# Turkey Mountain Master Plan

Preservation — Restoration — Recreation

#### Prepared in February 2020 for

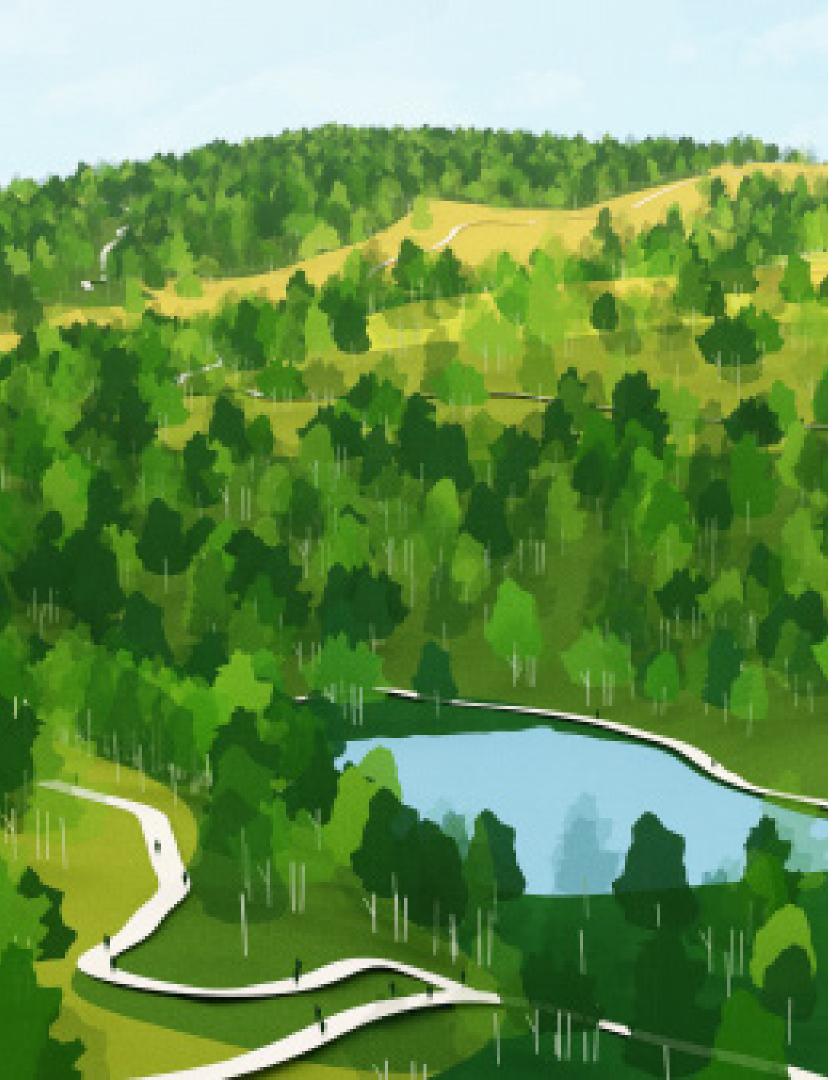
George Kaiser Family Foundation

#### on behalf of

River Parks Authority

#### by

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## **Foreword**

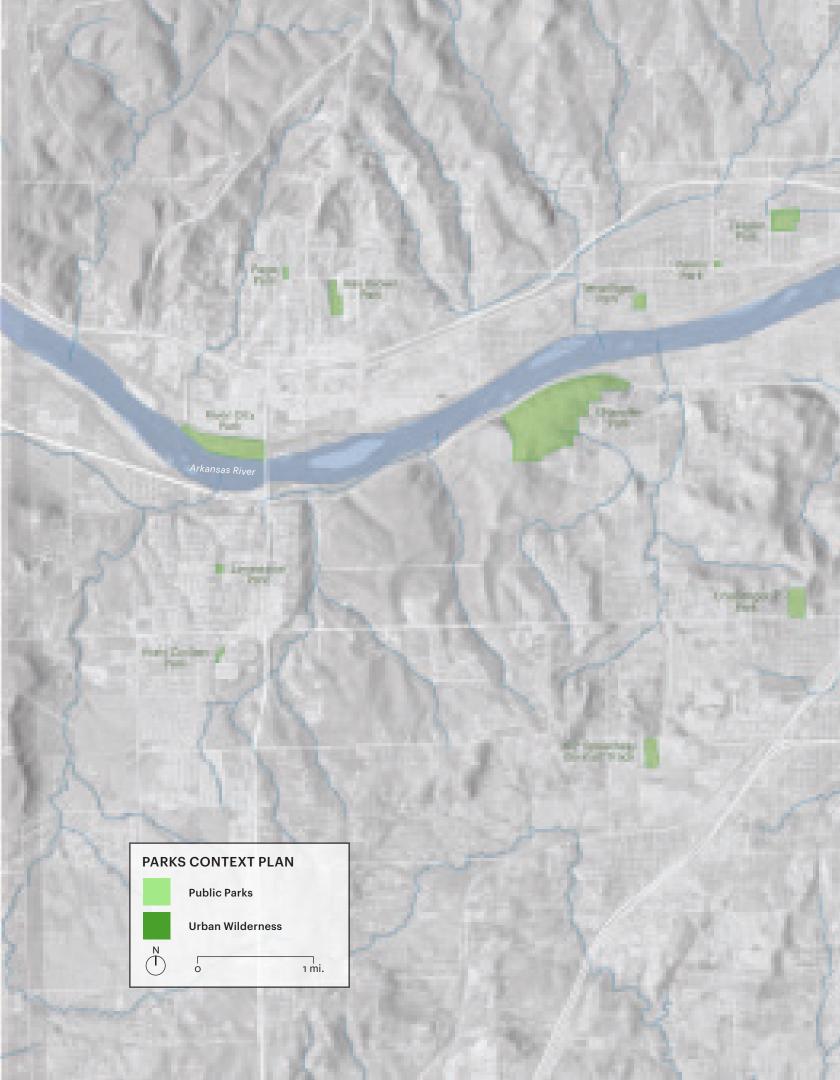
### **Urban Wilderness for Posterity**

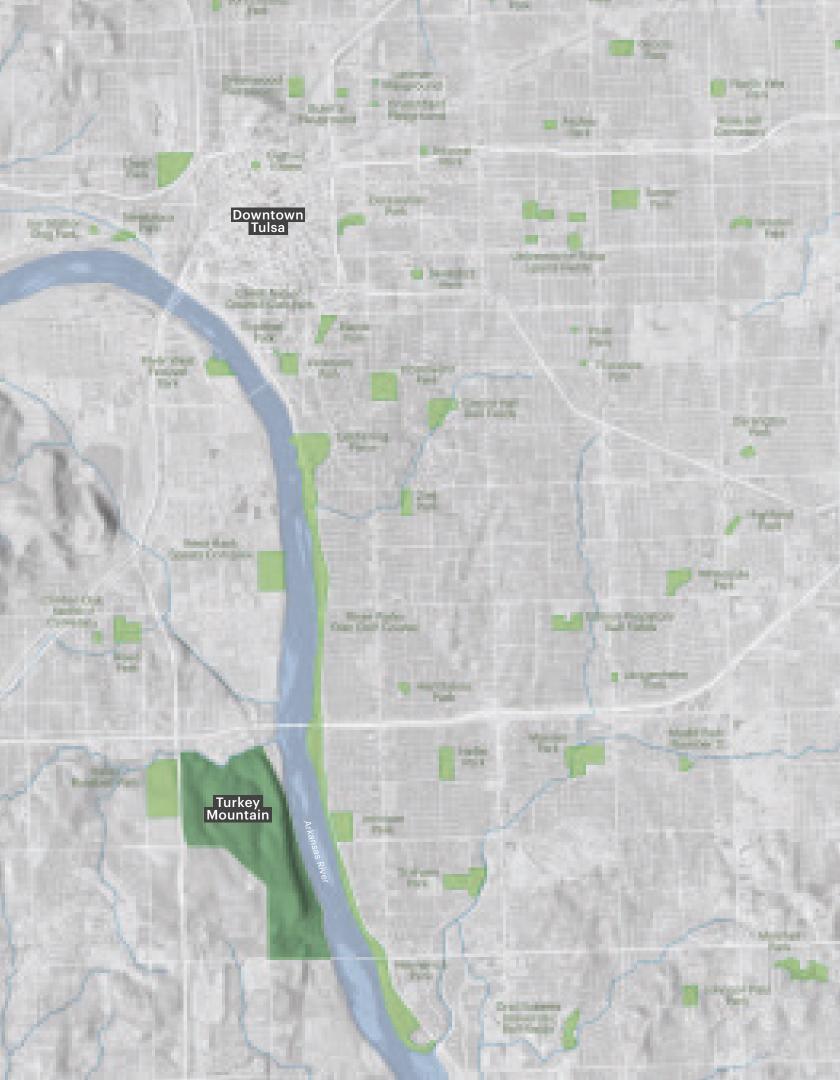
The preservation of Turkey Mountain began long before the inception of a master planning process. Since the 1970s, outdoor enthusiasts from the local community who recognized its natural beauty, built trails, fought development, and protected the existence of a wild place in Tulsa.

The Master Plan formalizes and builds upon these efforts by outlining a path towards safeguarding this irreplaceable resource in perpetuity while permitting improvement and expansion of recreational facilities.

On behalf of the George Kaiser Family Foundation and the River Parks Authority, Michael Van Valkenburgh Associates has drawn on extensive community input, on-the-ground site analysis, lessons from expert ecologists, engineers, and land managers, and best practices in outdoor and adventure recreation to create an ambitious plan that realizes the full social and ecological potential of Tulsa's urban wilderness for future generations.

—The Turkey Mountain Master Plan Team





## Context

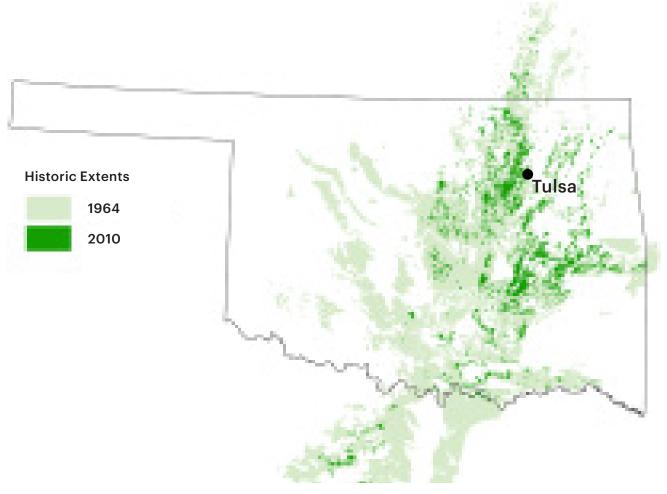
Turkey Mountain was once part of an expansive, unique ecoregion known as the Cross Timbers, where frequent disturbance by fire and cattle grazing helped maintain a delicate equilibrium between competing ecological forces and created a patchwork of landscapes.

Ecologically, the site is now a remnant. It has been fragmented by urban development and bounded by highways, railroad tracks, and channelized waterways, all of which isolate it from the larger forces of disturbance that formerly kept it healthy.

Turkey Mountain's location within the city of Tulsa means it has become extremely well-used. Biking, running, horseback riding, and hiking, as well as the occasional large event like Basecamp, make it an important community resource, but without active management and sustainably constructed trails, Tulsans could love Turkey Mountain to death. Once a regional destination for mountain bikers, as trail conditions have worsened, and new trail systems have been constructed in competing areas, Turkey Mountain has lost its place among the best biking destinations in the Midwest.

### **The Cross Timbers**

An Imperiled, Fire-Dependent Ecoregion

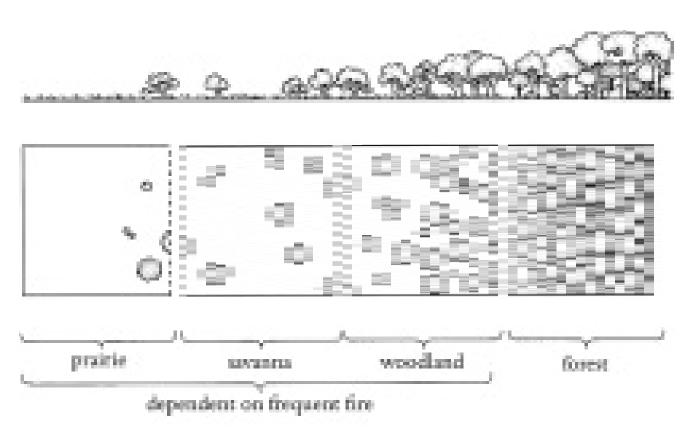


Oklahoma Forestry Services Resource Assessment, 2010

