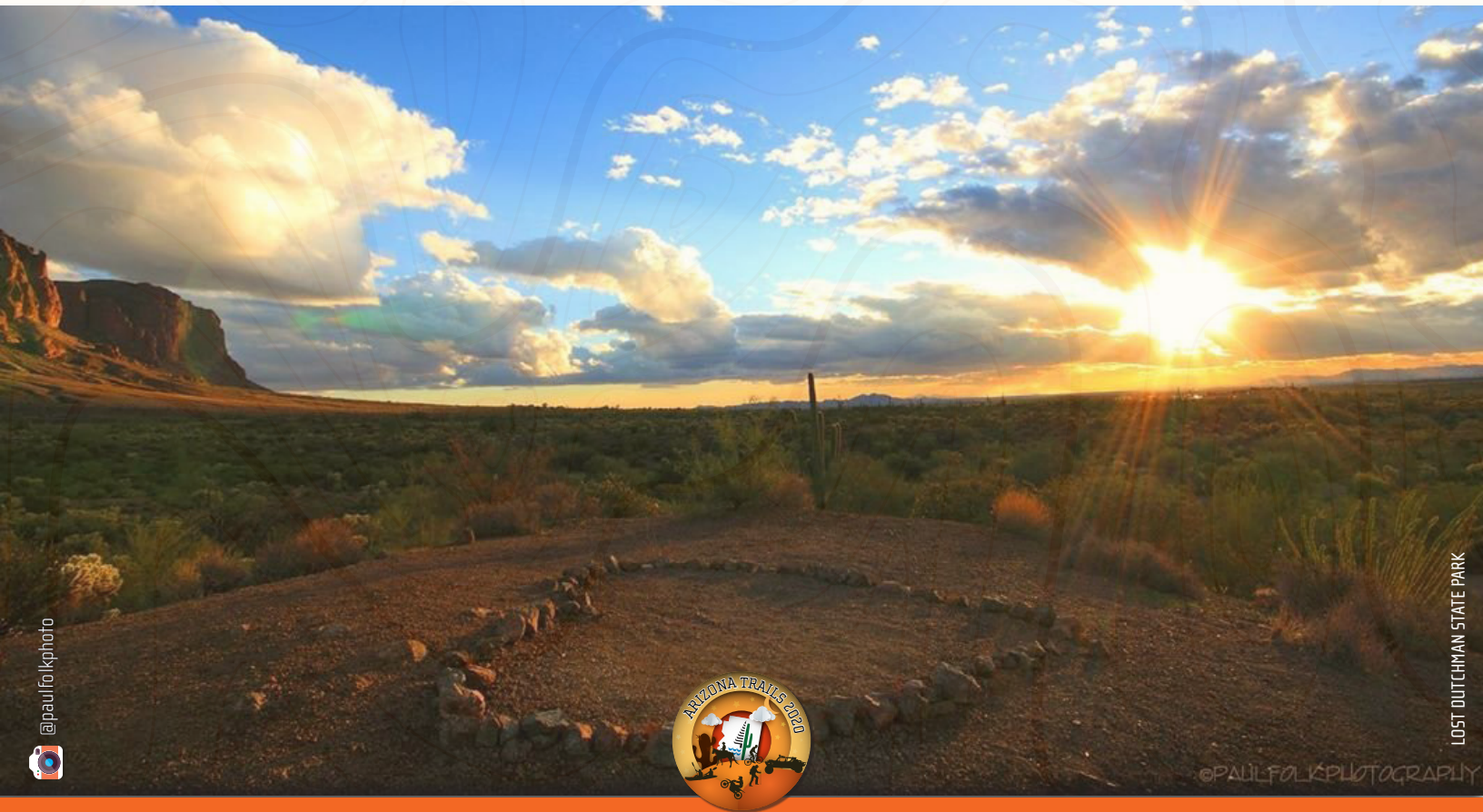
Executive Summary

The purpose of the 2020 Arizona Trails Plan is to gather information and recommendations to guide Arizona State Parks and Trails (ASPT), other land management agencies and stakeholders in the management and resource distribution related to motorized and non-motorized trails in the state of Arizona. It should further guide the distribution and expenditures of the Off-Highway Vehicle Recreation Fund (A.R.S § 28-1176) and the federal Recreational Trails Program (23 U.S.C. 206). The Arizona Trails Plan is updated every five years to comply with the requirements set forth in A.R.S. § 41-511.22 and A.R.S. § 41-511.04 [20]. The plan's information can also be used to: 1) promote a common understanding of statewide, regional and local issues and the potential solutions affecting all trail interests; 2) recommend funding priorities and actions to improve and maintain Arizona's trails and routes; and 3) provide a framework for strengthening the roles of trail and OHV advocates, managers, stakeholders and elected officials to be more effective in sustaining Arizona's trail heritage and adding responsibly to it.

The study is a result of internal and third-party independent data-gathering and analysis conducted by ASPT staff and Partners in Brainstorm. Based on these analyses, this plan provides specific recommendations and actions based on current trail knowledge and trends from multiple perspectives. In addition, the specific recommendations and actions are used by all participating agencies to guide the distribution of funds administered by Arizona State Parks and Trails' Off-Highway Vehicle Recreation Fund and the federal Recreational Trails Program. The following recommendations and actions are based on survey data results derived from three surveys: Random Sample, Public Online and Land Manager (for a detailed explanation regarding the survey questionnaire, administration, analyses, study limitations and key definitions, please refer to Chapter 2) along with conversations with advisory committee members, former grantees, trusted stakeholders inside and outside of the agency and the 2020 Trails Plan Working Group.

The motorized and non-motorized management recommendations have been categorized as "First Level Priority," "Second Level Priority" and "Third Level Priority." It is important to note all recommendations within each level have equal weight and Arizona State Parks and Trails acknowledges that all recommendations are important for effective management of motorized and non-motorized trails. After every recommendation, related actions are provided. These are examples of how to satisfy the recommendations. Agencies are encouraged to generate actions conducive to their constituents, context and settings.



2020 Trails Plan Priorities - Motorized

First Level Priority

– Connect trails to other trails, parks and communities
– Maintain existing trails
– Prevent or repair damage to environmental and cultural sites near trails
– Provide trail maps and information

Second Level Priority

– Complete environmental/cultural clearance and compliance
– Promote safe and responsible recreation programs
– Provide facilities like restrooms, parking and campsites near trails and develop trails and facilities to increase accessibility for people with disabilities.
– Provide trail signs

Third Level Priority

– Construct new trails
– Enforce existing rules and regulations in trail areas
– Obtain land for trails and trail access

*For associated suggested actions, see Chapter 3.

2020 Trails Plan Priorities - Non-Motorized

First Level Priority

– Complete environmental/cultural clearance and compliance

– Maintain existing trails

– Prevent or restore damage to environmental and cultural sites by trails

– Provide trail signs

Second Level Priority

– Connect trails to points of interest, including other trails, parks and communities

– Develop trails and facilities to increase accessibility for people with disabilities

– Enforce existing rules and regulations in trail areas

– Promote safe and responsible recreation programs

– Provide facilities, like restrooms, parking and campsites near trails

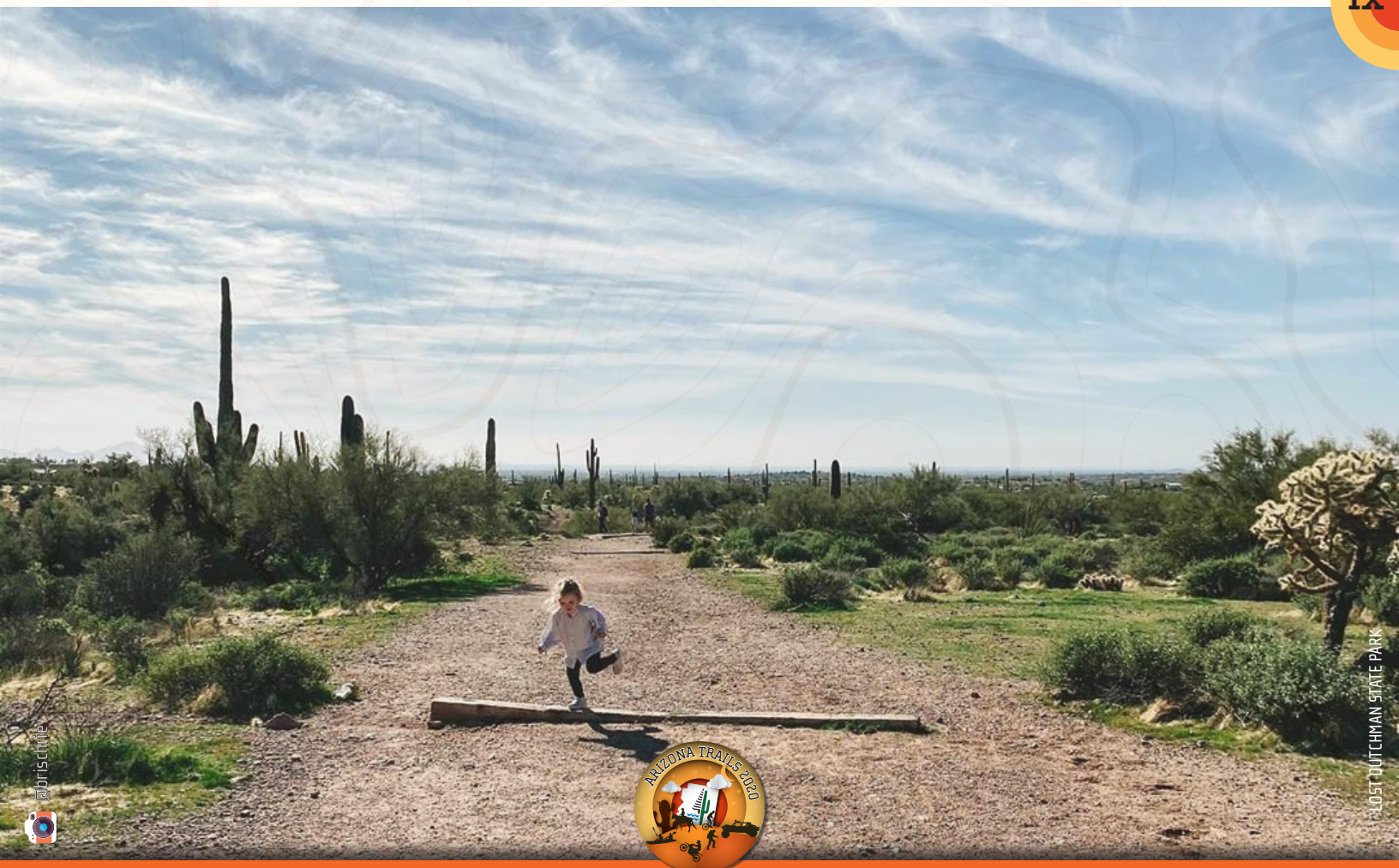
– Provide trail maps and information

Third Level Priority

– Construct new trails

– Obtain land for trails and trail access

*For associated suggested actions, se Chapter 4.



Chapter 1 - Introduction

SLIDE ROCK STATE PARK

@akritheway1and

ARIZONA TRAILS 2020

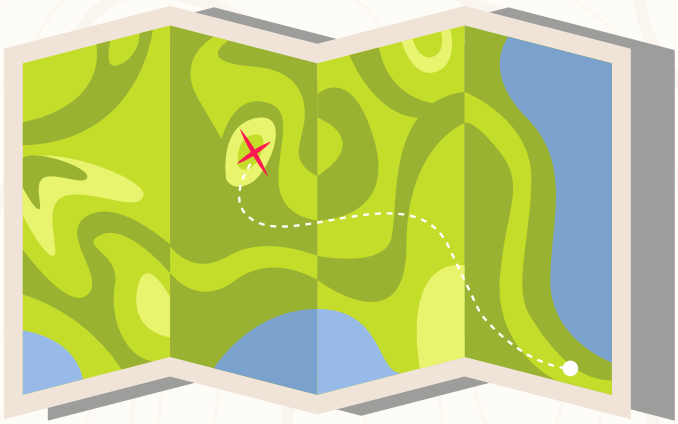
Trails are increasingly popular with people of all ages, abilities, backgrounds and geographical locations, especially in Arizona, where they can be used year-round. As the nation's sixth largest state, Arizona encompasses 113,998 square-miles of land spanning 14 major biotic communities (Brown & Brennan 2007). The diversity of Arizona's biotic communities (life zones) are such that a trip from nearly sea level at Yuma to the San Francisco Peaks near Flagstaff will take the traveler through as many life zones as a trip from the Mexico border to the Arctic Circle.

Trails provide many opportunities and benefits to those who use them and live near them and should be recognized as a part of a community's basic infrastructure along with roads, schools, etc. Trails help build strong communities by connecting neighborhoods to community resources, providing opportunities for recreation and acting as a source of pride and improving mental and physical health. They provide opportunities for alternative transportation, protect natural resources and stimulate economic development by attracting visitors to trails, events and the towns that contain them, providing a higher quality of life for residents. Many of the more populous cities in Arizona are expanding their existing trail systems at the request of residents and smaller towns are seeking assistance in greater numbers in planning local trails and Off-Highway Vehicle (OHV) routes that connect their towns to the surrounding public lands. In addition to providing recreational opportunities for their residents, many towns are anticipating that these "regional" trails and OHV networks will attract visitors and tourism dollars.

Even with the array of benefits trails provide, they have their own issues, especially with Arizona's rapidly expanding population and the increasing amount of trail users. Many trails and routes in the state were not planned for the amount of use they now receive or with current standards of sustainability in mind. They may have been solely planned to take the user from point A to point B, or formed through repetitive and unauthorized use, increasing erosion, widening, braiding and invasive species proliferation. These issues will be addressed in more detail later in this chapter, and throughout this plan.

In addition, the recent identification and spread of the coronavirus (COVID-19) in 2020 has had a substantial impact on outdoor recreation and may have lasting impacts on how and how much Arizonans and visitors recreate on trails within the 5-year scope of this plan. Although various increasingly restrictive recommendations have been implemented in order to slow the spread of the virus between February and May of 2020, outdoor recreation, including trail-related recreation, has been encouraged to combat increasing anxiety and stress, get families outdoors together and encourage physical fitness. However, new standards of conduct have been required in order to ensure that families and individuals recreate safely outdoors. On March 30, 2020, Governor Doug Ducey issued an Executive Order "Stay Home, Stay Healthy, and Stay Connected" which listed outdoor recreation as one healthy way to get out of the house "only if appropriate physical distancing practices are used." The Centers for Disease Control and Arizona Department of Health Services are recommending that citizens maintain a social distance of six feet from others in order to limit the probability of passing the virus from one person to the next.

This Order comes upon the heels of the March 23rd, 2020 Executive Order stating that outdoor recreation maintenance and operation is an "essential government function." While this acknowledgment is a boon for outdoor recreation and outdoor recreation providers in the state of Arizona, the rapidly increasing popularity of outdoor recreation may also create or exacerbate problems due to low staffing levels. Enforcement of increased restrictions with higher visitation and more frequent cleaning of all surfaces has strained and stretched existing park staff, while cleaning supplies remain difficult to find and procure. The lack of staffing and enforcement can create a dangerous environment on trails if people are not following physical distancing guidelines, or may even lead to the closure of some parks and trails during this time. There is anecdotal and observed evidence that trail usage has increased due to COVID-19 so much so that some trails are closing, requesting increased volunteer staff and using enforcement staff to monitor physical distancing on popular trails. While the future of COVID-19 is unknown at the time this plan was written, it has the potential to increase outdoor recreation long after it is gone due to people using this time to reconnect with nature, exercise outdoors, realize their love for trails and cherish the land they call home.



To address these and other trail-related issues and the needs of agencies, organizations and individuals throughout the state, Arizona State Parks and Trails conducts a process of gathering public and land manager input, researching issues and developing recommendations for motorized and non-motorized trail recreation in Arizona. This effort becomes the Arizona Trails 2020 Plan, which is the state's policy plan regarding non-motorized trails and off-highway vehicle recreation. Arizona State Parks and Trails is mandated by state statute to prepare a state trails plan (A.R.S. § 41-511.22) and a state off-highway vehicle recreation plan (A.R.S. § 41-511.04 [20]) every five years. The purpose of the plan is to provide information and recommendations to guide Arizona State Parks and Trails and other agencies and organizations in Arizona in their management of motorized and non-motorized trail resources and specifically to guide the distribution and expenditure of the trails component of the Off-Highway Vehicle Recreation Fund (A.R.S. § 28-1176) and the federal Recreational Trails Program (23 U.S.C. 206).

It is important to note that data for the Arizona Trails 2020 Plan has been collected from public land managers across jurisdictions, and therefore represents the perspectives and priorities of land managers from federal agencies (e.g., Bureau of Land Management Field Offices, US Forest Service Ranger Districts), state agencies (e.g., Arizona State Parks and Trails, Arizona Game & Fish Department, Arizona State Land Department), counties, cities, towns and non-profit organizations (e.g., Arizona Trail Association and others) within the state. In addition, both the random sample survey and the public online survey represent users to trails managed by all of the previously listed entities. As such, the information collected and summarized in this document is designed to inform decision-making, planning efforts (such as Travel Management Plans) and resource allocation across agencies and jurisdictions and provide a common direction for land managing agencies informed by public input. In addition, this document provides enough information and flexibility to allow these agencies and organizations room to respond to varying leadership priorities, missions and constituents.

Definition of Trail:

Trail, path, track, route, trek — all are words that refer to a trail, but what exactly does that mean? A federal public lands interagency definition generated by the United States Forest Service, National Park Service, Bureau of Land Management and the Fish and Wildlife Service define a trail as a linear route managed for human-powered, stock or OHV forms of transportation or for historic or heritage values. The American Heritage Dictionary broadly defines a trail as anything from an ancient footpath to a shipping route.

This definition includes, but is not limited to, bikeways, rail routes and unpaved roads used by motorized vehicles. The image of a trail may vary from a narrow path through a forest to a paved sidewalk connecting a school to a housing development. Rivers and streams serve as "paddle" or "water" trails for canoes and kayaks. Many historic trails in Arizona were used as transportation or trade routes connecting nomadic groups with each other and later used as wagon routes and highways as settlers moved west. Consequently, the meaning of the word "trail" is and always has been passionately debated. Every group of users has its own vision of what a trail should be, as well as to whom it should cater and what experiences it should provide.

A final definition of "trail" may never be agreed on, but two things are certain: trails have a richly storied history and are inherently dependent on those who use them. Arizona State Parks and Trails recognizes the diversity of definitions to distinct user groups and the importance of the need to remain adaptable with reference to the definition of a trail. However, to simplify the narrative, when we refer to "trail" in this Plan we refer to a corridor on land or through water that provides recreational, aesthetic or educational opportunities to motorized and non-motorized users of all ages and abilities.

What's in this plan?

Chapter 1: Introduction
Overview of Trails Plan, Literature Review

Chapter 2: Public Involvement and Planning Process
Methodology, Survey Demographics

Chapter 3: Motorized Trails
Survey Results, Recommendations and Updates

Chapter 4: Non-Motorized Trails
Survey Results, Recommendations and Updates

Chapter 5: Grants and Funding
Funding Sources, Funding Distribution and Updates

Appendices: *References, Legislation, Resources and Surveys*

2020 Management Priorities:

Respondents to the plan's three surveys (Random Sample, Public Online and Land Manager) were each given the following trail management priorities and asked to rate each of them by importance. The list of management priorities was consistent with previous surveys conducted for previous trails plans, which were reviewed and edited by the Trails Plan Working Group and motorized and non-motorized trail advisory committees, convened by Arizona State Parks and Trails. These priorities are:

- Maintain existing trails
- Prevent or repair damage to environmental and cultural sites near trails
- Provide trail signs
- Promote safe and responsible recreation programs
- Enforce existing rules and regulations in trail areas
- Provide trail maps and information
- Provide facilities, like restrooms, parking and campsites near trails
- Obtain land for trails and trail access
- Develop trails and facilities to increase accessibility for people with disabilities
- Connect trails to other trails, parks and communities
- Construct new trails

Literature Review: A Snapshot of Trails and Trails Planning

The Arizona Trails 2020 Plan is part of a larger statewide planning effort to establish outdoor recreation priorities for Arizona and to help outdoor recreation and natural resource managers at all levels of government, state legislators and the executive branch make decisions about the state's outdoor recreation resources, sites, programs and infrastructure. A larger, more general planning effort — the Statewide Comprehensive Outdoor Recreation Plan (SCORP) — provides outdoor recreation managers with guidance and information to aid recreation planning and budgeting and encourages a better, highly-integrated outdoor recreation system throughout Arizona. The 2018 Statewide Comprehensive Outdoor Recreation Plan was organized around four pillars that will also guide the structure of this Arizona Trails 2020 Plan. The first three pillars were generated by the National Recreation and Parks Association (NRPA) and reflect the three key impacts of Parks and Recreation agencies across the nation, regardless of size or jurisdiction. The three pillars identified by NRPA were: conservation, social equity, and health and wellness.

The NRPA pillars were modified in order to better represent Arizona's recreation priorities. Agencies that manage public lands and provide outdoor recreation opportunities to the public contribute to conservation by "protecting open space, connecting children to nature and engaging communities in conservation practices" (NRPA, 2017). With an emphasis on providing outdoor recreation opportunities that are accessible and available to all community members regardless of race, ethnicity, age, income level or ability, the second pillar focuses specifically on accessibility and inclusion. Finally, public land managing agencies provide opportunities for passive and active outdoor recreation which in turn contributes to the health and wellness of citizens and visitors. These health benefits extend beyond the individual to also contribute to healthy, integrated, engaged, economically vital communities; therefore, this pillar was changed to thriving individuals and communities. The fourth pillar was informed by the implementation of the Arizona Management System, a statewide initiative that requires the application of business best practices and lean management principles to enhance the efficiency of government processes, reduce waste and enhance customer satisfaction. To address this priority, Arizona State Parks and Trails added another pillar — optimizing system vitality. Optimizing system vitality encompasses the responsible use of existing resources to maximize opportunities for constituents and visitors, in addition to seeking additional funding sources and innovative means of achieving long term sustainability and vitality while adapting to changing economic times.

The Arizona Trails 2020 Plan informs the SCORP by providing information specifically on motorized and non-motorized trail use within the state. This effort guides the distribution of resources and provides a framework for cohesive, informed decision-making across agencies and jurisdictions. Topics of interest and specific issues were chosen based on the following materials: 1) Arizona Trails 2015 Plan, 2) current recreation trends and research, and 3) meetings/working group discussions with the Arizona State Committee On Trails (ASCOT), the Off-Highway Vehicle Advisory Group (OHVAG) and the Arizona Trails 2020 Working Group. These groups include a geographically diverse group of advocates practitioners, managers and users that see issues evolve firsthand in their jobs or while they recreate. They have helped identify and fill gaps in previous planning documents and provide updates on timely subjects, trends and management issues in the field and on the ground.

This section of the plan is a summary of state and nationwide trails planning trends, issues and actions. This information is drawn from other states' trails plans, Arizona's previous trails plans (both at a state and community level), academic research and other

land management agencies. The literature review informed conversations with stakeholders, public committees and the Arizona Trails 2020 Working Group to create the trails management priorities and action items to ensure that Arizona is on the forefront of trails planning. Some of these stakeholders and partners provided guest-authored pieces on some of the current trail issues from their agency's or organization's professional standpoint. Those pieces will be presented throughout this document to illustrate experiences related to the following issues.

Aligning with Countrywide Trails Planning

When preparing for the Arizona Trails 2020 Trails Plan, ASPT looked at other states that have been recognized for their statewide trail planning, in order to identify national best practices and action items and incorporate these into the Arizona Trails 2020 Arizona Trails Plan. Because they were unable to review plans from every state, working group and advisory committee members gave the team recommendations and the following states were identified: Washington, California, Wisconsin, Michigan, Oregon, Minnesota, Colorado and Florida. Arizona's Pima County Plan also recognized some of these states (Colorado, California, Florida) and included their strategies, considerations and notable features in their Regional Trails Plan. Specifically, Arizona's 2020-2024 planning priorities and issues of importance were compared with the other states' in order to benchmark Arizona's plan with trails plans around the country. While some of these priorities are more recent phenomena (social media and technology accelerating trail use/overuse), other priorities are focused on Arizona-specific trends such as Arizona's growing Hispanic population and destruction of cultural resources, which can explain the absence of such issues in other states' planning processes.

As seen in table 1 below, Arizona's motorized and non-motorized trail priorities are on par with these other states while also addressing issues that are specific to Arizona users and land managers' experiences. The priorities in Arizona's definition are denoted in the table below. The inclusion of an "x" in this table identifies those plans that include a notable explanation and intended action toward improving the issue versus a short mention. If there is not an "x" in a category, it does not mean that the state did not mention the issue: it could mean that they spoke about it in a different way than Arizona is investigating it, or the plan in question was written before these issues developed (such as social media usage and trails).

Table 1: Comparison of Areas of Focus in Selected States' Trails Plans

State	SCORP Pillar												Other
	Conservation/Preservation			Optimizing System Vitality			Thriving Individuals and Communities			Accessibility and Inclusion			
	Crowding	Unauthorized Use	Technology	Signage	Sustainable Trails	Stewardship	Youth	Connectivity	Collaboration	ADA	Cultural Resources	Diversity Inclusion	
Florida				x	x	x	x	x	x		x	x	Integrated marketing and communications strategy (including social media) to address users and stakeholders
Colorado		x	x	x	x	x	x	x	x			x	E-Bikes, environmental protection
Minnesota				x	x	x	x	x	x	x	x	x	Keep updated on recreation and trail
Oregon	x	x	x	x	x		x	x		x	x	x	Biophilic design, public input, bilingual signage, OHV and youth
Michigan	x			x	x	x	x	x	x	x	x		User input: focus group and survey
Wisconsin								x		x			Rails to Trails
California				x	x	x		x	x	x			Promote trail research on future issues and needs
Washington	x	x						x	x	x		x	Common (shared) data platform for state trails

Table 2: Definition of Arizona's Areas of Focus Related to Trail Issues

Crowding: overuse of trail, too many different users on trail, too many users to have an optimal experience, causes environmental damage
Unauthorized Use: "social trails," trails getting use and are not recognized as an official trail, causes environmental damage
Technology: technology, social media, or internet use informing more people of popular trails or unauthorized trails causing damage to the system
Signage: suggests improvement for signage, signage standards, funding for signage, more signage, etc.
Sustainable Trails: suggests trail design that incorporates minimizing human impact on the environment and longevity of trails
Stewardship: promoting local and user stewardship such that improves the connection and responsibility between humans, trails and environmental and cultural (prehistoric, historic, or archaeological) resources
Youth: attempting to engage youth in such a way that connects them with trails or the environment, youth programming, etc.
Connectivity: connecting towns, cities, homes, people, to a larger network. Connectivity can provide people with alternate routes for transportation to work, school, recreation, social events, etc.
Collaboration: encourages collaborative management of trails from different stakeholders and agencies
ADA: accessibility for those with disabilities (can be related to trail design, park design, parking or recreation areas), relating to the Americans with Disabilities Act
Cultural Resources: protection of or mitigating damage to cultural resources such as places of cultural heritage like Casa Grande (note: not all states have as many cultural resources as Arizona)
Diversity Inclusion: seeks to include populations that are underrepresented minorities in recreation such as Arizona's growing Hispanic population and aims to make trails available to all people no matter of race, gender, income, age or physical or mental ability
Other: any notable or interesting initiatives, mentioned issues, differences or foci of the plan's that stand out

2018 Arizona SCORP's Four Pillars and Trails

Conservation and Preservation

Incorporating conservation efforts in trails planning helps to preserve the natural environment for the benefit of humans and other species. These efforts improve recreationists' experiences by keeping land clean and providing a window into the natural world and processes. The Arizona 2018 Statewide Comprehensive Outdoor Recreation Plan holds conservation of the natural environment as a priority and necessity. On a national scale, The National Park Service is also working towards this goal with their Rivers, Trails, and Conservation Assistance Program, emphasizing the hard work and collaboration it takes to keep recreation areas and public lands as pristine and habitable as possible for all species. This Trails Plan focuses on unauthorized trails, technology and trail use, and crowding and how these issues impact conservation efforts.

GUEST AUTHOR Trail Proliferation – Claire Miller, City of Phoenix Parks and Recreation

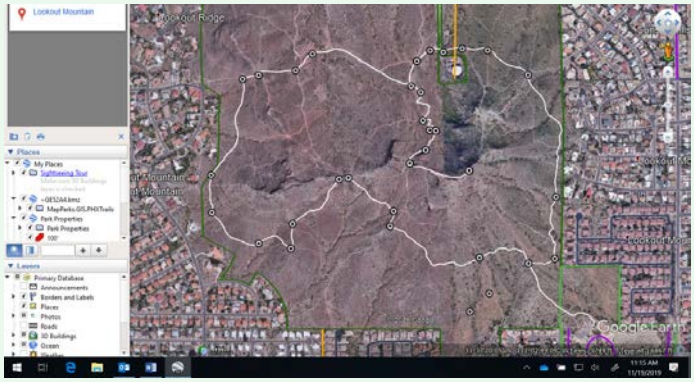
Current Impact on Arizona Trails

The creation and use of unauthorized trails (also known as social trails, wildcat trails, non- or undesignated trails, trailblazing) in natural areas/preserves/open space is a concern that most land managers face. Identification of effective management strategies to address unauthorized trails continues to be a challenge. There is no "one size fits all" solution to this issue for land managers, as circumstances that unauthorized trails appear happen for a variety of reasons.

Land managers have a charge to provide safe, sustainable, maintainable trails for the public to utilize, regardless of the mode of travel on the trails. Land managers also have an obligation to protect the natural and cultural resources, sensitive habitat, flora and fauna in their respective areas. It is safe to say that a significant amount of planning and research is completed by a land management agency prior to building trails. After the trails are built, the agency will create and distribute an accurate map of the trail system to the public, and appropriate wayfinding signage in the field.

Continued on next page

"Others" create trails for a variety of different reasons – most of which are well documented in the research literature. In the City of Phoenix experience, most unauthorized trails are created for three reasons: convenience/proximity to residence or parking, simple "short-cutting" to minimize trail distances/avoid switchbacks, and the desire to go to a specific point, trail connection or viewshed that the designated trails do not go. Making the issue even harder for agencies to manage is the creation of trail maps, apps and websites created by individuals that often publicize these unauthorized trails; some have even created and installed trail signage for "their trails."



The result is hundreds of miles (literally) of unauthorized, unmaintained and unmanaged trails, which may or may not show up on some sort of map. Frequently, the unauthorized trails create a maze of trail segments that are unsustainable, travel up steep grades, run parallel to each other and are confusing. In the event of a trail related injury, rescue/public safety response can be compromised and difficult. Efforts to mitigate or eliminate unauthorized trails can also be problematic, unless adequate staff or volunteers are available to monitor closed trails.

Unauthorized Trails: Unauthorized trails are informal trails created by foot/vehicle traffic from people and animals on a route that is not part of any authorized, planned trails system (Moskal and Halabisky n.d.). Unauthorized trails may be created because people may want to make a trail shorter, avoid steep and rocky sections, reach a good viewpoint or reach a spot to rest (Kriedeman and Markus 2013). These trails are a threat to conservation as they are an unplanned, physical trace of many individual and community choices over time, wearing down the natural environment with footsteps/tire marks, encouraging others to follow (Schmitt 2016). Unnatural erosion created by human traffic is a conservation concern due to the fragile ecosystems in Arizona, damaging soils, plants, vegetation and habitat connectivity (Marion n.d.). This creates what looks like a trail, and others follow either because of curiosity, they mistake it for an official trail or because of social interaction with other recreationists. Inventorying and analyzing unauthorized trails (with aerial photographs, internet searches, in-person observations, etc.) and their effects allows land managers to monitor the level of disturbance they cause to inform management decisions (Moskal and Halabisky n.d.). American Trails speaks more to this issue and provides guidance for managing unauthorized trails.

GUEST AUTHOR Social Media – Kent Taylor, Pinal County Open Space and Trails

Social Media and Trails, Good or Bad?

As we all know, social media and technology impacts our daily lives in a variety of ways, including trails management and use. As land managers and trail users ourselves, this technology can be helpful in some instances while presenting challenges in others.

On the positive side, there are apps and social media platforms that present trail users with a wealth of information for a hike, bike or equestrian ride. This information can be helpful whether it is a day-use application or hiking the Arizona National Scenic Trail. This technology offers real-time information on the trail experience such as the routes, signs, turns, gate locations, waters sources, temporary closures, re-routes and many other useful trail tools. It can also answer other important questions, such as "where can I stay or eat?" or "where can I get supplies?" Used correctly, technology like this can help to make your trail experience safe and more enjoyable.

Unfortunately, not all information shared on apps and social medial platforms is as good or is vetted as thoroughly as necessary. The exploding popularity of wanting to share real time experiences with others, often times anywhere in the world, can have a significant negative impact for both trail users and land managers.

Here are just a few of the issues that land managers (and in some cases, trail users) have experienced that have been impacted by the influence of social media and technology:

- **Unauthorized trails** – There are a multitude of "unauthorized" trails and trail networks across the state that are promoted via apps and websites. None of these trails have not gone through a proper public planning and vetting process.
- **Over-crowding** – Unexpected crowds at trails and trailheads due to social media popularity has led to angry trail users and neighbors, trespass and land use issues and emergency response issues.

Continued on next page

- **Unprepared users** – Trail users relying on the "posts" of others often don't have all the pertinent trail information needed for a safe and enjoyable experience. Issues such as poor directions/maps (lost users); lack of proper supplies such as food, water, clothing (ill prepared users); or lack of knowledge of trail rules (destruction of cultural and natural resources).

We know that this technology is not going away. So what tools have been successful in addressing the issues identified above?

- **Educating users** – Through social media platforms, websites and other more traditional messaging tools, promoting positive use messaging and responsible social media sharing, such as that used by the Washington Trails Association. wta.org/news/signpost/five-tips-for-sharing-your-favorite-trails

- **Plogging** – What? Never heard of this? Neither had I! Thank the Swedish for this, as they gave a name to what many of may do on our daily hikes and rides anyway: pick up trash while we are on the trail. "Plogging" sounds a lot more fun though! washingtonpost.com/news/inspired-life/wp/2018/02/23/plogging-is-the-swedish-fitness-craze-for-people-who-want-to-save-the-planet-its-making-its-way-to-the-u-s/

Technology and Trail Use: In the digital age, nature's best kept secrets are attracting more and more visitors as they gain popularity online; as a result, some trails are being "loved to death." While the academic literature on this topic is lacking, many blogs and trail and travel websites are being written about addressing this issue. One photographer engaged his followers about the issue of sharing such locations on social media. Common viewpoints were that as hikers flock to areas, fragile environments incur long-term damage and new hikers may not know the Leave No Trace principles, damaging the trails and environment further (Haugen-Goodman 2015). The US Forest Service notes that they used to see 10-20 visitors per day at Devil's Bathtub (Virginia), but after pictures were posted to Instagram a few years ago, they now regularly see 400 visitors per day (Soloman 2017). While social media and technology are creating problems, they are also being used to combat issues. Combative efforts have been implemented far and wide, including Yellowstone National Park's #YellowstonePledge, a digital movement attempting to foster ownership and respect for the park while building up the recreation community (Soloman 2017), Washington Trails Association's five tips for responsible social media sharing and the phenomenon of plogging (picking up trash while jogging/walking/hiking) with the closely related #trashtag challenge. Further, Arizona residents use social media to talk about and organize support for land and trail issues in Arizona.

GUEST AUTHOR Social Media – Nicole Corey, Executive Director and Co-Founder, Natural Restorations

Using social media to positively impact Arizona trails

We started using social media in early 2015 as a way to announce the launch of our nonprofit organization and to promote our cleanup events. What initially seemed like a burden because we weren't using social media in our personal lives at the time has turned into something very positive.

Social media helps us positively impact trails in Arizona in a multitude of ways. We use the platform to educate and promote responsible outdoor recreation and trail use. We use it to promote our community cleanup events and recruit volunteers. We frequently see volunteers tagging friends and family asking if they want to volunteer with us or they say, "This is the cleanup group I was telling you about!" We share pictures and videos of our trail restoration projects, including trash and graffiti removal projects with our veteran-based Dedicated Restoration Team. We also use social media to highlight and recognize the organizations that help make our projects possible.

Social media provides a platform for the community to tell us where our restoration services are needed; we receive messages almost daily with new trash and graffiti sites. We frequently use social media to show some of the problems the OHV community faces when they head outdoors. For example, we post photos of our Dedicated Restoration Team removing several five-gallon buckets full of nails that we removed from trails and staging areas as a result of burned pallet fires. We use social media as an educational tool to discuss why burning pallets on the trails and in parking lots is not an acceptable practice.

When big holiday weekends are coming up, we use social media to encourage everyone to take trash bags with them and have a plan in place for their trash before they leave their house. We show pictures of trashed recreation sites we have cleaned to help drive home the message that you always leave an area better than you found it and you pack out your trash instead of leaving it for animals to tear open. We share pictures of landscape and household-dumping sites to encourage the community to get receipts for proper disposal when they hire a contractor to ensure their trash does not end up dumped along the trail.

Our social media best practices include only posting when we have something relevant to share to help ensure our posts are not skipped over. We don't pay for ads to push our posts; everything we do on social media is genuine and cost free. We also maintain a polite, friendly, non-political forum for the community.

Crowding: Both of the aforementioned phenomena may create overcrowding, overtourism or over-visitation of public lands and their trails. Land managers are generally delighted that people want to use the trails they manage and visit public lands, but some of the environmental damage that overcrowding can cause is concerning, and land managers may wish to redirect use so that people take advantage of entire trail systems. Santana-Jimenez and Hernandez (2011) suggest that sustained negative impacts on a particular destination suggest that carrying capacity has been reached, and measures should be taken to prevent irreversible degradation of the environmental value of the site.

Optimizing System Vitality

According to the Arizona 2018 Statewide Comprehensive Outdoor Recreation Plan, Optimizing System Vitality encompasses the responsible use of existing resources to maximize opportunities for constituents and visitors, in addition to seeking additional funding sources and innovative means of achieving long term sustainability and vitality while adapting to changing economic times" (SCORP, 2018, p.2).

In order to optimize system vitality, it is important to identify problems that may serve to delay or thwart carefully planned, desired trail projects. One area that requires additional investigation, information and collaboration is the topic of connecting trails across lands that are not necessarily designated for recreation, whether they be public or private. For example, some trail advocates have noted that connecting trails is difficult due to the patchwork ownership of public and private lands in Arizona. In addition, different owners have different missions, priorities, rules, regulations and procedures required to extend trails. For example, owners, such as the Arizona State Land Department, manage a significant portion of land in Arizona, and although this land is open to recreation with a permit issued by that agency, adherence to the agency's mission may conflict with the desires of the trails or other outdoor recreation communities. In response to the public comment period, the Arizona State Land Department provided background information, and recommended courses of action in order to facilitate mutually beneficial interactions and outcomes to the greatest extent possible.

GUEST AUTHOR – Arizona State Land Department

Response to Public Comment: Trails on State Trust Lands

With Arizona's State Trust Lands (STL) encompassing approximately 13% of the State's undeveloped land and often confused with federal public lands, clarifying the role of the Arizona State Land Department (ASLD) and STL's contribution to the network of trails throughout the state would be beneficial.

Arizona's STL was given by Congress to Arizona at statehood to serve as the primary asset of a perpetual trust to provide revenue for 13 essential public institutions ("beneficiaries"), the largest being the common (K-12) schools. State statute establishes ASLD' s obligation to manage STL for the sole benefit of the Beneficiaries, distinguishing STL from Arizona's abundant public recreational lands that are for the benefit of all Arizonans.

ASLD recognizes that trails contribute greatly to our communities; yet, our Agency's distinctive land and resource management obligations mean that allowing recreational activities or trail access on STL may conflict with our fiduciary obligation to the beneficiaries. Moreover, ASLD receives the smallest portion of the indicia revenue of any of the state agencies, making planning and mitigation efforts challenging. We look forward to working with all partners in hope of securing an increase in dedicated funds to address STL lessee and permittee concerns over motorized recreational uses.

ASLD recognizes that the distribution pattern of STL sometimes presents a challenge for organizations seeking to maintain or expand trail systems. In situations when STL is desired for trail access, we encourage early involvement of all necessary parties. ASLD should be considered as a critical stakeholder for plans that may involve STL, so we are able to help inform the trail planning process and help save time and effort for Arizona's trail proponents. ASLD aims to develop a balanced approach that enables us to responsibly manage the assets of the perpetual Trust in alignment with the interests of the beneficiaries and Arizona's future.

ASLD is supportive of the overall priorities and action items identified in the Trails Plan, and we look forward to continued partnership with Arizona's trail managers as the plan is implemented. Any questions related to trail use or planning can be directed to our Department's general query site at https://asld.secure.force.com/publicpage/ to help ensure that all requests are tracked and routed to the correct team member.

Additionally, in order to manage trails for long-term use without degradation of their environmental quality, the topics of sustainability/sustainable design, environmental stewardship and signage have been identified as strategies for optimal and efficient management. Broadly, each of these strategies require up-front management, but should pay for themselves or enhance the effectiveness of the system over time. Sustainable trails by definition are resilient to change, fostering stewardship from trail users decreases degradation of trails and increases upkeep by users, and correct or influential signage can be used to keep the trail system organized and encourage users to follow the rules of the management agency.

Sustainability/Sustainable Design: Sustainability in outdoor recreation is a long-standing and increasingly important issue and includes adaptive management, monitoring for environmental management and equitable distribution of resources to all populations (Manning et al. 2011). A sustainable trail system is a holistic and resilient network of diverse physical and social resources comprised of well-designed trails and associated with community health and economic benefits and limited environmental damage (USDA 2017). The USDA's National Strategy for a Sustainable Trail System suggests that fewer trail construction and maintenance efforts incorporate sustainable design elements due to factors like competing priorities and declining budgets, but suggests that partnership and viewing trails as a community resource that promotes stewardship, inclusion, and social, economic and environmental benefits can attempt to change this. Discussions amongst trails professionals, advocates and users at the inaugural 2020 Trails Summit in Cottonwood, Arizona suggest that access to educational resources and trainings in sustainable trail building and maintenance techniques are not readily or easily available, and that a statewide clearinghouse for this information would make it easier for trails professionals to use the information when working on trail projects.

To aid in the promotion of sustainable design, Pima County has put together Designing and Building Trails in a Desert Environment, which can act as a resource for some Arizona land managers. For more general sustainable trail guidelines, see American Trails' sustainable trails page and the US Forest Service's Sustainable Motorized Trails information. In order to plan for sustainability, Manning et al. (2011) suggests a management-by-objectives framework requiring formulating indicators and standards, monitoring indicators and managing to ensure that standards are maintained.

Stewardship: Stewardship and sustainability are undoubtedly related as a sustainable trail system inspires stewardship and invites people of all ages and backgrounds to enjoy trails and use them to connect with public lands while protecting and conserving natural and cultural resources (USDA 2017). Connecting people with nature via trails gives them experience and a connection to the natural environment which may promote stewardship (Hill et al. 2009). The US EPA defines environmental stewardship as the responsibility for environmental quality shared by all those whose actions affect the environment and recognizes stewardship as a means to a sustainable future. The benefit stewardship brings to Arizona is the collaborative upkeep of the beauty, quality and use of the natural environment for each and every person in the state rather than relying on limited manpower to do such work.

GUEST AUTHOR Stewardship – Russ Dickerson, Operations Director, Arizona Conservation Corps

Trails and recreation are vitally important to Arizonans and benefit our local communities and economy greatly. Our public lands can be an invitation for people to actively participate in the conservation of our trails and landscapes – to become stewards of the land in addition to admirers.

There are strong links between environmental stewardship and civic engagement. In a 2012 study of Public Land Service Coalition programs, participating individuals were shown to be dramatically more likely to engage in their communities, have favorable attitudes toward public lands and get involved in organized action for environmental protection. Though this study focused on participants in longer, conservation Corps-style paid volunteer opportunities, the connections are strong enough to expect good results from single day volunteer events.

Continued on next page

Steps to take as a part of our 2020 Trails Plan to draw recreators into volunteerism and stewardship activities:

- Promote National Trails and National
- Public Lands Day at State Parks & at trailheads
- Include photos and facts about trail and other conservation work at kiosks where possible
- Host stewardship events to celebrate National Days of Service such as Martin Luther King Jr. Day and the September 11th Day of Service and Remembrance

Helpful resources for those looking to get involved:

- Arizona Trail Association – https://aztrail.org
- Volunteering with Arizona State Parks and Trails – azstateparks.com/volunteer
- AmeriCorps National Service – nationalservice.gov/programs/americorps/join-americorps
- Volunteer with the US Forest Service – fs.usda.gov/working-with-us/volunteers
- Volunteer with the National Park Service – nps.gov/getinvolved/volunteer.htm

Signage: Trail signage is important to guide visitors in many ways including wayfinding, communicating trail characteristics (such as length and stress of a trail), making sure visitors are still on their intended trail and providing environmental education and can impact user behavior. However, it is also important to note that too much or poorly designed or deployed signs can detract from visitor experience. It was suggested that the trail community in Arizona would benefit from guidance and expertise in this area. For example, the academic literature reveals that signage is one way to try to manage trail user behavior on-site, but using the wrong language can actually encourage the behavior managers want to avoid (Winter 2006). Prescriptive/positive language (ex: please throw away your trash) is suggested to be best received by visitors while proscriptive/negative language (ex: please do not litter) receives a negative reaction and may impact visitors' views of the management agency or trail (Winter et al. 1998). Trail signage can educate trail users on the impacts of their actions, be a visible sign of breaking park or trail rules and act as a park ranger place-marker by making the land management agency's wishes known (Riske 2018). Some management agencies have created their own handbooks for sign design, language, placement, materials, etc. such as the US Forest Service, New York State Parks and Oregon Metro.

Accessibility and Inclusion

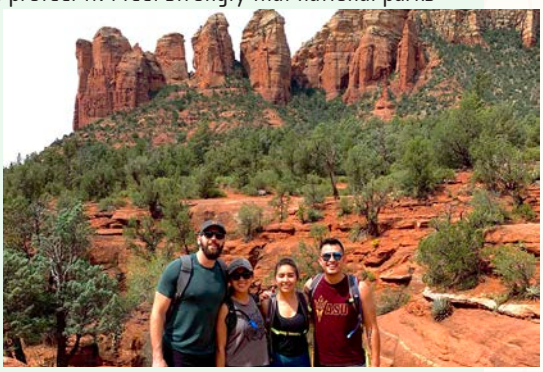
The second pillar of the 2018 SCORP emphasizes providing outdoor recreation opportunities that are accessible and available to all community members regardless of race, ethnicity, age, income level or ability. With Arizona's diverse communities and history along with the growing Hispanic population, this pillar is especially important. Based on the 2020 Trails Plan Working Group recommendations, this section will focus on recreation and the growth of communities of color, the increased emphasis in Arizona and other states on ADA trail planning/use, and the importance of the celebration of diversity and the inclusion of multiple voices through the protection of cultural resources that are found throughout the state and are frequently a part of or along trails.

GUEST AUTHOR – Andriana Garcia Maximiliano - Arizona State Committee on Trails (ASCOT)

Diversity and Trails

Connecting with the natural world is very important to me. I truly believe in our public lands and keeping them public because I go hiking a lot and I come from an indigenous background from Mexico. Because of my upbringing and indigenous and Catholic roots I see creation in nature. As a Latina it matters to me to be able to stay connected with that part of who I am. Connecting with the outdoors is very spiritual to me and it's my self-care.