#### **Between Prairie and Forest**

Tulsa is located within a unique ecoregion known as the Cross Timbers, where oak-hickory forests of the Ozark Mountains intermingle with Midwest prairie grasses to create a mosaic of forest, woodland, savanna, and prairie.

Oak savanna is the rarest and most endangered landscape of the Cross Timbers mosaic. A contiguous, 50-million-acre band of oak savanna once extended through the Midwestern U.S. from Canada to Mexico. Now only 30,000 acres remain in patches of 100 acres or less. In 2010, Oklahoma Forestry Services assessed what remains of the Cross Timbers and discovered that much of its former diversity, including oak savanna has disappeared. The map above contrasts the extent of the Cross Timbers in 1964 (in light green) and the remnants that are left today (in dark green). Urban sprawl and the associated fragmentation of formerly open land, inadequate land management, and fire suppression have each contributed to the rapid disappearance of this native Oklahoma landscape.



The Tallgrass Restoration Handbook (1997), edited by Stephen Packard and Cornelia F. Mutel

### **Fire Adaptation and Dependence**

Since the Cross Timbers evolved with periodic fire, its survival now depends on it. Native oaks and hickories have fire-adapted bark that protect them from fire damage and many flowering prairie plants reproduce and flower more extensively in the wake of fires. Frequent fire kills invasive species like lespedeza that lack the fire-adaptation of native plants, and prevents red cedars from encroaching past their native range into the prairies and savannas.



Low-Intensity Control Burn in Oak Savanna

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### **Urbanizing the Wilderness**

### Oil Drilling and the Growth of Tulsa



Aero View of Tulsa, 1918 (detail)

#### A Landscape of Resources

Oil drilling began in the Tulsa region in 1901 and proliferated for the first few decades of the twentieth century. Records show that extensive prospecting and drilling had a significant impact on the Turkey Mountain site. Period aerial renderings and photographs of comparable sites nearby indicate that oil prospectors likely clear cut Turkey Mountain as they erected derricks to extract oil from the shale and sandstone below. As Tulsa urbanized, previously uncultivated land was developed while road and rail infrastructure extended into the surrounding landscape. These newly constructed barriers fragmented the landscape, preventing the spread of natural fires and other types of disturbance that kept the Cross Timbers landscape in healthy equilibrium, marking the start of Turkey Mountain's ecological decline.



Oil Derricks on Arkansas Riverfront, c. 1908



Official Opening Ceremony of Turkey Mountain, 1980



Winter Mountain Bikers



Yoga at Basecamp Festival



Family Hiking from Main Trailhead



Trail Maintenance by Volunteers

#### **Tulsans Reclaim Turkey Mountain**

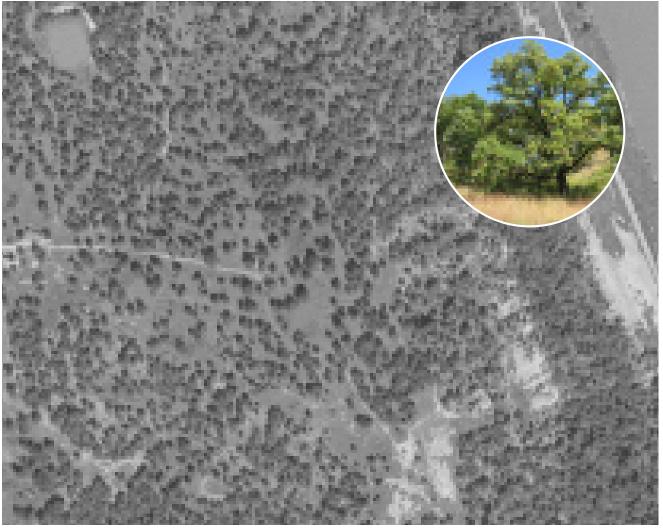
In the 1970s, a local community of mountain bikers and outdoor enthusiasts recognized the natural resource they had in their back yard and began cutting their own trails throughout the undeveloped land. Since its official opening in 1980, Turkey Mountain has often received philanthropic donations that have put much of this urban wilderness, which was once private land, in the hands of the River Parks Authority.

The Turkey Mountain Master Plan is the next major step toward restoring this preserved open land and making it accessible and enjoyable for all Tulsans for generations to come.

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### A Remnant Landscape

### The Effects of Fire Suppression



1967 Aerial Photograph of Turkey Mountain

#### **Turkey Mountain in 1967 vs Today**

In the absence of regular fires, the prairies and savannas that were once a part of the Turkey Mountain site grew into woodland and eventually forest. Many of the understory species that contributed to this growth are invasive. This absence of land management led to a homogenous landscape, reducing the formerly diverse range of ecologies and experiences of Turkey Mountain to a degraded and monoculture condition.



2016 Satellite Image of Turkey Mountain

### **Listening to Existing Users**

Public Engagement and Feedback



Turkey Mountain Public Meeting #1, March 7, 2019

#### **Many Stakeholders**

Turkey Mountain sees tens of thousands of users every month. Multiple sources—an online survey that received over 3,000 responses, a series of public meetings, stakeholder meetings for groups such as bikers, runners, horseback riders, and nature advocacy groups, and input from the River Parks Authority, which operates the site today—made it clear that Tulsans enjoy many different experiences of nature on Turkey Mountain, and more than anything they want to preserve it for future generations.

#### The Biggest Challenge

Over months of public engagement, MVVA learned that the top priority for existing users was to "keep Turkey Mountain wild." At the same time, the civic-minded Tulsa community wanted to make sure that the land was open and accessible to everyone. The core challenge for the Master Plan was to satisfy these two conflicting desires—"keep it remote," but also "make it accessible".













### **Assessing Site Conditions**

### Analysis with Expert Consultants



**Mooser Creek Restoration Assessment** 



**Prescribed Burn Research Facility** 

#### **On-Site Work**

Locals and expert consultants performed onsite assessments and made recommendations. Hiking through Mooser Creek in waders with wetlands engineers who specialize in restoring fish habitat, learning about the sandstone and shale soils from a retired geologist who leads tours, and comparing the effects of various prescribed burn management strategies at Oklahoma State University's research facility nearby in Stillwater, OK each deepened an understanding of Turkey Mountain's challenges and future potential.



**Initial Site Inventory** 



**Biosolids Plant Site Tour** 



**Geology Site Walk** 



Trail Widening **Trail Cupping** 

### **Visiting Precedents**

### Lessons from Outdoor Recreation Destinations



Summit Bechtel Reserve, West Virginia

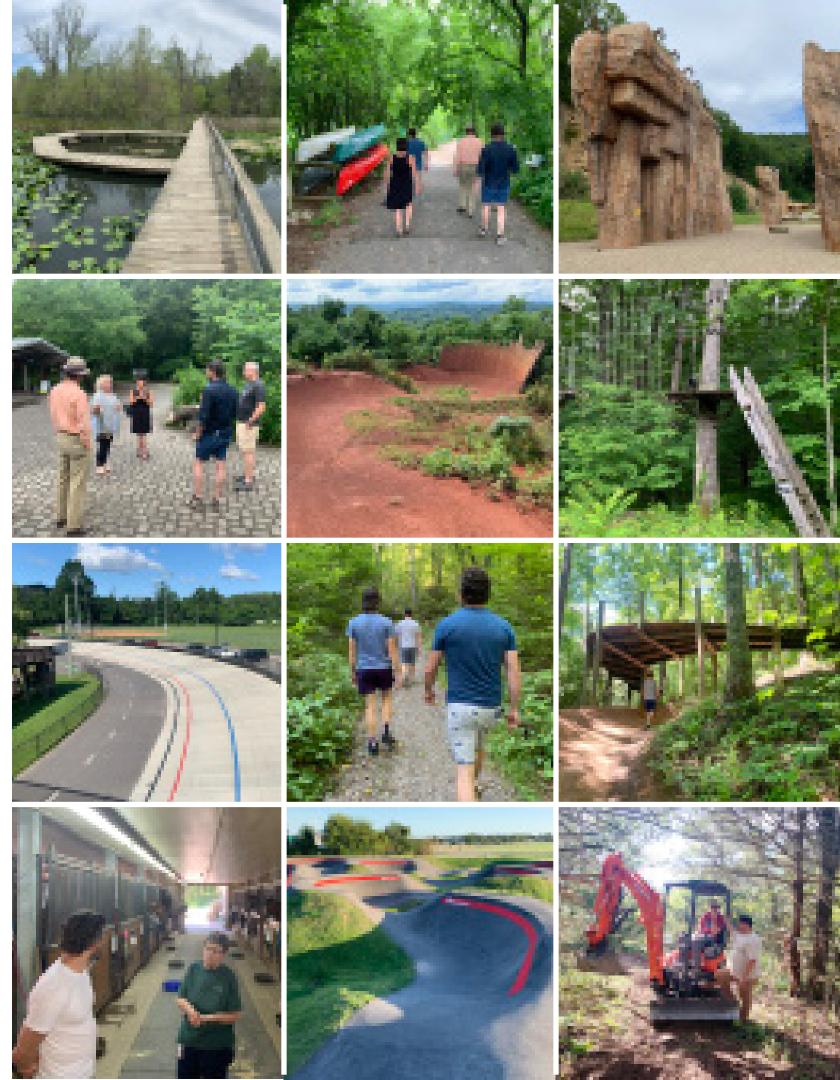
#### **Best Practices in the Outdoors**

Research trips across the Midwestern and Eastern United States provided examples of some of the best adventure recreation facilities in the country and their simultaneous urban wilderness management plans.

Interviews with organizations that facilitate collaboration among landowners to preserve urban wildernesses; construction managers who oversee the development of large multi-use sites; the operators of outdoor recreation facilities that serve tens of thousands of users; and consultants who conduct controlled burn management and

research, restore creek and wetland habitat, build bike trails, and run equestrian centers, yielded lessons for a future Turkey Mountain Urban Wilderness.