It's important to me that others have positive, personal experiences in nature in order to want to protect it. I feel strongly that national parks and other public lands should be more accessible to Hispanics in ways that will inspire them to go camping, hiking, fishing and otherwise enjoy these natural wonders.



For example, signs throughout national parks and other public lands as well as other public information should be in Spanish as well as in English. Additionally, park fees are too high for some families, and the lack of public transportation to the parks and trails can be an obstacle. In some cases, there is also confusion about what public lands are, and that they actually belong to all of us. Especially when you live in urban centers where everything is privatized, it's hard to understand that there are miles and miles of land out there for all of us to enjoy.

As a 28 year-old living in Phoenix, I hear all the time from the Latino community that camping and hiking is not part of our culture. That's not true. This is part of who we are. It is part of our identity to enjoy the earth and what it provides for us, and also to have our role in protecting it. People are disengaged from their history and their roots.

But if you can't directly experience public lands, it's harder to advocate on their behalf, or speak to elected officials about why they should care. That is why one of my favorite things to do is take friends to the Grand Canyon to see for themselves how beautiful it is. Then they feel an attachment. I also try to tell them that there is more than one way to enjoy our public lands, whether it's biking or sight-seeing. I know not everybody is a hiker.

I am especially concerned about the health impacts of environmental issues, and the disparities that exist in Latino communities with regard to these impacts. People living in the South Phoenix Zip code, for example, have a shorter life expectancy than the rest of the city because of pollution and lack of access to healthy food. There are toxic air plumes and limited public transportation, which all together negatively impacts the community. To me it's about providing information to help people connect the dots. How do we make sure that people understand how the environment ultimately affects them and their health?

Note: The content above was originally published at: https://www.hechoonline.org/blog/protecting-public-lands-for-future-generations. The text above is an excerpt from the original *article*.

Communities of Color: Serving the needs of minority groups and populations is becoming increasingly important as America's population diversifies (Stodolska 2010). Outdoor participation among Hispanic and Asian populations increased over the last five years while participation among black and white populations declined by an average of .4% (OIA 2018). Although whites are the largest group of recreators, Hispanics are second (OIA 2018), which is relevant to Arizona as the state needs to plan for this growing community's needs. More specifically, clinical studies report higher prevalence of diabetes and obesity in the Hispanic population than non-Hispanic whites; it is uncertain that the health benefits of trails are reaching this population because trail research has typically been done on the preferences and expectations of white populations (Cronan et al. 2008). Further, park managers should consider the family-focused nature of the Hispanic culture when planning for this population (Stodolska 2010).

ADA Accessibility:

- A total of 767,091 Arizonans (11.9%) have at least one disability (Morrison Institute for Public Policy, 2016). Furthermore, Arizona's senior citizen population ranks 10th among all states in the nation. Nationally, 12.8% of the population has a disability.
- The most common disability type, mobility, affects one in seven adults (U.S. Census Bureau, 2016).
- According to Travel Agent Central, the accessible (inclusive) travel market is growing at an astounding rate of 22% annually (Open Doors Organization, 2015).
- Roughly 26 million Americans with physical disabilities take 73 million trips for business and pleasure each year. On those trips, people are spending $17.3 billion (Open Doors Organization, 2015).
- 35.2% of people ages 65 and older have a disability (StatsRRTC, 2017).

Awareness of accessibility issues related to trails has increased, and accessibility will become a permanent part of the list of design considerations for trails and their facilities (Demrow 2007). As previously mentioned, many other states across the US are building ADA accessibility into their trail planning goals. As the population ages and health issues and disabilities or ambulatory impairments increase, this group will be limited in their trail use although their desire to use trails and be in nature will not necessarily decrease with ability (Goldstein and Knutson 2014). The same goes for anyone else in the population regardless of age with any type of disability. AmericanTrails gives the Mountains Recreation and Conservation Authority's Park & Trail Accessibility Design Guidelines and Tennessee Department of Environment and Conservation's ADA Accessibility Guidelines on their website as an example for planners and managers. The ASPT team has also developed Arizona's State Parks and Trails Design Guide (See Appendix E). This is a useful tool that contains vital information for consideration when designing and building an accessible trail. For example, this document contains information about trail tread material, trail users and accessibility requirements. Implementing unique accessible trails such as sensory trails, Braille trails and adaptive biking trails expands outdoor recreation for those with disabilities. This guide gives recommendations for facilities and amenities that public land managers or nonprofits seeking grant funds can include in their application. *Check out the ADA Guide to Trail Design and Maintenance 2019* HERE.

GUEST AUTHOR Accessible Trails – Loren Worthington, Ability360

If more locations in Arizona had trails that provided accessible opportunities, it would continue to allow Ability360, other organizations and individuals the chance to get out and enjoy the Arizona outdoors.

Ability360 is a Center for Independent Living. The not-for-profit organization has operated in the Phoenix area for 35 years. The mission of the organization is to enable individuals with disabilities to become more independent. The organization offers numerous programs by and for people with disabilities.

What is the current state/impact on Arizona trails?

Since 2018, Ability360 has been offering an Outdoor Trails Program. The events happen four-six times per year and have occurred at Sabino Canyon, Dead Horse Ranch State Park, Boyce Thompson Arboretum, Mogollon Rim, Pemberton Trail (Prescott) and on a few trails in the Phoenix area. Each event has been attended by as many as 30 participants plus friends and family. Identifying trails that offer a sufficient level of accessibility is one of the key requirements of the program. Considerable effort goes into such events:

Adaptive equipment: Off-road wheelchairs, cycles and hand cycles, modified kayaks and paddle boards and various components are required to ensure individuals can participate safely with a maximum level of independence. Most often, participants don't own any equipment and use Ability360's equipment.

Transportation: Ability360 operates five 15-passenger vans with wheelchair lifts to transport participants. As well, the organization operates one full-size truck and numerous trailers to haul equipment.

Training, staff and volunteers: Essential to any successful outing is the planning to support the staff who will be in charge. Often participants receive advance training at the sports center and prior to departure from the trailhead. Ability360 relies on volunteers with advanced skills in specific activities and regional experience to support staff.

Funding: Before any such event can even be planned, funding must be allocated. Ability360 relies on grants, donations and other sources of money to support all of its activities.

More events of a larger scale are being planned for 2020 and beyond.

Cultural Resources: One way to celebrate diversity is by learning from and protecting artifacts and lands previously occupied by prehistoric and historic peoples and cultures. The State Historic Preservation Act (A.R.S. §41-861 et seq.) requires that cultural resources be considered part of the trail planning and design process in order to mitigate any potentially adverse effects. Arizona contains many cultural resources such as petroglyphs and pueblos of earlier residents. Many people want to see these resources and connect with the history of Arizona; trails are one way to do that. The question is, how can trails be managed that include fragile, sensitive or spiritual archaeological objects or sites nearby without damaging them? Problems associated with lack of planning for these resources include direct damage of surface artifacts, looting, graffiti, disturbance of tribal culture or history and damage from visitor contact (Bone 2013). Though this specific planning issue is scarce in the recent academic literature, agencies such as Alaska's Department of Natural Resources have plans pertaining specifically to the protection and preservation of their cultural resources and archaeological sites. Including voices of stakeholders, in this case tribes and ancestors of prehistoric and historic peoples, during the planning process is yet another way to ensure diversity and inclusion and to further ensure that valued cultural resources are preserved and interpreted in a way that helps inform future generations. Members of the trail community proposed additional action items to address this issue. For more information see Issues and Action Items in Chapter 4.

GUEST AUTHOR Cultural Resource – Stacy Ryan, Preservation Archaeologist, Archaeology Southwest

Trails bring people closer to ancient settlements, petroglyphs, historical architecture and cultural landscapes—resources that are abundant on Arizona's public lands. Because these places hold many important values—cultural, spiritual and scientific, to name a few—they are often vulnerable to accidental and intentional damage. Common threats include looting, vandalism, graffiti, vehicle damage and erosion. Cultural resource protection requires prioritization when planning, building, maintaining or restoring trails.

In trails work, it is necessary to conduct cultural resource surveys and site condition assessments that in turn enable us to evaluate sites and identify actual or potential adverse impacts. Trails teams should consider both direct effects from trail construction and indirect effects from bringing new and different types of visitation. Each environment and plan will present a different set of threats and prospective remediations, and protection strategies must be site specific. Effective methods for avoiding and reducing threats include re-routing trails, adding interpretive and advisory trail signage, finding different sources for borrow materials, introducing physical barriers and site monitoring.

Trails leading to cultural resources offer many benefits and opportunities, including public education and engagement, as well as making traditional use areas accessible to Native American communities. In these instances, strategically placed trail signs can reinforce the value of cultural sites, promote stewardship and inform people that unauthorized activities may be subject to prosecution under federal and state laws (e.g. Arizona Antiquities Act, Archaeological Resources Protection Act, National Historic Preservation Act, and Native American Graves Protection and Repatriation Act) (Hedquist et al. 2014). Advisory signs should include a phone number to report recent damage from unauthorized activities. The tip line to report looting and vandalism at archaeological sites on Arizona public lands is 1-800-637-9152.

Restricting access to sites is frequently the best option. To decrease inadvertent vehicle damage, motorized trails should be located at least one-quarter mile from archaeological sites and other sensitive areas. Physical barriers and signage on non-motorized paths can discourage off-trail use.

Trail materials, vegetation and erosion are other factors to consider. For example, rock art experts have learned that foot traffic kicks up gravel and dust that increases erosion on petroglyph boulders (Wright 2017). We also know that certain vegetation speeds up the weathering process. Routine site monitoring by site stewards can help to identify new threats, and site monitoring is known to reduce looting and intentional damage.

We must acknowledge the fragile, nonrenewable nature of cultural resources and their meaningful connections to Indigenous communities. To minimize negative trail-related impacts, collaboration among land managers, archaeologists and tribal cultural resource specialists is essential. To learn more about the research behind the strategies outlined here, visit archaeologysouthwest.org/pdf/Advances-D-14-00007.pdf; archaeologysouthwest.org/wp-content/uploads/tr2017-102_final_web.pdf; and nps.gov/archeology/pubs/techBr/tch22.htm.

Thriving Individuals and Communities

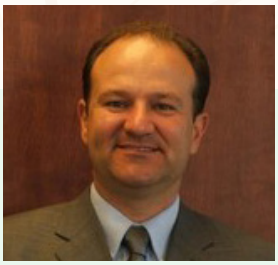
Trails provide opportunities for active outdoor recreation that contributes to the health and wellness of citizens and visitors. Trails provide a way for users to stay active physically and experience nature, which can have positive mental and spiritual impacts as well. These health benefits extend beyond the individual. Trails connect communities, parks and other sites of interest. They provide an opportunity to commute on foot or by bike, providing a tool to decrease traffic on busy roadways and routes. In this way, trails also contribute to healthy, integrated, engaged, economically vital communities. By creating settings for recreation and providing opportunities for stewardship, Arizona's trails increase community engagement and involvement so that citizens can experience these benefits and the results are stronger, healthier, more connected communities.

Youth: Richard Louv's "Last Child in the Woods" explains the fading intimacy of the relationship between younger generations and nature, the implications of that change and the research behind the necessity of contact with nature for healthy development. He uses the term nature deficit disorder (NDD) to describe this dwindling relationship and correlates that to the growing rates of attention disorders in children. Collado and Staats (2016) speak to this and review and summarize many studies that conclude time spent outdoors reduces children's probability of being overweight (Cleland et al. 2010), improves children's mood (Bagot et al. 2015), reduces ADD and ADHD symptoms and increases ability to focus (Wells 2000), shapes their pro-environmental attitudes and behaviors (Chawla and Derr 2012), increases relaxation (Korpela 2002) and increases intergenerational social interactions (Faber Taylor et al. 1998). This array of benefits has caused many trail planning and management teams such as Washington Trails Association, Pacific Northwest Trail Association, City of Boulder, Teens to Trails to create youth engagement programs. Arizona's own Quail Kids program has joined forces with Park and Recreation agencies, school districts and other partners to bring information about safety, minimizing environmental and cultural resource impacts and riding etiquette to youth (for more information, see guest authored piece on OHV Education by Kim Jackson of the Arizona Game and Fish Department, pg 31). In addition, the Recreational Trails Program's Safety and Education monies provide funds to support educational opportunities, such as Leave No Trace programs.

Connectivity and Collaboration: Many states are focused on connectivity and collaboration due to the collective desire for their communities to be connected to each other, to recreation and other community resources and to public lands while also providing routes for alternative transportation methods (such as biking) on connected trails. Creating connected trails typically involves planning outside of, between or in collaboration with one agency's jurisdiction. Kling et al. (2019) shows that trails can function as communicative facilitators among a diversity of stakeholders and can thus enhance trust and promote further collaboration between agencies. Further, multiple agencies, including the National Park Service and River Management Society, have put together a river access guide to help managers design new river access sites, improve existing ones or integrate river access into larger projects in order to facilitate high-quality experiences and connect more people to waterways. The Arizona National Scenic Trail, an 800+ mile trail that traverses the state from Utah to Mexico, highlights connectivity and collaboration in the state of Arizona through its shared vision by individuals, organizations and agencies shepherded by the Arizona Trail Association. This trail creates a continuous trail across Arizona to connect communities with each other and with Arizona's diverse set of environments. One example of a current effort to connect trails through a variety of communities is the

Sun Corridor Trail, which will connect major metro systems between Las Vegas, Nevada and Douglas, Arizona. Counties are leading this effort, and are currently conducting a feasibility study.

However, as discussed above, it is also important to note that connecting points of interest, and other community resources might not be universally desired by all stakeholders. For example, some proposed projects could contribute to harm or destruction of cultural resources, or negatively impact important sites or may involve land managers or owners who are unwilling or unable to support the project for a variety of reasons. Projects that have been successful have use inclusive planning practices, have made sure that all interested and invested parties are "at the table," have started conversations early in the process and communicate often with all stakeholders, as recommended earlier in the public comment contributed by the Arizona State Land Department.



GUEST AUTHOR Connectivity – R.J. Cardin, Maricopa County Parks and Recreation Department

Maricopa County and the Maricopa County Parks and Recreation Department is invested in developing and managing a robust system of connected regional trails for both recreation and non-motorized multi modal travel opportunities because of the benefits they bring to both county residents and visitors, including health and wellness, livable communities, conservation and stewardship, economic development and transportation.

In 2004, the Maricopa County Board of Supervisors adopted the Maricopa County Regional Trail System Plan, which identified three primary goals:

- provide a shared-use, non-motorized trail system to connect County Regional Parks
- link metropolitan areas, municipal trails, communities and neighborhoods with non-motorized corridors
- provide open space corridors to protect natural and cultural resources from development

Phase One of the plan, initiated in 2006, was to develop a regional corridor that connects the county parks with local communities. Through a wide array of partnerships, the department reduced construction costs and accelerated completion of the 315-mile trail system by utilizing existing trail segments, rights-of-way, canal banks, city parks and trails, federal lands, utility corridors and flood control projects to create a connected system of trails. Its final segment opened in fall 2018. According to the County Supervisor Bill Gates, "The Maricopa Trail is a testament to vision, collaboration, and hard work. This project connects some of the best open space Maricopa County has to offer in a truly remarkable way that will benefit residents and visitors for generations." Through a partnership with the Maricopa Trail and Park Foundation, the trail will be maintained and enhanced collectively through volunteer and Park Department collaborative efforts.

While we worked to complete Phase One in 2018, our team continued to plan for the future and develop best-management practices to continue providing exceptional trail opportunities for a rapidly developing region. One effort to provide standard procedures was the 2018 Trails Management Manual, developed to serve as a point of reference for best practices in trail planning, construction and maintenance within the Maricopa County parks regional trail system and is available for other park and trail systems across the state

In addition to furthering regional trail connectivity, Maricopa County has been working with a host of partners across Arizona and Nevada to develop a long-distance trail called the Sun Corridor. Using the iconic Arizona Trail model as a template, the Sun Corridor Trail will link together some of the most scenic and significant regional trails in the southwestern United States along a burgeoning economic, transportation, and tourism corridor from Las Vegas, through Kingman, Flagstaff, Sedona, Prescott, Phoenix, Tucson and ending in Douglas. The trail highlights the diversity of the natural and cultural resources found along the route and will provide a legacy natural corridor to explore for generations to come.

Connecting people with nature is our vision and quality trails are a primary conduit toward fulfilling that obligation.

Aligning with Arizona Trails Planning

In addition to looking at other states, plans from Arizona's counties, parks, state agencies and other trail managers were collected in order to align goals, avoid overlap and create a plan that works with, highlights and accelerates implementation of the priorities of Arizona's trail managing agencies.

The Arizona Trail Strategic Plan seeks to engage users with bilingual signage, aligning with the growing Hispanic population's needs and recreational inclusion in the State of Arizona. Trail planning efforts and comprehensive plans of the Arizona National Scenic Trail, Central Arizona Project Trail, and Sun Circle Trail promote interagency, stakeholder and cross-border collaborative management for the benefit of users. Collaborative management aligns with the 2020 Trails Plan along with the wide-range of community and recreational connectivity and alternative transportation options these trails promote.

Pima County's Regional Trail System Master Plan brings insight and useful resources to the table for state (and desert-specific) trail management. They address current issues and design in trails such as elevated and enclosed bikeways, increased accessibility for diverse populations and increasing connectivity to create a wider range of involvement and greater access to trails. Pima County also seeks to protect and preserve cultural resources and their desert environment with sustainable trail design. Further, Maricopa County's Regional Trail System Plan emphasizes connectivity between parks, metropolitan areas, communities and neighborhoods with multimodal and open space corridors to protect natural and cultural resources. Pinal County's plan, along with other relevant issues like connectivity, expands on historical/cultural resource conservation specific to Arizona.

Coconino National Forest's Land and Resource Management Plan addresses trails in similar ways to other states and, in the most recent update, addresses the need to develop or modify sustainable trails to reduce conflict with neighboring lands and stress on environmental resources. They address unplanned and informal trails by indicating that the environment should be rehabilitated to encourage recovery in order to prevent further environmental damage. They also discuss collaboration with local communities, groups and agencies to assist in trail planning and increase stewardship among people.

Conclusion:

Trails provide meaningful and satisfying outdoor experiences for many users while also providing an array of benefits from increasing property values to acting as an alternative route of transportation. These experiences and benefits reaffirm a sense of connection with the natural environment and provide opportunities for an appreciation of Arizona's natural and cultural heritage. While acknowledging the positives of trails, there are many issues that are threats to trail quality, experience and lessening of benefits that they provide.

With a system that traverses Arizona's many natural and cultural regions, trails play an important role in supporting environmental education and building a public commitment to environmental conservation and stewardship. Having the public on board with preserving and bettering Arizona's environment and trail system along with getting ahead of timely issues such as irresponsible social media use will ensure that the opportunities and benefits of trails will be around for generations to come. The next chapter will explain how Arizona State Parks and Trails has taken the current research, trail trends and state and nationwide trail planning trends and issues mentioned in this chapter and incorporated them into the 2020 Trails Plan public involvement and data collection process.

How can you use this plan?

Given what is within this chapter, trails have many benefits and are only attracting more users as the population increases and recreation opportunities and activities expand. Trails provide a variety of benefits to Arizona residents and visitors as well as to trail communities. Here are some ways this plan is intended to be used:

- Recommend funding priorities and actions to improve and maintain Arizona's trails;
- Recommend management priorities based on current trail trends and issues;
- Enhance the quality of life of Arizona's residents and the quality of visitor experience by promoting protection and development of trails;
- Promote a common understanding of national, statewide, regional and local issues and their potential solutions;
- Provide a framework for strengthening the roles of trail advocates, managers and elected officials to be more effective in sustaining Arizona's trails and their heritage;
- Establish and promote a framework for trail research, education, advocacy and action;
- Assist in justifying budget and personnel requests for trails and motorized recreation projects;
- Build a connected, effective constituency for trails and motorized recreation in Arizona.

Larry Speed

Chapter 2

Public Involvement Process: A State Motorized and Non-Motorized Trail Planning Process

OHV AMBASSADORS RIDE - SEDONA

There are considerable benefits associated with a concurrent state motorized and non-motorized trails planning process, including:

- Providing user groups with comparative information to emphasize areas of common ground and understanding
- Packaging two plans into one volume, providing a comprehensive planning document for recreational planners who often work on both motorized and non-motorized trails
- Providing information to develop grant criteria and expenditures for both motorized and non-motorized trails
- Collecting professional opinions of land managers regarding agency priorities, concerns and needs
- Cost savings from combined motorized and non-motorized trail user surveys.

SURVEY QUESTIONNAIRE AND ADMINISTRATION

The purpose of the planning process is to gather information and recommendations to guide Arizona State Parks and Trails and other Arizona agencies in their management of motorized and non-motorized trail resources. Participants from federal, state and municipal agencies, non-profit organizations, trail user and advocate groups and other stakeholders have taken part in the guidance, development, data collection, review and editing regarding the information contained within this plan. This plan provides public and land manager input and can serve as a foundation for other agency, organization or jurisdiction planning efforts (e.g., Travel Management Plans, city or town recreation plans, etc.).

In 2019, Arizona State Parks and Trails partnered with Partners in Brainstorm (PIB) to conduct a random sample survey of Arizona residents over the age of 18. The data collected provides information about trail use in the state as a whole, as well as at the county and region level (county and region-level data will be released by December 31, 2020). A technical report was provided to ASPT by Partners in Brainstorm. Findings from this report informed the 2020 Trails Plan. In addition, Arizona State Parks and Trails conducted two additional surveys online to ensure interested users and stakeholders had the opportunity to participate: a public online survey, and a land manager survey. Arizona State Parks and Trails staff, working in collaboration with Partners in Brainstorm, and with additional review and feedback from the Arizona Trails 2020 Working Group and advisory committee members, designed the instruments used in the random sample public online and land manager surveys. The different survey strategies, in detail, are as follows:

Random Sample Survey (RSS)

The Arizona Trails 2020 random sample survey, based on a stratified random sample of Arizona adults, launched by Partners in Brainstorm on July 31, 2019. A total of 5,014 surveys were completed between July 31 and October 17, 2019.

The RSS utilized a mixed-mode, customer-centric approach. Half of respondents were contacted by phone (50% cell, 50% landline), and the other half were selected from PIB's proprietary panel of 250,000+ Arizona residents (full and part-time) ages 18 years and older. Selected panelists and those who preferred to answer the questionnaire electronically received an e-invitation to participate in the online digital survey (accessible via mobile devices such as cell phones and tablets). The inclusion of cell phone and online access in 2019 is acknowledged as essential for assuring representation of age cohorts and cell phone for traditionally underrepresented populations. Further meeting customer preferences, the respondent also got to choose the language (Spanish, English) they used to complete the survey.

Survey goals were developed by county and region, taking into account variables such as population density, available resources and other considerations (see Table 3 for more details). Data were analyzed by Partners in Brainstorm. These geographical goals as well as other key demographics including age, gender, ethnicity/race, household income and education level were examined to ensure that the study was largely representative of Arizona's population. In comparison to the Census data, the respondents included slightly more females than males, so the data were weighted to assure that males were represented based on the state's population. In addition, to assure a representative sample of respondents of Hispanic origin, there was some slight weighting of the data to mirror the U.S. Census data for Arizona.

Table 3: 2020 Trails Plan - Random Sample Survey Goals and Number of Completed Surveys

County / ASPT Region	Targeted Goal	Completed Surveys
Maricopa County	1425	1425
Pima County	500	845
Pinal County	385	438
Yavapai County	385	399
Yuma County	385	411
La Paz + Mohave	385	396
La Paz County	35	35
Mohave County	350	361
Cochise+Graham+Greenlee+Santa Cruz	385	402
Cochise County	221	236
Graham County	66	67
Greenlee County	17	19
Santa Cruz County	81	80
Apache + Coconino + Gila + Navajo	770	698
Apache County	117	117
Coconino County	385	279
Gila County	88	103
Navajo County	180	199
Total	**4,620**	**5,014**

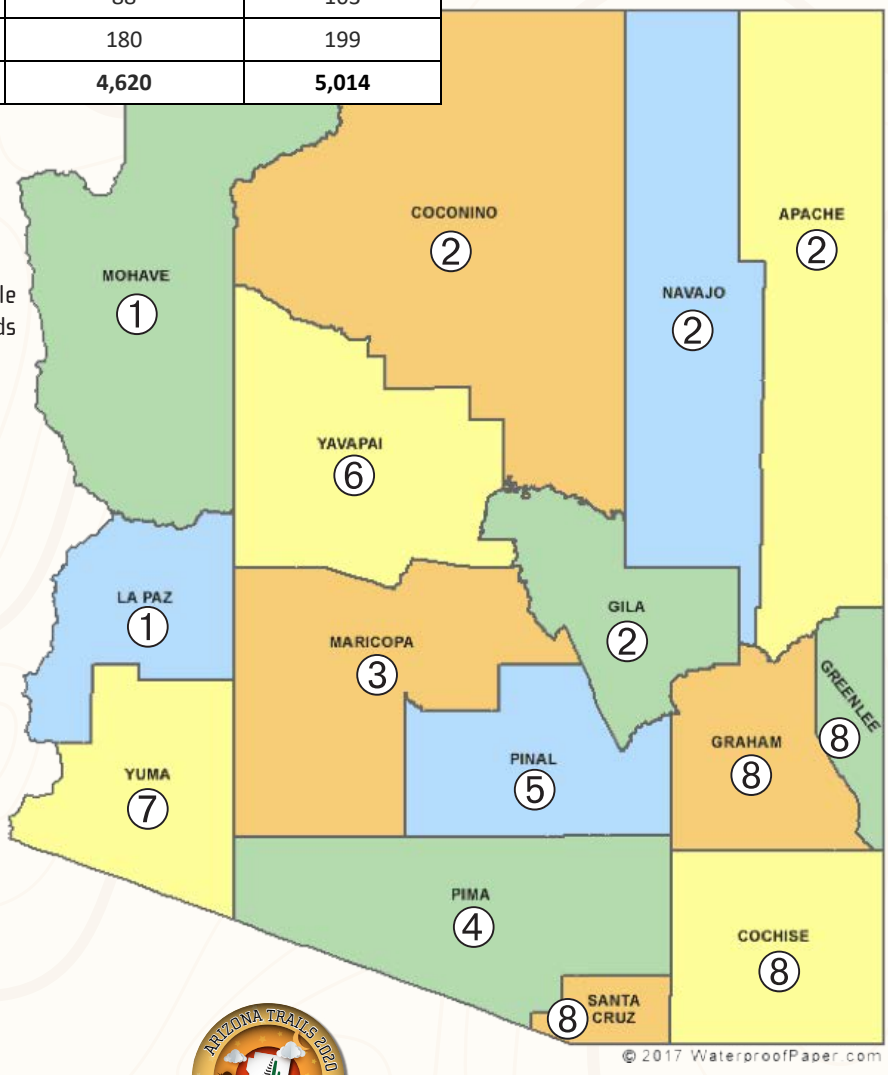


Figure 1: Statewide Division of Random Sample for Survey of Arizona Households

1) La Paz & Mohave Counties

Reach from far northwest through west central Arizona, between the Colorado River and the Utah border and includes approximately 4% of the state's population. This area includes wildlife refuges, national parks, recreation areas, forests, monuments and wilderness areas, such as the North Rim of Grand Canyon National Park, Bill Williams River Wildlife Refuge, Kaibab National Forest and BLM lands. Situated within these counties are the communities of Lake Havasu City, Kingman, Parker, and Quartzsite. This region also includes in whole or in part, the Kaibab, Fort Mojave, Hualapai and Colorado River Indian Tribe reservations.

2) Coconino, Apache, Gila, Navajo Counties

Includes the larger communities of Flagstaff and Prescott as well as a number of smaller communities, such as Show Low, Globe and Payson in North Central Arizona. This area is rich in federally managed land, including the South Rim of Grand Canyon and Petrified Forest national parks, Sunset Crater, Canyon de Chelly and other national monuments, and several state parks. The Mogollon Rim is located in East Central Arizona. Also includes tribal land inhabited by the Navajo, Havasupai, Hopi, Hualapai, Kaibab, Zuni, Fort Apache and San Carlos Apache. Also included in these counties are portions of the Coconino, Tonto, Kaibab National Forests, as well as tourism destinations such as Pinetop-Lakeside.

3) Maricopa County

The metro Phoenix area in Central Arizona is the primary population center in the state, with over 4 million residents. It also includes some smaller communities such as Wickenburg and Maricopa. This area also encompasses tribal lands inhabited by the Salt-River Pima Maricopa and Gila River Indian Communities, Fort McDowell and Tohono O'odham Nations. Tonto National Forest, and BLM lands are found in this region as well.

4) Pima County

The Tucson metro area in southern Arizona is the second-largest major population center in the state. Nearby public land includes Saguaro National Park, Coronado National Forest and BLM land. Tribal lands occupied by the Tohono O'odham and Pascua Yaqui are in Pima County as well.

5) Pinal County

Borders the state's two most populous counties – Maricopa and Pima to the northwest and south. Contains an abundance of lands for public recreation including national monuments and Coronado and Tonto National Forests and four state parks. Includes communities such as San Tan Valley, Casa Grande and Florence and tribal lands which are home to the Tohono O'odham Nation, Gila River and Ak Chin Indian Communities, as well as the San Carlos Apache Tribe.

6) Yavapai County

Ranges from the lower Sonoran Desert in the south to the Coconino Plateau in the north and Mogollon Rim in the east. Contains national monuments, such as Montezuma's Castle and Agua Fria, Coconino, Kaibab, Prescott and Tonto National Forests and 19 different wilderness areas. Includes communities such as Cottonwood, Sedona (in part), Prescott and Jerome among others. Is home to the Yavapai-Prescott and Yavapai Apache Nations.

7) Yuma County

Borders Sonora Mexico on the south, Colorado River, California and Baja California on the west. Home to three wildlife refuges, Cabeza Prieta, Imperial and Kofa and includes the communities of Yuma, San Luis and Somerton. Also includes tribal lands inhabited by the Fort Yuma and Cocopah tribes.

8) Cochise, Graham, Greenlee & Santa Cruz Counties

Southeastern Arizona borders Mexico to the south and New Mexico to the east, and includes the communities of Bisbee, Tombstone, Sierra Vista and Safford. Also includes portions of the Fort Apache and San Carlos Apache Indian Reservations. Additional units of Coronado National Forest and several state parks.

Public Online Survey

The *public online survey* (POS), employed purposive sampling, resulting in a non-probability sample. Therefore, conclusions drawn regarding this group are representative only of those individuals who participated in the survey and cannot be generalized to any larger population or group. A link to trail-user surveys in English and Spanish was distributed beginning on October 8, 2019 through November 8, 2019 through partner and advisory committee member networks, the 2020 Trails Plan Working Group member networks, local businesses, other state agency public information officers and was also supported by a social media campaign. Although 4,978 participants initiated taking the survey, 3,897 (or 78%) completed the survey.

Land Manager Survey

Land managers with responsibility for motorized and non-motorized recreational trail resources in Arizona were asked to respond to an online survey focused on trail issues and management priorities. An invitation to complete the 2020 Trails Plan Land Manager survey (LMS) was sent via email to 159 individuals. The list included managers from city and county parks and recreation departments, state and federal agencies such as Arizona State Parks and Trails, Arizona Game and Fish Department, Arizona State Land Department, National Parks and Monuments, National Forests, Bureau of Land Management, National Wildlife Refuges, tribal governments, non-profit organizations and outdoor recreation organizations (e.g., Arizona Trail Association). In addition, those who received invitations were asked to forward the invitation on to the appropriate respondent(s) in their agency if necessary. They were also encouraged to send to others within their agency that would be appropriate respondents. The first attempt at contacting and eliciting information occurred on April 3, 2019. Two follow-up email reminders were sent to the database in order to remind land managers to complete the survey if they had not already on May 5 and May 19, 2019. The survey was open until May 31, 2019. The attempt produced a sample size of 61, or a 38% response rate. However, the response rate may be inflated due to instructions to invitees to share the link with others if appropriate. More than nine out of 10 (92%) respondents managed non-motorized trails, 33% of respondents managed motorized trails and 8% of responses reported they did not manage trails.

A non-probability or purposive sampling strategy was also used for the land manager survey. Therefore, similar to the public online survey, conclusions drawn regarding this group are representative only of those individuals who participated in the survey and cannot be generalized to any larger population or group. While percentages or mean scores of respondents in each response category are reported in the results section of Chapter 3 and Chapter 4 to illustrate patterns in the responses, caution should be exercised in interpretation due to small sample sizes, especially when considering sub-groups (e.g., "city/county agencies" or "state agencies").

SURVEY OBJECTIVE AND CLASSIFICATION

The main objective of the study was to analyze motorized and non-motorized trail usage and needs in Arizona. Thus, in the random sample and public online surveys, each individual was asked a set of two questions at the beginning of the survey to classify user type into one of three categories.

- Each individual was asked whether they had ever used trails on public or private lands in Arizona for motorized or non-motorized recreation purposes.
    - o Those people, answering no, were categorized as **non-users**.
    - o Those people who answered yes were then asked whether they had used trails for motorized recreation, non-motorized recreation or both.
        - Those who reported they had used trails for motorized recreation were classified as **motorized trail users**.
        - Similarly, those who reported they had used trails for non-motorized recreation were classified as **non-motorized trail users**.
        - **Mixed users** reported that they had used trails for both motorized and non-motorized recreation.
- The three categories of trail users above (motorized, non-motorized and mixed) were then asked if they had used trails on public lands in the last 12 months for a) motorized recreation, b) non-motorized recreation, c) both or d) whether they had not used trails within the last 12 months.
    - o Those who reported that they had engaged in motorized, non-motorized or both types of activities on Arizona trails in the last 12 months were then asked a series of additional survey questions, including on trails usage, satisfaction with trails, information sources, perceptions of environmental and social conditions, trail users' management preferences and priorities and demographics.

In this plan, other classifications were also used to describe the respondents. ***Core*** refers to respondents who reported their trail use was primarily motorized or non-motorized. In addition to being a predominantly motorized or non-motorized trail user, the Core respondent also includes mixed users who report that half or more of their time was spent on motorized or non-motorized trails in the last 12 months. Non-core represents all users, motorized or non-motorized and all mixed users who report any percentage (less than half) of their time spent on motorized or non-motorized trails.

Public Comment

The Arizona Trails 2020 Draft Plan was posted on the ASPT website for public comment beginning March 12, 2020. The public comment period was originally scheduled to last until March 30, 2020. However, due to shifting priorities and disruptions related to the COVID-19 pandemic response, the public comment period was extended to April 13, 2020. Notice of the draft plan availability and timing of the public comment period and its extension was distributed via press release, social media posts and an invitation to comment was sent to the following groups: federal, state, municipal and non-profit land managing agencies, tribes, ASPT outdoor recreation related advisory committees and the Arizona State Parks Board, the Arizona Trails 2020 Working Group, user group clubs and organizations, public online survey respondents, and concerned members of the OHV community.

The contacts listed above were encouraged to share the information with their networks and affiliated organizations.

Arizona State Parks and Trails received 80 comments from partners or members of the public. Three out of five comments (60%) proposed the acquisition of land adjacent to Catalina State Park. These comments are being passed on to ASPT agency leadership and partners for discussion. One in 10 of the comments submitted (10%) addressed the construction of new trails, and some recommended particular locations for or types of new trails that they would like added to the statewide trails inventory (e.g., single track trails, single-use trails for a variety of user types – hiking, mountain biking, dirt bike/off-highway motorcycles riding, etc.). The remaining comments addressed other priority issues such as: completion of environmental and cultural compliance documents, signage, the enforcement of rules and regulations and others. Other comments expressed their support for the administration of the trails programs and grants, some trails or trail projects within the last five years, while others submitted complaints about fund distribution. Still others addressed issues of single versus multi-use trails and user conflicts. To the extent possible, and as was appropriate for a high level, statewide, multi-agency planning document, these recommendations were integrated into the Arizona Trails 2020 Plan. Specific recommendations for land managed by partners will be distributed to or discussed with the appropriate partner or land managing agency.

Study Limitations and Improvements

This section identifies the limitations of the data collection process for the 2020 Trails Plan along with the areas of improvement that were the focus of this plan's methods when compared to 2015. Survey research is the best method available to social scientists interested in collecting original data for describing a population too large to observe directly (Babbie 1995). The 2020 random sample survey (RSS) carefully sampled residents of each county or region of Arizona to achieve results as similar as possible to the US Census. Data was then analyzed and weighted to reflect the population on key demographic variables to enable generalizations to be made at the state and county or region level. As discussed previously, the public online survey was a non-probability sample, allowing anyone who wanted to take it to participate. For this reason, information from this sample cannot be generalized to the state population, and should be considered representative only of the respondents who completed the survey. The purpose of the public online survey (POS) was to give a voice to those invested in trails in Arizona who were not selected to take the random sample survey. The data presented in Chapters 3 and 4 are mostly drawn from the RSS Core user data with selective comparisons to public online survey responses.

As previously discussed, non-probability or purposive sampling strategy was used for the land manager survey as well. Future trail plans would benefit from the development and regular updates to a comprehensive list of all Arizona land managers, representing recreation agencies at all levels of government, along with non-profit and other private recreation organizations. This list would allow future plans to be developed based on a generalizable random sample survey of all land managers, if resources are available to pursue this method of data collection. However, since such a list was not available for the 2020 Trails Plan, conclusions drawn from these responses are representative only of those individuals who participated in the survey and cannot be generalized to any larger population or group. Due to a relatively low response rate (38%) caution must be used in the interpretation of the land manager survey data. Agencies may need to "ground truth" the data within their own agency or organization to ensure that conclusions drawn are accurate and maximally useful. Finally, encouragement from agency and organization leadership to their staff to participate in outdoor recreation planning surveys for land managers would ensure maximally valid and reliable data is used for statewide planning purposes.

Self-Administered Surveys

The public online and land manager surveys employed self-administered survey methods. Self-administered surveys, which ask respondents to read and complete the questionnaires themselves, were available online for both surveys.

Hung and Law (2011) list the advantages and/or disadvantages of surveys using online tools. The advantages listed are low cost, fast response time, instant data entry, high response rate, easy to communicate with respondents, completeness of survey, convenient for respondents, sample can be representative of the general population and environmentally friendly. Interestingly, some of the advantages listed may also be disadvantages. The disadvantages listed are representativeness of sample, low response rate and researchers/ respondents may encounter technical difficulties. The 2020 Trails Plan exhibited some of these advantages and disadvantages in the public and land manager surveys: however, the inclusion of data collected from multiple samples (random sample versus public online), using different types of methods (telephone interviews versus online format) helps to counter the impacts of the disadvantages associated with online methods alone. In particular, the land manager survey (please refer to above for sample numbers) had a relatively low response rate. For future trails plans, if the sample size from any of the land manager surveys, in any management capacity, is too small, Arizona State Parks and Trails may consider using telephone or in-person interviews of land managers to boost survey completion.

Additionally, land manager data may be collected at grant workshops or in years between trails plans. If self-administered surveys are coupled with a "live" telephone call encouraging a respondent to complete the survey, it is possible that the sample size will increase.

Arizona Trails 2020 Plan Compared to United States Census Data

Statistical weighting is a technique to adjust answers to account for over- and under-represented groups. The technique is commonly used in most statistical analyses (e.g., United States Census Data). The 2010 Arizona Trails plan used data weighting as a technique but the 2015 Plan did not adopt data weighting in its analysis.

Therefore, the reader must take extra caution when comparing data between previous trails plans, as seen later in this document. The following tables compare the RSS data to the US Census data for Arizona in order to illustrate study characteristics. Please note that data has been rounded to the nearest whole number for ease of viewing. The figures below are separated by user type (motorized, non-motorized and non-users) in order to observe the demographic differences between different types of trail users in Arizona and the U.S. Census data. An example of one of these differences can be seen in Figure 2, which illustrates that a large portion (63%) of the motorized user group is 44 or younger, making this group the one that differs most in age in the younger age groups when compared to the census.

Figure 2: Age of Random Sample Survey Respondents Compared to Census

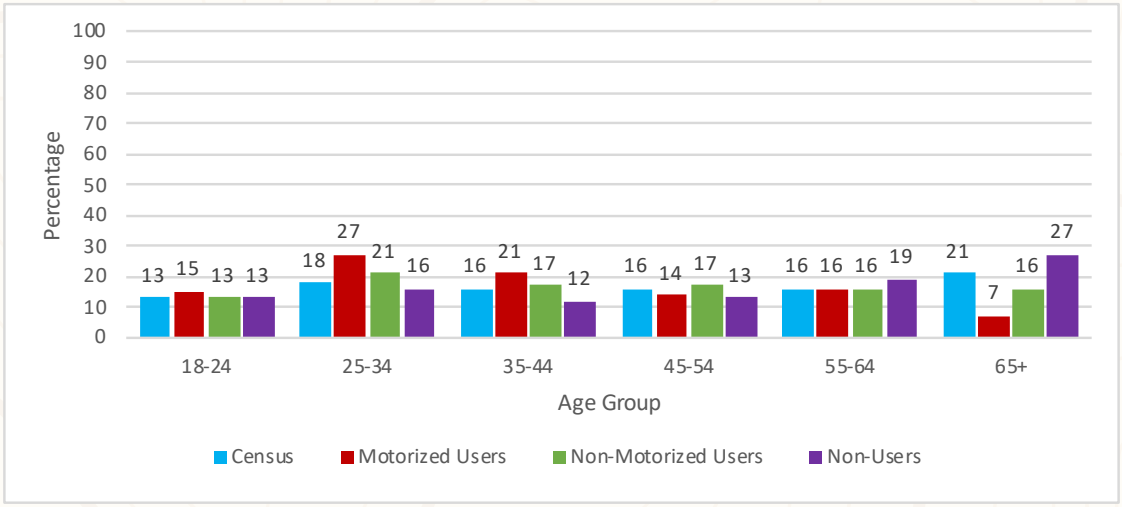


Figure 3: Gender of Random Sample Survey Respondents Compared to Census

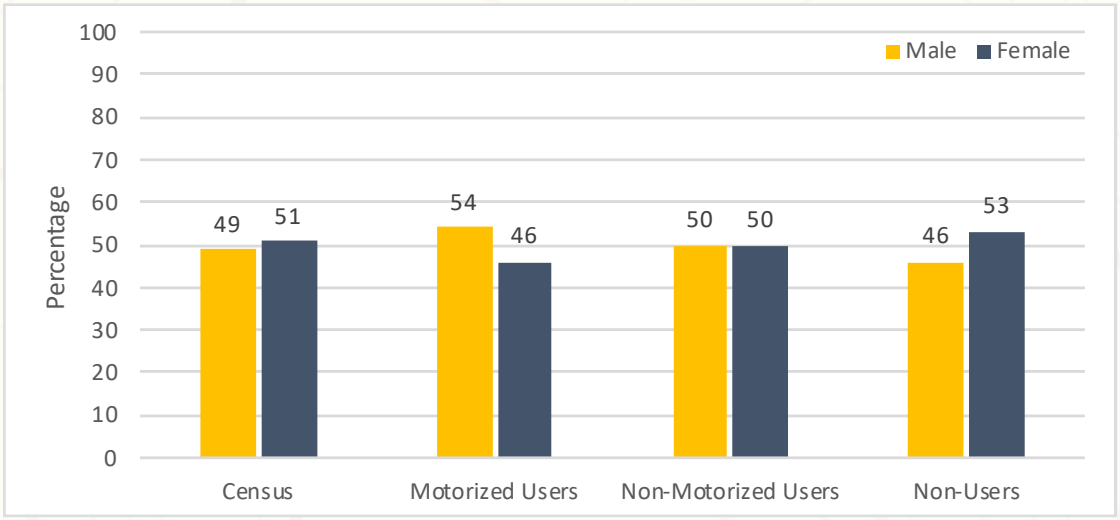


Figure 4: Percentage of Random Sample Survey Respondents with Hispanic, Hispanic or Spanish Origin Compared with Census

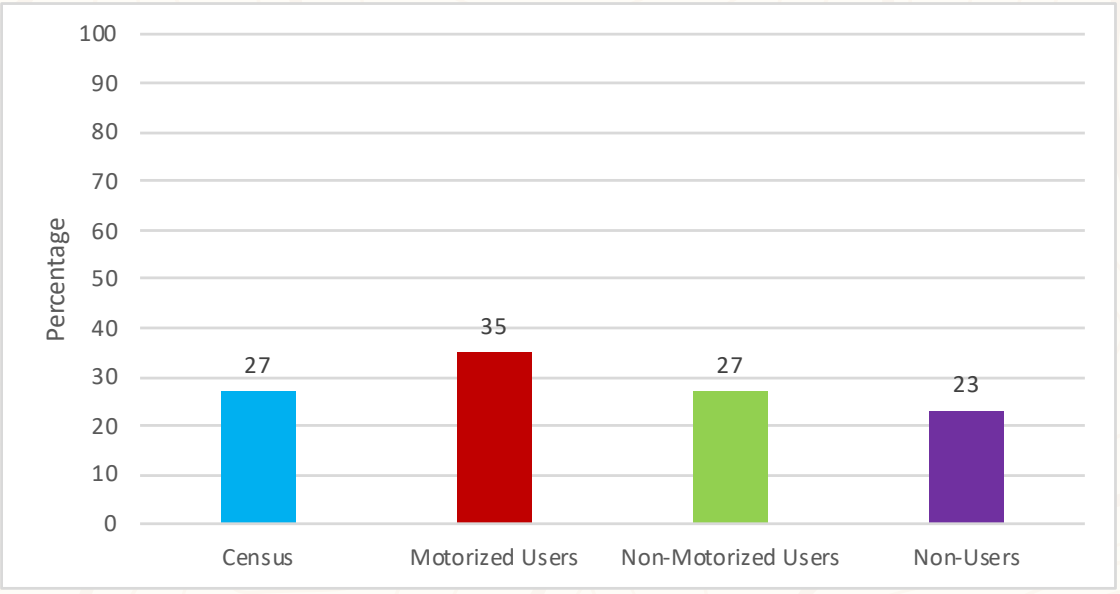
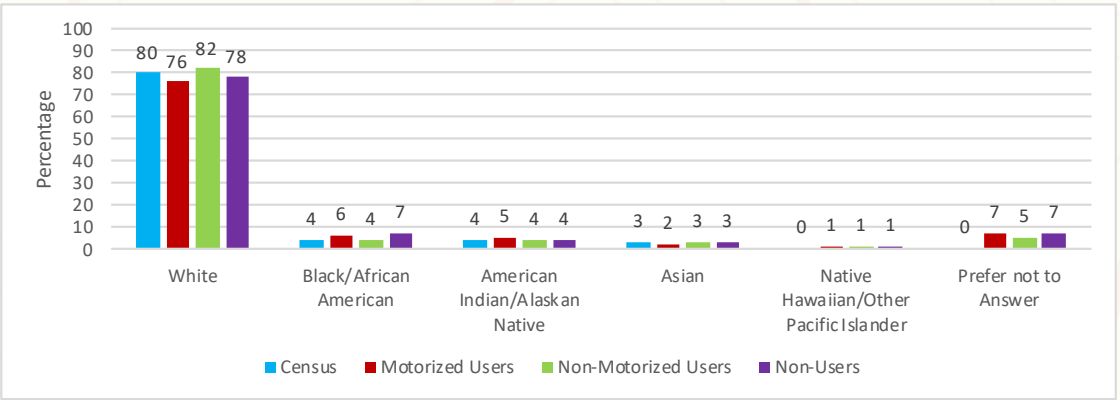


Figure 5: Race of Random Sample Survey Respondents Compared to Census



Conclusion

This chapter reviews the 2020 Trails Plan planning and public involvement process on which the rest of this report is based. Extensive efforts were made to ensure the 2020 Plan is representative of the Arizona population and provides valid and reliable estimates of the trail-related recreation participation of Arizona residents. Further, surveys were pre-tested in order to ensure clarity of language and provided in both English and Spanish.