Key components of the Master Plan were forged from an understanding of the challenges these other sites face, and what makes them work so well.



## The Master Plan

The Master Plan prioritizes the reinvigoration of the core Turkey Mountain experience Tulsans have come to love—easy access to a wilderness experience in the city. This means welcoming bikers and pedestrians via new gateways, strengthening and clarifying the trails system, and leveraging both age-old and innovative lessons from applied ecology to restore Turkey Mountain's landscape. This core mission safeguards the character of the site, "keeping Turkey Mountain wild," while laying the groundwork for new programs that invite new users to enjoy Turkey Mountain.

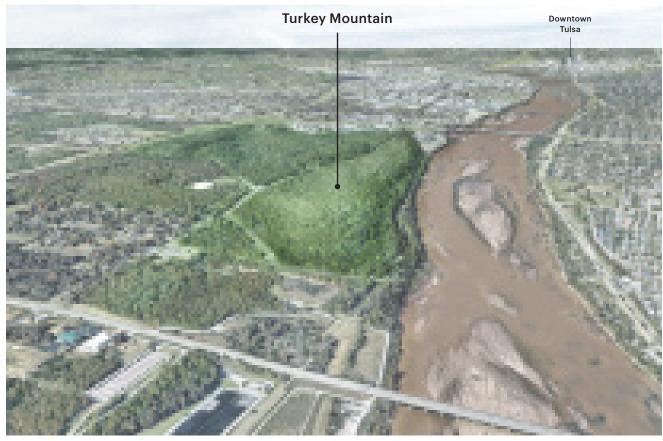
The Master Plan establishes four core principles to guide the future transformation of Turkey Mountain:

- 1. Restore Nature
- 2. Maximize Access
- 3. Enhance Trails
- 4. Integrate Program

### **An Expanded Vision**

Added Sites Make Space for New Program

In order to accommodate both unprogrammed wilderness areas and new opportunities for fun, the Master Plan proposes to expand Turkey Mountain into adjacent sites. These expansion properties at the periphery of Turkey Mountain provide the additional space necessary to incorporate new ways of experiencing the outdoors access to riparian wetland landscapes, adventure recreation and bike facilities, and spaces for group activities—and connect the core of the site to civic spaces and city parks to robustly integrate outdoors activities into the everyday life of Tulsa. The rustic, wild character of the core Turkey Mountain site would be preserved, while its new extremities could house activities to attract new users. Cooperation between city, state, and private landowners to grant easements and access is essential to expanding and preserving Turkey Mountain.

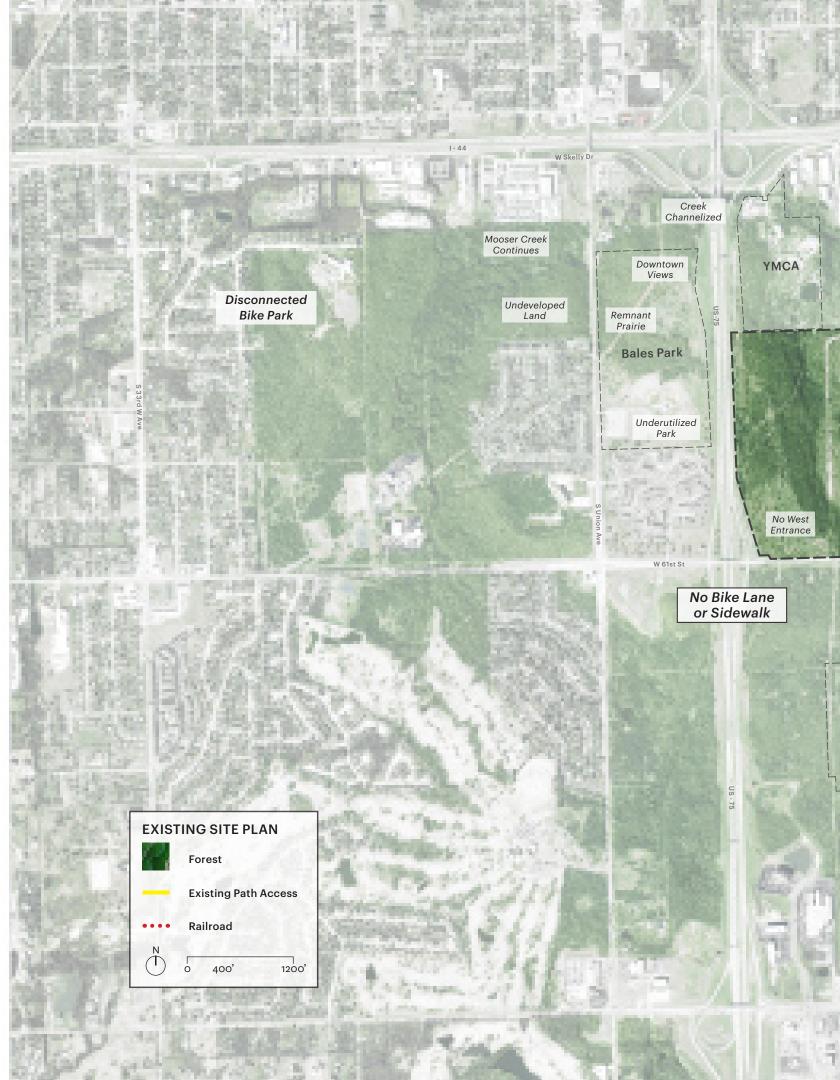


Existing Turkey Mountain Site Extents



Proposed Turkey Mountain Expansion and Connectivity

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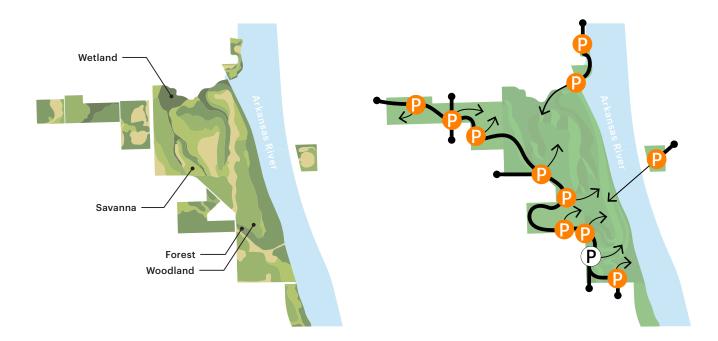








### **Four Core Principles**

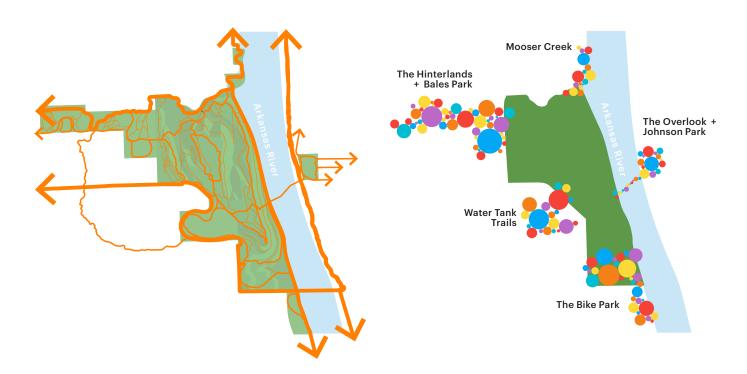


#### **Restore Nature**

Revive the native Cross Timbers landscape through active land management regimes encompassing prescribed burning and wetlands bioengineering.

#### **Maximize Access**

Make using Turkey Mountain easy for everyone by adding bike and pedestrian connections, opening new entrances, and expanding parking without encroaching on the remote quality of its core.



#### **Enhance Trails**

Introduce hierarchy in trail widths and uses to reduce user conflicts, improve wayfinding, and rebuild trails in ways that improve drainage and minimize erosion.

### **Integrate Program**

Group new recreational uses together to minimize their environmental impact and operational cost, while maximizing their accessibility.

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### Oak Savanna Restoration Case Study

Pleasant Valley Conservancy, Wisconsin



Butterfly and Wildflower Nature Walk with Audubon Society, Pleasant Valley Conservancy, 2018

#### **An Actively Managed Landscape**

Pleasant Valley Conservancy in Black Earth, Wisconsin, shares a similar site history to Turkey Mountain. Fire and other natural disturbances were suppressed in this remnant landscape resulting in diminished ecological and experiential diversity. Former prairies and savannas became overgrown.

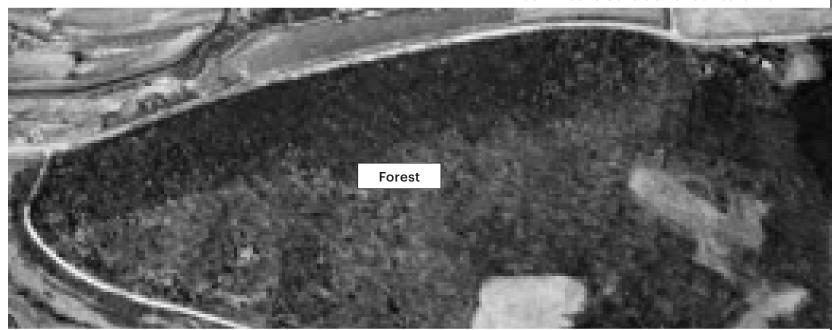
In 1990, the site was assessed and a plan for prescribed burn restoration was created. Careful identification of heritage post oaks and the application of frequent controlled fires, brushclearing, and prairie plant seeding has brought back the former landscape complexity and beauty.



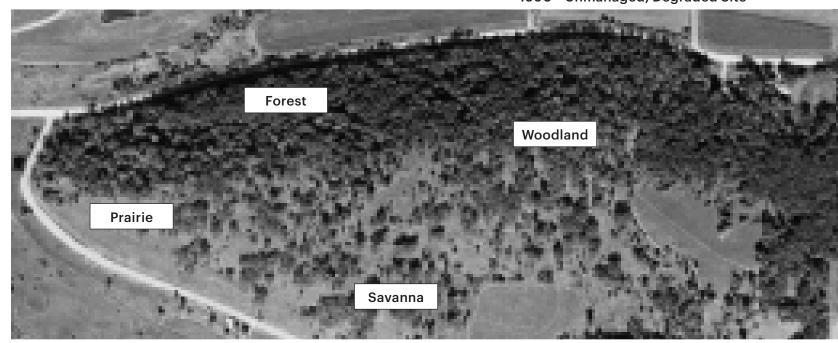
Dormant Season Prescribed Burn



1937—Native Condition of Oak Savanna



1990—Unmanaged, Degraded Site



2007—After Prescribed Burn Restoration

### **Prescribed Burn Management**

Restoring a Cross Timbers Landscape



### **Long-Term Benefits of Fire**

Without regular fires, leaf litter and dead plant matter accumulate, increasing the chances of wildfires. Conducting carefully planned, controlled burns in Turkey Mountain will reduce this accumulation and thus the risk of wildfire. Over time, the necessary burns will become smaller.

Prescribed burning is the most cost-effective means of managing a site as large as Turkey Mountain. Alternate methods such as herbicides or hand-pruning and removal can cost ten times as much, take longer, require more labor, and

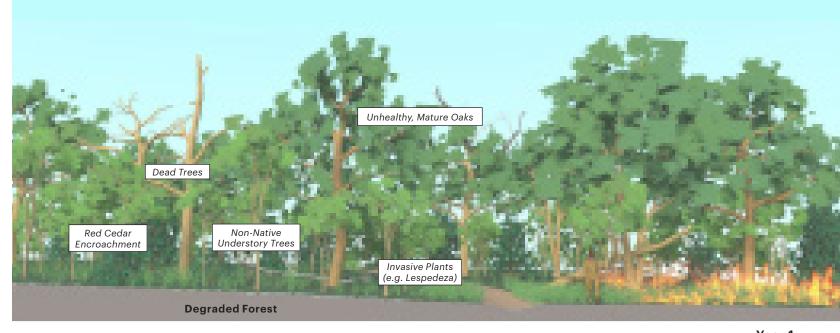
lack many of the other benefits of fire. Controlled burns stimulate post oak growth, cause meadow flowers to bloom more vigorously, attract native fauna through the growth of young herbaceous plants, prevent the spread of invasive species such a lespedeza and encroachment of red cedars into prairies and savannas, and reduce tick and chigger populations by reducing their habitats.

### **Training from Local Experts**

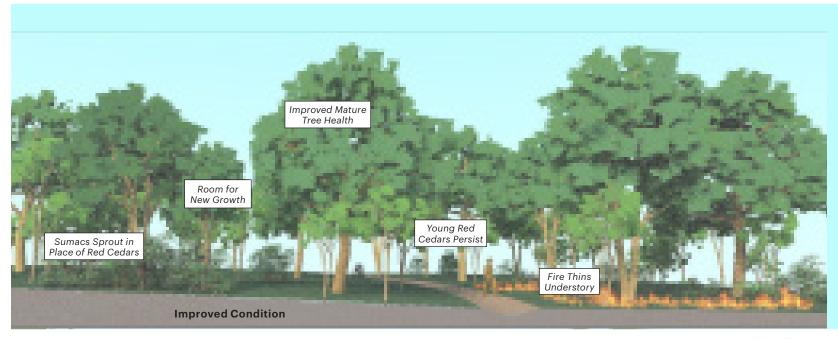
The most cost-effective and reliable strategy for implementing controlled burns at Turkey Mountain is to train a local burn crew led by River Parks staff and aided by members of local fire departments.

To train these crews, the Master Plan looks to John Weir, a practicing burn manager with 25 years' experience in the field, who is head of Oklahoma State University's (OSU) prescribed burn research facility in Stillwater. Weir has conducted extensive training of personnel of the U.S. Army Corps of Engineers, the Bureau of Land Management, state and city agencies, Native American reservations, and private landowners.





Year 1



Year 5



# **Mooser Creek Bioengineering**

# Creating Riparian Habitat and a Greenway





#### Stabilizing and Reconnecting the Creek

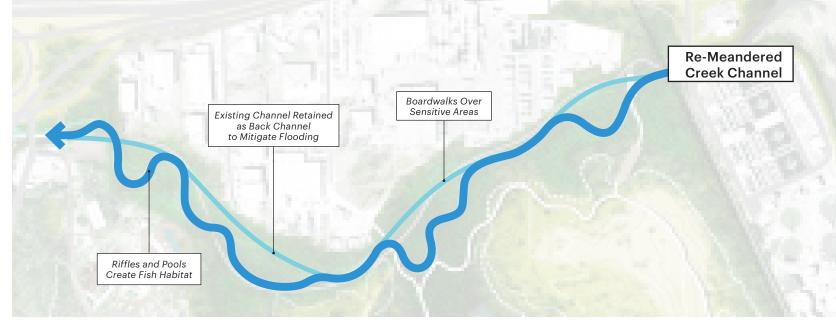
Mooser Creek forms the northern border of Turkey Mountain. Likely straightened and channelized as part of the development of the industrial park to its north, the creek's steep banks are eroding, and it remains largely inaccessible to Turkey Mountain users.