Chapter 3

A Profile in Motorized Trail Recreation in Arizona

This Trails Plan provides decision makers and resource planners insight into Arizona's motorized recreational trail use activities and perceptions to help plan for and manage resources to meet the public's needs, achieve economic benefit, build stronger communities and sustain land resources.

DEFINITIONS, RELATED LEGISLATION AND EXPLANATIONS

Trails Plan – Arizona State Parks and Trails prepares this plan in accordance with legislative mandate and to promote the statewide development of recreational motorized trails.

> A.R.S. § 41-511.04 directs the Arizona State Parks Board to "maintain a statewide off-highway vehicle recreation plan. The plan shall be updated at least once every five years and shall be used by all participating agencies to guide distribution and expenditure of monies under 28-1176. The plan shall be open to public input and shall include the priority recommendations for allocating available monies in the Off-Highway Vehicle Recreation Fund established by Section 28-1176."

Off-Highway Vehicle – Off-highway vehicles are motorized vehicles that include conventional four-wheel drives, purpose-built rock crawlers, motorcycles (dirt bikes, dual sports, adventure touring, trials), all- terrain vehicles (ATVs), utility terrain vehicles (UTVs, side-by-sides, recreational OHVs or ROVs), sandrails, snowmobiles, dune buggies and other vehicles.

An OHV as defined in Arizona legislation "means a motorized vehicle that is designed, modified or purpose-built primarily for recreational non highway all terrain travel [and] includes a tracked or wheeled vehicle, utility vehicle, all-terrain vehicle, motorcycle, four-wheel drive vehicle, dune buggy, sand rail, rock crawler, amphibious vehicle, ground effects or air cushion vehicle and any other means of land transportation deriving motive power from a source other than muscle or wind. It does not include a vehicle that is either: designated primarily for travel on, over or in the water [or] used in installation, inspection, maintenance, repair or related activities involving facilities for the provision of utility or railroad service or used in the exploration of mining and minerals or aggregates as defined in title 27." (A.R.S. § 28-1171)

Off-Highway Vehicle Decal Requirements – Based on the legal definition of an OHV, there is some confusion as to which vehicles are required to purchase an OHV decal. Arizona legislation further clarifies by stating the following:

"A person shall not operate or allow the operation of an all-terrain vehicle or an off-highway vehicle in this state without either a resident or nonresident off-highway vehicle user indicia issued by the department if the all-terrain vehicle or off- highway vehicle meets both of the following criteria:

1. Is designed by the manufacturer primarily for travel over unimproved terrain.
2. Has an unladen weight of two thousand five hundred pounds or less." (A.R.S. § 28-1177)

It is important to note that conventional vehicles such as sport utility vehicles (SUVs) and other four-wheel drive-type vehicles are not legally required to purchase the OHV decal under current legislation.

Per A.R.S. § 28-1178, a person may operate an all-terrain vehicle or an off-highway vehicle in this state without a resident or nonresident off-highway vehicle user indicia issued pursuant to section 28-1177 if any of the following applies:

1. The person is participating in an off-highway special event.
2. The person is operating an all-terrain vehicle or an off-highway vehicle on private land.
3. The person is loading or unloading an all-terrain vehicle or an off-highway vehicle from a vehicle.
4. During a period of emergency or if the operation is directed by a peace officer or other public authority.
5. The vehicle displays a valid dealer license plate that the department issues pursuant to section 28-4533.

Please see Appendix B for a summary of OHV-related legislation relevant to this plan.

Off-Highway Vehicle Advisory Group (OHVAG) – The Off-Highway Vehicle Advisory Group is a seven-member committee that provides program direction and recommendations to Arizona State Parks and Trails. Seven members are appointed by ASPT for a maximum of two consecutive three-year terms. Five of the seven members must be affiliated with an OHV organization or group, one seat must represent casual OHV recreationists or the general public and one seat must represent a sports person's group (defined as a member of an organization representing hunting, fishing, or similar sports person outdoor activities). Members must be Arizona residents, and no more than two OHVAG members may reside in the same county.

The mission of the OHVAG is to develop and enhance statewide off-highway vehicle opportunities and to develop educational programs that promote resource protection, social responsibility and interagency cooperation. OHVAG and ASPT staff work with OHV partners to evaluate state OHV needs, develop the Trails Plan, and make funding recommendations for the OHV Recreation and Recreational Trails Program funds to the Arizona State Parks Board.

OHV Ambassador Volunteer Program – The Arizona State Parks Off-Highway Vehicle Program strives to provide unique volunteer opportunities through the OHV Ambassadors Program. This program allows OHV-focused volunteers to make a positive impact in Arizona's OHV community by providing meet and greets, "Show Me Rides" and attending large-scale outreach events to promote safe and responsible recreation statewide. In 2019, the program began evaluating its policies and procedures to identify ways to both grow the program and make it more successful. Over the next five years, the program will continue to engage the OHV community and provide quality experiences that positively showcase the state's OHV opportunities.

MOTORIZED RECREATION OPPORTUNITY

Off-highway vehicle opportunities in Arizona provide access to stunning desert and canyon landscapes, plateaus, woodlands, dense forests and alpine meadows. OHV enthusiasts use unpaved roads, trails and areas for a variety of purposes such as: sightseeing for pleasure, viewing wildlife, accessing campsites, trailheads, hunting and fishing areas. Such opportunities allow OHV users a primitive backcountry experience, with opportunities to learn about the ancient cultures, history and environments of Arizona. There are an increasing number of individuals both young and old, families and those with mobility challenges turning to motorized recreation to enjoy Arizona's backcountry.

Some of these opportunities consist of traveling on old mining, logging and ranching roads throughout the state. In addition to these routes, there exist many "user created" or "unauthorized" trails. Much of the criticism directed at the OHV community is due to the proliferation of unauthorized trails in undeveloped desert areas. The resulting damage to unprotected environmental and cultural resources leads many critics to over-generalize and attribute responsibility to all OHV users, making cooperation, collaboration and communication between user groups more difficult. Finally, land managers provide OHV-specific recreation areas and trails in various parts of the state that are developed to incorporate sustainable design, natural and cultural resource protection and address user safety issues.

One growing opportunity for motorized trail recreationists is the use of e-bikes. E-bikes are relatively new to trail recreationists and land managers and pose challenges to existing land management policies and rules and potential conflicts with existing trail uses. Research on e-bikes is scarce and there are many questions regarding where e-bikes can/should be allowed to operate on trails, what effects they may have on trails and the recreating public's opinions regarding their use and utility.

Here is a summary of the current climate in regards to e-bikes from two different perspectives:

GUEST AUTHOR E-Bikes – Claire Miller, City of Phoenix Parks and Recreation

Current Impact on Arizona Trails:

As Electric Bicycles (e-bikes) become more prominent in the community, land managers are faced with how to best address this new technology on natural surface trails. Making the issue more confusing are the different classifications of e-bikes currently on the market. The rules pertaining to e-bike use are not consistent throughout the state, so they differ depending on where you ride.

E-bikes are essentially a conventional bicycle, with a rechargeable electric battery and motor included. In Arizona, an e-bike is defined as a "motorized electric bicycle." Arizona Revised Statute (ARS 28-819) states that "an operator of an electric bicycle is granted all the rights and privileges and is subject to all of the duties of a person riding a bicycle," which would include riding on bicycle and multi-use paths. Class 1 pedal assist e-bikes have operable pedals with a top assisted speed of 20 mph. Class 2 e-bikes are throttle assisted bikes with top assisted speed of 20mph. There is also a Class 3 e-bike, which is pedal assisted and can reach up to 28mph; Class 3 e-bikes are generally not permitted on bike trails but may be used on the side of roadways.

Continued on next page

While the State of Arizona has officially defined the e-bike classifications and operational expectations, local agencies have the power to enact regulations appropriate to their trail systems and open space areas. Some agencies of non-motorized trails have taken the stance that "a motor is a motor," and have prohibited the use of all e-bikes on their trails. Others, including the City of Phoenix, have followed the lead of the state, allowing Class 1 and 2 e-bikes on natural surface trails.

Until empirical studies reveal that e-bikes create more resource damage than any other bike or create a real or perceived danger/trail conflict, the situation is unlikely to change. To date, most e-bike studies measuring the natural resource impact(s) have been completed by the e-bike community and retailers. Unbiased academic research to review the potential long-term impacts to natural resources will assist land managers in future decision-making processes.

A simple Google search will reveal a plethora of information about e-bikes and the various laws throughout the country. It is incumbent on the trail users to identify the regulations in any area they plan to use. "Know Before You Go" is a good rule of thumb to follow. Ironically, unless paying close attention, most field staff don't even realize that e-bikes are out on their trails, and frankly, some are unaware of their agency stance on the use of e-bikes. As e-bikes become more affordable, they will become more prevalent. This is especially true for those who have experienced health conditions such as heart attacks and joint replacements which may exclude them from riding a conventional bike. An e-bike has the potential to prolong one's ability to enjoy a sport, and nature, in much the same way they did in the past. In the meantime, land managers and recreational riders of all types should take the time to educate themselves on the specific regulations for the areas they manage or utilize.

GUEST AUTHOR E-Bikes – Evan Pilling, Executive Director, Sonoran Desert Mountain Bicyclists

What is the issue?

Electric bicycles, or e-bikes, are an emerging technology in which an electric motor is incorporated into a traditional pedal bike. The motor and battery may be designed and built into the bike as OEM equipment, or retrofitted onto existing non-motorized pedal bikes. As motors and batteries become smaller and more effective, it is more and more difficult to differentiate e-bikes from traditional bikes. Few issues are as divisive among the mountain bike community as e-bikes. E-bikes can be designed for road, mountain or commuting use. This article will focus specifically on mountain e-bikes, or eMTBs. eMTBs typically include front and rear suspension, disk brakes and wide/knobby tires.

Relevant Background – Current Impact on Arizona Trails:

Riders' motivations for riding e-bikes (as opposed to non-motorized bikes) are varied but typically fall into a few general areas, including:

- Being able to travel further and faster with less effort.
- Being less physically fit (associated with advancing age or disability) and wanting to be able to keep up with more advanced riders.
- Being able to ride to and from the trailhead and/or "self-shuttle" with less effort and time invested.
- Wanting to minimize effort expended on climbing or uphill sections of trail.
- Interest in new/emerging technologies (i.e. "Early Adopters").

Benefits of eMTB use on singletrack trails:

- Gets more riders out on trails.
- Requires less fitness for mountain biking, removing barriers for entry to the sport.
- Allows older/less experienced or fit riders to keep up on group rides.
- Allows riders to access more challenging/remote trails.
- Spreads usage over more trails.
- May reduce car usage by allowing riders to ride to/from the trailhead and/or "self-shuttle" instead of using cars.

Continued on next page

Risks/challenges/liabilities associated with eMTB use on singletrack trails:

- More riders on trails, may contribute to congestion/overuse.
- Higher speeds associated with pedal assist/motorized bikes.
- Allows less fit or experienced riders to go faster than they can safely travel.
- Risks associated with older/less fit or experienced riders getting "further out" and not being able to self-evacuate in the event of a mechanical issue or injury.
- Potential increase in user conflict associated with more riders and higher speeds.
- Potential negative impacts to natural resources associated with e-bikes and higher speeds (very little available data at this time). May include rutting, brake-bumping and excessive damage to the trail tread.
- Potential for other motorized users (i.e. motorbikes, quads, etc.) advocating for access to non-motorized singletrack trails.

Suggestions:

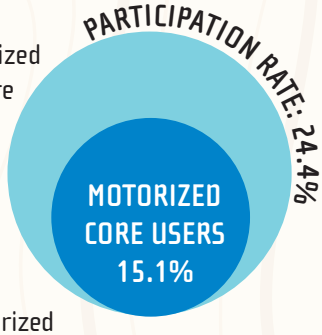
- E-bike users have a responsibility to know where they can and can't legally ride their e-bikes. The easiest way to do this is to is to contact the land management agency in charge of the trails where the user wants to ride. Trailforks, a common MTB mapping app, maintains a directory of trails where e-bikes are allowed in each state.
- E-bike retailers have a responsibility to understand which of their local trails allow e-bikes, which don't, and to educate customers about local access issues.
- E-bike retailers have a responsibility to educate consumers about trail etiquette and the need for mountain bikers, especially eMTB users, to control their speed and yield to other users.
- Land managers are encouraged to understand existing and emerging technologies related to e-bikes, to survey their constituents and trail users about their preferences regarding e-bikes, and to make informed management decisions based current literature and the effects of e-bikes on trails, natural resources and user experiences.
- Further, land managers are encouraged to periodically review their e-bike policies and management decisions to ensure that they account for the most up to date information and technological developments.
- Land managers are encouraged to make distinct management decisions as they apply to natural surface singletrack trails as opposed to paved or compacted-surface trails. Each trail type has distinct management needs and challenges, and they provide different user experiences. E-bikes may have less impact on paved/compacted surface trails than singletrack trails.
- Trail systems should be clearly marked regarding e-bike access.
- Regardless of the conveyance, cyclists are encouraged to follow commonly-accepted "rules of the trail" and control their speed, yield to other trail users and stay on system trails.

In addition, 42 public online survey respondents provided open-ended comments on the use of e-bikes on trails. The public online survey comments revealed the growing use of e-bikes for aging cyclists and mountain bikers, people with physical disabilities or those with less physical ability. The categorization of e-bikes as motorized or non-motorized greatly affects this segment of users, as some are unable to use trails they used extensively in the past on mountain bikes. Further, approximately equal numbers of survey respondents categorized e-bikes as either motorized or non-motorized (10 and 8, respectively). The other 3 commenters recommended categorizing the Class 1 e-bike as non-motorized recreation and Classes 2 and 3 e-bike as motorized recreation. It is also important to note that comments expressed strongly held and often polarized opinions on e-bike use on motorized and non-motorized trails.

Survey Findings for Motorized Trail Users

In 2019, Arizona State Parks and Trails partnered with Partners in Brainstorm to conduct a random sample survey of Arizona households by county or region. Analyses down to the county or region level will be available by December 31, 2020. The findings in the technical report provided by Partners in Brainstorm for state level analyses informed the 2020 Trails Plan. In addition, the plan employed two other strategies for data collection: a public online survey, available to anyone who was interested in completing the survey, and a land manager survey. The findings represented in this chapter include terms such as **core**, **non-core** and **mixed users**. Core refers to respondents who reported their trail use within the last 12 months was primarily motorized and also includes mixed users who reported that half or more of their time spent on trails within the last 12 months was spent on motorized trail activities. Mixed users reported that they had used trails for both motorized and non-motorized recreation in Arizona during the last 12 months. Non-core users represent all motorized users who report any percentage of their time (less than half) is spent on motorized trails (for detailed definitions please see Chapter 2).

A total of 5,014 surveys were completed for the RSS study. Among the respondents, 24.4% have used motorized trails within the past 12 months and 15.1% were core motorized trail users. The key findings regarding core motorized trail users addressed in this chapter represent data collected from 757 survey respondents.



Public Online Survey: The public online survey was open to anyone (part and full-time residents, non-residents, etc.) who wanted to provide input on their experiences on Arizona trails. Therefore, conclusions drawn regarding this group are representative only of those individuals who participated in the survey and cannot be generalized to any larger population or group.

The public online survey included a total of 4,576 valid surveys. Of these, 2,225 respondents had engaged in motorized trail recreation activities within the past 12 months, and 1,481 were considered core motorized users.

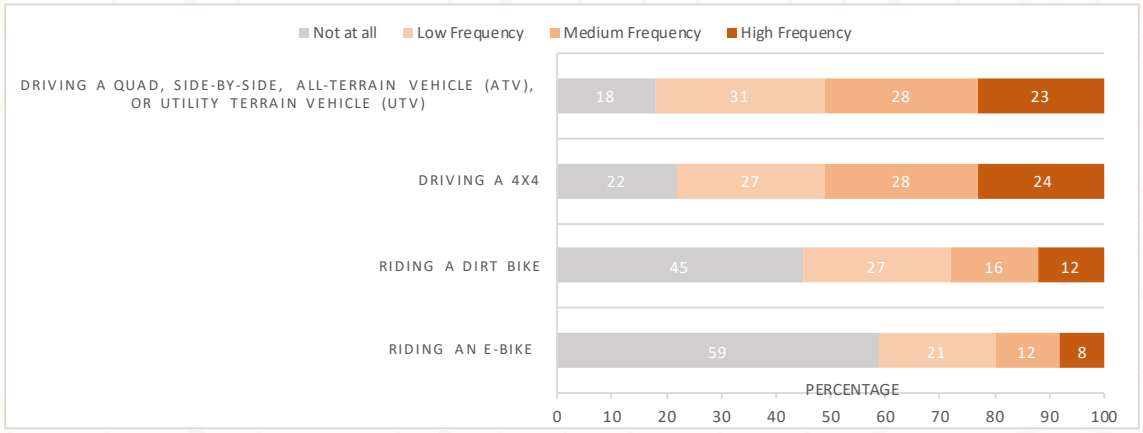
Demographics

Random Sample Survey (RSS): The significant majority (96%) of motorized trail users were year-round residents of Arizona and had lived here longer than 10 years (62%). As compared with the U.S. Census demographics for Arizonans motorized trail users are younger, with 42% ages 18 to 34, male (54%) and of Hispanic origin (35%). The mean age was 41. Extra effort was put into the RSS in order to achieve numbers close or equal to the U.S. Census for Arizona. This means that the numbers shown from the RSS data in this section can be generalized for the entire Arizona population.

Participation by Motorized Activity

The following figure presents core motorized respondents' reported frequency of participation in each activity, ranging from "not at all" to "more often than once a week." Respondents who reported that they had engaged in the motorized activities "once" or "a few times" during the past year were categorized as "low frequency;" those who reported engaging in these activities "every couple of months" and "once a month" were considered "medium frequency;" and those who engaged in activities "every few weeks," "once a week" and "more than once a week" were considered "high frequency" use. The top two most frequent activities were (1) driving a quad, side-by-side, all-terrain vehicle (ATV), or utility terrain vehicle (UTV) and (2) driving a 4x4, with 82% and 78% of motorized trail users, respectively, reporting that they had participated in those activities at least once during the past year. Riding a dirt bike was third, with about half (55%) of respondents having participated at least once during the past year and riding an e-bike was last at 41%.

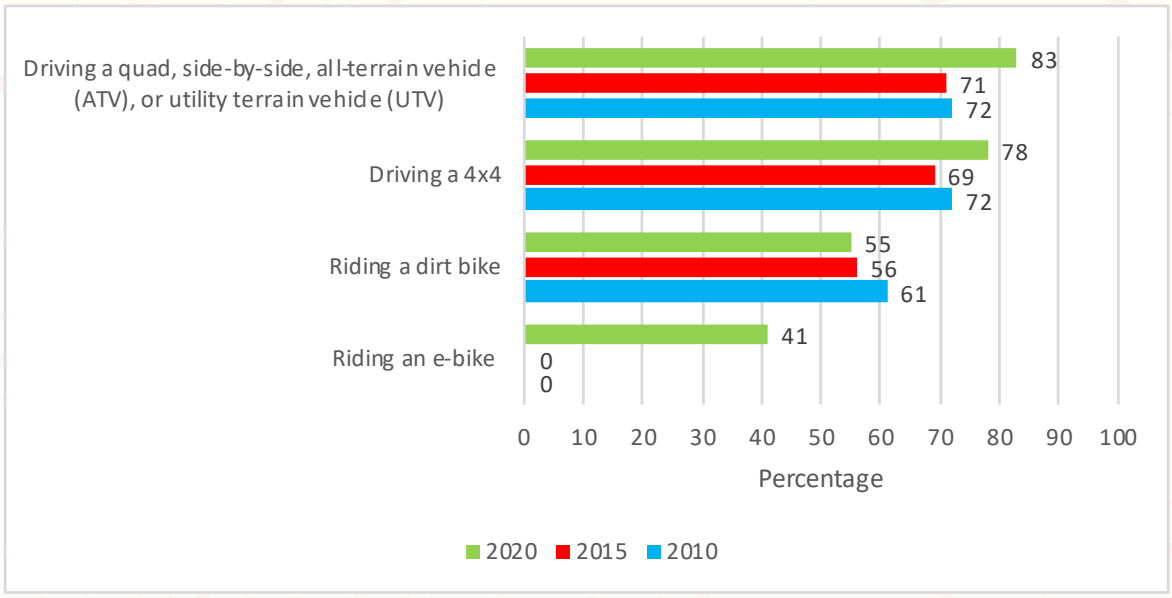
Figure 6: Frequency of Motorized Trail Activities - Core Random Sample Survey



"During the past 12 months, how often have you used trails on public or private lands in Arizona for the following types of motorized recreational activities?" Low frequency = "once" and "a few times"; medium frequency = "every couple of months" and "once a month;" and high frequency= "every few weeks", "once a week" and "more often than once a week."

A comparison of participation in each motorized trail activity for the current and two previous surveys is below. *Riding a dirt bike* appears to be roughly similar to rates reported in 2015, while participation in the other motorized trail activities is generally increasing, including a new category of activity: *e-bikes*.

Figure 7: Frequency of Motorized Trail Activities Over Time - Core Random Sample Survey

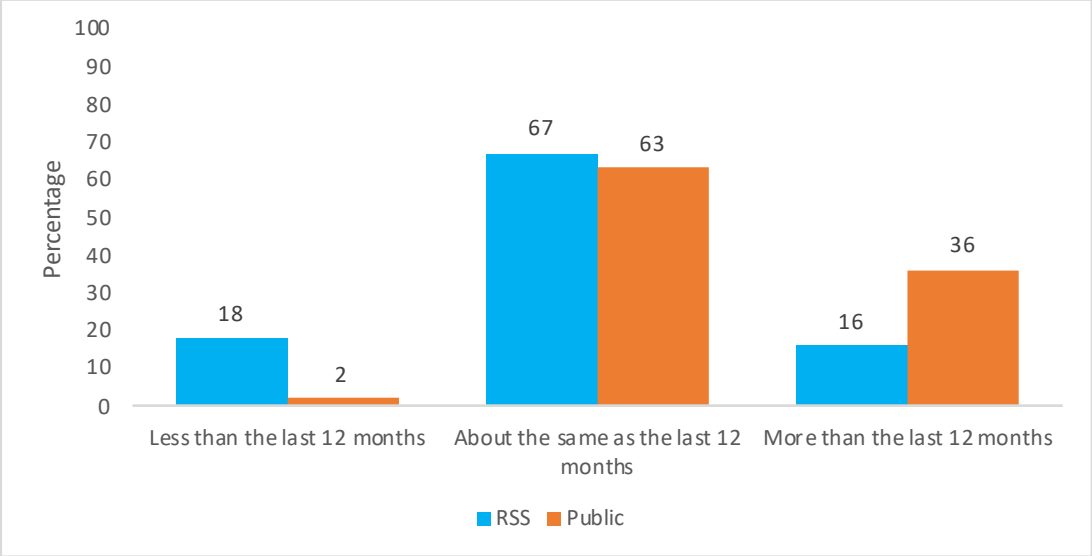


As seen in figure 6, the motorized activity with the highest frequency rate is driving a 4x4, with 24% of core motorized trail users engaging in this activity every few weeks or more. Conversely, the motorized activity with the lowest frequency rate is riding an e-bike, with only 8% of core motorized trail users engaging in this activity every few weeks or more.

Anticipated Usage Over the Next 12 Months

Respondents were asked to estimate their anticipated usage of motorized trails over the coming year as "less than," "the same as" or "more than" the past 12 months. Approximately two-thirds of RSS and public online respondents (67% and 63% respectively) thought

Figure 8: Anticipated Usage Over Next 12 Months - Core Random Sample Compared to Core Public Online Survey



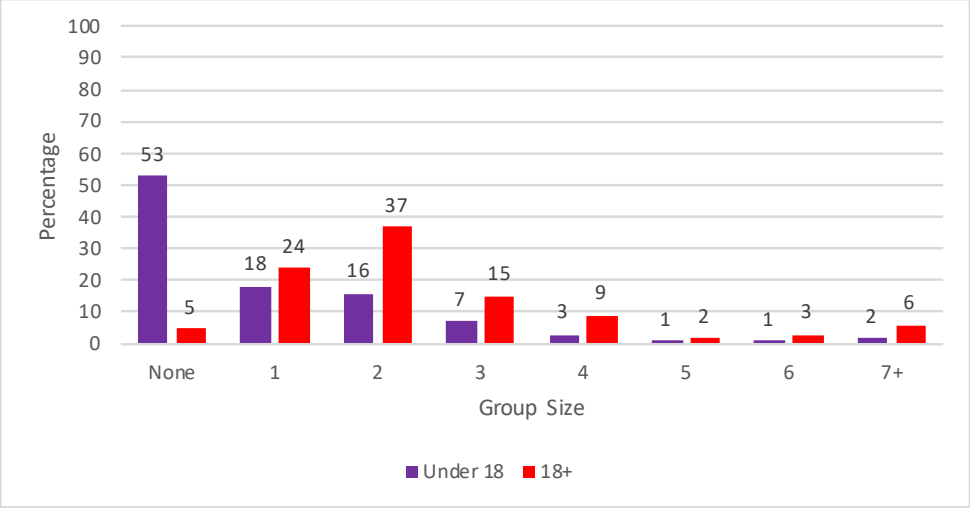
"Looking ahead to the next 12 months, do you think your use of Arizona trails for motorized recreation will probably be less, the same as, or more than in the past 12 months?"

their usage would be about the same; however, more public online than RSS survey respondents expected their use to increase (16% of RSS compared to 36% of public online), and more RSS respondents (18%) expected their use to decrease compared to public online survey participants (2%).

Group Size and Traveling with Adults and Children

As seen in the figure below, most (96%) of RSS core motorized users travel with one or more adults when using trails for motorized

Figure 9: Percent of RSS Respondents Using Trails With Others Over & Under Age 18

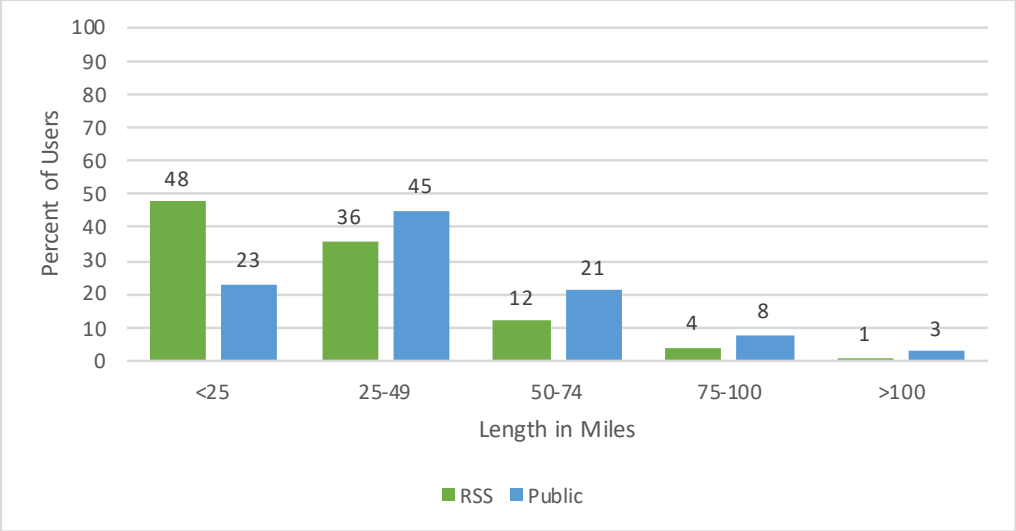


(red) "How many people age 18 and older do you typically ride with when using trails in Arizona for motorized recreation activities?"

(purple) "How many people under age 18 do you typically ride with when using trails in Arizona for motorized recreation activities?"

recreational activities – with approximately one-fourth (24%) traveling with one other adult, and more than a third (37%) traveling in a group with two other adults. More than half (53%) of motorized trail users do not typically travel with children under 18, which is comparable to the 2015 finding of 55%. Group size is an important component of planning for diversity on trails because different racial and ethnic groups are shown to recreate in larger or smaller groups.

Figure 10: Preferred Ride Length - Random Sample Survey Compared to Public Online Survey Respondents



"When you use trails in Arizona for motorized activities, which of these ride lengths do you like most?"

Preferred Motorized Trail Length

Respondents were asked to identify their preferred trail length for motorized activities. As seen in the following figure, the preference for the RSS core users was for trails shorter than 25 miles (48%), while the public online survey respondents (45%) preferred slightly longer trails – between 25-49 miles in length. For both groups, the majority (84% for RSS and 68% for public online) preferred trails under 50 miles in length.

Favorite, Most Frequently Used, and Furthest Trails

It is important for ASPT and other land management agencies to have in-depth information about "customer demand" for Arizona trails. Motorized trail users were asked a series of three questions regarding their favorite trail, the trail they most frequently use and the trail to which they have traveled the farthest within the last 12 months. These questions asked respondents to identify the city closest to where they access each of these trails, how long it takes them to get there from their home and how often they used each of these trails within the last 12 months. The responses to these questions have been used by researchers from the University of Arizona, Department of Agricultural and Resource Economics and Cooperative Extension (UA AREC) to conduct a study estimating the demand and economic value of motorized and non-motorized trail use to Arizona residents using the travel cost method. In addition, the study includes development of an origin-destination matrix estimating Arizonans' travel for trail-based recreation. This study is available on the Publications page on the Arizona State Parks and Trails website.

Table 4: Favorite, Most Frequent and Furthest Motorized Recreation Trails by Core Random Sample Survey

Rank	Favorite Trail	Most Frequent Trail	Furthest Trail
1st	Apache Junction	Apache Junction	Apache Junction
2nd	Yuma	Yuma	Yuma
3rd	Tucson	Arizona City	Flagstaff
4th	Alpine	Bullhead City	Arizona City
5th	Bullhead City	Tucson	Tucson

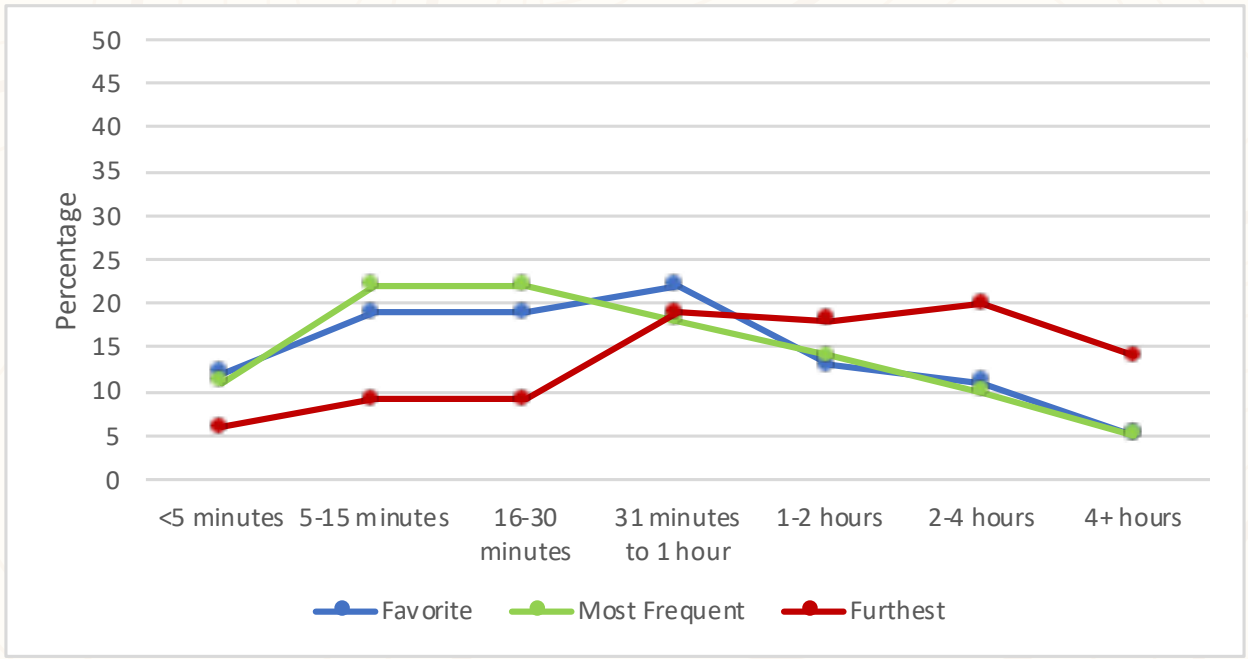
The table below shows the top five cities where RSS respondents' favorite, most frequent and furthest motorized trails are located, with Apache Junction and Yuma being the top two of each type. Please note that the locations listed below represent the reports of the random sample (Table 4 below), where each response from a core motorized user is counted as one case, and the number of cases is summed for each city/town. For further analyses, where all motorized RSS responses are included, and are weighted to reflect: 1) the population, 2) the number of visits reported by respondents, and 3) statewide participation rates, please see The Economic Value of Trails in Arizona: A Travel Cost Method Study technical report (azstateparks.com/Publications).

The cities and towns closest to where the public online survey respondents accessed their favorite, most frequently used and farthest trails within the last 12 months can be contrasted to the random sample survey responses. Again, locations listed below represent the reports of the public online (Table 5 below), where each response is counted as one case and number of cases are summed for each city/town. Lake Havasu City shows up in all three lists for public online survey respondents, but not for random sample survey respondents. Also, Tucson is represented in the top five locations for respondents' favorite and most frequent trails across samples, but varies in rank order across samples. The public online survey was distributed to OHV clubs and other OHV enthusiasts by committee and working group members, as well as OHV retailers. Therefore, this might be a sample that includes more members of the active OHV community, as compared to the casual rider, and could also be

Table 5: Favorite, Most Frequent and Furthest Motorized Recreation Trails by Core Public Online Respondents

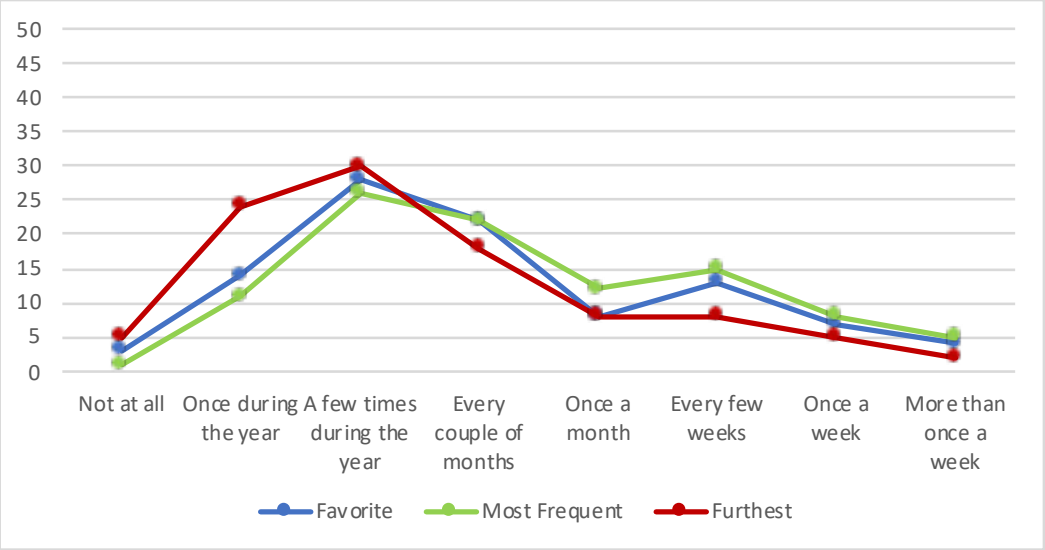
Rank	Favorite Trail	Most Frequent Trail	Furthest Trail
1st	Lake Havasu City	Lake Havasu City	Flagstaff
2nd	Flagstaff	Tucson	Lake Havasu City
3rd	Tucson	Peoria	Alpine
4th	Prescott	Flagstaff	Sedona
5th	Payson	Apache Junction	Happy Jack

Figure 11: Travel Time to Favorite, Most Frequent and Furthest Motorized Recreation Trails - Core Random Sample Survey



"Approximately how long does it take you to get from your home to where you access each of the following?"

Figure 12: Frequency of Use for Favorite, Most Frequent and Furthest Motorized Recreation Trails by Core Random Sample Survey

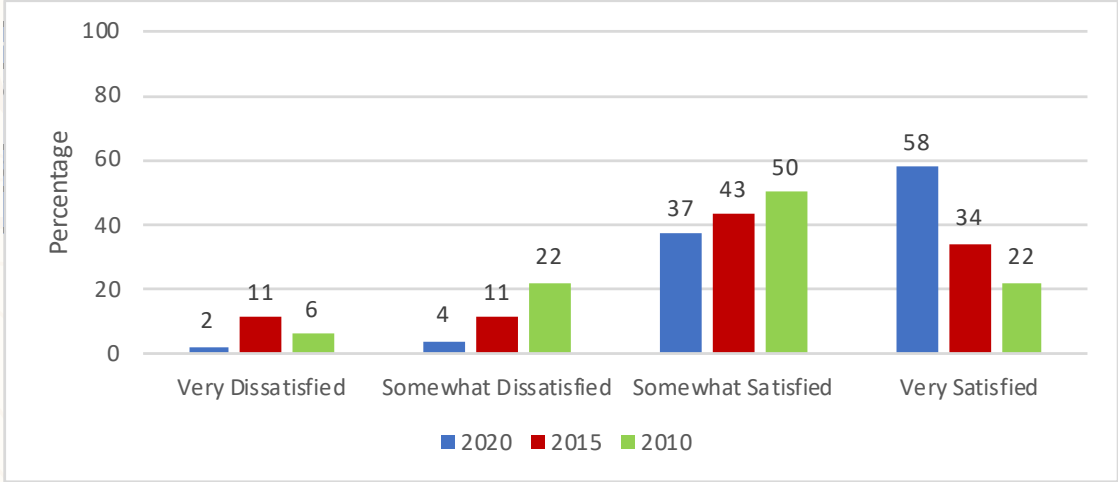


"During the past 12 months, how often did you use each of the following?"

Satisfaction with Motorized Trails in Arizona

A significant majority of RSS core motorized respondents reported being satisfied with motorized trails in Arizona, with a combined total of 95% saying they are "somewhat satisfied" or "very satisfied" as compared to 85% of the public online survey respondents (47% were "somewhat satisfied," 38% were "very satisfied"). Overall satisfaction likely reflects a number of factors important to the user, such as the locations or diversity of trails in Arizona.

Figure 13: Satisfaction with Motorized Trails Over Time - Core Random Sample Survey

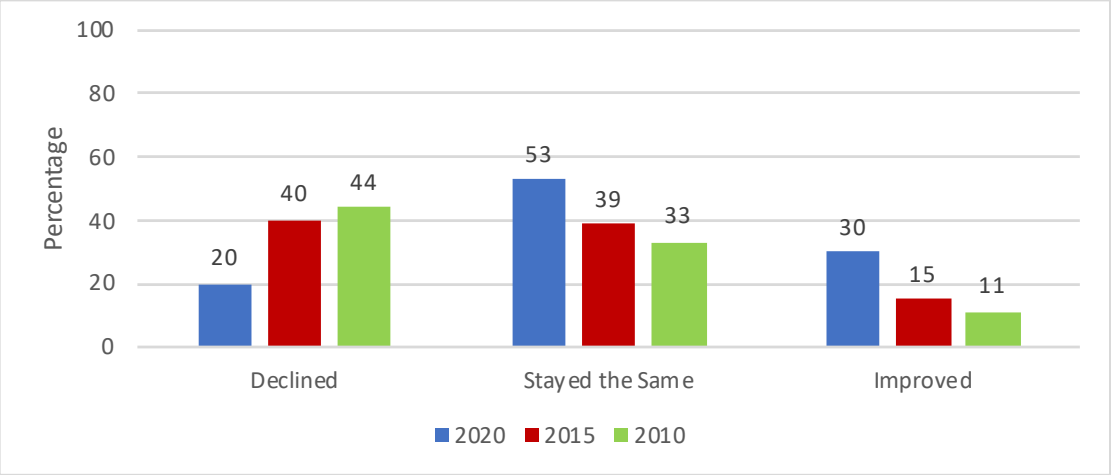


"Overall, how satisfied are you with motorized trails in Arizona?"

Public Access to Motorized Trails

Respondents were asked whether they thought that access to motorized trails has gotten better, stayed the same or gotten worse over the past five years. As seen below, over half of RSS core motorized users (53%) believe that trail access has stayed the same, while 30% think it has improved and 20% think it has gotten worse. In comparison, more than one-third (35%) of core motorized public online survey respondents reported that access to motorized trails had gotten worse in the past five years, approximately two out of five (39%) reported that access had stayed the same and 17% said that access had gotten better, with 10% unable to say. The opinion that access has improved over the last five years represents an increase of nearly 100% over the Arizona Trails 2015 Plan findings and 60% over the 2010 findings.

Figure 14: Access to Motorized Trails Over Time - Core Random Sample Survey



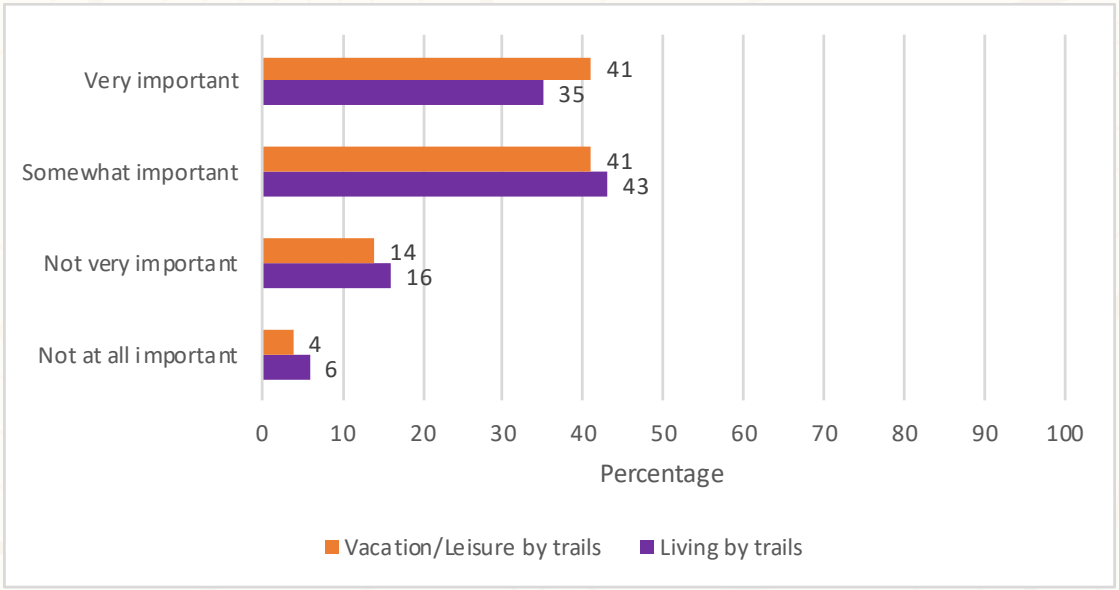
"In the past 5 years, do you think that access to trails for motorized recreation has gotten better, stayed the same or gotten worse?"

Quality of Life

The 2020 plan took a different approach regarding quality of life, asking two hypothetical questions about the importance of trails to the respondents. These questions can inform Arizona communities of the importance of trails to Arizona residents when considering where to live and where to vacation.

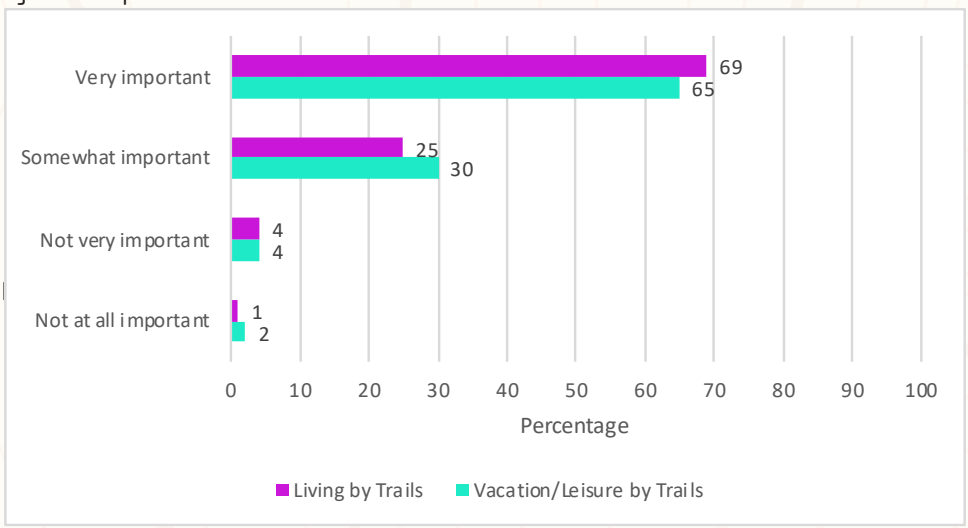
Among motorized trail users, a combined total of 78% of respondents (compared to 94% of the core, motorized public online survey respondents) reported that having trails nearby would be "somewhat important" or "very important" in deciding where to live in Arizona; only 24% (compared to 5% of public online survey respondents) considered nearby trails as "not very important" or "not at all important." Similarly, a combined total of 82% of RSS core, motorized trail users considered nearby trails to be "somewhat important" or "very important" when choosing an Arizona destination for vacation or leisure travel, as compared to 95% of core, motorized users who completed the public online survey.

Figure 15: Importance of Trails - Core Random Sample Survey



"How important is it to have trails nearby if you were deciding where to live in Arizona?"
"How important is it to have trails nearby when choosing a destination for vacation or leisure travel in Arizona?"

Figure 16: Importance of Trails - Core Public Online

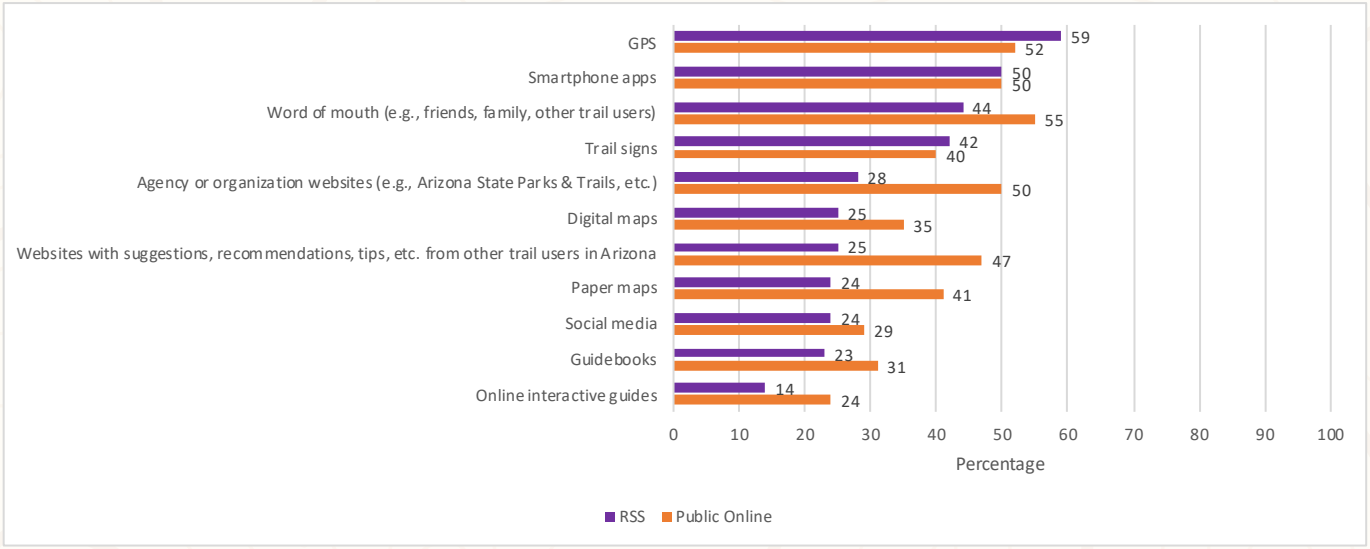


"How important is it to have trails nearby if you were deciding where to live in Arizona?"
"How important is it to have trails nearby when choosing a destination for vacation or leisure travel in Arizona?"

Tools to Find and Use Trails in Arizona

Motorized trail users were asked to identify, from a list, the tools they employed to find and use trails in Arizona. The most frequently used tools for finding and using trails for RSS core motorized users were GPS and smartphone apps. In comparison, core motorized public online survey respondents use word of mouth, GPS, smartphone apps and agency websites most frequently. The figure below presents the complete list of tools, along with their frequency of selection by users of motorized trails. Respondents were asked to select all that apply.

Figure 17: Tools Used to Find and Use Trails in Arizona - Core Random Sample Compared to Core Public Online Survey



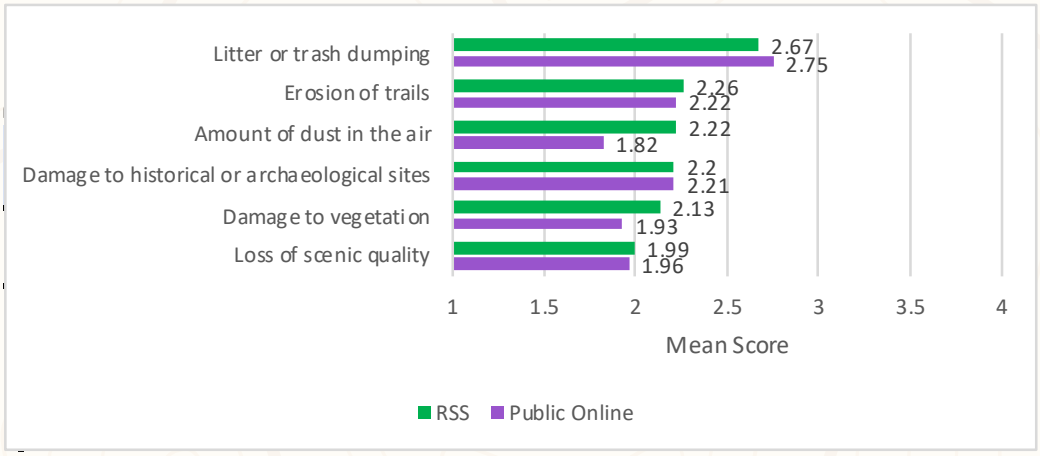
"Which of the following tools do you use to find and use trails in Arizona?"

Environmental Concerns

Respondents were asked to consider six environmental concerns that might negatively affect their experience using motorized trails and to rate how much of a problem each one is on the trails they use most frequently. The four-point rating scale ranged from (1) "not a problem" to (4) "a serious problem."

As seen in the figure below, the top three environmental concerns that motorized trail users considered to be problems were (1) litter or trash dumping, (2) erosion of trails and (3) amount of dust in the air. These rankings are similar to those reported for the Arizona Trails 2015 Plan, in which the top two environmental concerns of motorized trail users were litter or trash dumping and erosion of trails.

Figure 18: Environmental Concerns of Motorized Users – Core Random Sample Compared to Core Public Online



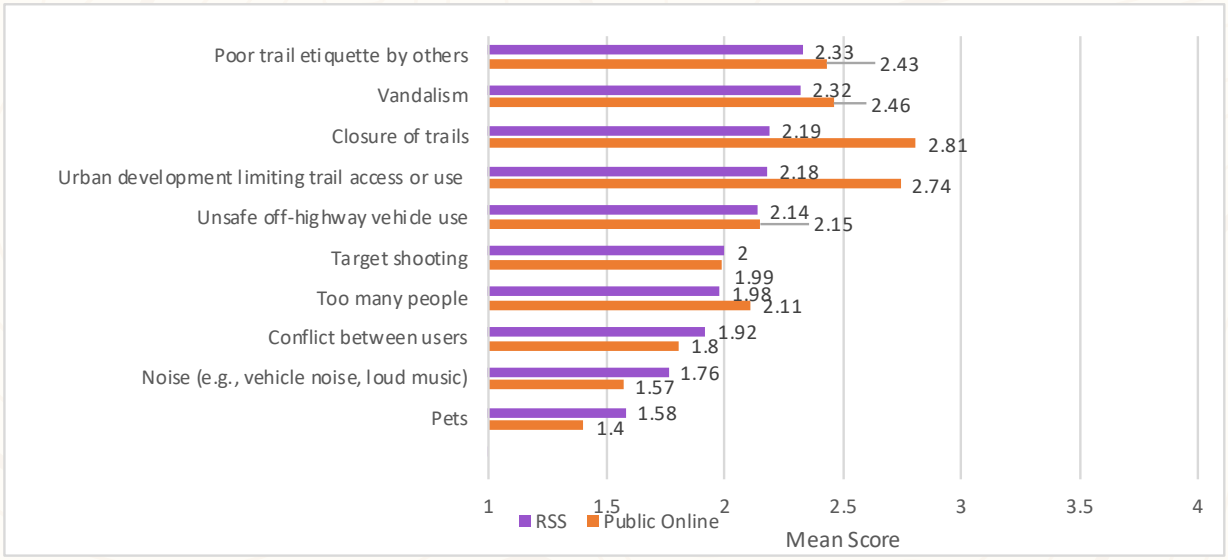
"Thinking about possible environmental conditions that might negatively affect your trail experience, how much of a problem is each of the following on the Arizona trails you use most for recreation activities?"
**Scale ranges from 1="not a problem" to 4= "a serious problem"

Social Concerns

Respondents were then asked to consider 10 social concerns that might negatively affect their experience using motorized trails and to rate how much of a problem each one is on the trails they use most frequently. The four-point rating scale ranged from (1) "*not a problem*" to (4) "*a serious problem*."

As seen in the figure below, the top three social concerns that motorized trail users considered to be problems were (1) poor trail etiquette, (2) vandalism and (3) closure of trails. These rankings are similar to those reported for the Arizona Trails 2015 Plan, in which closure of trails and vandalism were two of the top three concerns.

Figure 19: Social Concerns of Motorized Users - Core Random Sample Compared to Core Public Online Survey



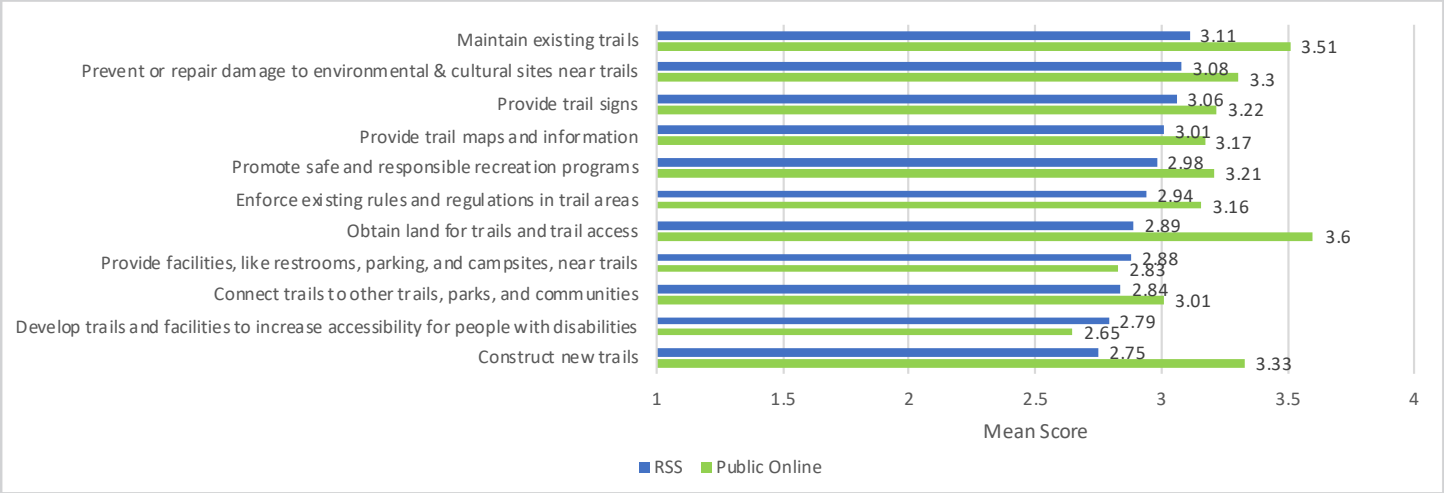
"Thinking about possible social conditions that might negatively affect your trail experience, how much of a problem is each of the following on the Arizona trails you use most for recreation activities?"
*Scale ranges from 1="not a problem" to 4= "a serious problem"

Trail Planning and Management Priorities

Trail managers have limited resources to develop and maintain trails. To help inform management decisions regarding resource allocation and issue prioritization, respondents were asked to review a list of 11 priorities related to trail management and to rate them on importance.

As seen in the figure below, the top three priorities for RSS core motorized trail users were to (1) maintain existing trails, (2) provide trail signs and (3) prevent or repair damage to environmental and cultural sites near trails, which was closely followed by (4) provide trail maps and information. In contrast, core motorized respondents on the public online survey prioritized (1) obtaining land for public access, (2) maintaining existing trails and (3) constructing new trails. A comparison of the RSS survey rankings with those from the 2015 survey determined that two of the top three priorities have remained unchanged.

Figure 20: Trail Management Priorities of Motorized Users - Core Random Sample Compared to Core Public Online Survey

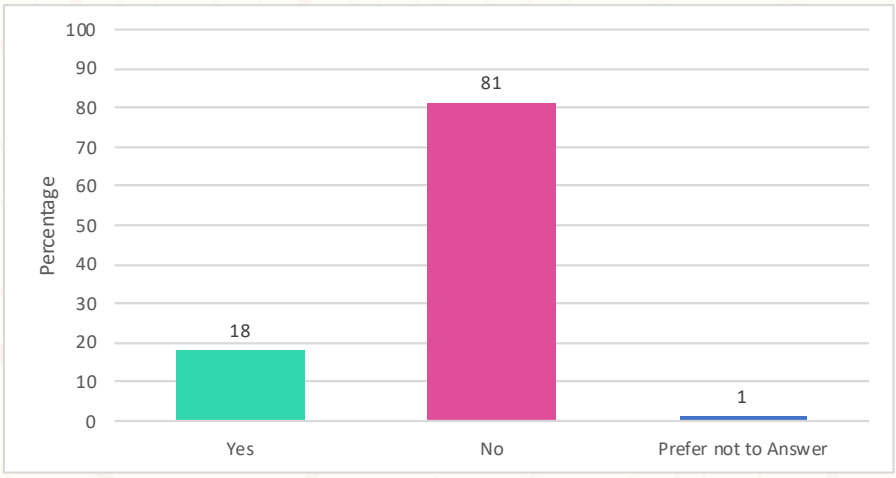


"How important to you are the following trail management priorities?" Scale is 1= "not at all important" to 4="very important"

Accessibility and Inclusion

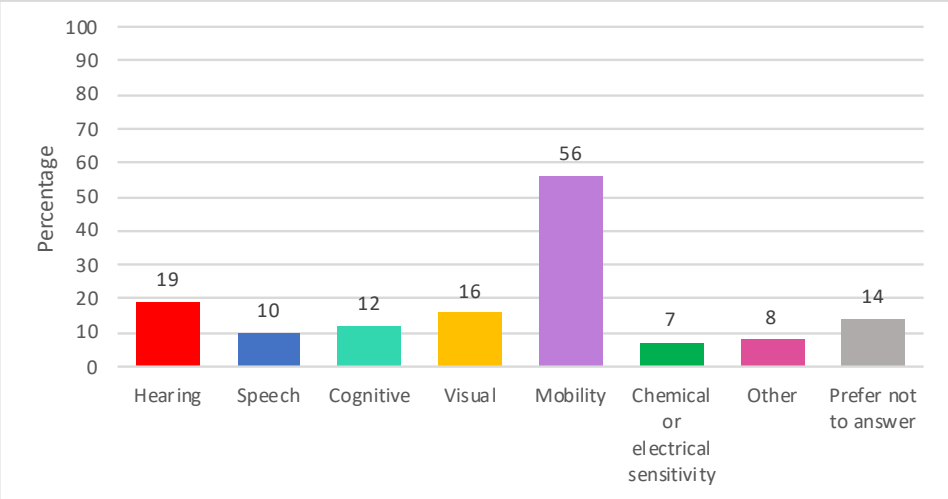
Both the 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) and the ASPT 2018-2022 Five Year Strategic Plan present constituent-centered goals and objectives and create a framework for the agency's activities. One of the Plan's four SCORP and strategic plan pillars is Accessibility and Inclusion, aimed at understanding the barriers, needs and preferences of diverse and traditionally underrepresented user groups and developing plans to encourage and support inclusion. To that end, the 2020 Trails Plan added a new management priority: develop trails and facilities to increase accessibility for people with disabilities. This will enable ASPT to begin tracking its importance to trail users in future surveys.

Figure 21: Frequency of Disabilities Among Core Random Sample Survey Respondents' Households



"Are there any individuals in your household with a disability who require accommodations related to their use of Arizona trails?"

Figure 22: Type of Disabilities in Household Among Core Random Sample Survey Respondents



Trails Managed for Single or Shared Uses

Conflicts between users can arise when trails are designed to provide opportunities for multiple activities on the same trail. Many motorized trails in Arizona are considered "shared use," which allows two or more of the following activities: driving a quad/ATV/UTV/5x5, driving a 4x4, riding a dirt bike or riding an e-bike on the same trail. Some trails restrict use to a single activity based on location, terrain, safety or use considerations. Conflicts may also arise due to allowing motorized and non-motorized uses on the same trail.

Respondents were asked if they felt trails should be managed for single or multiple activities. The figure below shows that a significant majority (90%) of random sample survey core motorized trail users believe that trails should be managed for multiple activities, but were evenly divided on whether motorized and non-motorized activities should be separated or combined. In contrast, slightly more (48%) of the core motorized users in the public online survey preferred multiple activities with motorized and non-motorized uses combined. The same percentage (45%) preferred multiple activities with motorized and non-motorized uses separated. Only 7% of the public online survey sample of core motorized users recommended trails built and managed for a single activity use type while 11% of the RSS respondents said the same. The RSS findings represent an increase from 2015 in the percentage of motorized trail users who favor separating motorized and non-motorized activities on trails.

Figure 23: Opinion on Mixed Versus Single Use Trails - Core Random Sample Survey Respondents

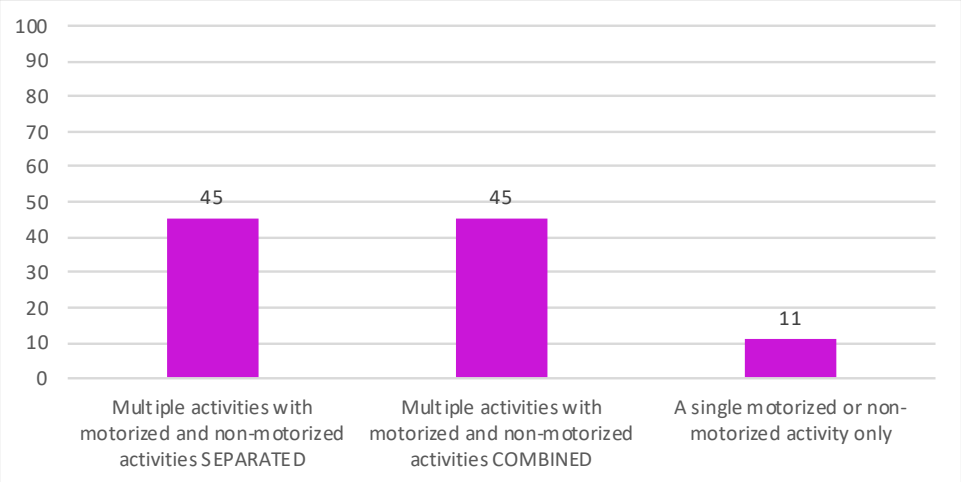
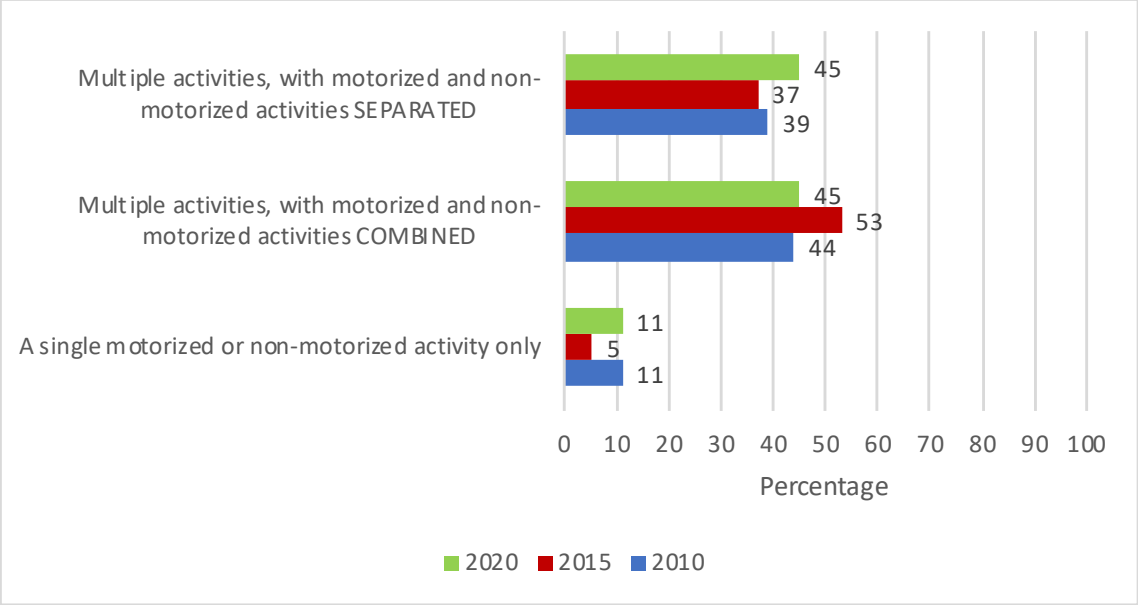


Figure 24: Opinion on Mixed Versus Single Use Trails Over Time - Core Random Sample Survey Respondents



"In general, which of the following statements best represents your opinion of how recreation of Arizona Trails should be managed?"

MOTORIZED-LAND MANAGERS SURVEY

Arizona land managers were provided a separate web survey to collect their unique perspectives and opinions on trail funding, management priorities, environmental concerns, social concerns and the Arizona State Parks and Trails grant administration process, among other topics. They were asked about both motorized and non-motorized trails separately. The chart on the right is a distribution of the kinds of agencies and the counties where respondents work.

Figure 25: Types of Agencies in Which Land Manager Respondents Work

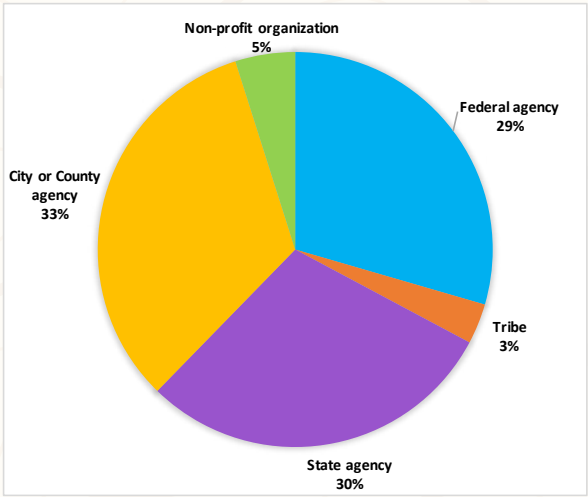
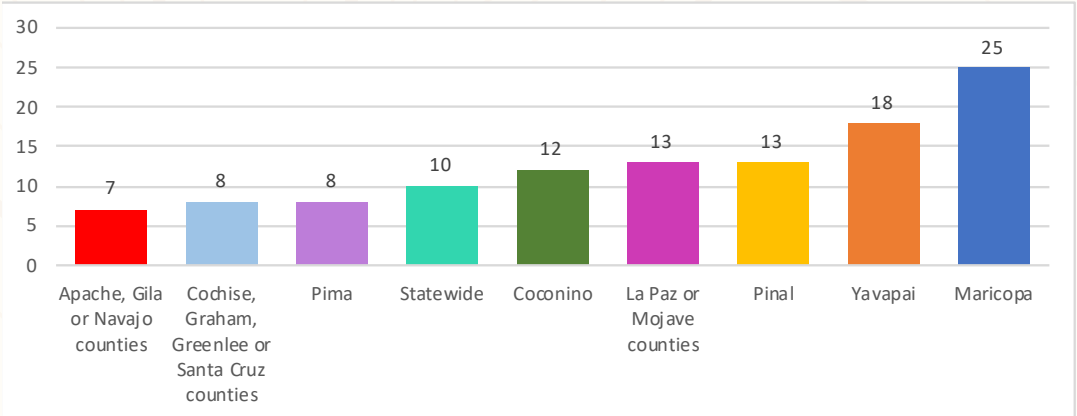


Figure 26: Counties in Which Land Managers Are Employed

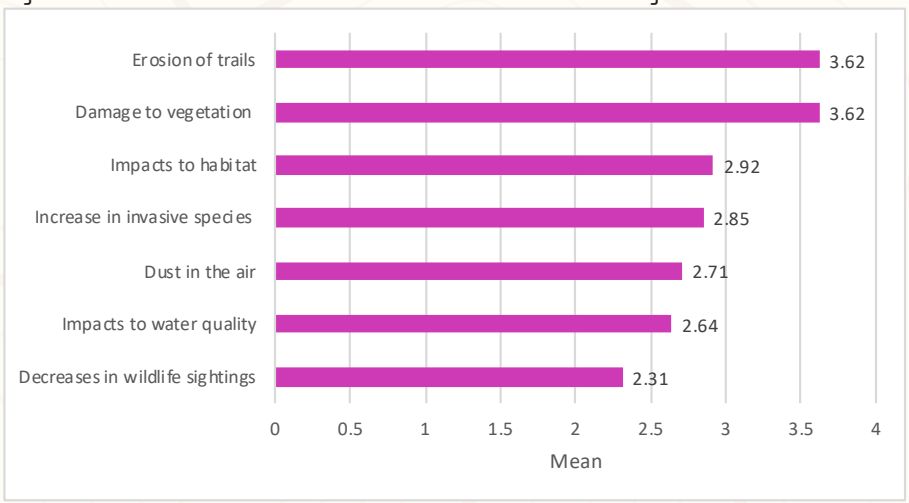


Motorized Trail Environmental Impacts for Arizona Land Managers

Managers were asked to rate eight environmental issues that might be impacted by motorized trail use. The three most problematic environmental conditions on motorized trails (ties did occur based on sample size) were erosion of trails, damage to vegetation and damage to historical or archaeological sites surrounding trails. These same issues were also top concerns of land managers who participated in the Arizona Trails 2015 Plan survey.

Though in a different order, the bottom three concerns, dust in the air, impacts to water quality and decreases in wildlife sightings, were the same as land managers' environmental concerns for non-motorized trails. Data is presented in terms of a mean on the scale ranging from 1 = "*not a problem*" to 4 = "*a serious problem*."

Figure 27: Environmental Concerns for Motorized Trails - Land Managers



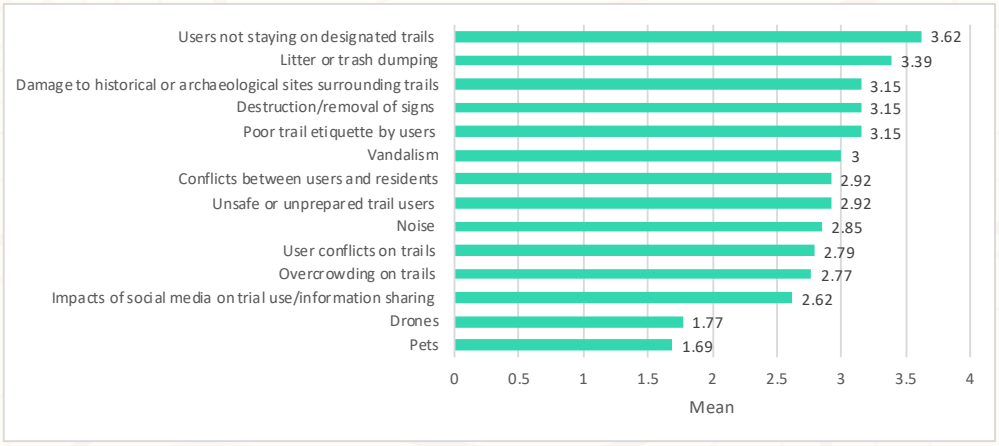
"For MOTORIZED routes only, how much of a problem are the following environmental concerns are for your agency?" Scale is 1="not a problem" to 4="a serious problem

Motorized Trail Social Conditions for Arizona Land Managers

Managers were asked to rate 13 social conditions that might be impacted by motorized trail use. This is an increase in issues from the Arizona Trails 2015 Plan due to new, emerging technologies impacting the experience of trail use such as wireless speakers to play amplified music, drones and the use of social media to share trail-related information.

The three most problematic social conditions on motorized trails from the responding "land managers were users not staying on designated trails, litter or trash dumping and a tie between destruction/removal of signs and poor trail etiquette by users. In the Arizona Trails 2015 Plan survey, users not staying on designated trails was a top social issue for motorized trails also. The data presented below were rated on a scale of 1= "*not a problem*" and 4= "*a serious problem*."

Figure 28: Social Concerns for Motorized Trails - Land Managers

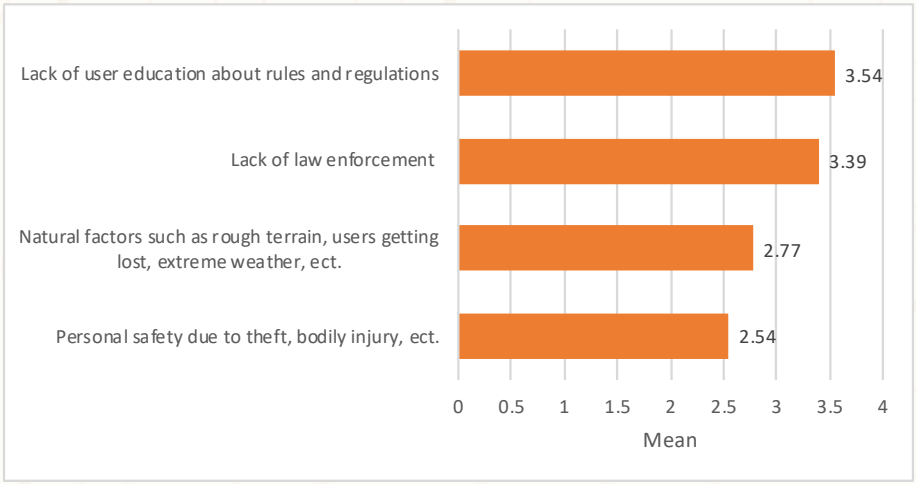


"For MOTORIZED routes only, how much of a problem are the following social concerns are for your agency?" Scale is 1= "not a problem" to 4= "a serious problem

Safety Concerns for Motorized Trails

As mentioned previously, unsafe or unprepared trail users is a social concern for land managers. There are many factors that can impact user safety, such as Arizona's extreme heat and harsh climate. Land managers were asked how much of a problem the following safety concerns were for their agencies related to motorized trails and users. The highest ranked safety concern was lack of user education about rules and regulations. This reasonably differed from the highest non-motorized safety concern for land managers, which was natural factors. Many land managers and other professionals involved in OHV recreation, working in collaboration with Arizona State Parks and Trails and Arizona Game and Fish Department, who receive OHV Recreation Fund monies for OHV education, are working on ways to expand OHV education for all user groups. These items were rated on a scale of 1 = "*not a problem*" to 4 = "*a serious problem*."

Figure 29: Safety Concerns for Motorized Trails - Land Managers



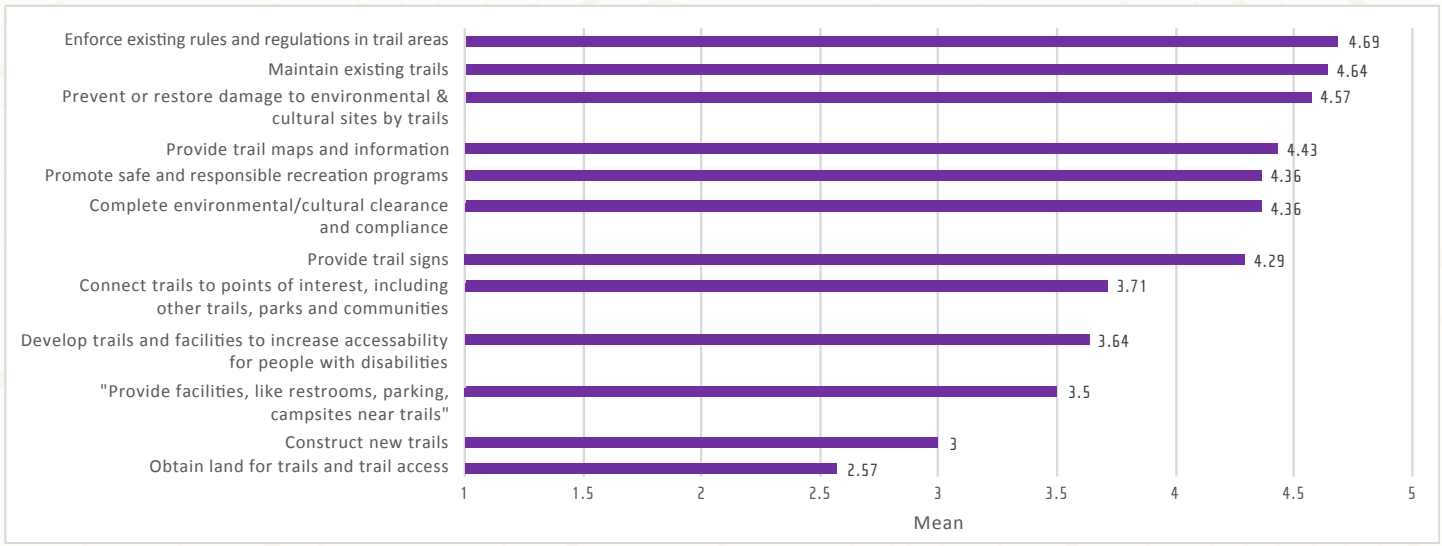
"For MOTORIZED trails or routes, how much of a problem are the following safety concerns for your agency?" Scale is 1 = "*not a problem*" to "*a serious problem*"

Motorized Trail Funding Priorities for Arizona Land Managers

Managers were asked to rate 12 issues that relate to the management of motorized trails.

The top three trail management priorities for motorized trails were: 1) to enforce existing rules and regulations, 2) maintain existing trails and 3) prevent or restore damage to environmental and cultural sites surrounding trails. As shown, many of the issues were ranked very highly on a five-point scale, suggesting many of the issues are of utmost importance to managers. In the figure, the data was rated on a scale ranging from 1 = "not al all important" to 5 = "extremely important."

Figure 30: Trail Management Priorities for Motorized Trails - Land Managers

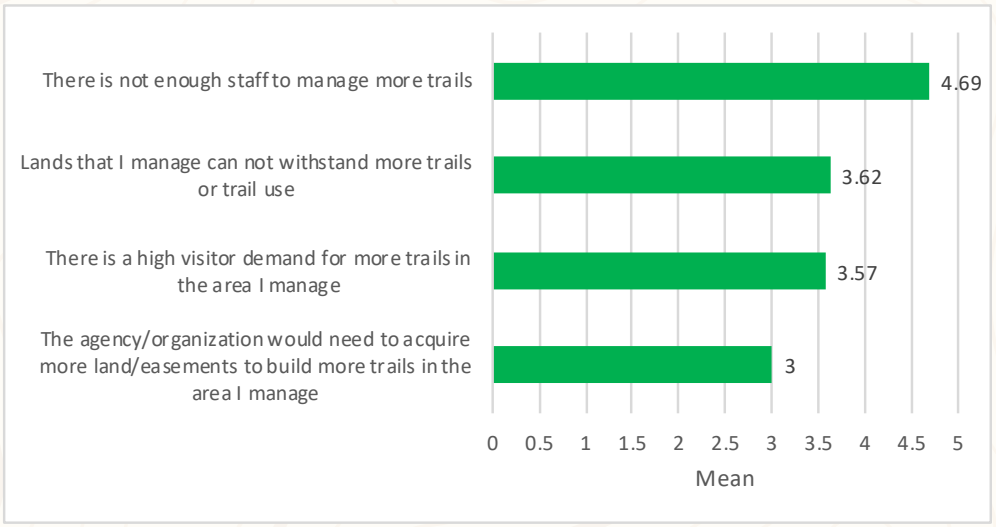


"For MOTORIZED trails, how important are each of the trail management areas to your agency and trail needs? "Scale is 1 = "*not at all important*" to 5 = "*very important*"

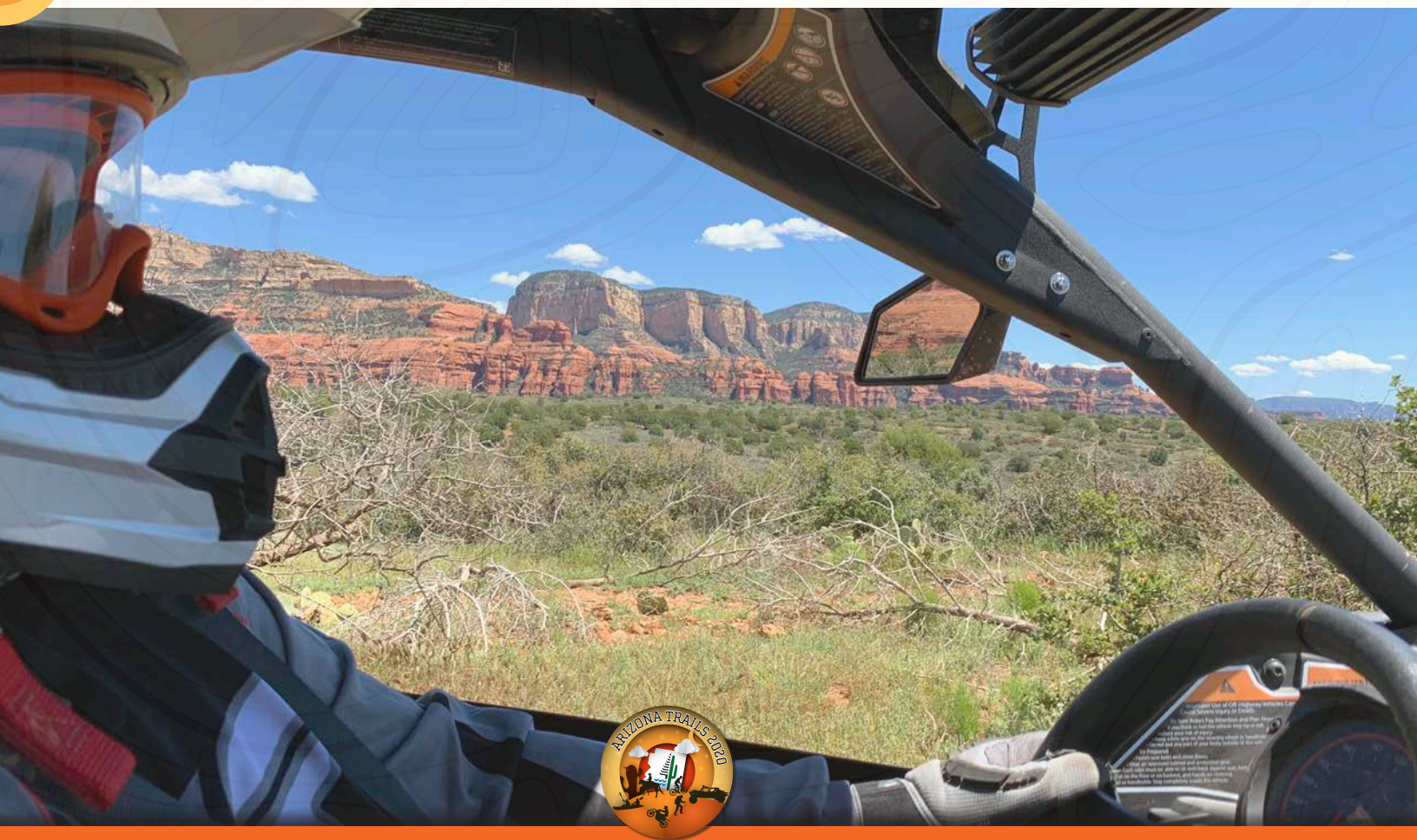
Constructing New Motorized Trails

With the growing population of the state of Arizona, some users and managers suggest building new trails or new motorized-use only trails due to overcrowding, overuse or other problems. Constructing new trails was low on the list of management priorities for motorized trails, and the questions below indicate why. On the management side, there are barriers to creating new trails, such as not having enough staff or land, and land managers offered insight on building new motorized trails. The following figure shows that the surveyed land managers experience some of these barriers despite having a high visitor demand for new trails. The data was rated on a five-point scale ranging from 1= *strongly disagree* to 5= *strongly agree*.

Figure 31: Need for New Motorized Trails - Land Managers



"How much do you, as a representative of your agency, agree or disagree with the statements below about the need for new MOTORIZED trails?" Scale is 1= "*strongly disagree*" to 5= "*strongly agree*"



ARIZONA State Parks and Trails
OFF-HIGHWAY VEHICLE PROGRAM ACCOMPLISHMENTS

Over the past five years, Arizona State Parks and Trails and its OHV Program have seen a wide-range of changes. However, the agency's mission to "manage and conserve Arizona's natural, cultural and recreational resources for the benefit of the people, both in our parks and through our partners" has not waivered. The agency's Grants and Trails Program strives to provide increased customer service and innovative products and services. The following information highlights program changes and accomplishments over the past five years.

Success: Many Agency Awards

Although not specifically linked to 2015 Motorized Priority Issues and Actions, identifying and implementing process and program improvements is a continuous goal for Arizona State Parks and Trails and is consistent with the Arizona Management System implemented by Governor Ducey in 2015. Arizona State Parks and Trails has received recognition since the Arizona Trails 2015 Plan for some of the innovative process improvements made to grants processes and agency operations.

In 2017, the Coalition of Recreational Trails awarded Arizona State Parks the "Outstanding State Trail Program" for expanding grant outreach efforts by hosting workshops in communities across the state, integrating an online grant management system and implementing new grant offerings to expedite project spending and applicant accessibility.

In 2017, the "Next Generation Award" was presented to the chief of Grants and Trails by Route Fifty for the innovative work of the geographic information system (GIS) team hired to provide improved GIS data for maps, mobile apps and completing grant site inspection backlogs. This work addressed one of the second level priorities in the Arizona Trails 2015 Plan, "Providing Maps and Trail/Route Information" and improved grant processes.

The "Excellence in Grant Administration Award" was presented to the Chief of Grants and Trails, Mickey Rogers, in 2018 by the National Association of State Outdoor Recreation Liaison Officers for bringing innovative ideas to grant management and converting the ASPT grant program to an online grant management system.

Arizona State Parks and Trails won the "Gold Medal for Excellence" for the best-managed state park system in the nation from the National Recreation and Park Association in 2017. The prestigious National Gold Medal Award is presented to applicants who provide the highest quality of parks and recreation opportunities to their communities. Criteria for the award includes long-range planning, resource management and innovation in customer service.

The following year, Arizona State Parks and Trails became the first state park system in the country to achieve accreditation from the Commission for the Accreditation of Park and Recreation Agencies (CAPRA) for implementing best practices in all areas of agency operation.

CAPRA accreditation is the only national accreditation for park and recreation agencies and is a measure of the extent to which an agency is engaging in national best practices in all areas, including operations, management and service to the public. The agency is one of only 166 recreation agencies across the country to earn accreditation and the first state park system.

CAPRA accreditation is a two-year long process. Each agency must submit a self-assessment, followed by an on-site audit to ensure compliance to plans, policies and procedures. This assessment, in combination with the guiding philosophy and tools provided by Arizona Management System aided the agency in identifying areas where improvement was needed and encouraged the identification of metrics to monitor process improvement.

The OHV Ambassador program was the recipient of the 2018 "Volunteer of the Year Award" from the Arizona Parks & Recreation Association (APRA). This award recognizes laypersons or groups who have demonstrated consistent or outstanding volunteer service in their community and whose commitment has been in furthering the field of parks, recreation and/or cultural and community services through excellence, service and execution of their talents and skill. The OHV Ambassador program has aided in addressing the following

2015 priority issues: 1) maintain and renovate existing trails and routes (first level priority) – by removing trash from OHV trails and trailheads, doing light maintenance work, conducting trail condition patrols and working with land managers to address dust abatement; 2) provide maps and trail route information (second level priority) by distributing these and other educational materials at outreach events and trade shows; and 3) provide and install trail/route signs (a level one priority) at various locations, including Jackass Flats. In fact, between 2015 and 2019, the OHV Ambassadors made verbal contact with more than 30,000 OHV enthusiasts, and updated kiosks at trailheads in the state of Arizona. In addition, the Ambassadors performed trail rescues, identified trail hazards and increased on the ground management presence (third level priority) by riding more than 5,000 miles on BLM and United States Forest Service (USFS) managed lands.

Success: Web Updates

The Off-Highway Vehicle Program strives to provide accurate and relevant information to all of Arizona's riders, both resident and non-resident. One of our most powerful tools for information distribution is online. The program provides information to thousands of OHV enthusiasts annually. Between 2017 and 2019, the program's OHV page has been reviewed and revised to reflect legislation changes, improved mapping information and current events. The agency's GIS team has also worked to create various maps of designated riding areas and day use loop trails to help promote safe and ethical use. For the most up to date information on Arizona State Parks and Trails Statewide OHV Program and riding opportunities, visit the website at azstateparks.com/ohv.

Success: OHV Economic Impact Study

Arizona State Parks and Trails and Arizona State University (ASU) partnered to evaluate the economic impact of OHV recreation statewide. In 2017, the Arizona State Parks and Trails Off-Highway Vehicle Program collected online and in-person surveys from resident and non-resident riders statewide.

ASU analyzed this data and reported that the OHV industry has an estimated impact of $2.6 billion a year on the economy of the state of Arizona. ASU provided Arizona State Parks and Trails with both an abbreviated graphic report and a full detailed report on the findings. Both reports highlight the findings of the study and capture information on spending habits, where people enjoy riding and the overall impact the sport has on the Arizona economy. Both the detailed and graphic report are available on the state parks website for review at azstateparks.com/ohv. Although not specifically linked to 2015 Trails Plan priorities, partners, stakeholders and OHV advocates regularly requested that ASPT initiate this project, since the last OHV Economic Impact Study was completed in 2003.

Success: Grants and Funding Improvements

In an effort to expedite project spending and provide year-round funding opportunities to grant applicants, the Grants and Trails Team, with approval from the State Parks Board, has established several supplemental grant opportunities that can be applied for year-round for motorized projects. These smaller, focused opportunities are provided in addition to funds available year-round with a rolling deadline for larger projects. These grant process improvements allow for easier tracking and reporting of grant dollars spent addressing each of the 2015 Trails Plan priorities. They also allow Grants and Trails staff to identify priority issues that received less grant project submittals, and encourage projects related to these issues. More information about grant funding sources such as the federal Recreational Trails Program (RTP) and the state Off-Highway Vehicle Recreation Fund is available in Chapter 5.

Success: Trails Design and Maintenance Education Opportunity

One of the third tier priority issues supported by the OHV community in the Arizona Trails 2015 Plan, was Providing Education Programs. As a result, in 2018 Arizona State Parks and Trails provided a $17,000 grant to the National Off-Highway Vehicle Conservation Council (NOHVCC) to conduct a Great Trails Workshop in the Phoenix Area. These workshops are a fantastic tool for building relationships between users and land managers. The workshop brought together the USFS, Arizona State Parks and Trails and several riding clubs to discuss trail design, sustainable trails, and multi-agency collaboration. The workshop lasted four days and included a site visit to the Cave Creek Ranger District for hands-on learning. Arizona State Parks and Trails continues to work with NOHVCC and hopes to host their national conference in the coming years.

2020 MOTORIZED TRAIL PRIORITY RECOMMENDATIONS AND ACTIONS

This section presents priority recommendations for motorized trail uses and some associated action items. Priority recommendations are based on the survey data (random sample survey, public online users and land manager surveys), guidance from the Arizona Trails 2020 Plan Working Group and the professional experience of Arizona State Parks and Trails staff. Action items were generated by ASPT staff, the Arizona Trails 2020 Trails Plan Working Group and the Off-Highway Vehicle Advisory Group (OHVAG). Factors within each priority level all have equal weight. Arizona State Parks and Trails acknowledges that all 10 recommendations are important for effective management of OHV use, and are interrelated.

This section also fulfills the legislative requirement that Arizona State Parks and Trails prepare the statewide motorized Trails Plan and make recommendations to agencies and the private sector regarding expenditures from the OHV Recreation Fund.

Table 6: Motorized Recreation Priorities

First Level Priority **Motorized Recommendations**
Connect trails to other trails, parks and communities
Maintain existing trails
Prevent or repair damage to environmental and cultural sites near trails
Provide trail maps and information
Second Level Priority **Motorized Recommendations**
Complete environmental/cultural clearance and compliance activities
Promote safe and responsible recreation programs
Provide facilities near trails (e.g., restrooms, parking, campsites) / Develop trails and facilities to increase accessibility for people with disabilities
Provide trail signs
Third Level Priority **Motorized Recommendations**
Construct new trails
Enforce existing rules and regulations in trail areas
Obtain lands for trails and trail access

The recommendations for motorized trail use are employed by all participating agencies to guide distribution of funds administered by Arizona State Parks and Trails from the OHV Recreation Fund and the Federal Recreational Trails Program until the next plan is published. These recommendations also serve as an overall direction for Arizona State Parks and Trails, other land managers and OHV users in their efforts to improve the State of Arizona's motorized trail opportunities. Where possible, some examples of successes have been included in the action items. These should not be considered exhaustive, but only an illustration of implemented action items to date that can serve as models for other agencies and organizations.