Restoring this riparian corridor has the potential to create fish and bivalve habitat, allow human interaction with the creek, and provide new access to Turkey Mountain from the north through the integration of a proposed bridge. The addition of a regional multi-use path along the top of the riverbank will also connect the River Bank West Trail to West Tulsa.

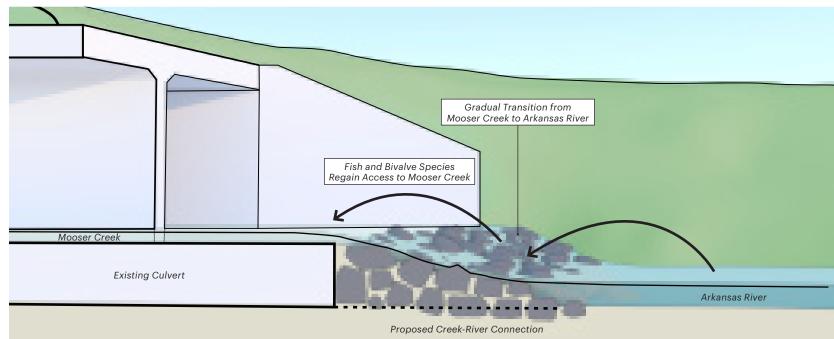


#### **Wetlands Bioengineering Experts**

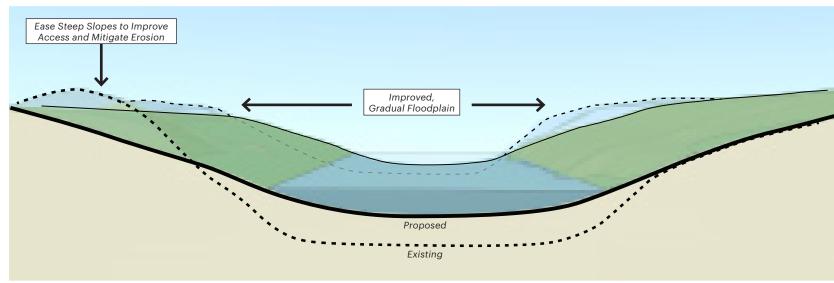
On-site analysis conducted by Inter-Fluve, experts in wetland restoration and bioengineering, indicates that Mooser Creek's channel could be renaturalized, improving its water quality and value as a habitat. Reconnecting the mouth of the creek to the Arkansas River would allow marine fauna to return to the creek. Lessening the steepness of the banks will improve resiliency during flood events and make room for an asphalt path along the top of the bank.



Remeander the Creek



Reconnect to the River



Widen the Floodplain

# **Turkey Mountain Core Site**

## Bringing Back Landscape Diversity

#### Wild Character in the City

Turkey Mountain is a precious resource— undeveloped, open land—that will only get rarer and rarer as cities like Tulsa continue to expand. The rustic quality and immersive, wild character of Turkey Mountain is extraordinary given its location just four miles from Downtown Tulsa. Any Tulsan, regardless of means, has access to a wilderness experience close to home.

#### Sameness in the Landscape

The native Cross Timbers landscape is extremely varied—a patchwork of plant families that create microclimates, varying degrees of enclosure, long and short views, and habitats for native fauna. By contrast, the vast majority of Turkey Mountain today has grown into a uniform thicket that provides very few of these ecological or aesthetic benefits.

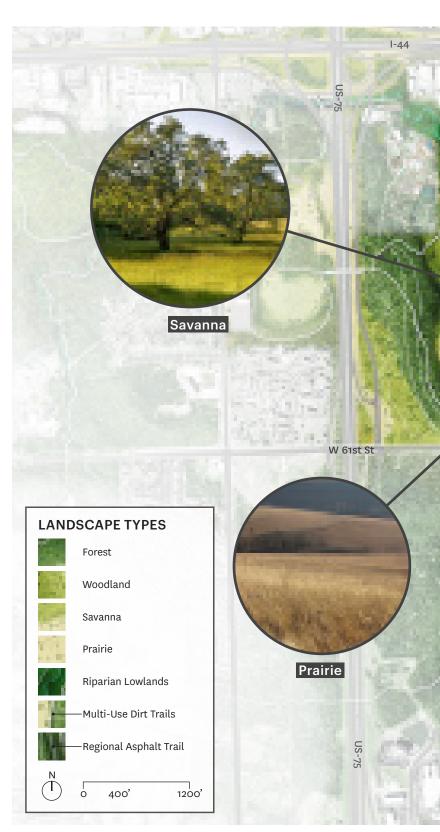
#### **A Window Back in Time**

Preserving Turkey Mountain means honoring the character of its native Cross Timbers landscape. Since the health of that landscape depends on forces of disturbance, predominantly fire, active management is necessary to restore Turkey Mountain's ecology.

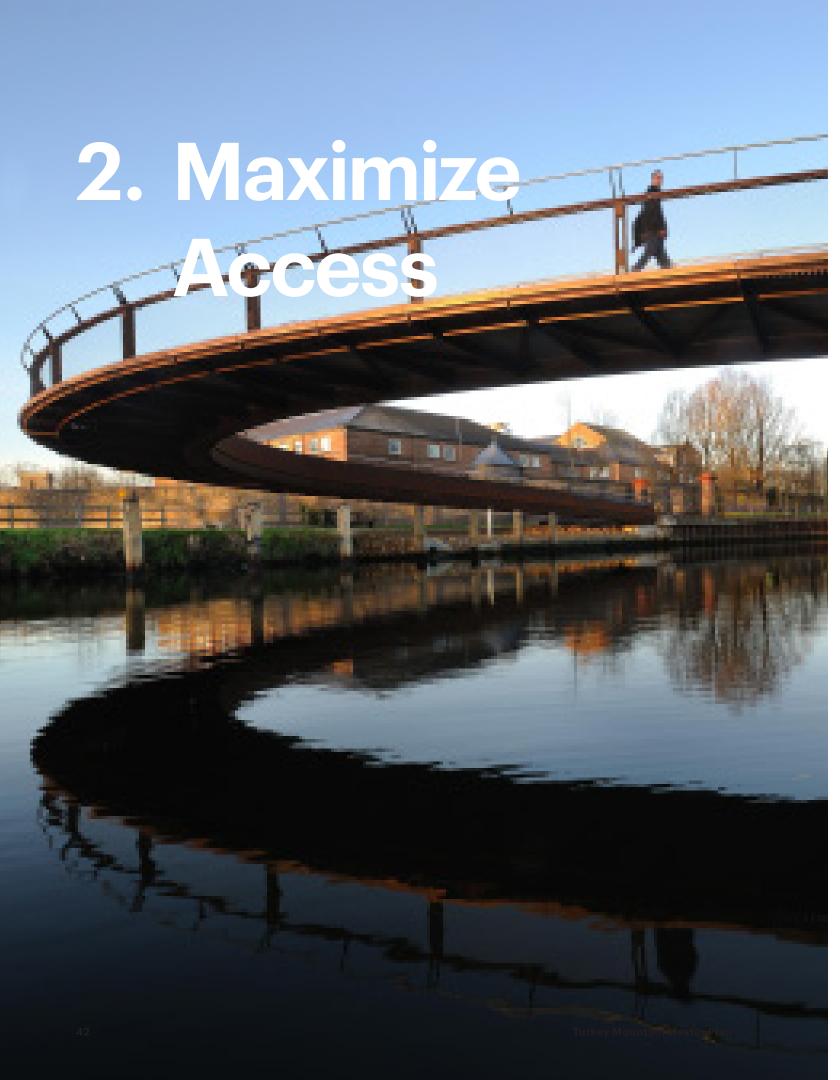
Reintroducing fire to the site through a regime of prescribed burn management will effectively turn back time, opening a window into what this region of Oklahoma looked like prior to its degradation.