Additionally, some of the public comment received revealed that clarification is necessary regarding the impacts of an issue being categorized as first, second or third level priority and the impacts that this categorization may have on grant criteria developed to award federal Recreational Trails Program and Off-Highway Vehicle Recreation Fund monies. Please see Chapter 5 for clarification of how these priority issues are assigned point values for grant criteria, and what this may mean for individual project applications.

1 First Level Priority Recommendations for Motorized Trail Use

Connect trails to other trails, parks and communities

Issue: Using trails to connect to other trails, parks and communities was one of the focus areas in Arizona's 2018 Statewide Comprehensive Outdoor Recreation Plan. Trails that connect points of interest make communities more livable and walkable, improve the economies of communities by drawing visitors to multiple points of interest within the community and improve the health of residents by providing healthy and safe alternatives to driving (MacDonald, 2011). One study found that connection to other trails was one of the factors that contributed to greater trail use (Lindsey, Nordstrom, Wu, Wu, Ciabotti, Woods, Eldridge, et al, 2015). Some motorized recreationists suggested using the Paiute Trail system in Utah as a model for the successful development, maintenance and operation of a system of connected motorized trails that draws visitors to the state. Some examples of projects that are currently being championed in Arizona are the Arizona Peace Trail, a 650-mile trail which links Mojave, La Paz and Yuma counties in Western Arizona and the Great Western Trail, which would run north-south from Canada to Mexico, through Arizona.

Actions:

- Give priority to trail proposals that connect to other trails, communities, parks and open space, schools, libraries, indoor recreation facilities and businesses.
- Develop OHV connectors and networks to create loop trails or provide longer rides.
    - Highlight models and successes nationally, statewide and in communities and disseminate best practices for working with a variety of public and private landowners and stakeholders.
- Develop and use a digital statewide trails map with GIS layers to identify areas that would benefit from connectivity.
- Contact, inform and involve all partners and stakeholders early in the planning process.
- Use the online Government to Government toolkit (sites.google.com/view/az-consultation-toolkit/home) to identify appropriate methods of contact and appropriate points of contact for impacted Native American communities. If necessary, identify a statewide single-point of contact for these consultations.
- Develop guidelines with state and federal entities that will allow the process to move forward smoothly and in a timely manner.
- Develop standardized signage and maps to provide cohesive visitor experiences across jurisdictions.

Maintain Existing Trails

Issue: Data collected from all of the surveys conducted (RSS, public online and land managers) as well as guidance from the working group suggests that one of the top motorized trail priorities is to keep existing trails in good condition. This has continued to be a top priority since the 2000 Trails Plan. Trails may erode due to natural causes, overuse, unsustainable design or lack of available regular maintenance. Badly eroded or aligned trails result in users creating unauthorized alternate routes. Renovation of a trail also provides opportunities to address and/or mitigate any resource impacts caused by trail use. Nearly one-third (30%) of random sample survey respondents who commented on the survey made recommendations regarding trail maintenance. Topics of concern were litter (which was addressed in an additional 12% of comments), quickly addressing needed maintenance to trails, especially after summer monsoons and removing encroaching vegetation on trails.

Actions:

- Identify, prioritize and take action on reconstruction and maintenance needs of motorized trails and routes.
    - Identify and implement a method for monitoring trails in order to provide accurate, up to date information on trail issues and maintenance needs (e.g., partner with OHV Ambassadors or other clubs or riders to monitor trails, use Site Steward program as a model for reporting).
- Incorporate sustainable trail design when realigning, renovating or maintaining trails.
- Develop programs, including use of volunteers, to provide routine upkeep of designated trails and routes.
    - Identify national, state and regional best practices, and implement these programs and practices widely.
    - Institute an adopt-a-trail program based on the Tonto Recreation Alliance's model.
    - Ensure that volunteers are properly trained in sustainable trail maintenance, design and the importance of natural and cultural resource preservation while engaging in trail maintenance activities.

  - Provide a framework that allows entry-level volunteers to move up to a more detailed or technical job or leadership role (e.g., supervising volunteer crews).
  - Utilize non-profit organizations, such as Arizona Conservation Corps or Americorps for volunteer coordination and training.
- Actively seek out grants, partnerships, Friends Groups and volunteers to supplement trail budgets.
  - Utilize Department of Corrections fire crews to rehabilitate and maintain trails near their locations.
  - Use Tonto Recreation Alliance as an example of a non-profit-public partnership that supports motorized trail maintenance on Tonto National Forest.
  - Partner with volunteer groups such as trail clubs, and/or others to coordinate clean up efforts.
- Develop, coordinate and disseminate training materials for staff and volunteer trail crews.
  - Create a central clearinghouse for materials related to sustainable trail design and available trainings.
- Identify, organize and disseminate existing resources to "Train the Trainer" in sustainable trail maintenance.
  - An example of an organization that offers training resources is the National Off-Highway Vehicle Coordinating Coalition (NOHVCC). For more resources, see Appendix E.
- Attend future Trail Summits to increase motorized representation and share best practices and resources among trail managers, stakeholders, advocates, volunteers, users and others.
- Prioritize trails maintenance, including renovating and realigning trails, over new trail construction.
- More public information and messaging is needed regarding the importance and need for trail maintenance.
  - It was noted by a Trails Summit attendee that the majority of trail users are unaware of the resources required (labor, materials, etc.) to maintain a trail. Making these costs visible may increase volunteerism on trail projects, encourage self- and community policing efforts, and may inform those who advocate for new trails of ongoing necessary costs of adding trails to a system.

Prevent and Repair Damage to Environmental and Cultural Sites Near Trails

Issue: As the number of OHV users increases, there are many new to the activity and to Arizona's unique environments. Some motorized users may not understand, have sufficient information about, or practice appropriate trail ethics. Cross-country travel occurs and unauthorized trails are created, which adversely affect wildlife habitat, watersheds, cultural resources, grazing and other activities that take place on lands that are available for multiple uses. Managers perceive damage to vegetation and soil erosion along motorized routes as serious problems.

Protection of Arizona's natural and cultural resources is an important issue to both the public and land managers. Mitigation efforts might include trail and area closures, signage, installing fencing and other barriers, restoration of the land, revegetation, treatment for the spread of invasive species, dust mitigation, prevention of impacts to wildlife and their habitats and protection of water quality. Mitigation and restoration actions address environmental impacts after they occur; prevention and protection actions address impacts before they occur. Several of the other priority recommendations address protecting natural and cultural resources before damage occurs.

Actions:

- Rectify or reduce existing damage caused by off-highway vehicles to natural (vegetation, wildlife, water, soils) or cultural (prehistoric, historic, archaeological) resources or the environment surrounding OHV trails and areas. This may include land restoration, revegetation, invasive species treatment, long-term rehabilitation, barriers, route realignments or closures.
  - Organize volunteer events aimed at eradicating invasive species around trails (e.g., Salt Cedar, Buffelgrass, etc.)
- Seek innovative ways to provide educational signage on vegetation, wildlife habitat, cultural resources in the area (if appropriate) and human impacts.
  - Since disclosure of cultural site locations is oftentimes not appropriate, the Arizona Trail Association has encouraged stewardship amongst its users by communicating when they are entering a sensitive area (due to the presence of either natural or cultural resources) and encouraging them to stay on trails.
- Encourage land managers to utilize the Site Steward program, managed by Arizona State Parks and Trails, which deploys trained volunteers to aid in the protection and monitoring of at risk cultural resources. For more information, see Appendix E.
- Identify and disseminate methods and best practices for reducing negative impacts of social media on the protection of natural and cultural resources.

- Provide training to trail crews, volunteers, Friends Groups and others regarding why the protection of natural and cultural resources is important, and how they can help.
- Coordinate efforts by identifying common goals for the development and implementation of appropriate interpretive plans for natural and cultural resources.
  - Provide interpretive signage that helps users understand and appreciate the need for protection of natural areas and cultural sites and explains why regulations should be followed.
  - Collaborate with tribes to provide interpretive signage, when appropriate, to help trail users understand the importance and significance of prehistoric and historic artifacts, structures, etc.
- When planning new trails, routes or realignments, utilize buffer zones to protect fragile environments.

Provide Trail Maps and Information

Issue: Trail users need information and accurate maps that inform them where designated trails exist. Accurate, up-to-date maps and trail information can be difficult to find. There are a limited number of comprehensive OHV trail maps in Arizona, as well as site-specific maps. More than one in ten (12%) of public online survey respondents commented on maps, wayfinding on trails and signage – recommending that agencies and others provide maps in a variety of formats (e.g., digital, hard copy, in an online database, gps coordinates, etc.).

Actions:

- Utilize new technologies, best practices and standardized messaging to post maps and information on agency websites and trailhead kiosks so they are widely accessible.
  - The Bureau of Land Management is now providing QR codes to access trail maps in some jurisdictions. Also provided on signage is information about how to download and use the Avenza app to access trail maps.
  - The Arizona Trail Association encourages users who do not have a paper map or digital map already downloaded to take a picture of maps at trailheads and use these for wayfinding.
- Provide GPS coordinates, rules, laws, links to permits if necessary and other responsible riding information on maps.
- Develop statewide, regional, or multi-community maps.
- Develop a digital statewide, interactive map that includes all authorized, available motorized trails and routes in the state.
  - Land managers are encouraged to participate in this effort by providing their agency/organization's trail-related information and annual updates.

2 Second Level Priority Recommendations for Motorized Trail Use

Completion of Environmental/Cultural Clearance and Compliance Activities

Issue: An important step in developing new trails and adopting existing trails into the inventory of authorized trails is compliance with federal policies such as the National Environmental Policy Act (NEPA) and federal and state requirements to protect cultural resources. Renovation of existing trails, increasing access and new trail construction cannot be addressed without completing compliance activities first.

Actions:

- Develop a statewide resource to aid in the timely completion of National Environmental Policy Act (NEPA) and Section 106 compliance requirements for agencies, organizations or individuals that lack expertise or staff to perform these duties.
- Work with paraprofessionals (tribal organizations, university students or others) to support cultural resource protection efforts when appropriate.
- Continue to explore opportunities for collaboration, training and coordination of compliance activities.
  - Work with landowners to clear established, popular trail systems so that maintenance work can be quickly addressed as needed.
  - Develop a Memorandum of Understanding (MOU) with federal agencies to make NEPA review processes more efficient. For example, NEPA documents completed by one federal agency, and compliant with that agency's standards should not need to be changed and reviewed to meet standards of a second federal agency prior to project initiation.
  - If a federal agency has satisfactorily completed the NEPA process, do not require additional review by the Federal Highways Administration with a different set of standards.

Promote safe and responsible recreation programs

Issue: Trail users who lack proper trail etiquette and environmental ethics can detract from other trail users' recreation experience and negatively impact the environment and fragile and unique cultural resources.

Current education efforts have been unable to meet the growing need for effective responsible user education (need to target residents, visitors, dealers, buyers and rental businesses), resulting in negative impacts to land and water resources, site closures and a possible negative perception of motorized trail users. A preventive focus on education, including more well-placed educational materials and targeted programs, may reduce the need for increasing law enforcement efforts.

Actions:

- Work with partners to develop and distribute consistent responsible use messages and promote through websites, social media and mass media.
- Combine forces with the Arizona Office of Tourism, libraries and other community centers and resources, other land managing agencies, stakeholders and partners to inform trail users of Leave No Trace ethics, Share the Trail etiquette and safe OHV riding practices.
- Provide education campaigns in schools that highlight the fragility of the desert environment and cultural resources, and individual responsibility for maintaining these environments.
- Work with OHV clubs, dealerships, companies that rent OHV equipment and e-bikes and other industry partners to provide accurate, comprehensive information to employees and the public regarding the location of authorized riding trails, appropriate safety practices, etc.
- Seek innovative ways to provide education and interpretive signage on the area's environment, and the effects of human and off-highway vehicle impacts on the environment. Kiosks and shelters are a good way to draw attention to interpretive materials which could inform visitors about conservation practices, treading lightly on the land, and the ethics of watching wildlife to minimize disturbance. Signs, maps and other materials should emphasize the need for users to stay on designated roads and trails.
- Compile a comprehensive list of OHV laws and regulations and also prepare and publicize condensed versions (e.g., brochures, FAQs).
- Improve posting of regulations at trailheads and along routes.
- Utilize and expand the OHV Ambassador program, which uses peer education as a tool to teach land ethics, safe practices and encourages adherence to rules and regulations on trails.
- Share information about programs that work and best practices.
- Provide data that illustrates the essential benefits of trails: health, economics, quality of life and environmental benefits in order to encourage collaboration between municipalities and land managing agencies and stewardship among individuals and community members.

Provide facilities, like restrooms, parking and campsites, near trails / Develop trails and facilities to increase accessibility for people with disabilities

Issue: In addition to the actual trail itself, users require support facilities to aid in the area's use and activities. Support facilities can include the development, improvement and expansion of OHV staging areas, building, maintaining or making existing restrooms accessible, creating and improving parking areas, kiosks, water faucets, picnic and camp sites. Survey respondents also recommended including more garbage cans, providing trash bags at trailheads, and garbage receptacles at known stopping points along trails to reduce litter. Others recommended improving cell phone reception on trails for safety purposes.

Consistent with mandates for the use of federal monies, and one of the pillars from the 2018 Arizona Statewide Comprehensive Outdoor Recreation Plan, development of new support structures and renovation of old support structures should include designs that accommodate populations with disabilities to encourage accessibility and inclusion for all on trails. There is an increasing population of motorized users with physical disabilities dependent on the use of motorized vehicles for travel to get into the backcountry.

Well-designed support facilities increase the user's experience and satisfaction along with protecting the natural and cultural resources, including keeping areas clean and free of litter and waste.

Actions:

- Planning should include an assessment of the ability of an agency or organization to provide maintenance and upkeep on new trail support facilities, and factored into future agency operations.

- Develop trailheads with adequate parking areas and litter control, and where appropriate, restrooms, drinking water and/or other management or educational features.
- Reach out to under served groups and regions to understand the barriers, needs and preferences of current and potential user groups.
- Consider facilities along long-distance trails, such as viewing platforms, shelters or planned campsites that could be used to reduce impacts to surrounding areas.
- As much as possible, trail support facilities should be designed, developed, rehabilitated and managed consistent with the Americans with Disabilities Act (ADA) guidelines to increase accessibility and to encourage use by people with all abilities.
- Whenever possible use advancements in technologies and sustainable materials to ensure that support facilities are as sustainable as possible (e.g., utilizing water conservation techniques in restroom design, surface materials, etc).
- Encourage partnerships between non-profits and federal agencies to leverage resources available to identify, apply for funding and implement projects on federal lands.
- Work with disability non-profits and organizations to identify and prioritize needs, barriers, etc.
- Create an expedited grant program (similar to the small grants program, maximum award of $200,000) devoted to projects that are making ADA improvements to trails or trail support facilities.

Provide Trail Signs

Issue: Properly placed signs can keep users on designated trails and routes and inform users why this is important. Users require a number of different kinds of signage to safely and enjoyably pursue their trail experience. There is a lack of adequate signage on motorized routes and areas. Signs are continuously damaged and vandalized and need frequent replacement.

Actions:

- Install locator signs that lead people to trailheads and parking areas, directional signs along the trail, destination signs to let people know they have reached end points, interpretive signs that describe the natural or cultural history of the area, educational signs explaining why environmental and cultural protections are required and regulatory signs that explain the rules of conduct.
- Enlist the help of volunteers to routinely monitor and replace signs as needed. To reduce vandalism, visibly advertise that these signs were installed by volunteers from specific groups.
- Whenever possible, provide signs, maps and information that allow users to determine if the trail is accessible for their individual capabilities (e.g., should include allowable uses, surface conditions, slope, trail length, distance to significant barriers to a person with limited mobility, etc)
- Develop trail sign standards and a trail sign manual and make it available in centralized trail-related resource location.
- Increase informational signs throughout trails systems to educate users about Leave No Trace ethics and Share the Trail etiquette on multi-use paths/trails to reduce user conflict.
- Provide location indicators at frequent intervals on the trail to assist first responders in locating trail users in distress. In addition, land managers must provide accurate trail information to local rescue coordinators.
- Provide bilingual signage.
- Post signs to increase user safety, such as speed limit signs and signs warning of blind curves.
- Develop consistent messaging across jurisdictional boundaries (for example, regarding Leave No Trace guidelines, rules and regulations, etc.).
  - Verde Front is a successful example of this. This group is developing consistent signage across jurisdictions for river access. Next step will be to work on applying these standards to trail signs in the Verde Valley.

3 Third Level Priority Recommendations for Motorized Trail Use

Construct new trails

Issue: Many motorized roads, trails and areas currently in use have not been officially designated for motorized use in Arizona. More motorized trails designed to provide the varied and challenging opportunities desired by the OHV user may help to discourage creation and use of unauthorized trails, and motorized use of trails designated for non-motorized uses only. During the public comment period some motorized users noted that the creation of more motorized trails, and specifically, trails to support particular uses since the Arizona Trails 2015 Plan (e.g., single-track trails, trails in and surrounding Bouse, Arizona) has been appreciated, and they would like to see these efforts continued. It was also noted that, "...new trail creation has not kept pace with population growth and that this has led to trail deterioration, safety issues and general degradation of a quality outdoor experience."

Actions:

- Designate and construct the trails to support a variety of different motorized use types with local user group input.
  - Some motorized users are requesting construction of more single-track trails.
- Establish a variety of OHV recreation opportunities that are important to the trail using public including loop trails, trails that offer challenge and technical driving opportunity, scenic backcountry roads maintained for passenger vehicles and cross-country travel areas.
- Develop OHV connector trails and networks to create loop trails, provide longer rides, and expand trail opportunities in established areas.
- Inform the public, through press releases, public land agency contacts, websites and social media, as soon as trails are officially designated.
- Develop new trails emphasizing sustainable design.

Enforce existing rules and regulations in trail areas

Issue: Enforcing rules and regulations on trails, routes and areas is important to motorized trail users and land managers. There is insufficient on-the-ground management personnel available, which creates an environment of self-policing and education for safety, information, and enforcement activities. Since the 2008 recession, and despite increasing visitation, various public agencies have reported that budgets and staffing levels have decreased when compared to 2006 and before, making it difficult for agencies to increase enforcement personnel. This lack of adequate law enforcement, and inability to add law enforcement staff, results in destruction of environmental and cultural resources. There is not an effective mechanism for the public to report illegal operators in a timely manner to appropriate law enforcement agencies. Trail laws and regulations are sometimes unknown or ignored by users. Some examples provided by survey respondents or others during the public comment period were: 1) drunk driving on trails, 2) excessive speed on trails, 3) OHV use on non-motorized trails and other infractions.

Actions:

- Implement a well-coordinated effort across jurisdictions to maximize effort and impact.
- Identify enforcement contacts or install complaint registers for trail users to report information.
- Increase staff including increasing ranger presence, law enforcement presence, volunteers and site hosts.
- Promote and expand volunteer programs with clubs and individuals to monitor trail use and educate users regarding safety, rules and regulations (e.g., OHV Ambassadors/peer patrols).
- Cite users for non-compliance and publicize these efforts.
- Add signage clearly identifying trails that are not authorized for Off-Highway Vehicle Use.

Obtain lands for trails and trail access

Issue: Access refers to the ability of the user to get to the trailhead or area where recreational opportunities exist. Access is being diminished due to closure of trails or access roads by owners/managers, air quality ordinances, urban development limiting trail access or use, littering and disrespectful behavior and variation in rules and trail designations that cross private, public and state lands. Survey respondents, as well as those who submitted public comment recommended specific areas within the state where land acquisition would serve to benefit the motorized trail community, as well as residents, towns, cities and counties. Others thanked land managers and other partners for acquiring land for the development of new trail-related recreation opportunities. These specific recommendations and support for land acquisition will be passed on to county and city officials, public land managers and other trail advocates for their review and consideration. Finally, comments were also submitted identifying pain points or common challenges to obtaining land for trails and trails access. Arizona State Parks and Trails will pass along these concerns and recommendations to appropriate internal (within ASPT) and external stakeholders and will help facilitate conversations between trail users, advocates, non-profit organizations, cities, counties, agencies and the state's leadership to enhance the likelihood that valued and valuable lands are obtained to provide outdoor recreation opportunities for future generations.

Actions:

- Permanently secure access to trails, routes, trailheads or future motorized recreation areas by acquiring easements, rights-of-way or land by purchase when possible.
- Work with private landowners on trail issues and solutions and seek easements or donation of land for motorized recreation.
- Acquire leases and/or patent to federal lands via the Recreation and Public Purposes Act.
- Implement more comprehensive planning with projections into the future to identify unprotected access points for designated trails and routes, and acquire land for existing and proposed trails and trail access, easements and rights-of-way.
- Meet with representatives from the Governor's Office, agencies, organizations, advocates and stakeholders to identify barriers and generate solutions to common issues.

GUEST AUTHOR – OHV Education

Kim Jackson, Boating and OHV Safety Education Program Manager, Arizona Game and Fish Department

There is probably no better time to get out and about on your Off-Highway Vehicles (OHVs) than now, and no better place to ride than on a trail made for that purpose. Going on a trail is purely about the experience, sightseeing, nature, trees, hills, gravel, dust, mudding, wildlife, in a word, fun!

The Arizona Game & Fish Departments OHV safety education program is to provide the OHV community with safety education programs that teach the basic knowledge for safe and responsible use of OHVs in which to achieve fun while using the wonderful approved trails in Arizona. Currently, we offer two online courses designed for users of any age, as well as a school youth-based program called Quail Kids, OHV. In addition to all of the listed offerings, the Department also offers a hands-on skill based utility terrain vehicle (UTV) or better known as a side-by-side (SxS) training. Participants are instructed on safe handling techniques on a designated course, allowing students to get a feel for where their capabilities are and what the machines they are driving are capable of doing.

One major issue addressed in all of our OHV safety education classes is to enjoy access to natural public spaces. While it may be tempting to go off the beaten path in a blaze of speed over jolting terrain, doing so can cause long-lasting damage to the habitat. Wet weather increases the need to make good choices when off-roading. It is easy to see the draw that wet areas like meadows, shorelines, and muddy water tanks used by cattle and wildlife alike can have on the off-road enthusiast. However, most of us can see past the temporary fun of flinging mud to the long-term consequences of tearing up such fragile areas with our fat tires and powerful machines. Even a lighter-weight OHV with low-pressure tires can cause lasting damage to an area.

The promotion of safe operation of OHVs and emphasizing the protection of the environment resources is the responsibility of all OHVs enthusiast. There are numerous opportunities for OHV recreation in Arizona depending on what you are looking for.

For more information on responsible OHV use or to sign up for a safety education course, visit azgfd.gov/OHV.

Chapter 4

A Profile of Non-Motorized Trail Recreation in Arizona

CATALINA STATE PARK

Arizona has a rich trail history. The term 'trail' includes different functions and uses, including recreational backcountry trails to local urban alternate transportation pathways. These differing functions and uses come with unique planning, design and funding needs.

This chapter presents participation, issues and priorities from the random sample, public online and land manager surveys for non-motorized trail use and activities. The random sample survey included full or part-time Arizona residents, while the public online survey included full and part-time Arizona residents along with some visitors to the state. This plan provides information for trail users and managers to determine the issues and needs on which to focus their efforts and resources.

DEFINITIONS, RELATED LEGISLATION AND EXPLANATIONS

This plan intends to identify the most significant issues related to trail use in Arizona to fulfill the agency requirements set forth in A.R.S. 41-511.22 and 41-511.04 [20]. Arizona State Parks and Trails (ASPT) is directed by statute to prepare a trail systems plan every five years that:

1. Identifies on a statewide basis the general location and extent of significant trail routes, areas and complementary facilities.
2. Assesses the physical condition of the systems.
3. Assesses usage of trails.
4. Describes specific policies, standards and criteria to be followed in adopting, developing, operating and maintaining trails in the systems.
5. Recommends to federal, state, regional, local and tribal agencies and to the private sector actions that will enhance the trail systems.
6. Is revised at least once every five years.

For purposes of this section, "trail systems" means coordinated systems of trails in this state.

Information provided by Arizona's non-motorized trail users are presented in this chapter includes:

- Estimates of trail use in Arizona with participation separated into specific recreational types and activities
- Satisfaction with trail opportunities in Arizona
- Environmental and social concerns on trails in Arizona
- Priorities for trail management and planning in Arizona

Detailed survey methods are presented in Chapter 2.

Arizona State Parks and Trails has addressed these requirements through a variety of partnerships and projects since the implementation of the 2015 Trails Plan. These projects and partnerships will be discussed in more detail in the Accomplishments section of this chapter.

State Trail System

Vision Statement: Arizona's State Trails System is an invaluable resource, offering a diversity of quality non-motorized trails that inspire people to experience the State's magnificent outdoor environment and cultural history.

The State Trails System was established to recognize and promote non-motorized trails of special interest or significance to Arizona's residents and visitors. The system shall consist of non-motorized trails that are managed by ASPT and other public land managers and nonprofits across the state. The assessment of the condition of this system is one of the primary basis for this State Trails Plan.

Background: When the Heritage Fund was established in 1990, it included language requiring trails in the State Trails System to be eligible for Trails Heritage Grant Funds.

This caused the system to balloon to more than 800 trails and diminished the aspects of special interest and significance. This also caused many problems with assuring the integrity of the trails over time. In 2012, the Arizona State Committee on Trails (ASCOT) State Trails System subcommittee began a process of identifying how best to manage the system.

In May of 2014, the Arizona State Parks Board authorized ASCOT to freeze the nomination process for the former State Trails System and develop a new system that focuses only on trails of special interest or significance to Arizona's residents and land managers. The new system was named "Arizona Premier Trails" to include 100 of the "best of the best" trails in Arizona. The categories for trails included in the new system were: National Trail System, Historic, Interpretive, Recreation, Scenic, Water and Trail Systems. Nomination criteria and a selection process were finalized, and the new system was unveiled and nominations from land managers have been accepted since March 31, 2017. The former State Trails System data was archived with minimal updating.

To date, 18 trails have been added to the Arizona Premier Trails System. To view the full list, visit https://azstateparks.com/recently-accepted-trails.

Arizona State Committee on Trails

ASCOT is a 15-member committee that is appointed by and serves in an advisory capacity to the Arizona State Parks Board. The overall mission of the State Trails Program is to promote, develop and preserve non-motorized trail opportunities throughout the state for mountain bikers, hikers, equestrians, trail runners, cross-country skiers and water trail users.

ASCOT:

- Reviews and recommends a definition and process for inclusion of trails in the State Trails System (currently the Arizona Premier Trails – see below). Trail nominations are then recommended to the Arizona State Parks Board for final approval.
- Serves as a liaison to ASPT staff in the grant-rating process for federal Recreational Trails Program (RTP) non-motorized trail maintenance and competitive projects.
- Assists with the Statewide Trails Plan non-motorized priorities and actions.
- Uses priorities identified in the Statewide Trails Plan in addition to staff or committee recommendations for revision to advise on updates to the grant criteria that is used to evaluate proposed trail projects and distribute the Arizona State Parks and Trails administered trail funds.
- Works with ASPT staff to promote the State Trail System (Arizona Premier Trails) .
- Attends periodic meetings, including the State Recreational Trails Advisory Committee meeting, in conjunction with the state motorized users group as required under the federal Recreational Trails Program to maintain eligibility for funds.
- Conducts or supports workshops or other events as needed/possible.

NON-MOTORIZED RECREATION OPPORTUNITY

Whether hiking, trail running, on short day hikes or multi-night backpacking trips, due to the variety and variability of trail experiences to be found in Arizona, a user is likely to be able to find the particular trail experience they are looking for. Arizona offers experiences in or near towns, which provide alternative modes of transportation from point A to B and connect parks and other points of interest to other cities or towns, while still offering plenty of remote primitive areas and wilderness opportunities for the adventurous to explore. Whether on foot, on a mountain bike or on a horse, trails provide opportunities for users to experience nature, have a social or a solitary experience and learn from prehistoric and historic sites that tell the unique history of Arizona.

Trail Hiking, Jogging, Running or Backpacking – Trail hiking, jogging, running, or backpacking comprises the largest trail user group in Arizona and two of the top five most popular outdoor recreation activities in the nation, according to the Outdoor Industry Association (2019). Nearly 1 in 5 Americans over the age of 6 (19.2%) reported jogging, running or trail running in 2018, and 15.9% hiked at least once.

Mountain Biking – In 1992, the State Trails Advisory Committee was renamed from the Arizona Hiking and Equestrian Trails Committee to the Arizona State Committee on Trails (ASCOT) to include the use of mountain bikes. As technology advances and new materials take the place of old, more and more Americans are taking advantage of the opportunity to experience trails on a bike. Mountain biking remains a growing and popular activity on non-motorized trails.

Arizona offers many opportunities for road and trail cycling throughout the state. For example, Sedona and the Verde Valley have become well known destinations for mountain biking and road riding. The Red Rock Ranger District in and around Sedona has over 250 miles of trails for hikers, mountain bikers, trail runners and equestrians. Riders from around the world come to mountain bike Sedona's challenging trails and view the spectacular scenery up close. The annual Sedona Mountain Bike Festival is held adjacent to the Sedona Bike Skills Park and brings in several thousand riders each March. Local non-profit groups donate time and funds to help maintain the trails around Sedona and the Verde Valley.

Equestrians/Horseback Riding – Equestrians have a rich history in Arizona. Many people envision the "Wild West" when they think of Arizona: cowboys riding horses. Trail riding is a popular activity throughout the state and there are many 'horse camps' with multiple loop trails situated in both desert and forest environments. The American Horse Council estimated that 3.9 of the 9.2 million horses in the U.S. are used exclusively or primarily for recreation. One study conducted in Kentucky identified valued trail attributes for rural, horseback riding day trips. Findings indicated that riders were willing to pay to access longer trails. In addition, riders were willing to pay more to access trails with scenic views. Less experienced survey participants preferred to use trails that were limited to equestrian use and were willing to pay to access these trails, whereas this was less true for experienced riders. Additional recent literature regarding the economic impact of horseback riding has been reviewed in the Arizona 2018 Statewide Comprehensive Outdoor Recreation Plan.

Paddle Trail Users – Arizona is known for its arid landscape; however, residents and visitors are also drawn to paddle or water trails in the state. The Arizona State Trails System added Paddle Trails as a separate category in the early 2000s.

Use of canoes or kayaks on many of Arizona's rivers and streams is seasonal, depending on the water flows due to rainfall, snow melt or upstream release of water from dams. The major rivers in Arizona that support non-motorized boating are the Colorado, Salt, Verde and Gila rivers. There are many smaller streams that provide seasonal canoeing and kayaking opportunities during years of heavy precipitation. Of course, Arizona has many lakes and reservoirs that are available year-round to non-motorized boating.

There are also scientific and social factors that have influenced the increase in use of paddle trails. Technological advancements as well as the variety of materials available for the construction of kayaks, stand up paddle boards and other outdoor recreation equipment has made transportation and storage less of an issue for some users. In addition, social trends, including the shared ownership of equipment, like cars, RVs and boats as well as increased opportunities for equipment rental from private or commercial owners, provide visitors opportunities to experience the use of water trails without the expense of owning and maintaining their own equipment.

Interest and activity have increased on the upper Verde River. Notably, the Town of Clarkdale, in collaboration with Arizona State Parks and Trails and Freeport-McMoran Copper & Gold, Inc., officially opened a Verde River access point and received federal funds to promote conservation, stewardship, provide outdoor recreation opportunities and develop or improve existing non-motorized trails.

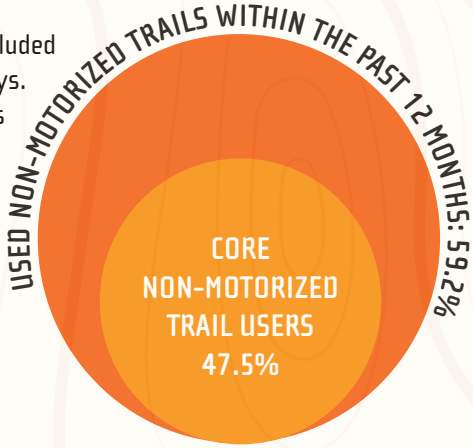
SURVEY FINDINGS FOR NON-MOTORIZED TRAIL USERS

In 2019, Arizona State Parks and Trails partnered with Partners in Brainstorm (PIB) to conduct a random sample survey (RSS) of Arizona residents by county or region. Analyses down to the county or region level will be available by December 31, 2020. The statewide findings in the technical report provided by Partners in Brainstorm informed the 2020 Trails Plan. In addition, the overall plan targeted two other samples of stakeholders in order to form a comprehensive view of public and land manager experiences and preferences: 1) a public online survey, available to all trail users interested in providing their opinions, perspective and experiences on Arizona trails, and 2) a land manager survey. The public online survey employed a non-probability or purposive sampling strategy; therefore, conclusions drawn regarding this group are representative only of those individuals who participated in the survey and cannot be generalized to any larger population or group. Sixty-one land managers completed the land manager survey; 93% of these had some level of responsibility for the management of non-motorized trails in AZ (n=56). Because of the relatively small sample size of the land manager survey, while percentages or mean scores are reported in the results section of this chapter to illustrate patterns in the responses, caution should be exercised in interpretation.

The findings represented in this chapter include terms such as; core, non-core and mixed users. "Core" refers to respondents who reported their trail use within the last 12 months was primarily non-motorized and also includes mixed users who reported that half or more of their time spent on trails in Arizona within the last 12 months is spent participating in non-motorized trail activities. Mixed users reported that they had used trails for both motorized and non-motorized recreation in Arizona during the last 12 months. Non-core users represent all motorized users who report any percentage of their time (less than half) is spent on motorized trails (for detailed definitions, please see Chapter 2).

A total of 5,014 surveys were completed for the RSS. Among the respondents, 59.2% have used non-motorized trail within the past 12 months and 47.5% were core non-motorized trail users. The key findings regarding core non-motorized trail users addressed in this chapter represents data collected from 2,382 survey respondents.

The public online survey included a total of 4,576 valid surveys. Of these, 4,242 respondents had engaged in non-motorized trail recreation activities within the past 12 months. Finally, 3,564 were considered core non-motorized users.



Demographics

Random Sample Survey (RSS): The majority (97%) of non-motorized trail users were year-round residents of Arizona and had lived here longer than 10 years (69%). They were mostly white (82%), of Hispanic origin consistent with the state's overall population (27%) and nearly equally divided between male and female (49.6% and 49.5%, respectively). Approximately one-third were ages 18 to 34, one-third ages 35 to 54 and one-third ages 55 to 65 or older.

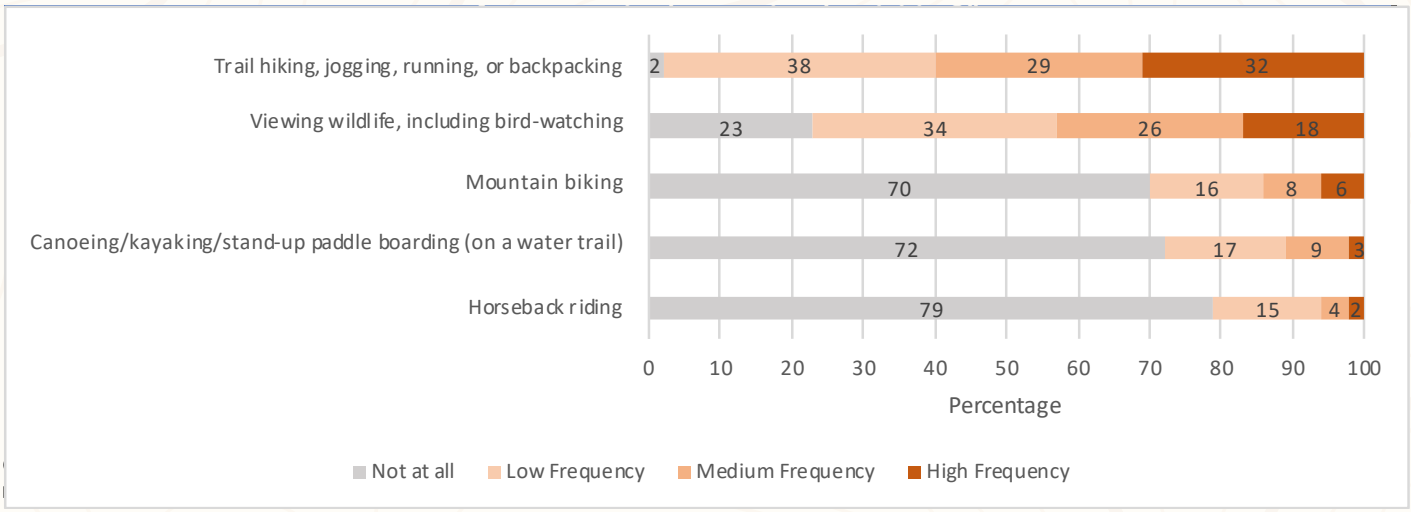
Public Online Survey*:* The vast majority of core, non-motorized public online survey respondents (92%) were full-time Arizona residents, while 5% were part-time residents and 3% were visitors from outside of the state or country. Seven in 10 respondents (70%) lived in Arizona for 10 years or more, whereas nearly one in five (18%) had lived in the state less than five years. Over two-thirds of public survey respondents were white (68%) and only 6% reported that they were Hispanic. Respondents were more likely to be female (50% as compared to 47% males, 3% preferred not to or did not answer), and half of the sample were 55 or older.

NON-MOTORIZED TRAIL USER PARTICIPATION BY ACTIVITY

Primarily, this chapter presents the results for the core non-motorized trail users with selective comparisons between the RSS and public online surveys along with previous plans' results. Core non-motorized random sample respondents were asked a series of questions about their trail use, experiences, preferences and participation in various trail activities.

The figure below represents the cumulative responses from the core non-motorized RSS respondents who reported how often they participated in the non-motorized activities within the last 12 months, on a scale ranging from "*not at all*" to "*more than once a week*." In the figure below, the "low frequency" category includes "once" and a "few times," "medium frequency"includes "every couple of months" and "once a month," and "high frequency" includes "every few weeks," once a week and more often than once a week. Almost all of core non-motorized Arizona residents (98%) have engaged in trail hiking, jogging, running or backpacking within the last 12 months.

Figure 32: Frequency of Non-Motorized Trail Activities – Core Random Sample Survey



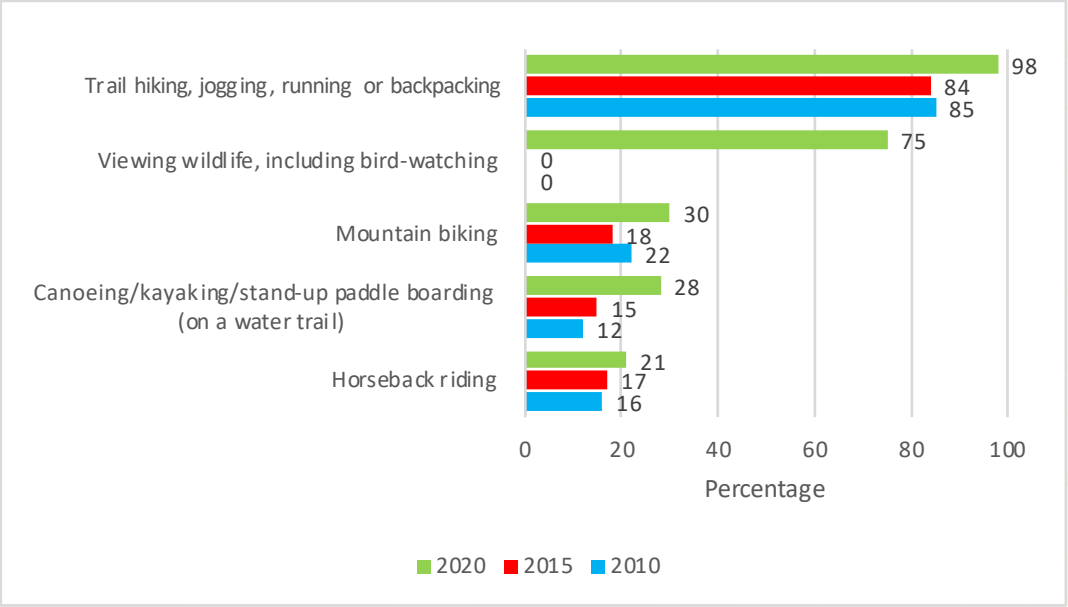
"During the past 12 months, how often have you used trails on public or private lands in Arizona for the following types of non-motorized recreational activities?" Low frequency = "once" and "a few times:" medium frequency = "every couple of months" and "once a month;" and high frequency = "every few weeks," "once a week" and "more often than once a week."

Comparison of Percentage of All Trail Users Participating in a Non-motorized Trail Activities Over Time

The following figure compares participation in each non-motorized trail activity for the current and two previous trail plans. The top two activities reported in the Arizona Trails 2015 Plan were trail hiking and backpacking. The significant increase over 2015 in the percentage of respondents identifying trail hiking as their most frequent activity could be due to the fact that the current survey included backpacking with trail hiking (along with jogging and running), rather than offering it as a separate activity.

The use of e-bikes on Arizona trails is generating conversation between trail user groups, land managers and trail advocates. Indeed, nearly 2% of the 2,701 comments provided on the public online survey are related to e-bike use. It may come as no surprise that there is not a consensus on this topic. Because the use of e-bikes has been prohibited on a number of non-motorized trails by land managers in Arizona, e-bikes have been classified as motorized trail use in this plan. However, some of the open-ended comments recommend that Class I e-bikes be allowed on non-motorized trails, while others state that they should continue to only be allowed on motorized trails. For more information on e-bike participation rates on Arizona trails, please see page 28 in Chapter 3.

Figure 33: Frequency of Non-Motorized Trail Activity – Core Random Sample Survey Non-Motorized Trail Users

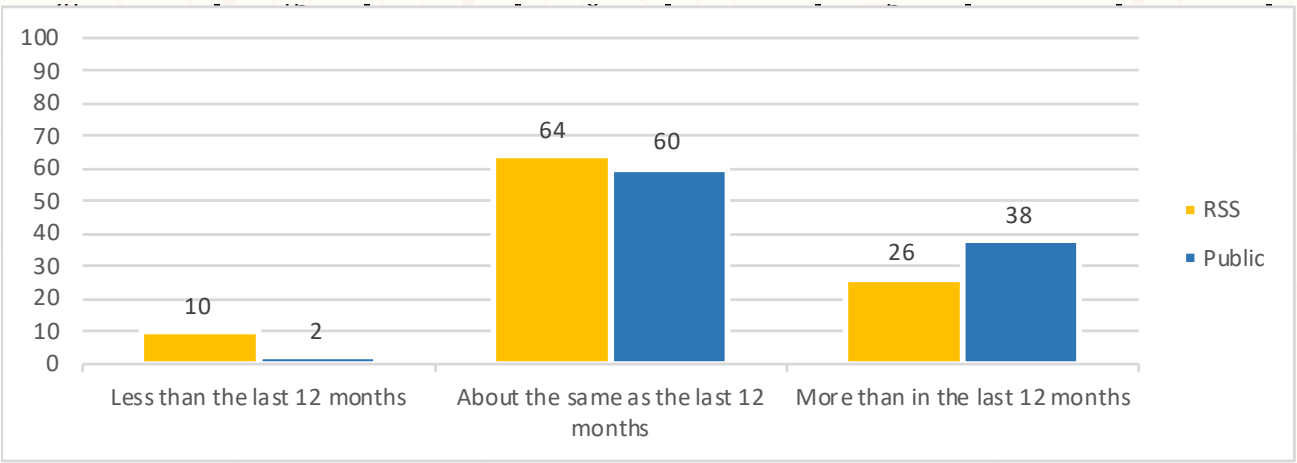


Anticipated Usage Over the Next 12 Months

Respondents were asked to estimate their anticipated usage of non-motorized trails over the coming year as compared to the past 12 months. Nearly two-thirds of respondents (65%) thought their usage would be about the same, while 26% thought it would be more, and 10% thought it would be less.

In comparison, a greater percentage of public online survey core non-motorized respondents as compared to core RSS respondents thought that their trail use would increase in the coming year, and fewer expected their trail use to decrease.

Figure 34: Anticipated Usage For Next 12 Months – Random Sample and Public Online Survey Core Users

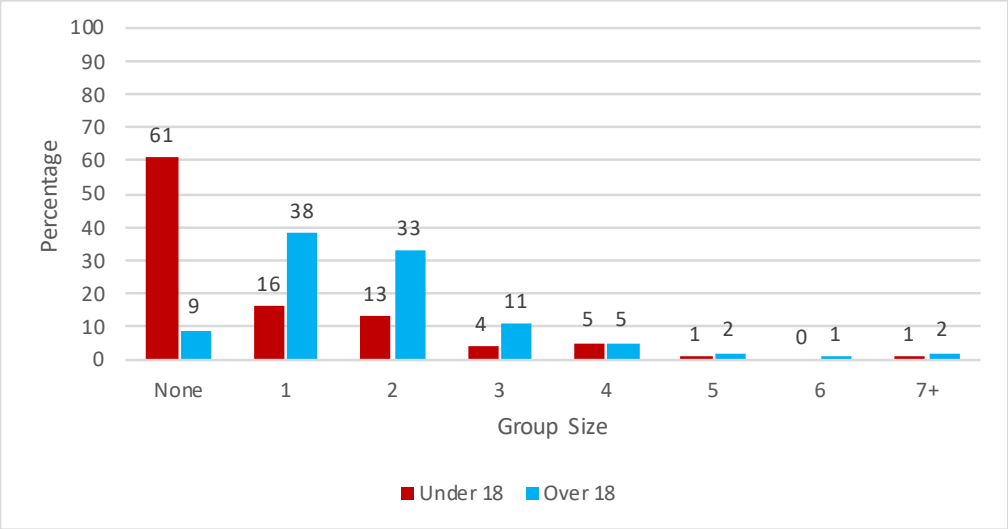


"Looking ahead to the next 12 months, do you think your use of Arizona trails for non-motorized recreation will probably be less, the same as, or more than in the past 12 months?"

Group Size and Traveling with Adults and Children

Non-motorized trail users were asked how many adults and children (individuals age 18 and over, and under age 18, respectively) are typically with them when using trails in Arizona. The majority (92%) travel with one or more adults when using trails for non-motorized recreational activities. Nearly two-thirds (61%) of non-motorized trail users do not typically travel with children under 18. Group size is an important component of planning for diversity on trails because different racial and ethnic groups are shown to recreate in larger or smaller groups.

Figure 35: Percent of RSS Respondents Using Trails With Others Over & Under Age 18

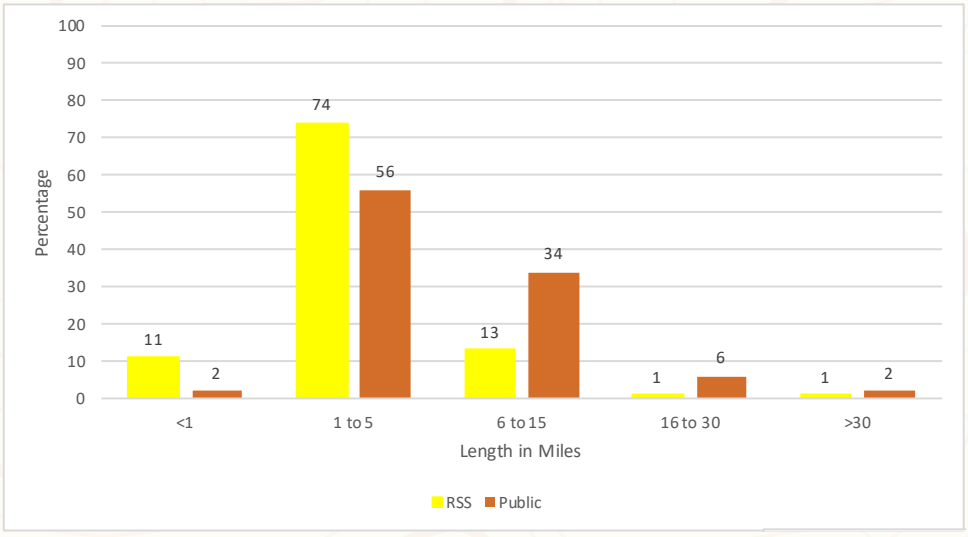


"How many people age 18 and older are typically with you when you use trails in Arizona for non-motorized recreation activities?"
"How many people under age 18 are typically with you when you use trails in Arizona for non-motorized recreation activities?"

Preferred Non-Motorized Trail Length

Survey Respondents were asked to identify their preferred trail length for non-motorized activities. The preference of approximately three-quarters of RSS core respondents(74%) was for trails of 1 to 5 miles, and although more than half of core public survey respondents (56%) also preferred this trail length, more public online survey takers as compared to RSS were likely to prefer longer trails.

Figure 36: Preferred Non-Motorized Trail Length - Comparison Between RSS and Public Online



"How many people age 18 and older are typically with you when you use trails in Arizona for non-motorized recreation activities?"
"How many people under age 18 are typically with you when you use trails in Arizona for non-motorized recreation activities?"

Favorite, Most Frequently Used, and Furthest Trails

It is important for ASPT and other land management agencies to have in-depth information about "customer demand" for Arizona trails. Non-motorized trail users were asked a series of three questions regarding their favorite trail, the trail they most frequently use and the trail to which they travel the furthest. These questions asked which city of each type of trail was closest to, how long it takes them to get there and how often they used each type of trail. The responses to these questions have been used by researchers from the University of Arizona, Department of Agricultural and Resource Economics and Cooperative Extension (UA AREC) to conduct a study estimating the demand and economic value of motorized and non-motorized trail use to Arizona residents using the travel cost method. In addition, the study includes development of an origin-destination matrix estimating Arizonans' travel for trail-based recreation. This study is available on Arizona State Parks and Trails website on the Publications page.

Tucson and Flagstaff are most frequently cited as the cities closest to both favorite and most frequently used trails for RSS core non-motorized recreationists. With regard to the trails to which users traveled furthest, the most frequently cited locations are Flagstaff, the Grand Canyon and Sedona. Please note that the locations listed below represent the reports of the random sample (Table 8 below), where each response from a core non-motorized user is counted as one case, and the number of cases is summed for each city/town. For further analyses, where all non-motorized RSS responses are included, and are weighted to reflect: 1) the population, 2) the number of visits reported by respondents and 3) statewide participation rates, please see The Economic Value of Trails in Arizona: A Travel Cost Method Study technical report (azstateparks.com/Publications).

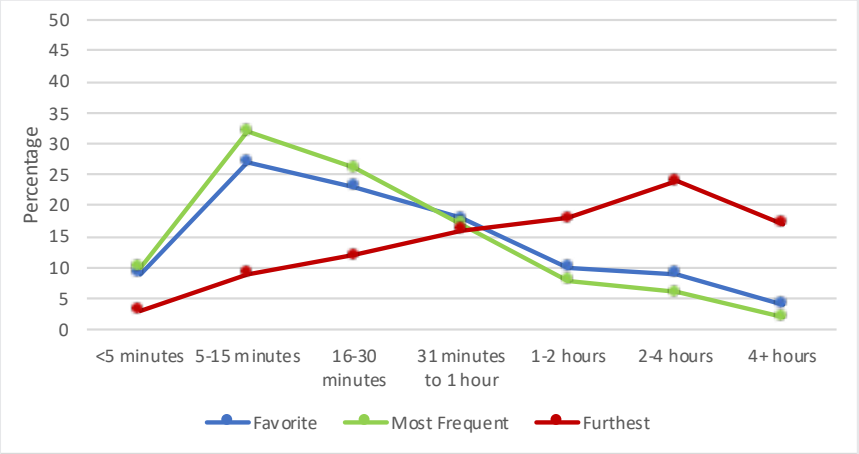
Table 7 : Favorite, Most Frequent and Furthest Non-Motorized Recreation Trails by Random Sample Survey

RANK	FAVORITE TRAIL	MOST FREQUENT TRAIL	FURTHEST TRAIL
1ST	TUCSON	TUCSON	FLAGSTAFF
2ND	FLAGSTAFF	FLAGSTAFF	GRAND CANYON
3RD	SEDONA	PHOENIX	SEDONA
4TH	PHOENIX	YUMA	TUCSON
5TH	APACHE JUNCTION	PRESCOTT	PHOENIX

Table shows the top five locations of each type (favorite, farthest and most frequently used trails)

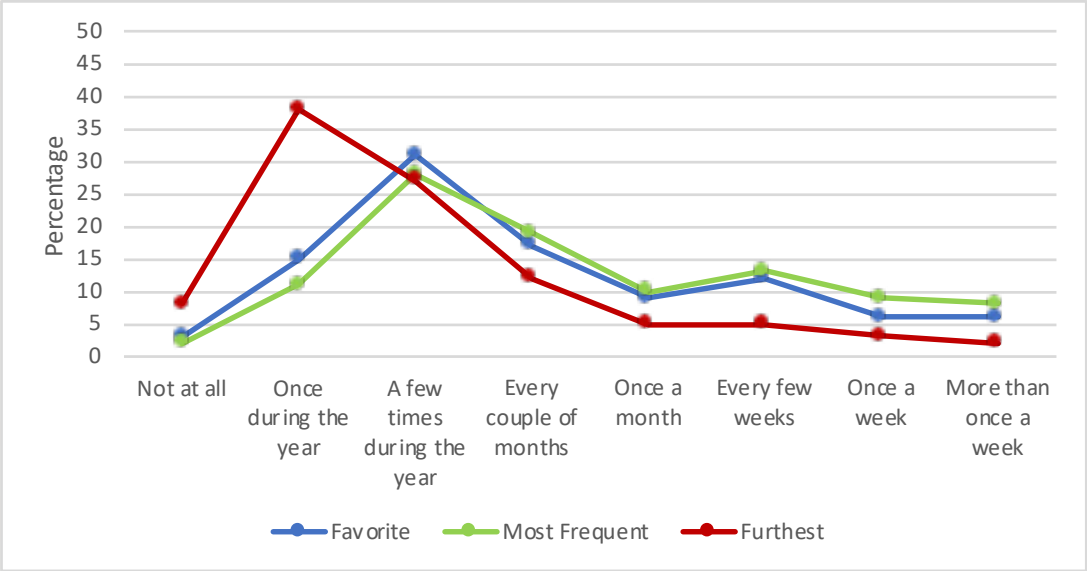
The data for core RSS respondents regarding travel time and frequency of use are presented in the tables below. Slightly more than half (59%) of the respondents spend 30 minutes or less getting to their favorite trail, while 68% spend 30 minutes or less traveling to their most frequently used trail. For the trail that respondents travel furthest to, slightly more than half (60%) spend from one hour to four hours or more getting there. As would be expected, the trail that is furthest from home was also the respondents' least used, with nearly 40% using the trail only once during the past year.

Figure 37: Travel Time to Favorite, Most Frequent and Furthest Trails – Core Random Sample Survey



"Approximately how long does it take you to get from your home to where you access each of the following?"

Figure 38: Frequency of Use of Favorite, Most Frequent and Furthest Trails - Core Random Sample Survey

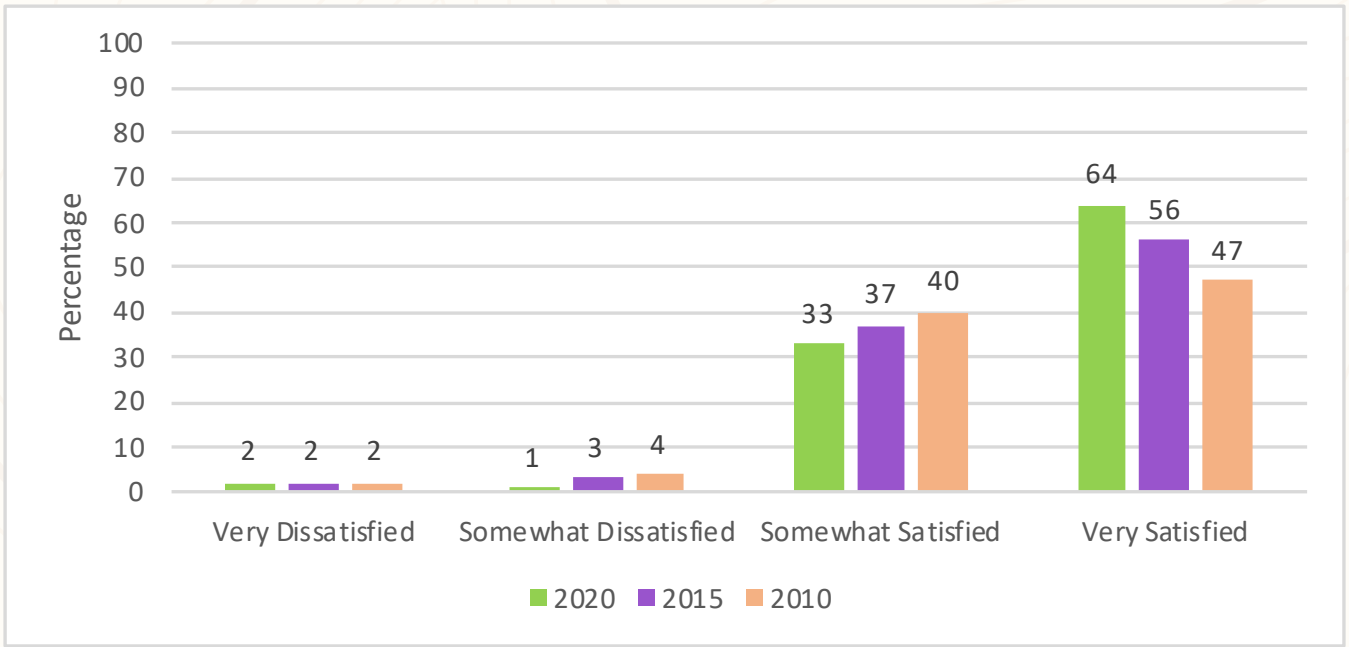


"During the past 12 months, how often did you use each of the following?"

Satisfaction with Non-Motorized Trails in Arizona

Majority of respondents reported being satisfied with non-motorized trails in Arizona, with a combined total of 97% saying they are somewhat or very satisfied. Overall satisfaction likely reflects a number of factors important to the user, such as the locations or diversity of trails in Arizona.

Figure 39: Satisfaction with Non-Motorized Trails Over Time - Core Random Sample Survey



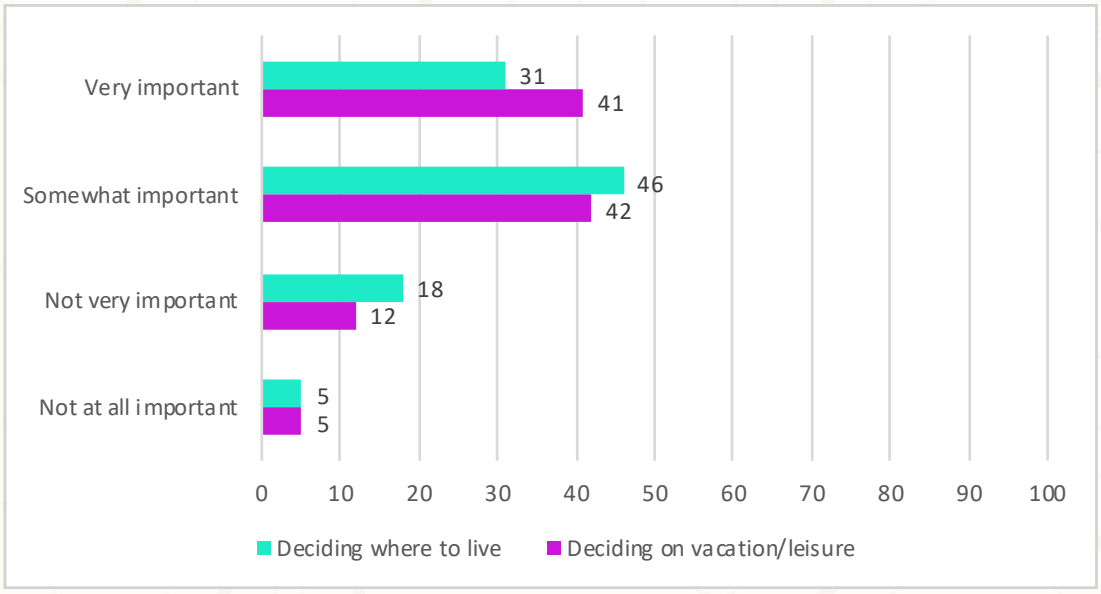
"Overall, how satisfied are you with non-motorized trails in Arizona?"

Importance of Trails

The random sample survey asked two hypothetical questions aimed at gaining insight into the importance of trails in respondents' lives. These questions are stated below Figure 40.

A combined total of 77% of core RSS respondents reported that having trails nearby would be somewhat important or very important in deciding where to live in Arizona; that combined figure rose to 83% when choosing an Arizona destination for vacation or leisure travel.

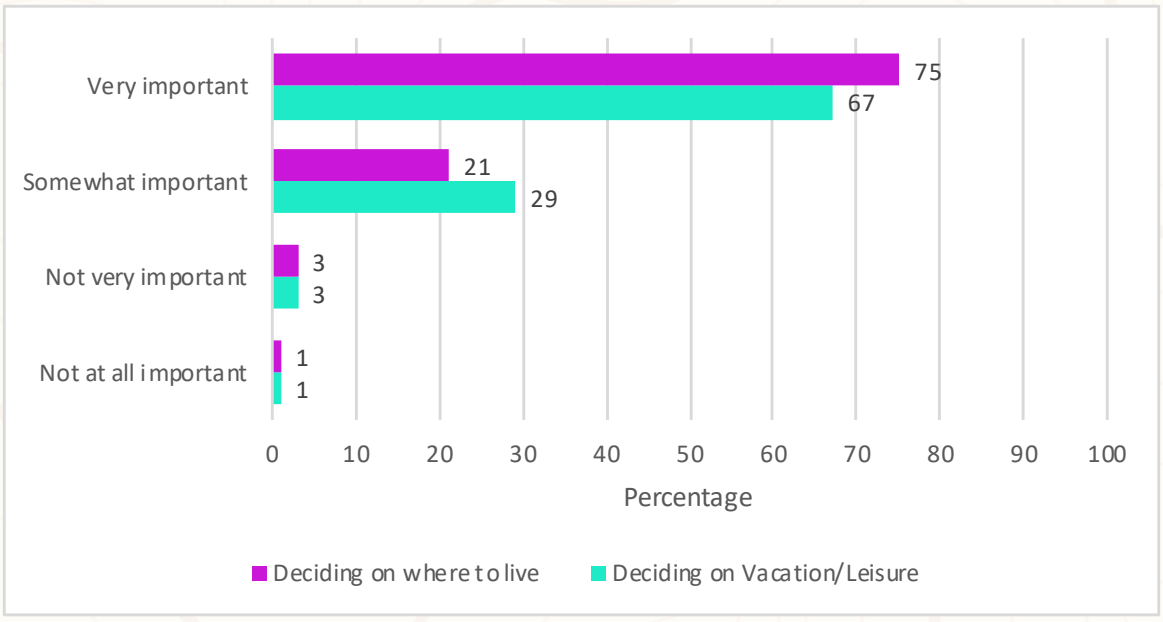
Figure 40: Importance of Trails - Core Random Sample Survey



"How important is it to have trails nearby when choosing a destination for vacation or leisure travel in Arizona?"
"How important is it to have trails nearby if you were deciding where to live in Arizona?"

In contrast, nearly all core public online survey respondents (96% for each) reported that having trails nearby would be somewhat important or very important in deciding where to live in Arizona, as well as in choosing a destination for vacation or leisure travel. However, more public online survey respondents identified the availability of trails as very important, as compared to the RSS.

Figure 41: Importance of Trails – Public Online Survey

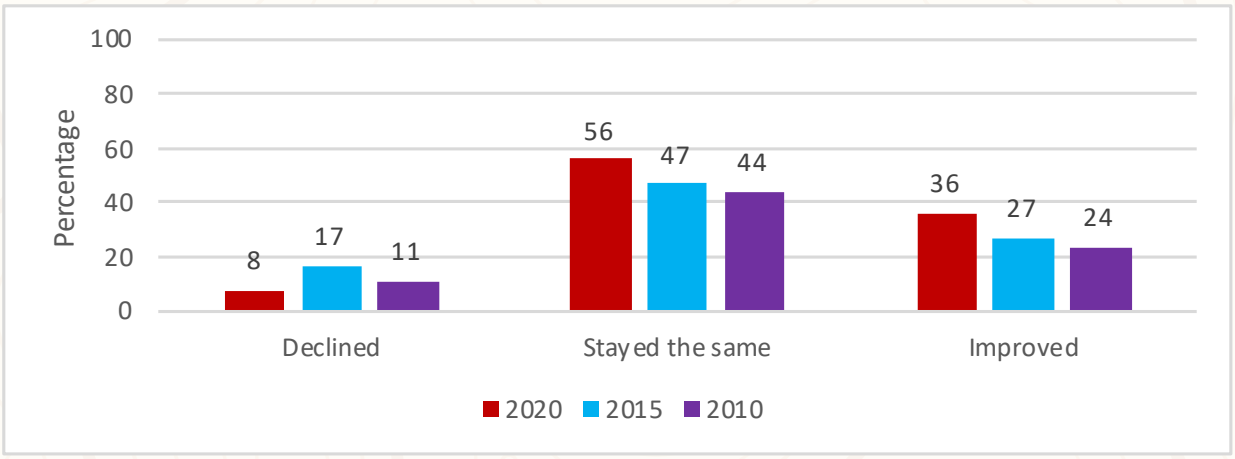


"How important is it to have trails nearby when choosing a destination for vacation or leisure travel in Arizona?"
"How important is it to have trails nearby if you were deciding where to live in Arizona?"

Trail User Perceptions of Public Access to Trails

Accessibility of trails is a factor in deciding to use or using a trail. As seen in the table below, over half of core RSS respondents (56%) believe that trail access has stayed the same, 8% think it has gotten worse and 36% think it has improved. In comparison, nearly one in 10 (9%) core non-motorized public online survey respondents reported that access to non-motorized trails had gotten worse in the past five years, more than two in five (43%) reported that access had stayed the same and more than one third (34%) said that access had gotten better, with 14% unable to say.

Figure 42: Access to Trails - Comparison of Core Random Sample Survey Respondents Over Time

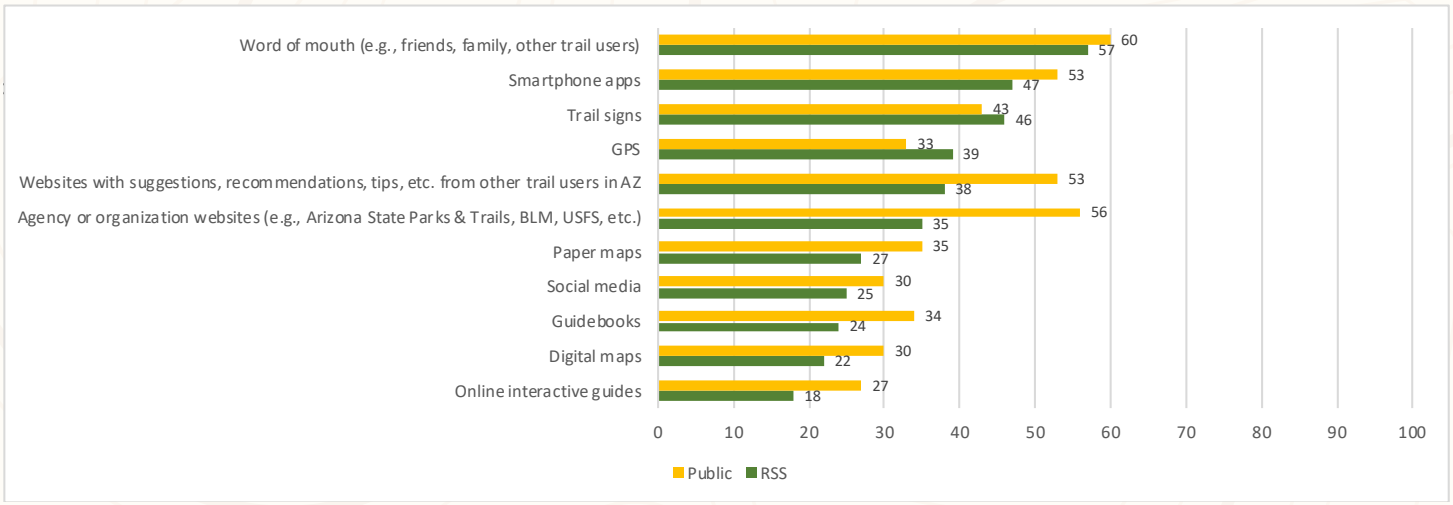


"In the past five years, do you think that access to non-motorized trails has gotten better, stayed the same or gotten worse?"

Tools to Find and Use Trails in Arizona

With the increasing use of technology and social media, respondents were asked to identify, from a list, the tools they employed to find and use trails in Arizona. The most frequently used tool for finding and using trails in both the RSS and the public online survey was word of mouth from friends, family, other trail users, etc. The following figure presents the complete list of tools, along with their frequency of selection by RSS and public online core, non-motorized respondents. Respondents were asked to select all that apply, so the percent total exceeds 100.

Figure 43: Tools Used to Find and Use Trails in Arizona – Random Sample Survey Compared to Public Online Survey Core Respondents



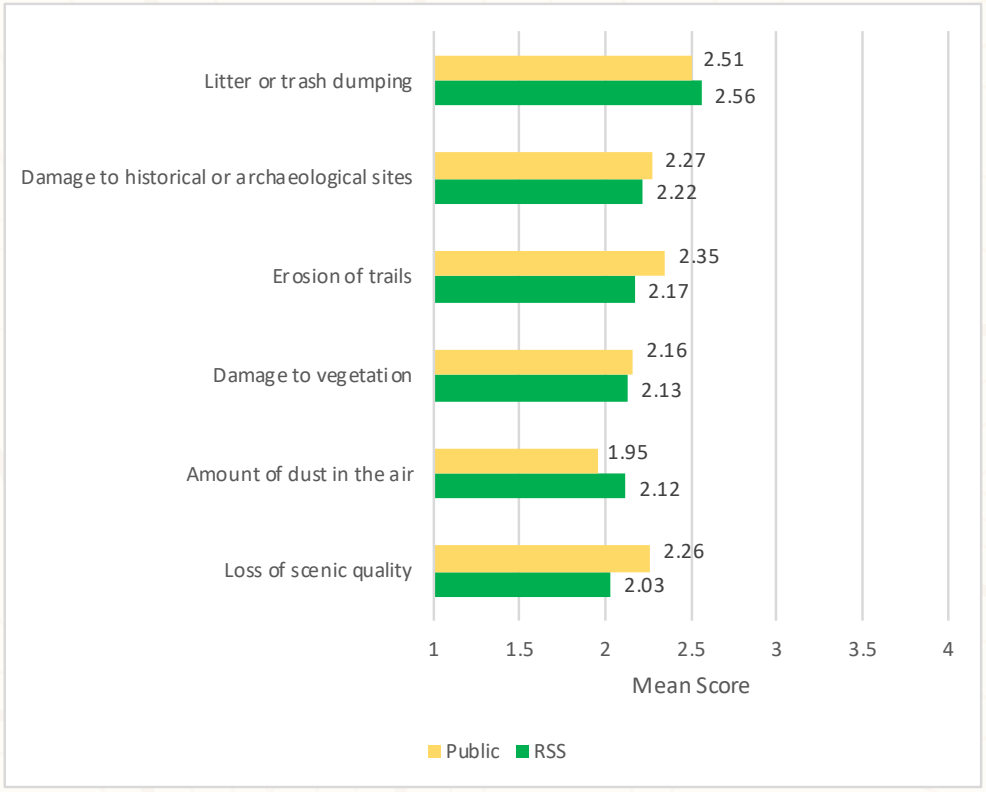
"Which of the following tools do you use to find and use trails in Arizona?"

Trail Users Perceptions of Environmental Concerns

Respondents were asked to consider six environmental concerns that might negatively affect their experience using non-motorized trails and to rate how much of a problem each one is on the trails they use most frequently. The four-point rating scale ranged from (1) "not a problem" to (4) a "serious problem."

As seen in the figure below, the top three environmental concerns of core RSS non-motorized trail users considered to be problems were (1) litter or trash dumping, (2) damage to historical or archaeological sites and (3) erosion of trails. Public online survey respondents had the same top three concerns; however, erosion of trails had a higher mean score than damage to archaeological sites. These rankings are also similar to those reported for the 2015 RSS, in which the top two environmental concerns of non-motorized trail users were *litter or trash dumping and erosion of trails.*

Figure 44: Environmental Concerns of Users – Random Sample Compared to Public Online Survey Respondents



"Thinking about possible environmental conditions that might negatively affect your trail experience, how much of a problem is each of the following on the Arizona trails you use most for recreation activities?"
Scale ranges from 1="not a problem" to 4= "a serious problem"

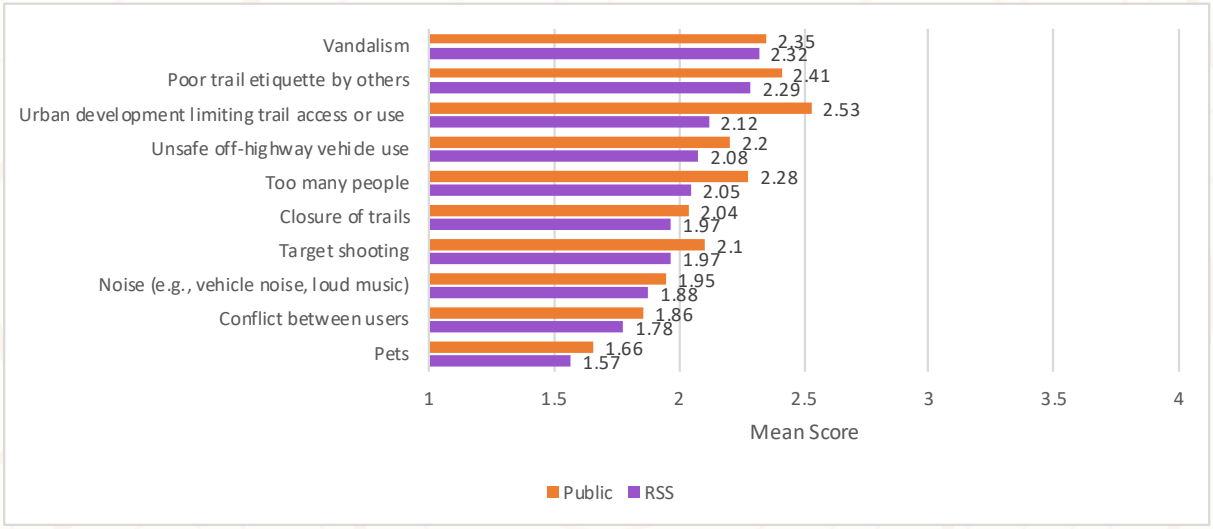
Trail User Perceptions of Social Conditions

Respondents were then asked to consider 10 social concerns that might negatively affect their experience using non-motorized trails and to rate how much of a problem each one is on the trails they use most frequently. The four-point rating scale ranged from (1) "not a problem" to (4) a "serious problem."

As seen in the following figure, the top three social concerns of RSS core non-motorized trail users considered to be problems were (1) vandalism, (2) poor trail etiquette and (3) urban development limiting trail access or use. Although public online survey respondents had the same three social concerns in the top, the order of two options were swapped – vandalism was number three, whereas urban development limiting access to trails was considered the top concern, as measured by the mean score. These rankings are similar to those reported for the 2015 RSS, in which the top two social concerns of non-motorized trail users were vandalism and urban development limiting trail access or use.

It is noteworthy that users of motorized trails also identified the same top two problems – poor trail etiquette and vandalism.

Figure 45: Social Concerns of Users – Core Random Sample Compared to Core Public Online Survey Respondents



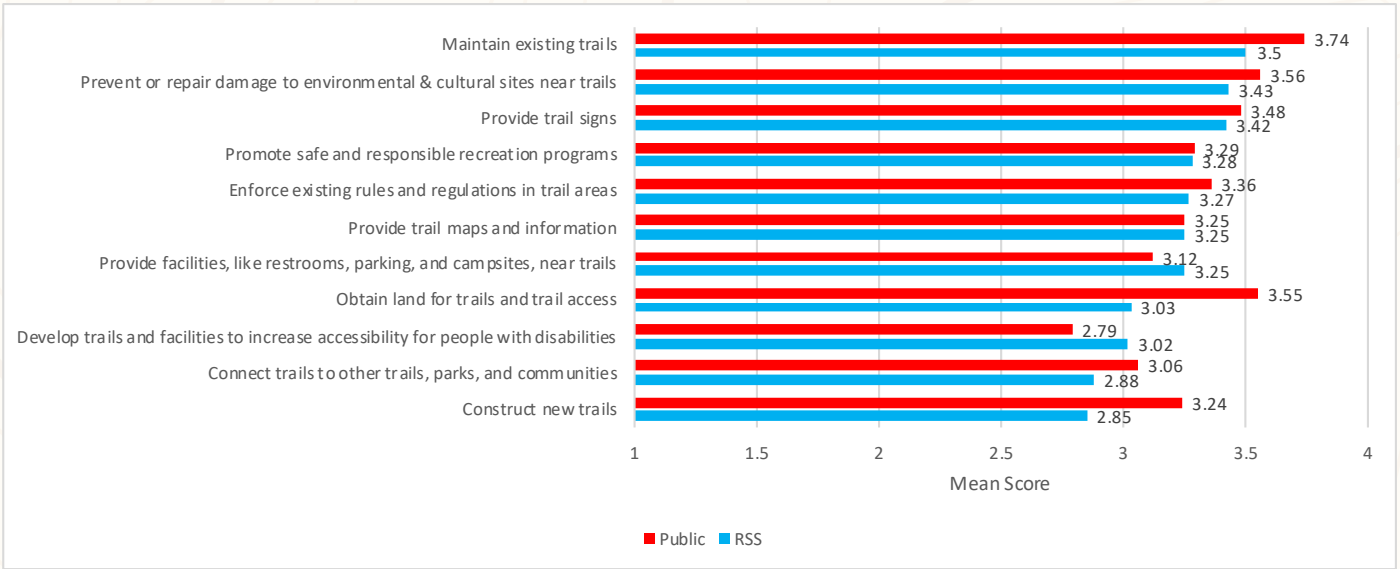
"Thinking about possible social conditions that might negatively affect your trail experience, how much of a problem is each of the following on the Arizona trails you use most for recreation activities?"
Scale ranges from 1="not a problem" to 4= "a serious problem"

Trail Planning and Management Priorities

Trail managers have limited resources to develop and maintain trails. To help inform management decisions regarding resource allocation and issue prioritization, respondents were asked to review a list of 11 priorities related to trail management and to rate them in importance.

As seen in the figure below, the top three priorities for RSS core non-motorized trail users were to (1) maintain existing trails, (2) provide trail signs and (3) prevent or repair damage to environmental and cultural sites near trails. Public online core survey respondents agreed with the RSS for the number one concern, with prevent or repair damage to environmental and cultural sites near trails second and obtain land for trails and trail access third priority. To compare, the 2015 top priority was the same as in 2020 – keeping existing trails in good condition – and the second was mitigating damage to the environment surrounding trails.

Figure 46: Management Priorities of Core Non-Motorized Trail Users – Core Random Sample Compared to Core Public Online Survey Respondents



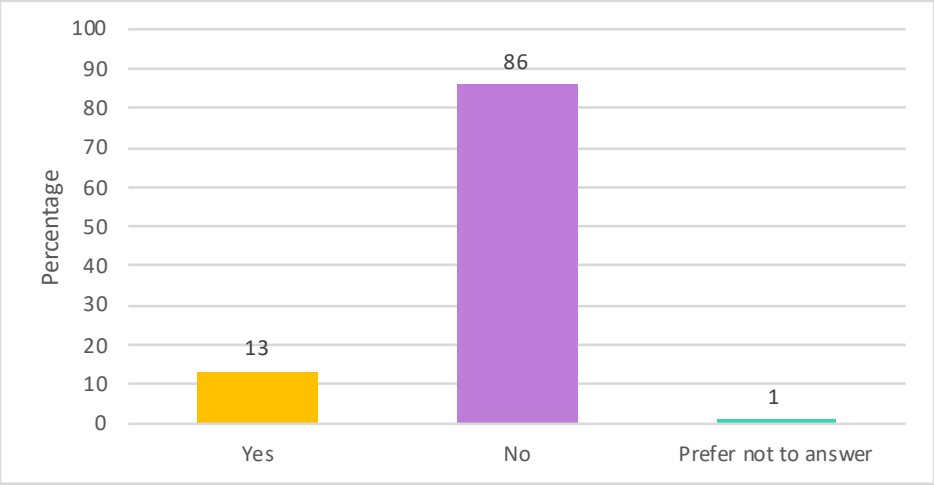
"How important to you are the following trail management priorities?" Scale is 1="not at all important" to 4="very important"

Accessibility & Inclusion

Both the 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP) and the ASPT 2018-2022 Five Year Strategic Plan present constituent-centered goals and objectives and create a framework for the agency's activities. One of the Plan's four SCORP and strategic plan pillars is accessibility and inclusion, aimed at understanding the barriers, needs and preferences of diverse and traditionally underrepresented user groups and developing plans to encourage and support inclusion. To that end, the 2020 Trails Plan added a new management priority to the list in the prior figure, *develop trails and facilities to increase accessibility for people with disabilities*. This will enable ASPT to begin tracking its importance to trail users in future surveys.

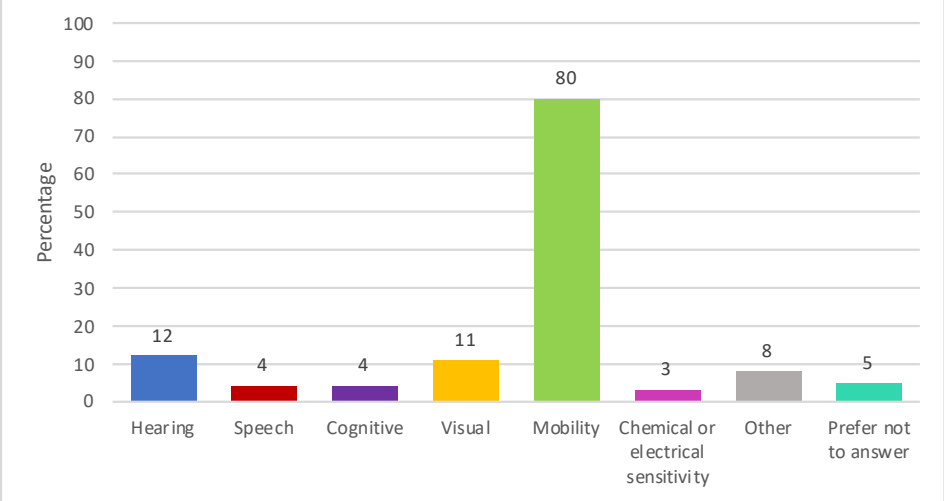
An additional question was added to the 2020 survey to provide ASPT additional insight into disability frequency and needed accommodations among trail users and their families. The figures below present the responses of core non-motorized trail users.

Figure 47: Frequency of Disabilities of Core Non-Motorized Trail Users – Core Random Sample Compared to Core Public Online Survey Respondents



"Are there any individuals in your household with a disability who require accommodations related to their use of Arizona trails?"

Figure 48: Type of Disabilities in Household Among Core Random Sample Survey Respondents



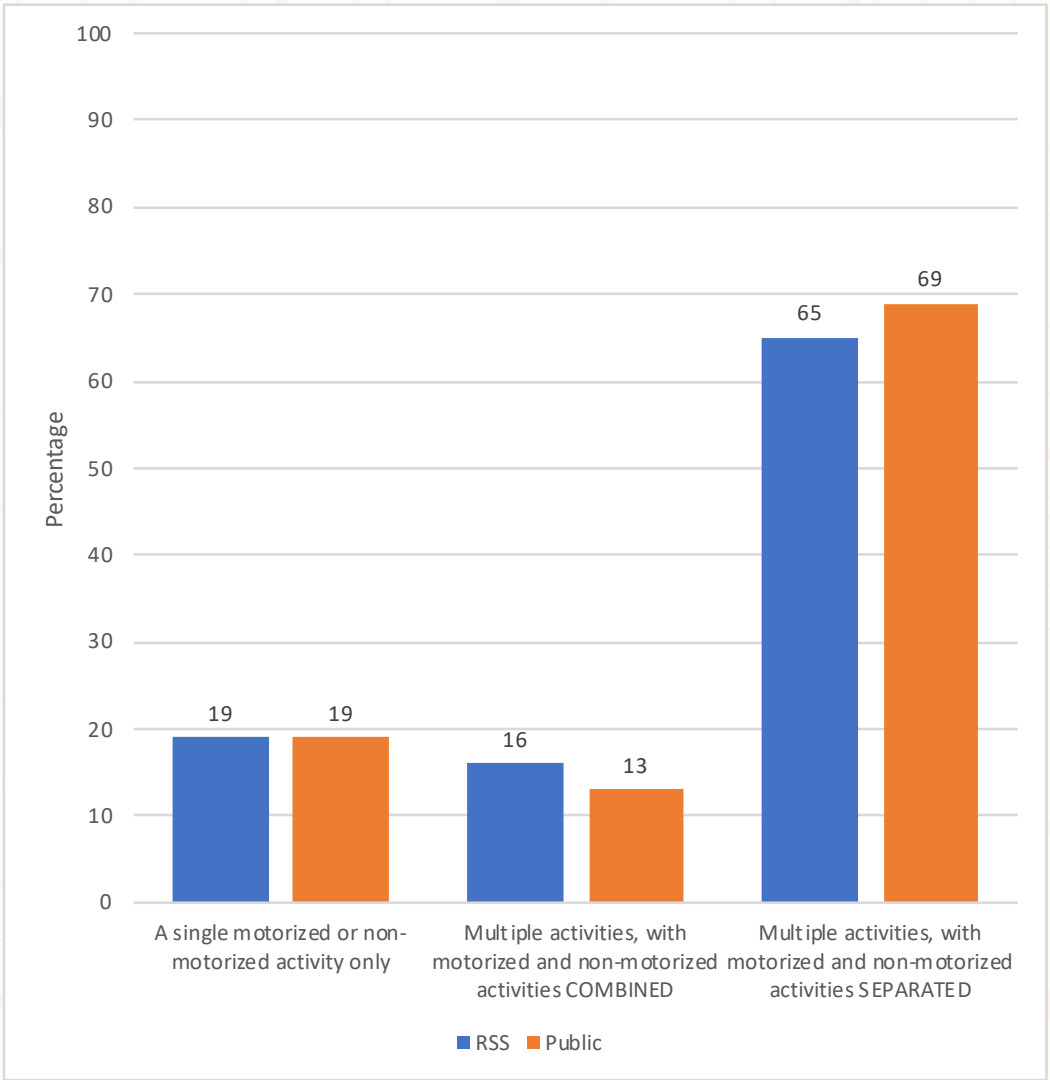
Trails Managed for Single or Shared Uses

Conflicts between users can arise when trails are designed to provide opportunities for multiple activities on the same trail. Many non-motorized trails in Arizona are considered "shared use," which allows for two or more of the following activities on the same trail: hiking, mountain biking and horseback riding. Some trails restrict use to a single activity based on location, terrain, safety or use considerations. Another type of conflict that might arise is due to allowing both motorized and non-motorized uses on the same trail.

Both RSS and public online survey core respondents were asked if they felt trails should be managed for single or multiple activities. The majority of both the RSS (65%) and pubic online core survey respondents (69%) indicated that recreation on Arizona trails should be managed for multiple activities with non-motorized and motorized activities SEPARATED, although it is important to note that approximately one in five respondents reported that they would like to see trails managed for a single use as well (19% each).

Approximately 5% of the 2,701 open-ended comments provided by non-motorized public online survey respondents addressed trail connectivity and design, including designing trails for specific versus shared use. It is clear that some Arizona trail users and proponents who submitted public comments feel strongly about this issue. Although only one in five survey respondents preferred trails devoted to single non-motorized activities (as compared to approximately two-thirds who preferred trails devoted to multiple non-motorized activities), most of the comments received on this topic reflected the views of this group.

Figure 49: Opinion on Mixed Versus Single Use Trails Over Time - Core Random Sample and Core Public Online Comparison



"In general, which of the following statements best represents your opinion of how recreation of Arizona trails should be managed?"

LAND MANAGER SURVEY RESULTS

Arizona land managers were provided a separate web survey to collect their unique expertise and opinions on non-motorized trail funding, management priorities, environmental concerns, social concerns and the Arizona State Parks and Trails grant administration process, among other topics. The distribution of counties these respondents work in and types of agencies they work for are as follows:

Figure 50: Type of Agency in which Land Manager Respondents Work

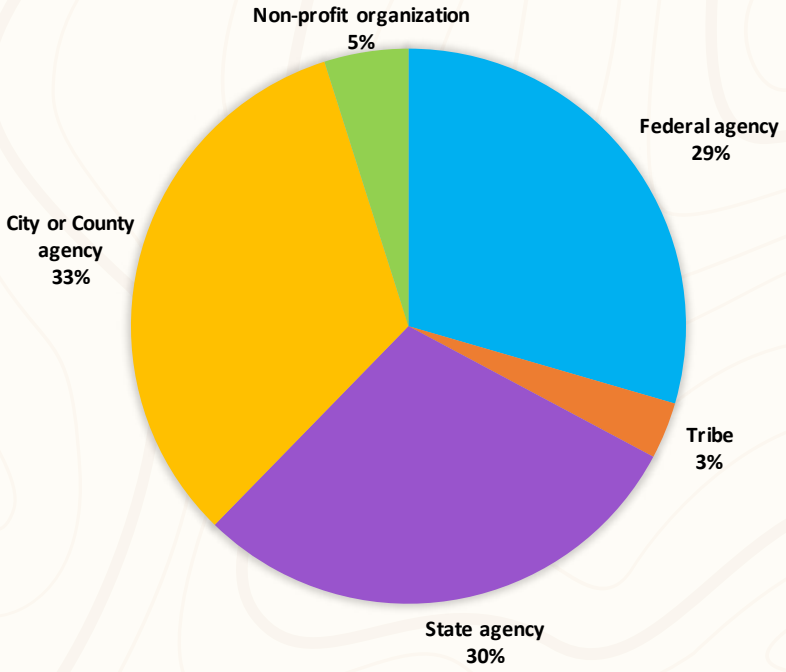
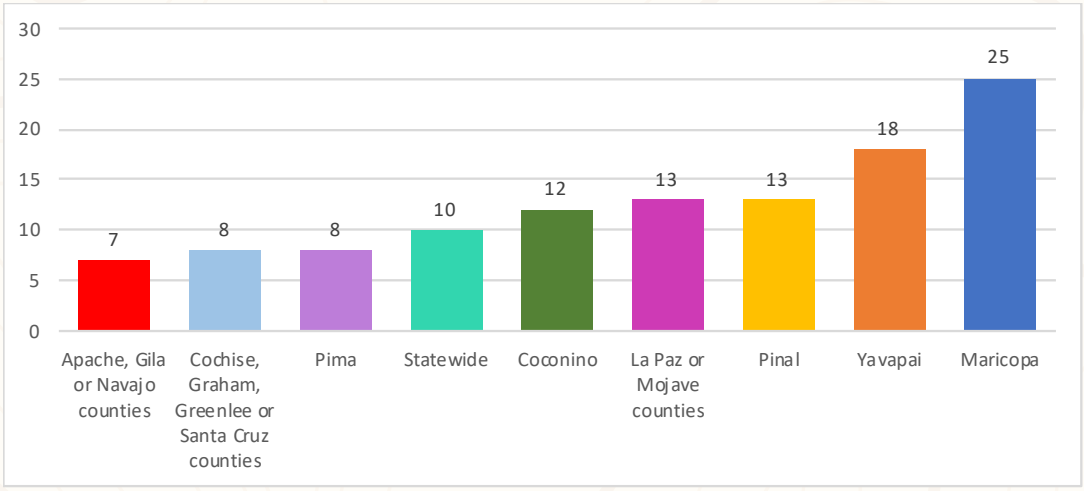


Figure 51: Counties in Which Land Managers are Employed

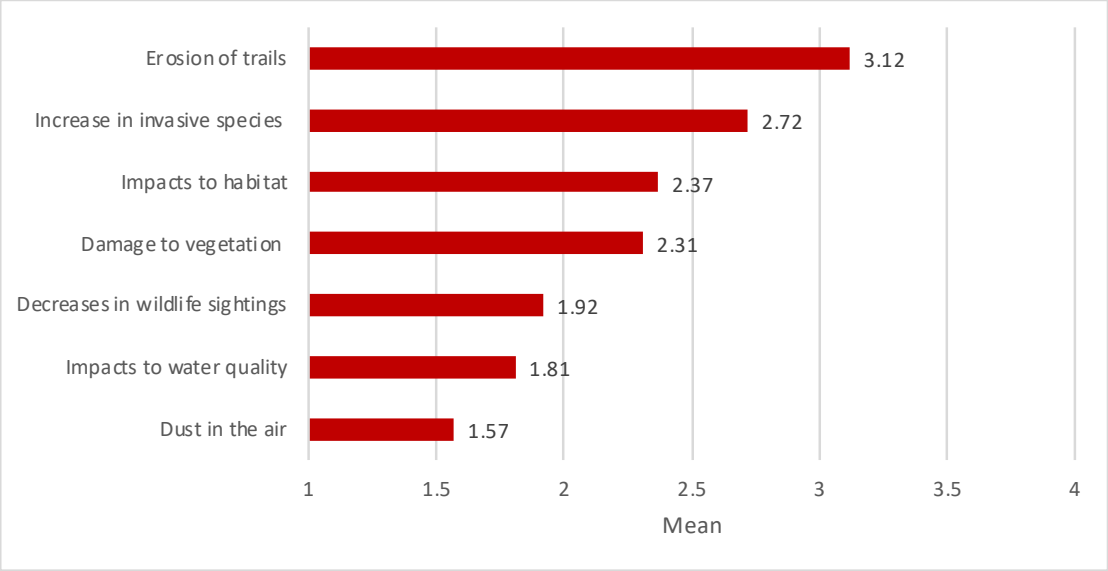


Non-Motorized Trail Environmental Impacts for Arizona Land Managers

Managers were asked to rate eight environmental issues that might be impacted by trail use. The three most problematic environmental conditions on non-motorized trails are similar to those of the Arizona Trails 2015 Plan survey: (1) erosion of trails, (2) increase in invasive species and (3) impacts to habitat. Erosion was the top priority in both the 2015 and 2020 trails plan land manager surveys.