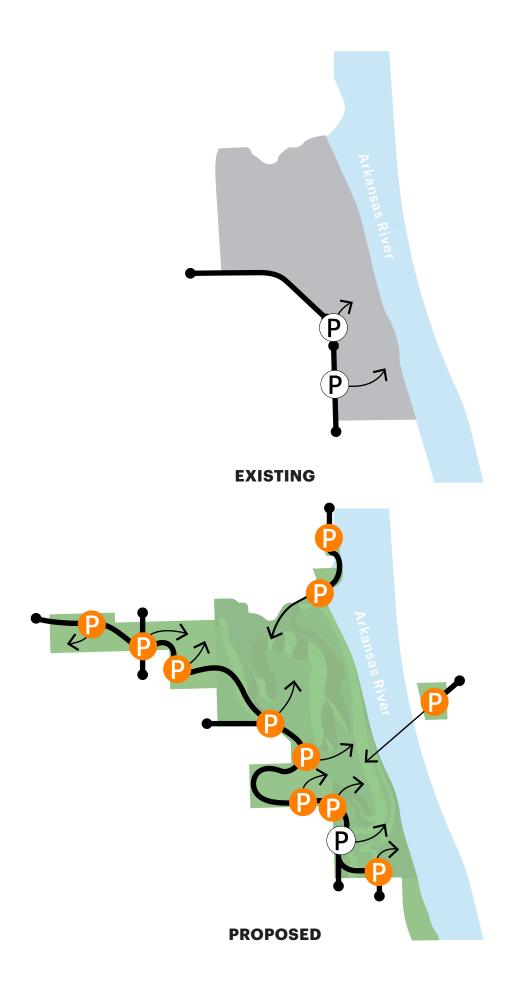


**Existing Condition** 









# **Bridging Across an Expanded Site**

New Bike and Pedestrian Access





# **Vehicular Access and Parking**

# Adding Parking While Minimizing Paving

#### **Existing Parking**

The two existing parking lots at Turkey Mountain—the Main Lot and the Upper Lot—together provide only a few hundred parking spaces for the average of 14,000 people who visit every month. Furthermore, both lots are located on the southern side of the site, leaving the northern and western reaches of the park inaccessible to many.

#### **Proposed Actions:**

#### 1. Close South Elwood Ave

Traffic along South Elwood Ave, with its blind curves and steep topography, poses a safety risk to pedestrians, cyclists, and motorists alike. The proposed closing of South Elwood Ave grants safe access to the adjacent water tank property, where proposed trails add miles of new terrain for Turkey Mountain users to explore.

#### 2. Add Gravel Access Drives

Two short gravel access drives provide access to new parking situated along the periphery of the park. The gravel surface slows traffic, disincentivizing the use of the new drives as shortcuts.

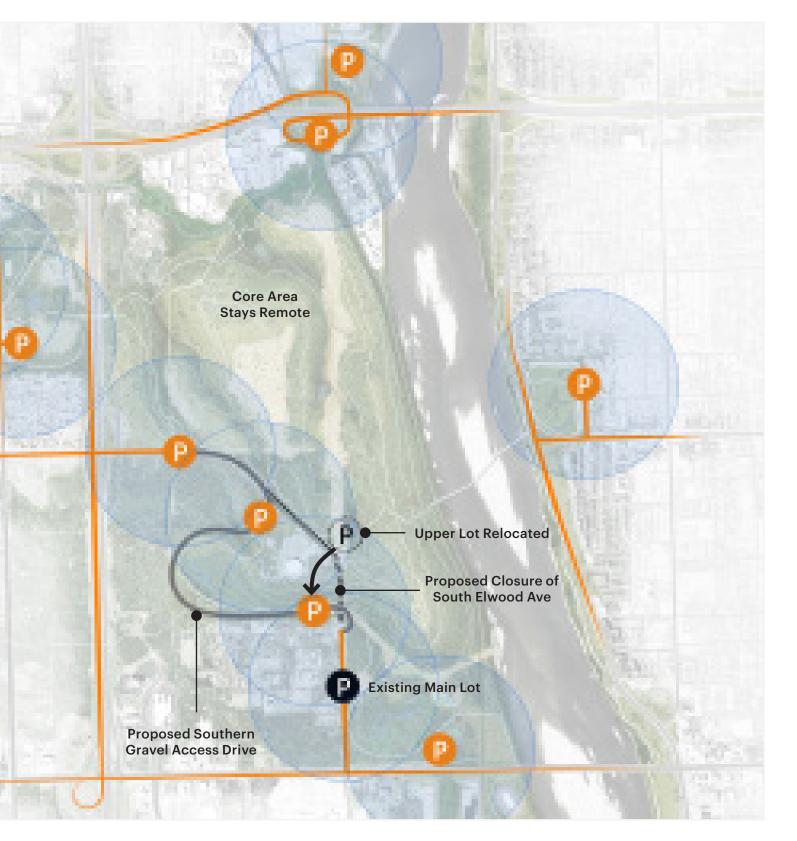
#### 3. Expand Parking

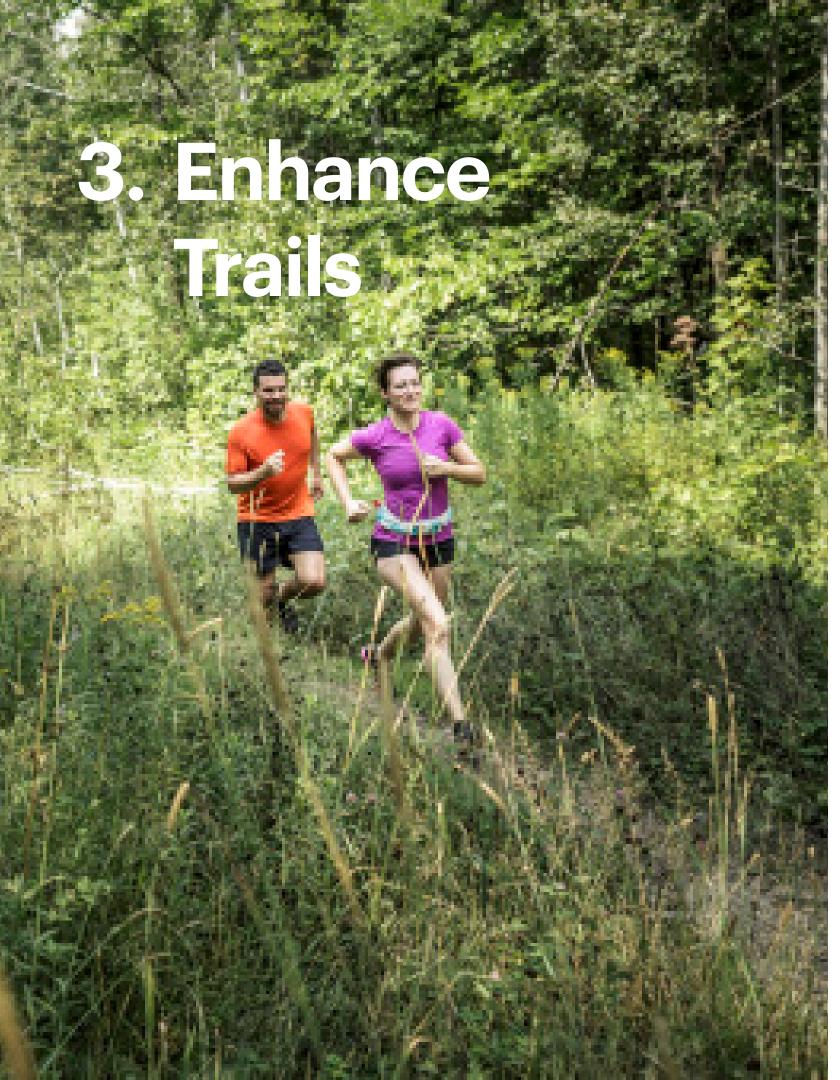
Significantly expanding parking without paving over substantial areas of Turkey Mountain's precious wilderness is achieved through a combination of new connections to existing parking lots in Bales and Johnson Parks, expansion of these off-site lots, and the addition of parking lots along the periphery of the proposed additions to Turkey Mountain.