Though in a different order, the bottom three concerns, dust in the air, impacts to water quality and decreases in wildlife sightings, were the same as land managers' environmental concerns for motorized trails. The data below is presented as a mean on a four-point scale ranging from 1 = "not a problem" to 4= "a serious problem."

Figure 52: Environmental Concerns for Non-Motorized Trails - Land Managers



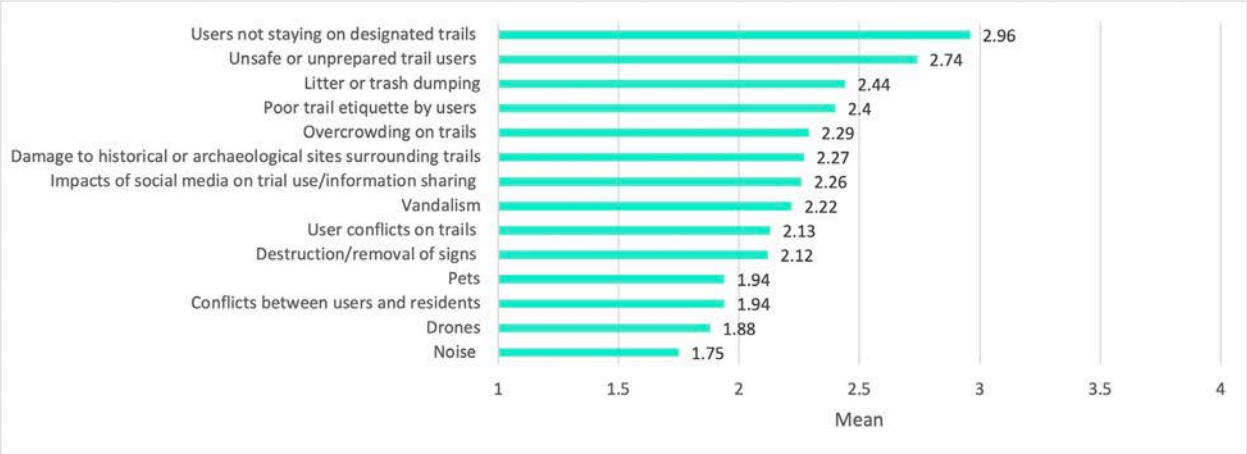
"For NON-MOTORIZED trails, how much of a problem are the following environmental concerns for your Agency?" Scale is 1="not a problem" to 4="a serious problem"

Non-Motorized Trail Social Conditions for Arizona Land Managers

Managers were asked to rate 13 social conditions that might be impacted by trail use. This is an increase of issues from the Arizona Trails 2015 Plan due to new technologies impacting the experience of our trails such as wireless speakers, drones and social media popularizing sometimes unauthorized trails.

The top three social concerns were (1) users not staying on designated trails (unauthorized use), (2) unsafe or unprepared trail users and (3) litter/trash dumping very closely followed by (4) poor trail etiquette by users. Many of the issues are very similar in mean scores, suggesting that land managers may see different types of social concerns within their agencies and trails based on things like location, trail popularity, surrounding population, etc. The data below is presented as a mean on a four-point scale ranging from 1 = "not a problem" to 4= "a serious problem."

Figure 53: Social Concerns for Non-Motorized Trails - Land Managers

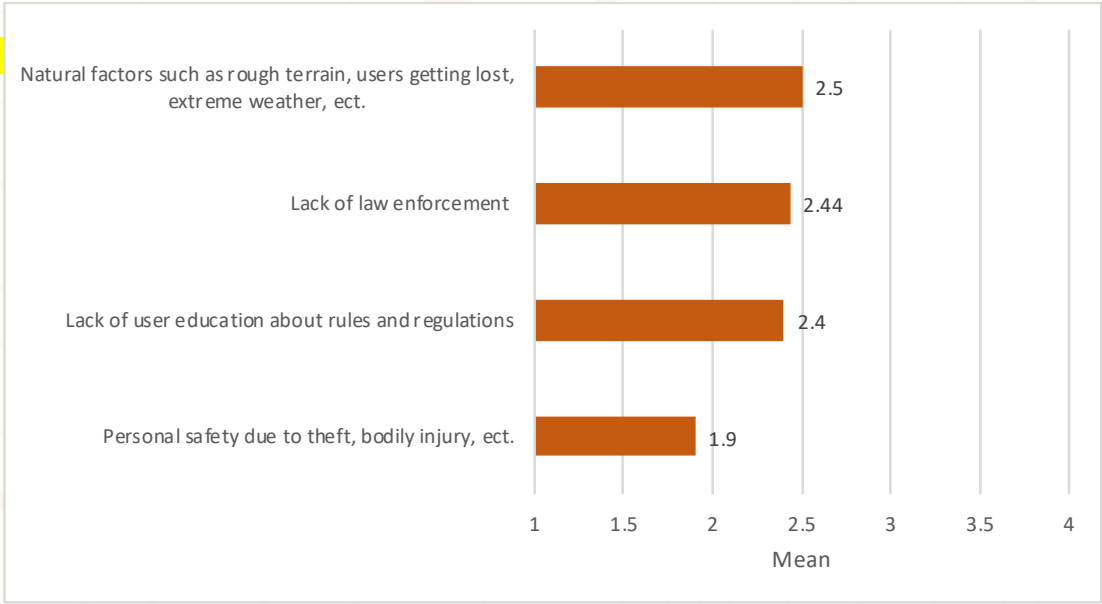


"Regarding trails, how much of a problem is each of the following social conditions to you?"
Scale is 1="not a problem" to 4="a serious problem"

Safety Concerns of Arizona Land Managers for Non-Motorized Trails

As mentioned previously, unsafe or unprepared trail users was a top social concern for land managers. There are many factors that can impact user safety, such as Arizona's extreme heat and harsh climate. In addition to environmental and social concerns, land managers were also asked how much of a problem the following safety concerns were for their agencies. Their most serious safety concern reported was (1) natural factors such as rough terrain, users getting lost, extreme weather, etc. (2) lack of enforcement and (3) lack of user education about rules and regulations. The data below are presented as a mean on a four-point scale ranging from 1= "not a problem" to 4= "a serious problem."

Figure 54: Safety Concerns for Non-Motorized Trails - Land Managers



"For non-motorized trails, how much of a problem are the following safety concerns for your agency?"
Scale is 1="not a problem" to 4="a serious problem"

Need for New Non-Motorized Trails for Arizona Land Managers

With the growing population of the state of Arizona, some users and managers suggest building new trails, acquiring more land for trail access due to overcrowding, overuse, the proliferation of unauthorized trails or other issues. Land managers were asked to rate their agreement with statements identifying issues that must be addressed if new non-motorized trails are to be built. The data are presented as a mean on a five-point scale ranging from 1= "strongly disagree" to 5= "strongly agree."

Figure 55: Need for New Non-Motorized Trails - Land Managers

"How much do you, as a representative of your agency, agree or disagree with the statements below about the need for new NON-MOTORIZED trails?" Scale is 1="strongly disagree" to 5="strongly disagree"

Non-Motorized Trail Funding Priorities for Land Managers

Managers were asked to rate 12 issues that relate to the management of non-motorized trails. Though the wording and some priorities were different from the 2015 trails plan, the top four priorities in 2015 for land managers were (1) routine maintenance of trails, (2) renovation of existing trails and support facilities, (3) acquire property or easements for trail access and (4) mitigate or restore damage to surrounding areas.

The 2020 land manager survey finds that (1) maintain existing trails, (2) complete environmental/cultural clearance and compliance, (3) prevent or restore damage to environmental and cultural sites by trails and (4) provide trail maps and information were the top four priorities, although the mean scores may not be significantly different, implying that there are a variety of important issues to be considered in regards to trail management. The following data were rated on a five-point scale ranging from 1= "not at all important" to 5= "extremely important."

Figure 56: Trail Management Priorities for Non-Motorized Trails - Land Managers

"How important are each of the trail management topics to your agency?" Scale is 1="not at all important" to 5="very important"

STATE TRAILS PROGRAM ACCOMPLISHMENTS

Success: Digital Statewide Motorized and Non-Motorized Trail Map

Consistent with second level priority from the Arizona Trails 2015 Plan – Provide maps and trail information - in 2018-19, geographic information systems (GIS) interns were tasked with collecting statewide trail data from land managers to develop an online, interactive map of motorized and non-motorized trails and routes. In order to accomplish this task, interns created a list of land manager contacts that they used to request trails data. Larger organizations and jurisdictions were more likely to have this data available. Because not all systems had access to this type of data, interns worked with land managers who did not have existing data to locate and create trails data for their organization. The interns then created a database and transformed data into a standardized, usable format. The trails data is intended to be verified and updated annually. In order to maximize the usefulness of this data, ASPT will be working with a third-party vendor to make the database and a smartphone app available to the public for trail information, trip planning, etc. The goal is to have this information available to the public prior to the 2025 Trails Plan. This project also meets legislative mandates to "identify on a statewide basis the general location and extent of significant routes, areas and complimentary facilities" as stated in A.R.S. 41-511.22 and 41-511.04 [20].

Success: Assessing trails managed by Arizona State Parks and Trails

In 2016 through 2019, Arizona State Parks and Trails used the High Efficiency Trail Assessment Process (HETAP) to assess all trails owned and managed by the agency. The HETAP process generates accessibility data for trails that can then be communicated to the public for trip planning and informed decision-making via the website, information available at trailheads, etc. The HETAP process generates data about characteristics of trails, including: trail length, gain and loss in elevation, typical grade and cross slope, as well as others that influence the trail's appropriate use and users. This information has been extensively used by staff for planning purposes and increasing accessibility for users. For example, the detailed data collected has been used to generate accurate trail maps of every park that are available to visitors online and in each park. The equipment used in the collection of this data is available to other agencies and organizations on request. This project addresses the Arizona Trails 2015 Plan priority issue – Providing maps and trail information (a second level priority) as well as allowing the agency to prioritize the renovation of existing trails (a first level priority). This effort also addresses the legislative mandate to "assess the physical conditions of the systems" as stated in A.R.S. 41-511.22 and 41-511.04 [20].

Success: Increased Outreach and Increase Funding

Arizona State Parks and Trails has increased its outreach regarding the Recreational Trails Program in the past five years. This outreach effort has increased demand for these Recreational Trails-funded projects. In 2016, Arizona State Parks and Trails appeared before the Arizona State Department of Transportation Board and requested more funds for these applicants. Arizona State Parks and Trails was successful in receiving an additional $380,000 per year in funding providing additional resources for these trail projects. In addition, since 2015, there have been 38 first-time applicants, which is 37% of total awarded grants. This effort has expanded the breadth of land managers who are taking actions related to Arizona Trails 2015 Plan priorities through the award of grant funds.

Success: Increased Assessment of Trail Usage

In fiscal year 2019, Arizona State Parks and Trails installed trail counters on popular state park trails in order to better assess usage within the system. To date, 20 such counters have been installed. In addition, ASPT will be encouraging grant applicants to include the installation of trail counters on trails where grant funds are expended, to be able to better communicate trail usage patterns across the state and to indicate the return on investment of grant dollars. These data can also be used for planning to predict routine maintenance schedules for trails, or identify when the construction of new trails is needed to address crowding and increased demand – both of which were Arizona Trails 2015 Plan priority issues. Finally, this effort also addresses the legislative mandate to "assess the usage of trails" as stated in A.R.S. 41-511.22 and 41-511.04 [20].

Success: Agency Awards and Accomplishments Related to Trails

Arizona State Parks and Trails received a national award from the Coalition of Recreational Trails for best use of state funds in 2017.

Additionally, Arizona State Parks and Trails has been recognized as being one of the leaders in innovation related to trails. Staff have presented workshops at two national conferences, the American Trails National Trails Symposium in 2017 and National Equestrian Trails Conference in 2018.

Arizona State Parks changed its name to Arizona State Parks and Trails, to better illustrate the vital role the agency plays in the management, planning, funding and implementation of trail projects in the state.

Success: Expansion of Online Services and A Focus on Accessibility

Arizona State Parks and Trails used staff and interns to collect street view data with a Google 360 camera in 2018-2019, which is now available to the public, allowing a virtual tour of all trails for those with limited access or seeking more trail information. This project addresses the second level priority issue in the Arizona Trails 2015 Plan encouraging land managers to provide maps and trail information.

In addition, Arizona State Parks and Trails funded 13 projects to upgrade current trails or construct new trails for persons with mobility issues. This effort includes building an accessible trail from the parking lot at Glen Canyon National Recreation Area to the overlook at Horseshoe Bend, one of Arizona's most heavily used trails. Arizona State Parks and Trails also worked with an ADA intern to assess state parks trails and trailhead facilities to determine which may be used by someone with a disability using adaptive equipment.

Finally, Arizona's State Parks and Trails developed a design guide that contains vital information that should be considered when planning and developing a trail, such as trail tread material, requirements of various trail users, accessibility requirements and other helpful information. This guide provides information on the development of unique accessible trails such as sensory trails, Braille trails, and adaptive biking trails, which expand outdoor recreation for persons with disabilities. This guide provides recommendations for facilities and amenities for agencies and organizations seeking grant funds.

These projects that extend accessibility to underserved populations are consistent with the 2020 Trails Plan priority issue to increase accessibility for people with disabilities.

NON-MOTORIZED TRAIL PRIORITY RECOMMENDATIONS — ISSUES AND ACTIONS

The findings from the random sample, public online and land manager surveys are used to identify priority issues for non-motorized trail recreation, resulting in the Arizona Trails 2020 Plan. The Trails Plan Working Group, the Arizona State Committee on Trails (ASCOT), the Off-Highway Vehicle Advisory Group (OHVAG), and ASPT planning, research and grants staff reviewed the survey data and generated the plan's management priorities.

Arizona legislation A.R.S. §41-511.22 directs the Arizona State Parks Board to "prepare a trail systems plan that ... Assesses usage of trails, describes specific policies, standards and criteria to be followed in adopting, developing, operating and maintaining trails in the systems and recommends to federal, state, regional, local and tribal agencies and to the private sector actions that will enhance the trail systems." The recommendations from this plan are used to influence the overall direction for Arizona State Parks and Trails, other public land managers, and trail advocates and users in their efforts to improve the State of Arizona's non-motorized trail opportunities. The priority recommendations for non-motorized trail use are utilized to guide the distribution of grant funds administered by Arizona State Parks and Trails for trails construction and maintenance and trail facility development.

This section takes these priority recommendations and presents them along with as proposed actions recommendations for managers, trail advocates and users. The first and second level priority recommendations are from those issues that consistently ranked the highest. These recommendations reflect statewide priorities; local and regional priorities may differ. Recommendations listed within each priority level are considered equal in importance. Arizona State Parks and Trails acknowledges that all issues identified below are important for effective management of trail resources and many are interrelated.

A summary listing of the recommendations is followed by a more detailed explanation of each issue with recommended actions.

Table 8: Priority Non-Motorized Trail Recommendations

2020 Trail Plan Priorities – Non-Motorized
First Level Priority
– Complete environmental/cultural clearance and compliance – Maintain existing trails – Prevent or restore damage to environmental and cultural sites by trails – Provide trail signs
Second Level Priority
– Connect trails to points of interest, including other trails, parks, and communities – Develop trails and facilities to increase accessibility for people with disabilities – Enforce existing rules and regulations in trail areas – Promote safe and responsible recreation programs – Provide facilities, like restrooms, parking, campsites near trails – Provide trail maps and information
Third Level Priority
– Construct new trails – Obtain land for trails and trail access

Priority Non-Motorized Trail Recommendations

Agencies and organizations that manage non-motorized recreational trails are encouraged to focus resources on the following priority recommendations and associated examples of consistent actions, since they were informed by public and land manager feedback. Trail users, advocates and partners are encouraged to assist when possible to accomplish the recommended actions or engage in other actions consistent with the identified issues.

In addition, during the public comment period, in working group and advisory committee meetings and at workshops, such as the 2020 Trails Summit, additional examples of action items were shared that have informed this plan. Some of the proposed actions below are very broad and can serve as overarching guidelines for agencies allowing flexibility, while some of the information below is more specific, and can provide models of successful past or current efforts. These should not be considered an exhaustive list of actions and examples, but only an illustration of possible actions that agencies can or have taken to date.

Finally, some of the public comment received revealed that clarification is necessary regarding the impacts of an issue being categorized as first, second or third level priority and the impacts that this categorization may have on grant criteria developed to award federal Recreational Trails Program monies. Please see Chapter 5 for clarification of how these priority issues are assigned point values for grant criteria, and what this may mean for individual project applications.

First Level Priority Recommendations for Non-motorized Trails

Complete Environmental/Cultural Clearance and Compliance

Issue: An important step in (1) developing new trails, (2) maintaining existing trails or (3) adopting existing trails into the inventory of authorized trails is compliance with federal policies such as the National Environmental Policy Act (NEPA). Federal and state requirements, such as the NEPA, aim to protect the state's unique and irreplaceable natural and cultural resources. Several of the priority issues identified cannot be accomplished without first completing compliance activities. In addition, comments provided by stakeholders, advocates, survey respondents and others suggest that the current application submittal process, including the required format, redundancy in the approval path, etc. is causing sometimes lengthy delays that may discourage potential applicants from submitting projects. These comments address the "Optimizing System Vitality" pillar by focusing on improving processes and removing non-value added steps.

Actions:

- Provide applicants with a list of approved contractors who can assist in completing these required surveys.
- Develop a statewide resource to aid in the timely completion of National Environmental Policy Act (NEPA) and Section 106

compliance requirements for agencies, organizations or individuals that lack expertise or staff to perform these duties.

- Work with paraprofessionals (tribal organizations, university students or others) to support cultural resource protection efforts when appropriate.
- Continue to explore opportunities for collaboration, training and coordination of compliance activities.
- Simplify the grant submission process and make it more focused on needs of the customer (applicant). For specific recommendations, see below:
  - Develop an intergovernmental agreement (IGA) or memorandum of understanding (MOU) that allows federal agencies to submit NEPA documentation in the format required by their agency, instead of having to reformat into required Federal Highway approved forms.
  - If a federal agency has satisfactorily completed the NEPA process, do not require additional review by the Federal Highways Administration with a different set of standards.
- Work with landowners to clear established, popular trail systems so that maintenance work can be quickly addressed as needed.
  - Mesa Ranger District on Tonto National Forest can serve as a model. A system-wide clearance was completed in 2011.

Maintain Existing Trails

Issue: Data collected from all of the surveys conducted as well as guidance from the working group suggests that one of the state's top non-motorized trail priorities is to keep existing trails in good condition. Trails may erode due to natural causes, overuse, unsustainable initial design or lack of available regular maintenance. Often badly eroded or misaligned trails result in users creating unauthorized alternate routes. Renovation of a trail also provides opportunities to address and/or mitigate any resource impacts caused by trail use. Nearly one-third (30%) of the 3,103 random sample survey respondents, and 8% of the 2,107 public online respondents who provided open-ended comments and recommendations (this includes all trail users - motorized and non-motorized) referred to the need to maintain trails. This included recommendations to focus on litter removal; erosion control, especially after monsoons; and suggestions regarding various that could be used.

Actions:

- Actively seek out grants, partnerships, Friends Groups, and volunteers to supplement trail budgets.
  - Identify national, state and regional best practices, and implement these programs and practices widely.
  - Use Washington Trail Association as a model for how to structure a user group led non-profit that can assist with trails maintenance, advocacy, etc.
- Provide a statewide clearinghouse for information related to sustainable trail design and maintenance trainings for volunteers and staff.
- Prioritize reconstruction needs and incorporate sustainable trail design when reconstructing, renovating, rehabilitating or maintaining trails.
- Develop programs, including use of volunteers, to provide routine upkeep of designated trails and routes.
  - Partner with volunteer groups such as trail clubs, Keep Arizona Beautiful, CleanTrails.org and/or others to coordinate clean-up efforts.
  - Utilize trail building and maintenance projects as a skills development opportunity for staff and volunteers. Provide opportunities to learn increasingly technical and detailed skills over time.
  - Provide different types of volunteer opportunities including internships, volunteer vacations, drop in, group and family friendly events.
  - Provide recognition, and consider providing transportation to and from trail maintenance volunteer events.
- Provide trash bags or other litter control means (receptacles should only be used in areas where it is feasible to empty trash cans regularly).
- Utilize non-profit organizations, such as Southwest Conservation Corps or Americorps for volunteer coordination and training, while increasing stewardship in youth.
- Develop, coordinate and disseminate training materials for staff and volunteer trail crews.
- Identify, organize and disseminate existing resources to "Train the Trainer" in sustainable trail maintenance.
  - An example of an organization that offers training resources is the International Mountain Bicycling Association (IMBA). For more resources, see Appendix E.
- Provide an online centralized location to store and share training and other trail related resources.
- Continue convening Trail Summits to share best practices and resources among trail managers, stakeholders, advocates, volunteers and others.
- Prioritize trails maintenance, including renovating and realigning trails, over new trail construction.

- Provide more public information and messaging regarding the importance and need for trail maintenance.
  - It was noted by a Trails Summit attendee that the majority of trail users are unaware of the resources required (labor, materials, etc.) needed to maintain a trail. Making these costs visible may increase volunteerism on trail projects, encourage self- and community policing efforts, and may inform those who advocate for new trails of ongoing necessary costs of adding trails to a system.

Prevent or Restore Damage to Environmental and Cultural Sites by Trails

Issue: With the population of the state and trail use increasing, protection of Arizona's natural and cultural resources, public lands, recreation areas and scenic landscapes is increasingly necessary. Human activities, including population growth and urbanization, increase the demand for recreation areas and place more stress on resources. Additionally, naturally occurring events exacerbated by human activities, such as erosion and the spread of invasive species, increase the need for long-term stewardship of resources. Areas surrounding trails become damaged for a host of reasons: inadequate trail design, erosion, off-trail travel, overuse and creation of unauthorized trails. Managers are consistently looking for resources to prevent, restore and mitigate damage to areas surrounding trails. The public has rated damage to cultural sites and vegetation as problems related to trail use. Land managers perceive damage to vegetation, impacts to habitat and increased invasive species along trails as moderate to serious problems as well. Three percent of the 2,701 comments provided by public online survey respondents emphasized the importance of natural and cultural resource protection. Some recommended preserving the scenic beauty of land, prioritizing ecological integrity and improving environmental stewardship on trails. Vandalism of cultural resource sites and development around or near archaeological sites were also areas of concern for these respondents.

Actions:

- Plan and implement actions to rectify or reduce existing damage caused by trail use to natural or cultural resources along trails. This may include rerouting, revegetation, invasive species treatment, trail realignments or temporary closures.
- Seek innovative ways to provide educational signage on vegetation, wildlife habitat, cultural resources in the area (if appropriate) and human impacts.
  - Since disclosure of cultural site locations is oftentimes not appropriate, the Arizona Trail Association has encouraged stewardship amongst its users by communicating when they are entering a sensitive area (due to the presence of either natural or cultural resources) and encouraging them to stay on trails.
  - Collaborate with tribes to provide interpretive signage, when appropriate, to help trail users understand the importance and significance of prehistoric and historic artifacts, structures, etc.
- Encourage land managers to utilize the Site Steward program, managed by Arizona State Parks and Trails, which deploys trained volunteers to aid in the protection and monitoring of at-risk cultural resources. For more information, see Appendix E.
- Identify and disseminate methods and best practices for reducing negative impacts of social media on the protection of natural and cultural resources.
- Provide training to trail crews, volunteers, Friends Groups and others regarding why the protection of natural and cultural resources is important, and how they can help.
- Coordinate efforts by identifying common goals for the development and implementation of appropriate interpretive plans for natural and cultural resources.
- When planning new trails, routes or realignments, utilize buffer zones to protect fragile environments.

Provide Trail Signs

Issue: There are many types of signs along trails that allow users to safely and enjoyably pursue their trail experience. For example, locator signs lead people to trailheads and parking areas, directional signs along the trail provide wayfinding tools for users, destination signs let people know they have reached end points, interpretive signs describe the natural or cultural history of the area and regulatory signs explain the rules and regulations of the area. Increased trail use in remote areas is resulting in increases in emergency rescues. Additional signage, such as periodic trail markers that can be referenced with global positioning system (GPS) information, may lead to quicker response times and increase the safety of hikers and rescue personnel. Seven percent of the 3,103 random sample survey comments and 12 % of the 2,107 public online survey comments (all trail users – motorized and non-motorized) referred to trails signage in their comments. Comments included recommendations for more signage to help people navigate trails and ensure they are on correct authorized trails. They also recommended more detailed signs at trailheads emphasizing factors such as: trail etiquette, trail rules and regulations and trail difficulty. Also, it was noted during the public comment period that oversigning a trail or poor signage can detract from the visitor experience. Efforts similar to those currently occurring to identify river access points

in the Verde Valley, offer examples of multi-jurisdictional sign standards, language, information and maps that will be used to create a cohesive experience for visitors, and reduce confusion and contradictory information across jurisdictional boundaries.

Actions:

- Install locator signs that lead people to trailheads and parking areas, directional signs along the trail, destination signs to let people know they have reached end points, interpretive signs that describe the natural or cultural history of the area, educational signs explaining why environmental and cultural protections are required and regulatory signs that explain the rules of conduct.
- Provide bilingual signage.
- Enlist the help of volunteers to routinely monitor and replace signs as needed. To reduce vandalism, visibly advertise that these signs were installed by volunteers from specific groups.
- Provide interpretive signage that helps users understand and appreciate the need for protection of natural areas and cultural sites and explains why regulations should be followed.
- Whenever possible, provide signs, maps and information that allow users to determine if the trail is accessible for their individual capabilities (e.g., should include allowable uses, surface conditions, slope, trail length, distance to significant barriers to a person with limited mobility, etc).
- Develop a trail sign manual, which takes existing agencies' guidance into account, and make it available in a centralized trail-related resource location.
- Increase informational signs throughout trails systems to educate users about Leave No Trace ethics and Share the Trail etiquette on multi-use paths/trails to reduce user conflict.
- Provide location indicators at frequent intervals on the trail to assist first responders in locating trail users in distress. In addition, land managers must provide accurate trail information to local rescue coordinators.

Second Level Priority Recommendations for Non-Motorized Trail Use 2

Connect trails to points of interest, including other trails, parks, and communities

Issue: Using trails to connect to other trails, parks and communities was one of the focus areas in Arizona's 2018 Statewide Comprehensive Outdoor Recreation Plan (SCORP). Trails that connect points of interest make communities more livable and walkable, improve the economies of communities by drawing visitors to multiple points of interest within the community and improve the health of residents by providing healthy and safe alternatives to driving (MacDonald, 2011). One study found that connection to other trails was one of the factors that contributed to greater trail use (Lindsey, Nordstrom, Wu, Wu, Ciabotti, Woods, Eldridge, et al, 2015). Survey respondents and public comments received recommended connecting trails in specific locations (e.g., between City of Cottonwood Parks and Dead Horse Ranch State Park in Cottonwood). These recommendations will be passed on to county and city officials and public land managers in these areas for their review and consideration.

Action:

- Plan for "connector" trails to expand the trail opportunities in established trail areas.
- Give priority to trail proposals that connect to other trails, communities, parks and open space, schools, libraries, indoor recreation facilities and businesses.
- Highlight models and successes nationally, statewide and in Arizona communities and disseminate best practices for working with a variety of public and private landowners and stakeholders.
- One example of a successful collaborative effort to connect communities using trails is the Verde Front sustainable recreation task force which includes city, town and county political leaders, land managers, economic development and tourism professionals, business leaders and other stakeholders. This group meets to produce cross-jurisdictional planning and implementation of plans across cities and towns in the Verde Valley.
- Develop and use a digital statewide trails map with GIS layers to identify areas that would benefit from connectivity.
- Contact, inform and involve all partners and stakeholders early in the planning process.
  - Use the online Government to Government toolkit (sites.google.com/view/az-consultation-toolkit/home) to identify appropriate methods points of contact for impacted Native American communities. If necessary, identify a statewide single-point of contact for these consultations.
- Develop guidelines with Arizona State Land Department and other state and federal entities as appropriate for connecting trails.

Develop trails and facilities to increase accessibility for people with disabilities

Issue: Accessibility and Inclusion is a primary pillar of Arizona's 2018 SCORP. Arizona's growing population is changing. Demographic

trends, such as projected increases in the number of residents ages 65 and over, may require changes in how trail recreation opportunities are provided and what facilities are necessary to meet changing needs. In addition, further research may be needed to better understand the needs, barriers and preferences of Arizona's disabled population as it pertains to non-motorized trail use.

Actions:

- Assess existing trails for accessibility and communicate this information to the public and trail users.
- When upgrading or building new trail facilities, maximize accessibility for visitors with disabilities.
- Make electronic information on trails more easily accessible by creating and marketing a centralized repository for trail-related information.
- Work with non-profits and organizations to identify and prioritize needs, barriers, etc.
- Reach out to under served groups and regions to understand the barriers, needs and preferences of current and potential user groups.

Enforce existing rules and regulations in trail areas

Issue: Enforcing rules and regulations on trails, routes and areas is important to non-motorized trail users and land managers. However, there is insufficient on-the-ground management personnel available and little hope that agencies responsible for trail management will be able to hire new staff in the near future, which creates an environment of self-policing and where education for safety, information and enforcement activities is required. This lack of adequate law enforcement results in the inability to sufficiently meet environmental and cultural resource protection needs. There is not an effective mechanism for the public to report illegal operators in a timely manner to appropriate law enforcement agencies. Trail laws and regulations are sometimes unknown or ignored by users.

Actions:

- Implement a well-coordinated effort across jurisdictions to maximize effort and impact.
- Identify enforcement contacts or install complaint registers for trail users to report information.
- Increase staff through a variety of means including ranger presence, law enforcement presence, volunteers and site hosts.
- Promote and expand volunteer programs with non-motorized clubs, user groups and individuals to monitor trail use and educate users regarding safety, rules and regulations (e.g., using OHV Ambassadors as a model/peer patrols).
- Cite users for non-compliance and publicize these efforts.

Promote Safe and Responsible Recreation Programs

Issue: A review of the environmental and social problems rated by Arizona residents, members of the public and land managers in the 2020 Trails Plan surveys reveals that many of the most pressing issues can be addressed proactively through educational and stewardship information and rules and regulations being made available to trail users. Trail users who lack proper trail etiquette and environmental ethics can detract from other trail users' recreation experience and negatively impact the environment and fragile and unique cultural resources. Current education efforts have not been able to keep pace with the growing need for effective responsible user education. Education programs should be instituted to target residents and visitors. Uninformed user behavior may result in negative impacts to land and water resources, site closures and possibly a negative perception of trail users. A preventive focus on education, including more well-placed educational materials and targeted programs, may reduce the need for increasing law enforcement efforts.

Actions:

- Work with partners to maximize impact of educational programs/messages. Develop and distribute consistent responsible use messages and promote through websites, social media and mass media.
    - Combine forces with the Arizona Office of Tourism, libraries and other community centers and resources, other land managing agencies, stakeholders and partners to inform trail users of Leave No Trace ethics, Share the Trail etiquette, and safe trail use practices (e.g., Take a Hike, Do It Right! - Heat related safety program developed by City of Phoenix Parks and Recreation Department).
    - Work with retailers to provide accurate, comprehensive information to employees and the public regarding the location of authorized trails, appropriate safety practices, etc. Emphasize the use and importance of authorized trails only.
- Seek innovative ways to provide education and interpretive signage on the area's environment and the effects of human impacts on the environment. Kiosks and shelters are a good way to draw attention to interpretive materials, which could inform visitors about conservation practices, treading lightly on the land, and the ethics of watching wildlife to minimize disturbance. Signs, maps and other materials should emphasize the need for users to stay on designated roads and trails.
    - For example, see Chapter 1 for recent models of the use social media to increase stewardship in youth and others.
- Utilize the OHV Ambassador program as a model to develop an Ambassador program for non-motorized trails throughout the state and across agencies, which uses peer education and outreach as a tool to teach land ethics, safe practices and encourages adherence to rules and regulations on trails.

- Share information about programs that work and best practices.
- Provide data that illustrates the essential benefits of trails: health, economics, quality of life and environmental benefits in order to encourage collaboration between municipalities and land managing agencies and stewardship among individuals and community members.

Provide Facilities, like restrooms, parking, and campsites, near trails

Issue: In addition to the actual trail corridor, users often require or would like support facilities to aid in the area's use and activities. Well-designed support facilities, accessible to all users, increase users' experience and satisfaction along with protecting natural resources and keeping areas clean and free of litter and waste. Support facilities include structures such as restrooms, water faucets, trash bins, parking areas, kiosks, picnic sites, campsites, wildlife blinds, viewing platforms, and shelters. Survey respondents who provided open-ended comments recommended having benches along trails when possible and shade structures.

Actions:

- Develop trailheads with adequate parking, restrooms, drinking water, and litter control (such as providing individual litter bags or trash cans where appropriate).
- Develop individual overnight campsites or shelters along long trails frequented by backpackers.
- As much as possible, trail support facilities should be designed, developed, rehabilitated and managed consistent with the Americans with Disabilities Act (ADA) guidelines to increase accessibility and to encourage use by people with all abilities.
- Whenever possible use advancements in technologies and sustainable materials to ensure that support facilities are as sustainable as possible (e.g., utilizing water conservation techniques in restroom design, surface materials, solar panels, etc).
- Encourage partnerships between nonprofits and federal agencies to leverage resources available to identify, apply for funding, and implement projects on federal lands.

Provide Trail Information and Maps

Issue: Trail users need accurate maps and information that will lead them to and through a trail. They must also be informed about the difficulty (elevation gain, length, terrain, etc.) and type (single use, mixed-use) of trail, safety, and expectations for responsible use in order to protect themselves, other users and trails. More than one in ten public online survey respondents (12%) provided comments related to wayfinding on trails, maps and signage. These comments included recommendations to have maps available in a variety of formats (e.g., digital, paper, GPS, etc). Some working group members, survey respondents, and those who provided public comment requested that maps include information about allowable uses on trails (e.g., identify single use trails, and multi-use trails, and which uses are allowable) so that users can seek out their desired trail experience.

It is also important to note that making additional trail information available describing the type of experience that users can expect at various trail locations (e.g., typical seasons of highest use, approximate visitation if known, percentage of trail that is shaded during mid-day hours, conditions at trailheads at various times of the day, etc.) might serve to better link users to their desired trail experiences, resulting in greater user satisfaction and better user decision-making.

Actions:

- Utilize new technologies, best practices, and standardized messaging to post maps and information on agency websites and trailhead kiosks so they are widely accessible.
  - The Bureau of Land Management is now providing QR codes to access trail maps in some jurisdictions and has stopped printing paper maps. Also provided on signage is information about how to download and use the Avenza app to access trail maps.
  - The Arizona Trail Association encourages users who do not have a paper map or digital map already downloaded to take a picture of maps at trailheads and use these for wayfinding.
- Use the internet to post digital maps and information so it is widely accessible.
- Develop statewide, regional, or multi-community maps.
- Have accurate information on how to get to trailheads and the condition of trails.
- Provide GPS coordinates, rules, laws, links to permits if necessary, and other information on maps.
- Develop a digital statewide, interactive map that includes all authorized, available non-motorized trails and routes in the state. Specify which trails are single use, allowing users to make an informed choice regarding their desired trail experience.
  - Land managers are encouraged to participate in this effort by providing their agency/organization's trail-related information, and annual updates.
- Develop and distribute maps in various scales, regions and areas that clearly delineate single and multi-use trails.

Third Level Non-Motorized Management Priorities 3

Construct New Trails

Issue: There is demand for new trail opportunities in communities experiencing high growth rates. Also, as the types of trail-related outdoor recreation activities change and new ones emerge (e.g., e-bikes), trails that provide for a specific type of activity may be needed. Development of new trails should include accessibility considerations to accommodate use for disabled populations wherever possible. The other "new" trail that is in demand in many areas is the connecting trail or link between two existing trails that provides a loop. Nearly one in ten (9%) of the 2,107 comments provided by public survey respondents (all trail users – motorized and non-motorized) and several of the public comments received recommended building new trails. Some recommended adding trails in particular areas (e.g., in the Music, Cerbat, Hualapai and Peacock mountains in Mojave County), while others recommended adding more trails designed for particular uses (e.g., hiking only trails, etc.), and some wanted to see an increase in the percentage of non-motorized trails in the state, both single and multi-use. Comments in this category also called for building more accessible trails. Recommendations for particular areas that would benefit from adding new trails will be passed on to county and city officials, public land managers and other trail advocates for their review and consideration.

Actions:

- Designate and construct trails to support a variety of different non-motorized use types with local user group input. Some of these new trails should be single-use trails, where appropriate, and if this use meets the needs of the trails community in a region or fills a gap in available options (e.g., hiking, biking or equestrian use only).
- Develop new trails emphasizing sustainable design.
- Plan for connector trails to expand the trail opportunities in established trail areas.
- Inform the public, through press releases, public land agency contacts, websites and social media, as soon as trails are officially designated.

Obtain lands for trails and trail access

Issue: Access refers to the ability of the user to get to the trailhead or area where recreational opportunities exist. Access is being diminished due to closures of trails or access roads by owners/managers, air quality ordinances, urban development limiting trail access or use, littering and disrespectful behavior, and variation in rules and trail designations that cross private, public and state lands. Both random sample and public online survey respondents noted that obtaining land for trail access, especially in rapidly developing areas, was very important. Some recommended acquiring land in specific locations. Among the locations listed by survey respondents and those who provided public comment, the most commonly mentioned were: Arizona state trust land adjacent to Catalina State Park (90 comments received), and the Granite Dells in Prescott (93 comments received). Arizona State Parks and Trails will pass along these concerns and recommendations to appropriate internal (within ASPT) and external stakeholders to help facilitate conversations between trail users, advocates, non-profit organizations, cities, counties, agencies and the state's leadership to enhance the likelihood that valued and valuable lands are preserved and provide outdoor recreation opportunities for future generations.

Actions:

- Permanently secure access to trails, routes, trailheads or future non-motorized recreation areas by acquiring easements, rights-of-way or land by purchase when possible.
- Work with private landowners on trail issues and solutions and seek easements or donation of land for non-motorized recreation.
- Acquire lease and/or patent to federal lands via the Recreation and Public Purposes Act.
- Implement more comprehensive planning with projections into the future to identify unprotected access points for designated trails and routes and acquire land whenever possible for existing and proposed trails and trail access, easements and rights-of-way.
- Encourage cities, counties and towns to adopt planning and zoning ordinances to protect access to trails.
- Meet with representatives from the Governor's Office, agencies, organizations, advocates and stakeholders to identify barriers and generate solutions to common statewide issues (e.g., rights of way and easements located on State Trust Land).

Chapter 5

Grants and Funding

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GRANTS AND PARTNERSHIPS

Arizona State Parks and Trails currently administers two motorized and two non-motorized trail funding sources. One source for both motorized and non-motorized trail funding is the federal Recreational Trails Program (RTP). This is the one program that has been continuous and unaffected by the state's economic conditions.

Fixing America's Surface Transportation (FAST) Act

On December 4, 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act (Pub.L.No. 114094) into law – the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act includes the Recreational Trails Program as a component.

The program provides funds for all kinds of recreational trail uses, such as pedestrian uses (hiking, running, wheelchair use), bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving or using other off-road motorized vehicles. Each state develops its own procedures to solicit projects from project sponsors and to select projects for funding, in response to motorized and non-motorized recreational trail needs within the state. The FAST Act provided funding through 2019. The FAST Act expires at the end of September 2020 and continuing resolutions are expected to extend funding until the next transportation bill is signed. The RTP portion of the transportation bill is always up for discussion and considerable lobbying by trails advocacy groups is required to sustain it.

The Federal Highway Administration – Recreational Trails Program (RTP)

Arizona State Parks & Trails (ASPT) is the agency responsible for administering RTP funds in Arizona. The project portion of Arizona's RTP funds must be divided between motorized (30%), non-motorized (30%) and diverse (40%) trail projects. Funding from the RTP requires a National Environmental Policy Act (NEPA) assessment and matching funds.

RTP requires each state to establish a State Recreational Trail Advisory Committee (SRTAC) that represents both motorized and non-motorized recreational trail users. Yearly, Arizona convenes two of the agency's standing advisory committees: the Off-Highway Vehicle Advisory Group (OHVAG) and the Arizona State Committee on Trails (ASCOT) to discuss the RTP. This larger joint committee and other key stakeholders assist ASPT in:

- Developing project sponsor criteria (which kinds of project sponsors may receive grants).
- Developing project eligibility criteria (which kinds of projects the state would consider for funding.]
- Developing project evaluation and selection criteria.
- Providing guidance to determine compliance with the diverse trail use requirement.
- Determining appropriate state policy to determine matching share criteria.

The SRTAC has determined that the 30/30/40 sub-distribution requirement for the program can be met by dividing the apportioned funds equally between motorized and non-motorized uses.

Information on the Recreational Trails Program can be found at the Federal Highways website - fhwa.dot.gov/environment/recreational_trails.

The program guidance can be found at: fhwa.dot.gov/environment/recreational_trails/guidance.

In order to comply with legislative requirements in A.R.S. 41-511.22, 41-511.04 [20] as well as with the guidance above, public and land manager input is sought to help to prioritize trails management issues for both motorized and non-motorized trails in Arizona every five years. Trail management issues are assigned a priority level (first, second or third) based on public and land manager data, working group and advisory committee guidance and staff review. Each priority level is assigned a specific point value in the overall grant scoring process (e.g., first level may be worth 15 points, second level worth 10 and third level worth 5). It is important to remember that projects related to any of the priority issues at any priority level are eligible for funding. Grant funding criteria reflects statewide priorities overall: however it is possible that local concerns, contexts and opportunities may be present that encourage submission of an important project linked to third level priority. Such projects have received funding in the past, based on fund availability.

State Parks RTP Trails Maintenance Program - Non-Motorized Trails

Since 2001, the non-motorized portion of the Recreational Trails Program monies have been used primarily to fund maintenance of existing trails. In Arizona, this maintenance has been one of the top priority recommendations on trails plans since 2000. Land managing agency budgets have been shrinking and staff for trail maintenance has been difficult

to keep. The Arizona State Parks RTP Trail Maintenance Program has continued to meet the needs of trail managers and is constantly refined to make funds more easily accessible. Arizona State Parks and Trails contracts directly with trail maintenance crews, such as youth conservation corps and other trail maintenance providers, to remove the need for individual contracts or agreements with trail managers. In 2008, the trail maintenance contract was expanded to include a crew that provides mechanized trail building and two of the existing contractors have added mechanical equipment to their program.

Funds are offered every other year and are generally capped at $30,000 to $50,000 per applicant. Trail managing agencies must complete a simple application form that identifies the trails they intend to maintain and the amount of funding they need, up to the cap. Projects are selected through a process that ensures statewide distribution of the funds. The project sponsors must provide documentation to support compliance with federal NEPA and state and federal historic preservation requirements (Section 106). The non-federal match portion of the project cost is usually satisfied with volunteer labor.

Table 9: State Parks RTP Trail Maintenance Projects 2015-2019

DATE FUNDED	PROJECT SPONSOR	TRAILS INCLUDED	TOTAL FUNDING	TOTAL W/MATCH
2015	Coconino NF	Mogollon Rim trail maintenance	$30,000	$31,813
2015	City of Scottsdale	Tom Thumb's Trail	$30,000	$31,813
2015	Maricopa County	Mesquite Trail	$30,000	$31,813
2015	Coconino NF	Little Bear Trails	$30,000	$31,813
2015	Dead Horse Ranch SP	Thumper/Lime/Raptor Trail	$30,000	$31,318
2016	Picacho Peak SP	Trail Rehab Project	$30,000	$31,318
2016	BLM Arizona Strip	Trail Maintenance Project	$30,000	$31,318
2016	Coronado NF	Ramsey Canyon	$30,000	$31,318
2016	Oro Valley	Trail Maintenance Project	$30,000	$31,318
2016	Tonto NF	Mesa Ranger District Trail Maintenance	$30,000	$31,318
2017	Cattail Cove SP	ADA Trail Project	$30,000	$31,318
2017	Town of Florence	Poston Butte Trail Project	$10,624	$11,266
2017	Prescott NF	Sycamore Canyon	$30,000	$31,318
2017	Prescott NF	Cedar Bench	$30,000	$31,318
2018	Boyce Thompson Arboretum SP	Main Trail	$31,000	$32,874
2018	City of Nogales	Western Avenue Trail Project	$28,000	$29,692
2018	Colorado River Area Trail Alliance	Cerbat Hills Trail	$31,000	$32,874
2018	Colorado River SHP	ADA Trail Project	$28,932	$30,681
2019	Pinal County	Lost Goldmine Trail	$24,320	$25,790
2019	Bisbee	Laverne Williams Arboretum Project	$5,000	$5,302
2019	Friends of Tonto	Two Bar Trail	$30,000	$31,318
2019	Sedona Red Rock Trail Fund	Bear Mountain Trail	$29,222	$30,988
2019	City of Sedona	Posse Grounds Trail Project	$18,240	$19,343

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Non-Motorized Competitive Grant Process

In addition to the trail maintenance grant, Arizona State Parks and Trails offers a portion of the RTP non-motorized funds for competitive grants for new trails, more extensive work to existing trails and support facility development. The competitive grants process is different from the trail maintenance process due to a competitive evaluation process. Projects are selected based on a scoring matrix and project need. All projects must follow the NEPA/Section 106 requirements and provide matching funds. These grants also allow a wider range of eligible scope items.

Grant projects were capped at $80,000. From 2015 to 2019, 61 grant projects were awarded, totaling $4,190,223.

Since the 2015 State Trails Plan was completed, 103 new non-motorized trail projects were selected to receive $5,003,288 in funding. Funds were distributed as follows: $567,338 in trail maintenance grants, $4,190,223 in competitive non-motorized grants and $155,727 in safety and education grants. A total of 88.82 miles of new trail were constructed and maintenance, improvements or protection of public access occurred on 790.96 miles of trails.

In addition, since the 2015 Trails Plan, Grants and Trails department staff have been expanding outreach efforts to inform more land managers, towns, cities and other agencies and organizations about the availability of the grant funds and opportunities for training on the application process in various locations throughout the state. Both in-person and web-based trainings have been conducted. As a result, there have been 38 first-time applicants (or 37% of total applicants) for Recreational Trails Program and Off-Highway Vehicle Recreation funds that were awarded monies from these programs.

Arizona State Parks & Trails will continue to solicit non-motorized grant and trail maintenance projects. Grants and Trails staff is implementing a rolling grant cycle in order to accept proposals at any time during the year. Funding will be announced via the ASPT website, E-Civis - the State's grant database, Grants.gov and direct email.

Table 10: State Parks RTP Grant Projects 2015-2019—Competitive Grants

DATE FUNDED	PROJECT SPONSOR	TRAILS INCLUDED	TOTAL FUNDING	TOTAL W/MATCH
2015	Tonto NF	Superstition Trail	$79,704	$84,522
2015	City of Sedona	Posse Ground Trail	$75,252	$79,801
2015	City of Flagstaff	Picture Canyon Trail	$74,446	$76,190
2015	Friends of the Fair	Horizon Six Trail	$28,856	$30,600
2015	Volunteers of Arizona (VOAZ)	Highline Trail	$56,428	$59,839
2015	San Carlos Apache Tribe	Grandmother's Trail	$44,343	$47,023
2015	Saguaro National Park	Mica View Trail	$75,376	$79,932
2015	City of Yuma	Lower Bench Trail	$75,376	$79,932
2015	BLM Kingman FO	KFO Emergency Stabilization	$63,095	$66,909
2016	Kartchner Caverns SP	McGrew Springs Trail Improvement	$79,348	$84,144
2016	Buckskin Mountain SP	New Trail Development	$80,000	$84,836
2016	Apache Sitgreaves	Pintail Lakes ADA Trail	$78,257	$82,987
2016	Maricopa Trails	Stewardship Program	$76,890	$81,538
2016	Climbing Association of Southern Arizona	Santa Catalina Trail Improvements	$73,810	$78,271

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2016	Coronado NF	Santa Catalina Trail Improvements	$79,887	$84,716
2016	Catalina SP	Bridle Trail	$80,000	$84,836
2016	Pine / Strawberry	Pine Loop Trails	$31,232	$33,120
2016	Arizona Trail Association	Colonel Devin Trail	$80,000	$84,836
2016	Town of Marana	CAP Trailhead	$11,160	$44,955
2016	City of Buckeye	Skyline Regional Park	$80,000	$84,836
2016	BLM Kingman	CFRA Project	$36,704	$38,922
2016	Town of Camp Verde	Community Trail	$78,248	$82,968
2016	Prescott NF	White Rock	$79,240	$84,030
2017	Flagstaff Biking Organization	Ft. Tuthill Bike Park Project	$78,695	$83,452
2017	City of Wilcox	Keiller Park Trail Project	$49,858	$52,872
2017	Granite Mountain Hotshots Memorial SP	Hotshots Trail	$132,549	$140,561
2017	Coconino NF	Mogollon Rim	$78,025	$82,752
2017	TORCA	Back Country Trail Project	$53,942	$57,203
2017	City of Yuma	West Wetlands Trail Project	$79,990	$84,825
2017	Coconino County	Ft. Tuthill Trail System	$76,740	$81,379
2017	Maricopa County	Goat Trail Rehab	$80,000	$84,836
2017	Apache-Sitgreaves NF	Bear Wallow	$50,215	$53,250
2017	Rim Country Foundation	Granite Dells Trail	$72,708	$77,103
2017	Saguaro NP	Pink Hill Trail	$79,965	$84,799
2017	NPS Glen Canyon	Horseshoe Bend Enhancements	$38,514	$40,842
2018	Ability 360	Promoting Accessible Trail Project	$35,817	$37,981
2018	Kartchner Caverns SP	Cave Lighting Project	$224,390	$237,953
2018	Climbing Association of Southern Arizona	Sierra Vista Trail Project	$81,000	$85,896
2018	City of Cottonwood	Riverfront Park Gateway Project	$54,500	$57,794

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2018	Cottonwood Economic Development Council	Pinal and 4th Street Gateway Project	$53,250	$56,469
2018	Sonoran Desert Mountain Bicyclists	Goat Trail Rehabilitation	$74,707	$79,223
2018	City of Kingman	White Cliffs Trail Project	$14,530	$15,408
2018	City of Prescott	Glassford Hill Trail Project	$81,000	$85,896
2018	Town of Patagonia	Doc Mock Park Trail Project	$79,175	$83,961
2018	Town of New River	New River Trailhead Improvement Project	$76,830	$81,474
2018	NPS Glen Canyon	Horseshoe Bend Enhancement	$81,000	$85,896
2019	Tonto Natural Bridge SP	Wooded Trail Project	$72,390	$76,766
2019	Apache-Sitgreaves NF	Historic Ventures on the Apache-	$55,953	$59,335
2019	Red Rock SP	Bunkhouse/Eastgate ADA Trail Upgrade	$51,050	$54,136
2019	Slide Rock SP	Clifftop ADA Trail Project	$41,000	$43,478
2019	City of Show Low	Meadow Trail at the Bluffs	$77,230	$81,918
2019	Phoenix Parks and Recreation	Rio Salado Trail Restoration	$69,323	$73,513
2019	Volunteers for Outdoor Arizona	Jimmy Harris Trail Improvement	$24,556	$26,040
2019	Oracle SP	Trail Improvement Project	$80,000	$84,836
2019	City of Sierra Vista	Garden Canyon Linear Park	$80,000	$84,836
2019	Yuma Crossing National Heritage Area	Trail Development Project	$79,842	$84,668
2019	Dolan Springs Trail System	Trail Repair and Enhancement	$36,980	$39,305
2019	Lost Dutchman SP	Nature Trail ADA Upgrade Project	$79,750	$84,571
2019	Arizona State Parks	ADA Intern/Trail Assessment Project	$42,600	$45,175
2019	City of Buckeye	Canal Trail Project	$80,000	$84,836
2019	Town of Cave Creek	Gateway Trailhead Project	$74,498	$79,001

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State Parks RTP Non-Motorized Trail Program—Safety and Environmental Education

The Recreational Trails Program allows for up to 5% of apportioned Recreational Trails Funds to be set aside for trails-related safety and environmental education. In 2018, Arizona State Parks and Trails solicited projects for this program with up to $10,000 in available funding per project. These projects could include trail safety education programs, production of trail-related educational materials, interpretive panels, education and environmental materials, interactive displays and easy access for the public to better and updated information on accessibility of trails and trailhead facilities.

Grant safety and education projects were capped at $10,000. From 2018 to 2019, 19 grant projects were awarded, totaling $155,727.

Table 11: State Parks RTP Grant Projects 2015-2019—Safety and Education

DATE FUNDED	PROJECT SPONSOR	TRAILS INCLUDED	TOTAL FUNDING	TOTAL W/ MATCH
2018	Arizona State Parks	2018 National Equestrian/Share the Trail Conference	$ 5,894	$ 6,250
2018	Coconino County	Rogers Lake Interpretive Education Project	$ 9,040	$ 9,586
2018	Town of Tubac	Trail Signage Project	$ 9,353	$ 10,200
2018	Verde Valley Cyclist Coalition	Red Rock Bike Patrol Project	$ 10,000	$ 10,604
2018	Anza Trail Coalition	Interpretive Trail Project	$ 2,745	$ 22,911
2018	Arizona Horse Lovers Foundation	Horse Trails in Arizona	$ 9,750	$ 10,339
2018	Arizona Trail Association	Trails Skill Institute	$ 9,345	$ 9,910
2018	Arizona Horse Council	Trail Usage Brochure and Education Project	$ 9,982	$ 10,585
2018	Cattail Cove SP	Trail Signage Project	$ 7,780	$ 8,250
2018	Phoenix Parks and Recreation	Take a Hike, Do it Right Project	$ 9,968	$ 10,571
2018	Willow Bend Education Center	Flagstaff Trails for Youth	$ 9,982	$ 10,585
2018	Wickenburg Foundation	Leave No Trace Training	$ 1,936	$ 2,053
2019	Town of Pinetop-Lakeside	Trailhead/Kiosk SEE Project	$ 7,357	$ 7,802
2019	Sedona Red Rock Trail Fund	Kiosk Trailhead SEE Project	$ 10,000	$ 10,604
2019	Verde Valley Cyclist Coalition	Bike Patrol Training Grant	$ 2,700	$ 2,863
2019	Arizona State Parks	Cave Tour Signage Project	$ 4,800	$ 5,090
2019	Bikepacking Roots	Wild West Bikepacking Route Resource Project	$ 7,045	$ 7,461
2019	City of Page	Rim Trail Signage Project	$ 10,000	$ 10,604
2019	Association of 4WD Clubs	Information/Communication Grant	$ 18,050	$ 19,141

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Arizona Trail Fund

The other non-motorized fund that ASPT administers is the Arizona Trail Fund (A.R.S. § 41.511.15), which consists of legislative appropriations and donations to the fund. The monies in the fund are appropriated for the sole purpose of maintaining and preserving the Arizona National Scenic Trail that extends approximately 800 miles between the southern and northern borders of the state. The Arizona National Scenic Trail was designated on March 30, 2009 by the Omnibus Public Land Management Act of 2009. ASPT works with the Arizona Trail Association and other partners to approve funding for projects that best meet the needs of the Arizona National Scenic Trail and comply with the statutory intent of the legislation. In 2018, $150,000 was appropriated for the Arizona Trail Fund, and an additional $250,000 was appropriated in 2019. Donations to the Arizona National Scenic Trail are generally made directly to the Arizona Trail Association. For more information, visit the website at AZTrail.org.

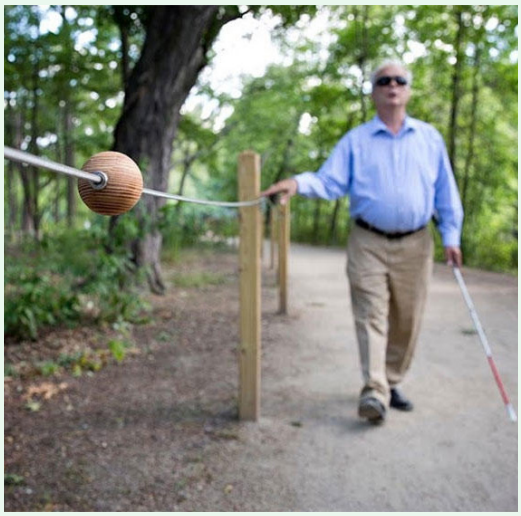
GUEST AUTHOR – Increasing Outdoor Recreation for our Aging Population and those with Disabilities

Sean Hammond, Arizona State Parks and Trails, Accessibility Advocate

What is the issue?

"Whenever any barrier stands between you and the full rights and dignity of citizenship, we must work to remove it, in the name of simple decency and justice. The promise of the ADA...has enabled people with disabilities to enjoy much greater access to a wide range of affordable travel, recreational opportunities and life-enriching services." *President George W. Bush, New Freedom Initiative, February 1, 2001*

Below is a summary of projects, ideas and resources for those involved in outdoor recreation. Arizona State Parks &Trails has developed a trails and a recreation guide to provide a better understanding of what is involved in developing outdoor recreation activities for those with disabilities.



Opportunities

What would the answers be to the following questions from someone who is disabled and asks about outdoor recreation activities at the trails or sites you manage.

1. The caller uses a wheelchair for mobility and asks if there are "wheelchair friendly" trails they could explore. The caller also asks where on your website can I find information about other potentially accessible activities?

2. Your agency leads monthly scheduled staff led hikes on geology, nature and birding. You receive a call from a 73-year-old individual who is deaf and asks if you provide a sign language interpreter.

3. Your park has a beach and boating activities. A veteran with a mobility impairment asks if these activities are accessible. Staff at the contact station say "yes, we have an accessible kayak launch and boating facility." But would staff know to consider connectivity when communicating with a person who is disabled? For example, is there an ADA-compliant parking lot and a continuous, unobstructed path that connects to the accessible element?

If the answer to any of the scenarios above is "no," there are opportunities to make improvements to your outdoor recreation programs and facilities. Fortunately, there are resources and funding available to support efforts to help park/outdoor recreation areas become a destinations for people with disabilities and the aging population.

1. Arizona State Parks and Trails: Manages two federal outdoor recreation grant programs: The Recreational Trails Program (RTP) and the Land and Water Conservation Fund (LWCF). Grant funds can be used to increase accessibility and activities at your parks, trails, trailhead facilities, lakes and playgrounds. For more details on available grant opportunities, visit AZStateParks.com/grants.
2. Christopher and Dana Reeve Foundation: The Quality of Life Grants Program supports various projects related to accessibility, including recreation projects. Visit christopherreeve.org/get-support/grants-for-non-profits/program-overview to learn about the grants process, previously funded projects and criteria.

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Most Important Action to Take

Engage local disability organizations. When applying for funding, partnerships play an important role in the success of a project. Involve members of the disability community in trails and outdoor recreation plans.

Other Types of Projects to Consider

1. Sign language interpreter to assist in planned hikes.
2. Trail/Activities Information Project: Visit Access Recreation in Portland, Oregon to view a marketing effort that provides vital information for a person to determine what's accessible.
3. Accessible kayak launch platform
4. Accessible beach/lake mats
5. Universal Access Trail: sensory, blind
6. Training. A lack of knowledgeable and helpful park staff is a major barrier to a person with a disability having a positive experience visiting a park.

State of Arizona – *Off-Highway Vehicle Recreation Fund (OHV FUND)*

In addition to the motorized portion of the Recreational Trails Program, Arizona State Parks administers the state Off-Highway Vehicle Recreation Fund (A.R.S. §28–1176), created in 1991. The Arizona Legislature appropriates .55% of state's annual vehicle gas tax revenue to support the Fund. In 2009, new OHV legislation was enacted to provide more regulation of OHV usage and additional funds to support law enforcement and facility development. As a result of the 2009 legislation, all Arizona resident vehicles weighing less than 1,800 pounds and designed primarily for travel over unimproved terrain were required to display an indicium distributed through the Department of Motor Vehicles. However, recent legislation has changed to require any resident or non-resident vehicle that is 2,500 pounds and 65 inches wide or less to display an indicium. Both the resident and non-resident indicia cost $25 and are good for a year from the date of purchase. Revenues generated by decal sales are added to the OHV Recreation Fund, which generates funds that are distributed between agencies for the purposes of supporting safe and responsible OHV recreational use in the state. Arizona State Parks and Trails receives 60% of the fund, Arizona Game and Fish Department receives 35% for OHV education and enforcement, and Arizona State Trust Land receives 5% to protect the value of the Trust.

The State Parks Board allocates the Fund annually based on the Statewide OHV Program plan and the recommendations of the Off–Highway Vehicle Advisory Group (OHVAG) and Arizona Outdoor Recreation Coordinating Commission (AORCC). The Fund monies are available to develop an OHV program and fund grants based on the priorities set forth by this Trails Plan, including: acquisition, construction and maintenance of OHV routes and trails; enforcement of OHV laws; information and educational programs; signage and maps; mitigation of damages to land and prevention and restoration of damages to natural and cultural resources; and environmental and cultural clearances and compliance activities. Based on some of the comments received during the public comment period, clarification of fund restrictions is necessary to assure the public that OHV Recreation Fund monies are being distributed consistent with legislative intent. OHV Recreation Fund monies are only available to fund trails and trail-related amenities for motorized trail recreation. Due to legislative restrictions, these monies cannot be allocated to fund non-motorized trail projects. For more information regarding how OHV Recreation Fund monies have been awarded please visit: azstateparks.com/apply-for-grants and click on the link titled "History of OHV Funded Projects" at the bottom of the page. It is, however, important to note that Federal Recreational Trails Program grants fund both motorized and non-motorized trail projects, consistent with program guidance from the Federal Highways Administration (FHWA). The ideal allocation of funding by percentage is provided by the FHWA: however, in practice, the percent of RTP funds allocated to motorized vs non-motorized projects is based on the number and type of projects submitted.

In order to administer grant funds in a timely manner, ASPT has worked with constituents, committees and the State Parks Board to develop supplemental grant opportunities that are available year-round. These supplemental grants help to draw from a wider range of applicants and expedite project spending to keep the agency in compliance with RTP requirements. Supplemental applications have been offered in addition to two annual (January and July) competitive grant cycles. Additional details on all ASPT grant opportunities is provided below.

I. Law Enforcement Grant (LE Grant)

- Provide funding to federal, state, local and tribal law enforcement agencies to conduct OHV-specific enforcement and/or educational programs on public land.
- Funding for law enforcement patrols and/or educational programs related to off-highway vehicles and OHV safety.
- Submissions are accepted throughout the year and grants are awarded on a quarterly basis.

1. The LE Grant is part of the Supplemental OHV Program and has a simplified application and review process.
2. The maximum grant amount that can be requested by any sole applicant is $30,000. Minimum 5% match required.
3. Applicants must submit a detailed LE Operational Plan with a map of the patrol areas. The plan needs to include high problem areas. Dovetail patrols to correspond with mitigation projects associated with natural areas.
4. Grants will be awarded based on availability of funds, level of grant competition and future enforcement efforts by the awarded agency.
5. Quarterly reports must be submitted and will include frequency of patrols, number of stops, educational efforts and types of citations issued.
6. The program operates on a reimbursement basis.
7. These grants are to be used for interim funding for law enforcement costs. They are not to be used to supplement the budget of the awarded agency.

Requirements for Grant Applications

- Project must be initiated within three months of award.
- Grants must be completed two years from project agreement signatures.
- Grants require a minimum of 5% match.
- Map of patrol areas is required.
- Quarterly reporting is required.
- Only one grant per district will be awarded at any given time.

Eligible Agencies:

Federal, state, county, local and tribal law enforcement agencies.

Eligible Expenses:

- OHV Equipment (ATV, side-by-side, motorcycle, four-wheel drive vehicle and accessories)
- Electronic Equipment (cameras, radios, traffic counters)
- Personal Protective Equipment (related to OHV use)
- Labor Costs related to Enforcement (includes overtime)

II. Small Grant Program

- Motorized projects only.
- This grant is designed to allow the OHV Program to contract with various non-profit groups, excavation contractors and businesses associated with OHV programs to develop and maintain OHV routes and trails throughout the state.
- Submission of grants may take place throughout the year.
- Applicants are encouraged to contact Arizona State Parks' Chief of Grants and Trails at (602) 542-6942 to request an on-site inspection prior to initiating an application.
- The project sponsor must be able to provide all documentation necessary to show that cultural clearance surveys have been completed for the project area. Attach completed cultural survey report(s) with the application. The State Historic Preservation Office (SHPO) will review and complete each application within 30 business days.

Requirements for Grant Applicants

1. Complete within one year.
2. Funding pays for contractors to develop, repair and maintain designated OHV routes.
3. Contractors paid directly through the OHV Program.
4. Cultural clearances must be submitted prior to work beginning.
5. Project costs may range from $10,000-$100,000.
6. Grant requires 5% match.

Ineligible Activities:

- Projects that impact cultural and biological resources.
- Projects on routes or trails not approved by the appropriate land management agency or private landowner.
- Projects that have not received all required clearances.

Eligible Agencies:

Federal, state, county, local and tribal law enforcement agencies.

Eligible Expenses:

Development and/or maintenance of existing trails including trailheads, staging areas and associated OHV routes and trail facilities.

III. Emergency and Mitigation Repairs Grant

- This grant focuses on mitigation of natural resources and emergency repairs associated with natural disasters and vandalism on designated OHV routes and trails.
- Submission of grants may take place throughout the year.
- Applicants are encouraged to contact the Chief of Grants and Trails at (602) 542-6942 to request an on-site inspection prior to initiating an application.
- The project sponsor must be able to provide all documentation necessary to show that cultural clearance surveys have been completed for the project area. Attach completed cultural survey report (s) with the application. To determine what effect, if any, a proposed project may have on significant archaeological and/or historical cultural resources, the State Historic Preservation Office (SHPO) will review and complete each application within 30 business days.

1. The Emergency and Mitigation Repairs Grant is part of the Supplemental OHV Program and has a simplified application and review process.
2. The maximum grant amount that can be requested by any sole applicant is $100,000. No match required.
3. Grants will be awarded based on availability of funds and level of grant competition.
4. Quarterly status reports must be submitted and will include information about the trails/facilities being repaired and an estimated timeline for completion.
5. The program operates on a reimbursement basis if Arizona State Parks and Trails contracted trail crews are not used.

Requirements for Grant Applicants

1. Contractors (Professional Trail Crews) are paid directly through the program.
2. Cultural clearances must be submitted and approved by SHPO prior to work beginning.
3. Project costs may range from $10,000-$100,000.
4. No match is required.
5. State and federal land management agencies are eligible.

Ineligible Activities:

- Projects that need improvement due to old age or neglect.
- Projects that impact cultural and biological resources.
- Projects on routes/trails not approved by the appropriate land management agency/private landowners.
- Projects without a Land Management Approval Letter for all project activities. An Approval Letter Template is provided in the application on WebGrants.

Eligible Agencies:

Federal, state, county, local and tribal agencies.

Eligible Expenses:

Projects may include but are not limited to:

- Emergency trail repair
- Trash removal
- Dust mitigation
- Toilet facility repairs
- Graffiti removal

IV. Signage Grant

Purchase of trail signs and markers related to off-highway vehicles and OHV safety. The project must be in designated OHV areas, trails or lands open to the public, vehicles and snowmobiles. The program encourages efforts that maximize statewide and regional/geographic benefit.

Awarded entities will be subject to interim evaluations and review during the agreement period and will be subject to oversight from the OHV Coordinator. Funding for the OHV Grant Program is derived from the Arizona OHV Sticker Fee included as part of the OHV registration fees collected in the State of Arizona and is contingent upon budgetary approval made by the Arizona State Legislature.

Requirements for Grant Applications

- Project must be initiated within three months of award.
- Grants must be completed within one year of project agreement signatures.
- Grants require a minimum of 5% match.
- Map of signage areas must be provided.
- Monthly reporting must be completed.
- There can only be one grant per district.
- The agency archaeologist must approve the project.

Legal Status

Eligible: Federal, state, county, non-profits, local and tribal agencies.
Any sponsor that has an existing trail funded project with existing funds for signage will not be eligible.

Eligible expenses (only expenses referenced below are eligible):

- OHV trail marker posts (fiberglass, carsonite, rockinite, etc.)
- OHV trail marker decals
- OHV trail signs
- Informational kiosks
    - o All signage must receive pre-approval from OHV Coordinator.
    - o All kiosks and interpretative signage require acknowledgment of the OHV/RTP Program and ASPT.

V. Competitive Motorized Projects

- Eligible projects could include off-highway vehicle recreation facilities, such as trail development and trail maintenance for the use of off-road motorcycles, all-terrain vehicles, four-wheel drive vehicles or other off-road motorized vehicles.
- Before entering into a project agreement, grant applicants (also referred to as project sponsors) must have a shovel-ready project.

Source of Funding for All Programs:

Funding arrives from two separate sources:

1. Federal (Recreational Trails Program)
    a. Administered by Federal Highway Administration (FHWA), Arizona Department of Transportation and Arizona State Parks and Trails.
    b. Federal funds are used for motorized, non-motorized and diverse projects.
    c. Diverse trail projects are those that accommodate two or more user groups (e.g., hiking and equestrian, hiking and ATV, or dirt bike and UTV use.)
2. State (Off-Highway Vehicle Recreation Fund)
    a. The Off-Highway Vehicle Recreation Fund. (A.R.S. 28-1176)
    b. Funding for motorized related projects only.

Motorized Projects

1. OHV projects for off-road motorcycles, all-terrain vehicles, four-wheel drive vehicles or other off-road motorized vehicles.
2. Maximum allowable amount an applicant may request is $750,000 unless approved by committees and the Arizona State Parks Board.
3. State-funded motorized projects (competitive program only) do not require match. Federal-funded motorized projects require a minimum 5.7% match, of which 5% must be non-federal match. The Chief of Grants and Trails will work with each applicant to help determine if your project will need matching funding and at what amount.
4. All motorized projects must be active within any six-month period. "Activity" means a reimbursement request must be made in any six-month period along with the required match. Failure to provide this activity could result in funds being withdrawn for the project.

Eligible Agencies:

Federal, state, county, local and tribal law enforcement agencies, non-profit organizations.

Eligible Expenses (see grant manual for more detail):

- Development and/or maintenance of existing trails including trailheads, staging areas and associated OHV routes and trail facilities.

- Acquisition projects, development and/or maintenance projects, purchase/lease recreational trails equipment, education and law enforcement projects.
- Design and engineering costs incurred after the project agreement is executed.
- Projects for people with disabilities and aging populations.
- Developing and coordinating youth development programs that actively invite youth to participate in projects.
- Cultural/environmental/archaeological assessments with prior approval.

Ineligible Expenses:

- Trail planning.
- Landscaping and irrigation. Landscaping is defined as the addition of trees, bushes, shrubs, cacti, grass, flowers or rock to enhance an area.
- Development of local or regional plans.
- Administrative or overhead costs, or costs associated with preparation of this grant application.
- Costs incurred prior to project approval. These may include: costs associated with design and engineering, which are not eligible for reimbursement without prior approval.
- Construction of new motorized and non-motorized trails or routes on environmentally or culturally sensitive land unless the appropriate land management agency determines that certain new trail construction would benefit or protect cultural or sensitive sites. For the purposes of this subsection, "environmentally or culturally sensitive land" means areas of lands that are either:
    - Administratively or legislatively designated by the federal government as any of the following:
        - A national monument;
        - An area of critical environmental concern;
        - A conservation area; or
        - An inventoried roadless area.
    - Determined by the applicable land management agency to contain significant natural or cultural resources or values.

Submission Restrictions

1. An entity can apply for a grant at any time, which can get pre-approved by the review committees and the State Parks Board. When a current grant cycle is closed, the sponsor can then begin their new pre-approved project.
2. An entity cannot apply for more than one grant in any competitive category.
3. An entity can apply for one grant in the Supplemental OHV Programs.
4. Each Forest Ranger District and Bureau of Land Management (BLM) Field Office will be considered as a separate entity.

Table 12: Off-Highway Vehicle Recreation Fund Projects 2015-2019

DATE FUNDED	PROJECT SPONSOR	PROJECT TITLE	TOTAL FUNDING
2015	Coconino NF-Flagstaff RD	Cinder Hill OHV Area Improvements	$ 257,290
2015	BLM-Hassayampa FO	ASLD Easement Acquisitions	$ 112,095
2015	BLM--Lake Havasu	Travel Management Implementation	$ 178,700
2015	Trail Riders of Southern Arizona	TRS Trail Coordinator Position	$ 194,040
2015	Coconino NF--Sedona RD	Greater Sedona OHV Coordination Project	$ 299,574
2015	Coronado NF--Nogales RD	Tumacacori Red Springs Single Track Trail	$ 274,300
2015	Prescott NF--Bradshaw RD	Newtown Ave Trailhead Construction and Blue Hills OHV Trail System	$ 113,046
2015	Game and Fish Department	OHV Safety Education Program Development	$ 28,025
2015	BLM-AZ Strip	Travel Management Coordinator, Year 2	$ 13,114
2015	Apache-Sitgreaves NF	OHV Forest-Wide Trail Project	$ 111,016
2016	La Paz County	Hippie Hole OHV Staging Area and Day Use Improvements	$ 90,314
2016	Tonto NF--Mesa Ranger District	Mesa RD OHV Rehabilitation and Improvement Project, Phase II	$ 14,000
2016	Town of Eagar	Apache County Countywide Trail Project	$ 296,225
2016	Tonto NF - Cave Creek RD	Desert Vista / St.Claire OHV Rehabilitation and Improvement Project	$ 16,997
2016	Coconino NF Flagstaff Ranger District	Kelly Motorized Trail System Construction	$ 299,546
2016	BLM-Arizona State Office	Travel Management Plan	$ 475,000
2016	Coconino Trail Riders	Kelly Canyon Trail Project	$ 299,546
2016	BLM - AZ Strip FO	AZ Strip District Travel Management Program	$ 40,000
2016	White Mountain Open Trail Association	White Mountain Trail Map Project	$ 20,539
2016	Natural Restorations	Natural Restorations OHV Area Restoration Project	$ 156,290
2016	Association of 4 WD Clubs	AZ OHV Communication and Information Pilot Program	$ 65,220
2017	Arizona Peace Trail	Peace Trail Master Plan	$ 200,000
2017	Coconino Trail Riders	Kelly Motorized Trail Phase II	$ 256,500
2017	La Paz County	Shea Rd. Staging Area	$ 76,003
2017	Prescott NF	Seven Mile Gulch Trail Project	$ 315,871
2017	Tonto Recreation Alliance	TRAL/ Tonto OHV Route Management 2017	$ 94,404
2017	BLM--Hassayampa FO	Table Mesa Recreation Area, Hierglyphic Mountain OHV Loop, and Boulders OHV Area	$ 28,500
2017	BLM-Lower Sonoran FO	Law Enforcement Grant	$ 28,400

2017	La Paz County	La Paz County OHV Law Enforcement Project	$ 30,000
2018	Arizona State Land Department	Desert Wells Project	$ 88,000
2018	BLM Tucson Field Office	Middle Gila Canyon Signage Project	$ 30,000
2018	BLM Arizona Strip Field Office	Route Designation Project	$ 118,927
2018	BLM Vermillion Cliffs	Route Implementation	$ 42,531
2018	Apache-Sitgreaves NF	Lakeside Road Project	$ 28,250
2018	Apache-Sitgreaves NF	Springerville Road Project	$ 221,940
2018	Town of Camp Verde	Ryal Canyon Trailhead Project	$ 211,600
2018	Arizona State Parks and Trails	Bouse Staging Area	$ 750,000
2018	National Off-Highway Vehicle Conservation Council	NOHVCC Great Trails Workshop	$ 17,320
2018	Town of Kearny	Mescal Mountain OHV Repairs	$ 65,000
2018	Coconino NF- Red Rock Ranger District	White Hills Single Track Project	$ 44,800
2019	Arizona Peace Trail	Trail Implementation	$ 658,000
2019	Trail Riders of Southern Arizona	Ambassador Program and Education Outreach	$ 53,075
2019	National Restorations	OHV Site Restoration	$ 275,330
2019	La Paz County	Hippie Hole OHV Staging Area and Day Use Development	$ 137,453
2019	Game and Fish	OHV Safety Education Training	$ 30,000
2019	City of Apache Junction	Apache Junction Police Department OHV Patrol	$ 30,000
2019	Arizona State Association of 4 Wheel Drive Vehicles	ASA4WDC Information and Communications Extension/Expansion Grant	$ 68,902
2019	Arizona State Land Department	ASLD Spencer 2019	$ 93,500
2019	Apache-Sitgreaves NF – Lakeside Ranger District	Law Enforcement OHV Patrol	$ 30,000
2019	Arizona Game and Fish Department	OHV Protective Equipment Grant	$ 8,550
2019	BLM – Yuma Field Office	Supplemental Law Enforcement Grant	$ 28,500
2019	La Paz County	Law Enforcement Salary and ERE	$ 26,980

Table 13: Recreational Trails Program Motorized Projects 2015-2019

DATE FUNDED	PROJECT SPONSOR	PROJECT TITLE	TOTAL
2015	BLM Kingman	KFO Emercengy Stabilization and Kiosk Replacement	$ 63,095
2016	USFS Tonto	Desert Vista	$ 321,925
2016	USFS Tonto	Mesa RD OHV	$ 267,679
2018	State Lands	Desert Wells	$ 194,385
2018	BLM Tucson	Middle Gila Canyon Signage Project	$ 38,089
2018	BLM AZ Strip	Route Designation Project	$ 89,920
2018	BLM Vermillion Cliffs	Route Implementation	$ 209,901
2018	USFS Apache-Sitgreaves	Lakeside District OHV Improvements	$ 180,440
2018	Arizona State Parks and Trails	Bouse Trailhead Project	$ 188,796
2019	Tonto Recreation Alliance	OHV Trail Management Project	$ 294,350
2019	Prescott Trail Riders	Prescott National Forest OHV Trail Project	$ 94,508
Total Awarded Projects			**11**
Total Funding Awarded			**$ 1,943,099**

NF=National Forest RD=Ranger District FO=Field Office SP=State Park SHP=State Historic Park RA=Recreation Area

Accomplishments and Successes of Trail-Related Grant Programs, 2015-2019

Success: Improving the grant process

In 2015, Grants staff visited with grantees to establish support and to listen to grantee issues and concerns. The process of simplifying the grants program became a focus. Starting in mid-2016, staff began developing an online grants management system (WebGrants) – azparkgrants.com. By May 2017, the system was operational and the entire program is now paperless. By using WebGrants, staff also greatly improved the review component of the grants process for the three review committees and State Parks Board. All application reviews are now done online. The team has also expanded the number of grant workshops available from one or two annually to bi-monthly workshops in different locations throughout the state.

As a result of the new leadership and improvements, the grants program has become more accessible, inclusive and easier to manage for applicants, award recipients and for ASPT staff. The turnaround in the program resulted in ASPT receiving an additional $380,000 in trail funds per year.

Success: Accurate and timely collection of data for reporting purposes and public inquiries.

With the development of the online grants system, quarterly reports and application forms were changed to capitalize on the new capabilities of the system. It is considerably easier and much less time-consuming for ASPT staff to track data and project impacts, identify communities that may be overlooked, collect the true number of volunteers and volunteer hours provided to complete projects and show funding requests and award amounts across legislative and congressional districts.

GRANT APPLICATION AND ADMINISTRATION PROCESSES

Land managers were asked to respond to a series of questions identifying barriers to applying for trail grants for their agency. Mean scores indicated that the most significant barriers were: 1) sufficient staff time not available to prepare a grant application (M=2.52, scale 1=Not a barrier to 4=An extreme barrier); 2) staff time not available to administer a grant application (M=2.35) or 3) lack of matching funds (M=2.27). Mean scores indicate that the most difficult parts of the process for grant applicants is administering the grant (M=2.65, scale 1=Very difficult to 5=Very easy), completing cultural clearance requirements (M=2.7) and completing the environmental clearance (M=2.71). This input will provide Grants staff with additional information that can be used to improve grant processes in the future.

Grants staff understands that most of the entities who apply for State Parks and Trails' grant funds are not professional grant writers. To assure that the application is complete and accurate, the team has attempted to provide as much instruction as possible. Applicants are encouraged to contact Grants staff to help with the process. For the last two years, all applicants have been required to contact Grants staff to discuss the scope of their project and submit cost estimate sheets prior to submission of the application. Both measures help to ensure that the Grants staff and the project sponsors understand how the grant funds will be spent.

Grants staff is available and interested in discussing potential projects all year long, and have made changes to the grant process in order to provide monies that are available when they are needed most by land managers. Non-motorized trail project grants and non-motorized RTP Trail Maintenance Program grants are now available on a rolling basis. The federal Recreational Trails Program (RTP) is currently the only source of funds for non-motorized projects. Motorized projects are also currently solicited on a rolling basis. Federal (RTP) and state funds are used to fund these projects. Project sponsors are strongly encouraged to contact Grants staff at least six months prior to submitting a grant application to discuss potential projects. Projects using Recreational Trails funds must be submitted to the Arizona Department of Transportation (ADOT), the agency that oversees the program on behalf of the Federal Highway Administration, by the first of June. Projects submitted after that date will be submitted in the next fiscal year.

APPENDIX A: REFERENCES

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"2016-2026 Statewide Trails Strategic Plan". Colorado Parks and Wildlife.

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"National Strategy for a Sustainable Trail System". United States Department of Agriculture, US Forest Service, Nov. 2017.

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"Outdoor Participation Report 2018." Outdoor Industry Association, 2018.

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"Pinal County Open Space and Trails Master Plan". Logan Simpson Design Inc., Pinal County, 31 Oct. 2007.

"Regional Trails Signage Guidelines". Oregon Metro, Nov. 2017.

"Sustainable ATV Trails." Sustainable Trail Design, fs.fed.us/t-d/atv_trails_site/learn/sustainable-trail-design.html.

"System Plan: Charting a Course for the Future". Minnesota State Parks and Trails, MNDNR, Feb. 2019.

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"Washington State Trails Data Strategic Plan". McQueen Enterprise Analytics, Washington Recreation and Conservation Office, 17 Mar. 2017.

"Wisconsin Trails Network Plan". Wisconsin Department of Natural Resources, 2003.

APPENDIX B: RELEVANT TRAIL RESOURCES

– A –

ATV Safety Institute
atvsafety.org

Arizona Nature Conservancy
nature.org/ourinitiatives/regions/northamerica/united-states/arizona/index.htm

Accessible Trail Design Guidelines
americantrails.org/resources/accessible

Arizona Office of Tourism
visitarizona.com

Adventurers and Scientists for Conservation
adventurescience.org

Arizona Parks and Recreation Association
azpra.org

American Conservation Experience
(non-motorized Youth Corps Trail Crews)
usaconservation.org

Arizona Rural Development Council
azrdc.org

American Conservation Legacy
azcorps.org

Arizona State Land department
Land.az.gov

American Trails
americantrails.org/ee

Arizona State Parks OHV Ambassadors
azstateparks.com/ohv-ambassadors

Apache County Rough Riders
apachecountyatv.org

Arizona State Parks OHV and RTP Grant Information
azstateparks.com/grants

Appalachian Mountain Club Guide to Trail Building
amazon.com/Complete-Building-Maintenance-Appalachian-Mountain/dp/1934028169

Arizona State Parks OHV Information and Research
azstateparks.com/ohv/research

Arizona Bureau of Land Management
blm.gov/arizona

Arizona State Parks OHV Where to Ride
azstateparks.com/ohv/wheretoride

Arizona Forward
arizonaforward.org

The Arizona Trail Association
aztrail.org

Arizona Game and Fish Department
azgfd.gov

Association of Partners for Public Lands
publiclandsalliance.org/home

Arizona Natural History Association
aznaturalhistory.org

– C –

Central Arizona Conservation Alliance
mymountainparks.org

Conservation Lands Foundation
conservationlands.org

– D –

Desert Foothills Land Trust
dflt.org

– F –

Federal Highway Trail Publications
fhwa.dot.gov/environment/recreational_trails/publications

Flagstaff Trails Initiative
flagstafftrailsinitiative.org

– G –

Glen Canyon Conservancy
canyonconservancy.org

Grand Canyon Trust
grandcanyontrust.org

Grand Canyon Association
grandcanyon.org

Grid Bikes
gridbikes.com

– I –

International Mountain Bicycling Association
Mountain Bike Trail Construction
imba.com/resources/trail-building/designing-and-building-sustainable-trails

– L –

Land and Water Conservation Fund
lwcfcoalition.org

Leave No Trace
lnt.org

– M –

Maricopa Trail + Park Foundation
mctpf.org

Motorcycle Safety Foundation Dirtbike School
dirtbikeschool.org

– N –

National Off-Highway Vehicle Conservation Council
nohvcc.org

Northwest Youth Corps
nwyouthcorps.org

National Park Service- Sonoran Desert Network
nps.gov/im/sodn/ecosystems.htm

– O –

Outdoor Industry Association
outdoornation.org

Outdoor Safety Tips
fs.fed.us/recreation/safety/safety.shtml

– P –

Pacific Crest Trail Association
pcta.org

Professional Trail Builders Association
trailbuilders.org

Public Lands Every Day
publiclandseveryday.org

– R –

Recreation.gov
recreation.gov

Rivers, Trails and Conservation Assistance Program
(U.S. National Park Service)
nps.gov/orgs/rtca/index.htm

Recreational Off-Highway Vehicle Association
rohva.org

– S –

Sierra Club
sierraclub.org

Southwest Region- U.S. Fish &Wildlife Service
fws.gov/southwest

The Student Conservation Association
thesca.org

– T –

Tonto Recreation Alliance
tralaz.org

Trail Hiking Rating
nwhiker.com/HikeEval.html

The Trust for Public Land
tpl.org

Tread Lightly
treadlightly.org

– U –

US Access Board
access-board.gov

U.S. Fish & Wildlife Service
fws.gov

US National Forest Service
fs.usda.gov

USA National Phenology Network
usanpn.org

– W –

Western National Parks Association
wnpa.org

Wildlife Habitat Council
wildlifehc.org

– Apache County –

Apache County ATV Club
OHV Type: ATV/UTV
apachecountyatv.org

APPENDIX C: OHV CLUBS BY COUNTY

– Cochise County –

Range Riders 4 Wheelers
OHV Type: 4x4
rangeridersnet.com

– Coconino County –

Coconino Trail Riders
OHV Type: MC
coconinotrailriders.org

– Gila County –

Rim Country 4 Wheelers
OHV Type: 4x4
rimcountryriders.com

ATV/UTV
Rim Country Riders ATV Club
OHV Type: ATV/UTV
Facebook: Rim-Country-4-Wheelers

– La Paz County –

Parker 4-Wheelers
OHV Type: 4x4
parker4wheelers.net

Arizona Desert Riders
OHV Type: ATV/UTV
azdesertriders.ridetrails.org

Arizona Sun Riders ATV Club
OHV Type: ATV/UTV
Facebook: Arizona Sun Riders OHV Club

Bouse Ghost Riders
OHV Type: ATV/UTV
ghostriders.ridetrails.org

– Maricopa/Pinal County –

Arizona Classic Bronco Club
OHV Type: 4x4
azbronco.org

The Arizona Jeep Club
OHV Type: 4x4
Facebook: The Arizona Jeep Club

Arizona Land Rover Owners (AZLRO)
OHV Type: ATV/UTV
azlro.org

Arizona Rough Riders
OHV Type: 4x4
arizonaroughriders.org

Arizona Undertakers
OHV Type: 4x4
Facebook: Arizona Undertakers 4X4 Club

Arizona Xterra Club
OHV Type: 4x4
azxterraclub.com

Arizona Volkswagen Club
OHV Type: 4x4
arizonavolkswagenclub.com

Copperstate 4 Wheelers
OHV Type: 4x4
copperstate4wheelers.com

Honeywell 4x4 Club
OHV Type: 4x4
sites.google.com/site/hon4x4club

Jeep Expeditions
OHV Type: 4x4
jeepexpeditions.org

Mesa 4-Wheelers
OHV Type: 4x4
mesa4wheelers.com

Southwest Pinzgauer Association
OHV Type: 4x4
swpinzgauer.org

Sonoran Desert Scouts
OHV Type: 4x4
sonoradesertscouts.com

Arizona ATV Riders
OHV Type: ATV/UTV
azatvriders.ridetrails.org

Phoenix ATV/UTV Club
OHV Type: ATV/UTV
phoenixatvutvclub.org

Arizona Trail Riders
OHV Type: MC
arizonatrailriders.org

Fast'r Motorcycle Club
OHV Type: MC
Facebook: FASTR-MC

Off-Camber Motorcycle Club (OCMC)
OHV Type: MC
offcambermc.com

Rock Stars Motorcycle Club
OHV Type: MC
rockstarsmc.com

Central Arizona Trials
OHV Type: Trials MC
centralarizonatrials.org

– Mohave County –

Bull Head 4 Wheelers, Inc.
OHV Type: 4x4
Facebook: Bullhead4Wheelers

Havasu 4 Wheelers
OHV Type: 4x4
havasu4wheelers.org

River City 4x4
OHV Type: 4x4
rivercityoffroad.com

Walapai 4-Wheelers
OHV Type: 4x4
walapai4wheeler.proboards.com

CERBAT Ridge Runners ATV Club
OHV Type: ATV/UTV
crrkingman.webs.com

Golden Shores Off Roaders
OHV Type: ATV/UTV
Havasu Side by Side Trail Association, Inc.
OHV Type: ATV/UTV
havasusxs.com

Meadview Ridgeriders
OHV Type: ATV/UTV
Facebook: Meadow Ridgeriders

Mohave Desert ATV Riders Association
OHV Type: ATV/UTV
Facebook: Mohave Desert ATV Riders Association

UT/AZ ATV Club
OHV Type: ATV/UTV
utazatvclub.org

– Navajo County –

White Mountain Open Trails Association
OHV Type: ATV/UTV
wmota.com

Pima County

Tucson Rough Riders
OHV Type: 4x4
tucsonroughriders.com

Wildcat Off-Road
OHV Type: 4x4
azwildcatoffroad.org

Trail Riders of Southern Arizona (TRSA)
OHV Type: MC
trsaz.org

Arizona State Association of 4-Wheel Drive Clubs
OHV Type: All OHVs
asa4wdc.org

– Yavapai County –

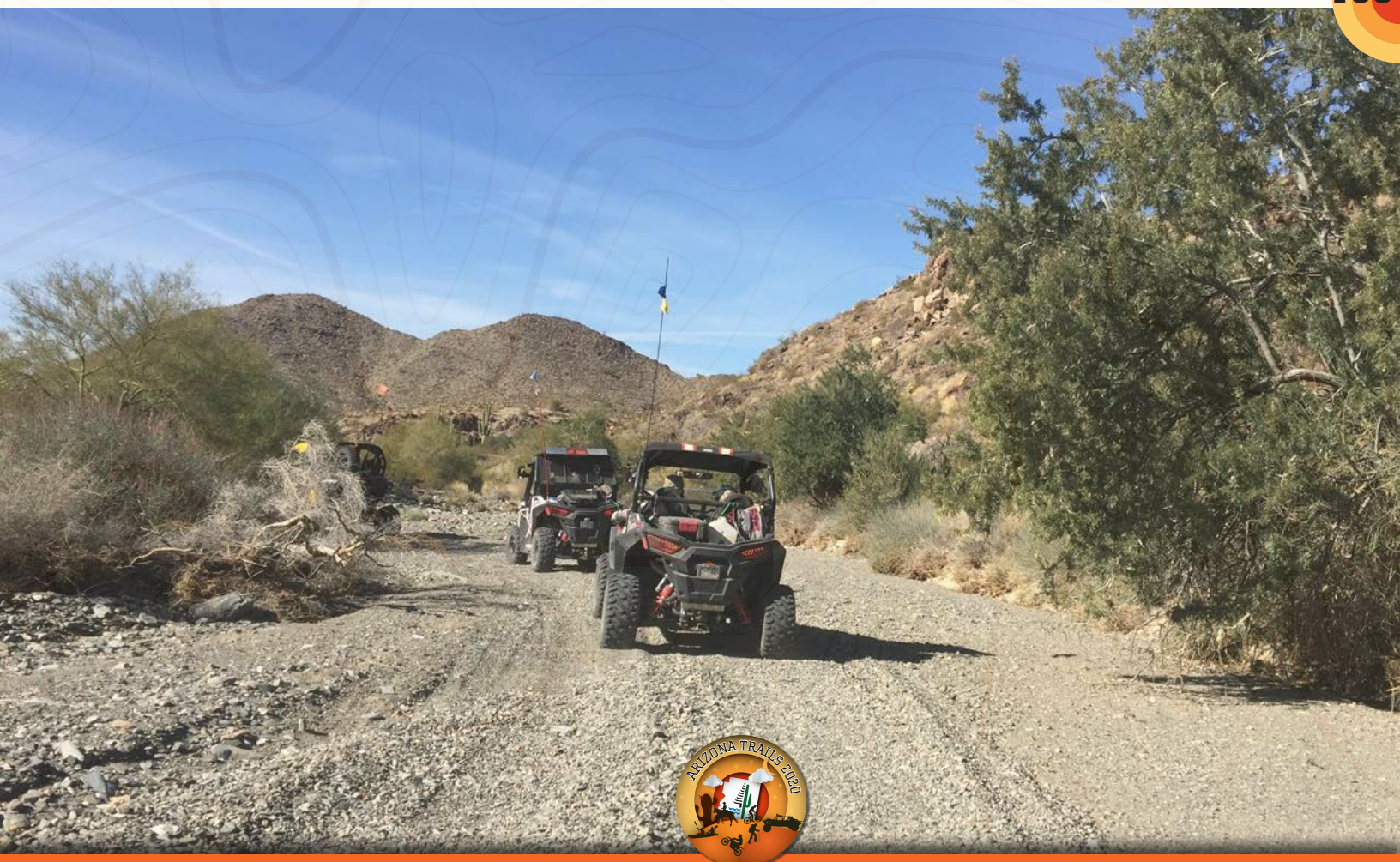
Congress Outdoor Club
Type: UTV/4x4

Prescott Trail Riders
Type: MC
prescotttrailriders.org

Black Canyon Black Sheep
OHV Type: UTV
Facebook: Black Canyon Black Sheep

–Yuma County –

Slowlizard Off-Road Club
Type: 4x4
slowlizard.com



Andriana Garcia-Maximiliano


ARIZONA TRAILS 2020
A Statewide Motorized and Non-Motorized Trails Plan
ARIZONA
STATE PARKS & TRAILS
AZStateParks.com