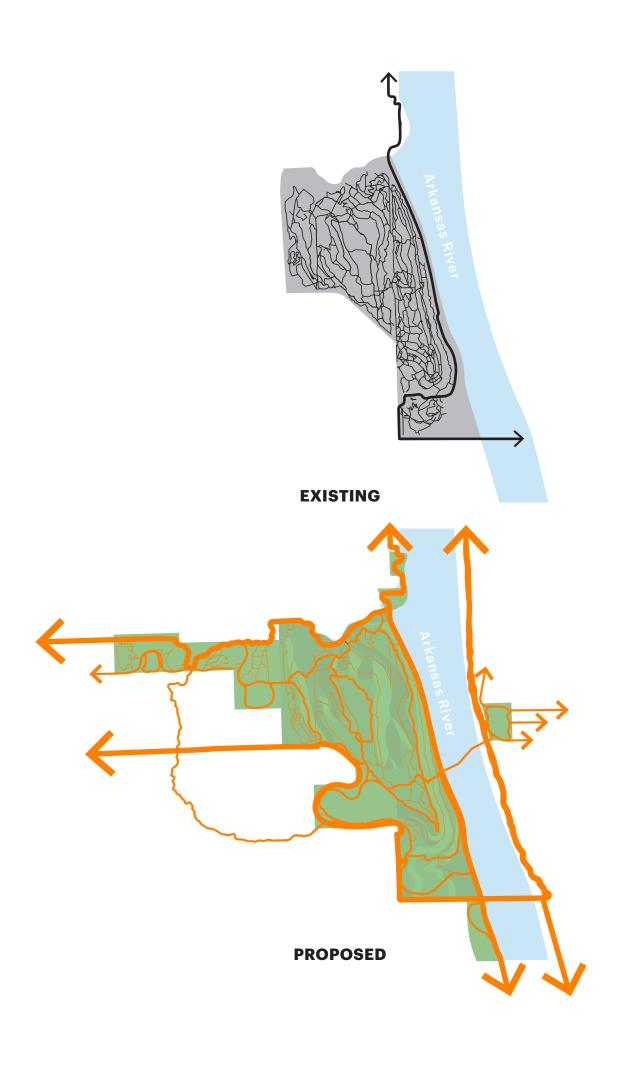
#### 4. Preserve Remoteness

The strategic placement of proposed parking lots distributes over 2,000 parking spots along Turkey Mountain's perimeter to allow users to arrive nearer to their intended destination while preserving the remote character of the core site.









# **Establishing a Baseline**

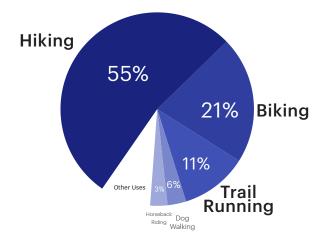
# Understanding Trail Use Today

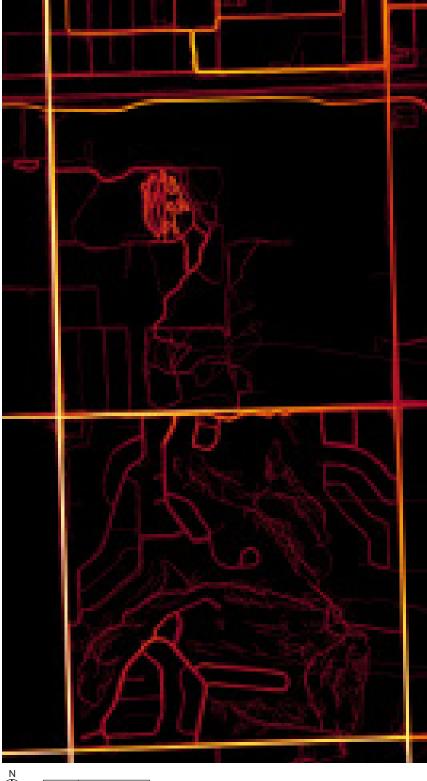
#### **Existing Patterns of Use**

Thousands of users record their paths while biking or running through Turkey Mountain using the social fitness app Strava. The heatmap generated from this data provides a means of understanding the existing patterns of use in Turkey Mountain today—which trails are most-used, which are more popular for biking versus trail running, even the location of many trails that are otherwise unmapped.

#### **Use Types**

There are 12.69 miles of formally mapped trails in Turkey Mountain according to Trailforks, a popular trail mapping website and app. The Master Plan online survey responses indicate the following use types on these trail:







Strava Global Heatmap Running and Biking Data, 2018

# **A Complementary Set of Trails**

# Engineered for Use

#### A Multi-Use Trail Framework

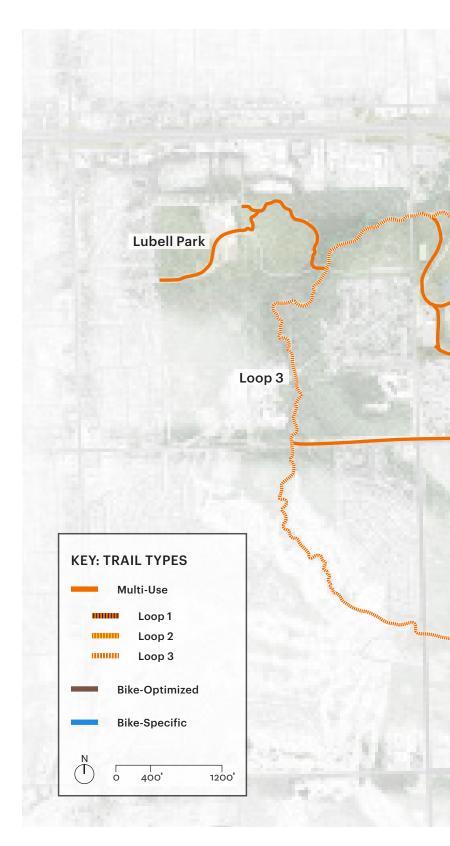
The backbone of the proposed Turkey Mountain trail system consists of wide, two-directional, dirt trails that accommodate all uses. Largely created by enhancing existing high-traffic trails, the multi-use trails form three concentric loops that connect to each other and major entry points. Narrower trails are designed for more specific uses. The system of loops and hierarchy of trail widths will improve users' sense of place—narrow trails lead back to wide trail loops, which lead back to entrances and parking lots—a form of intuitive wayfinding.

#### **Bike-Optimized Trails Open to All**

The narrower, secondary system of twodirectional, shared, multi-use dirt trails are safe for all users, but are engineered with bikers in mind. These trails include features such as logs, boardwalks, small obstacles, drops, jumps, and contouring designed for riders, but are always equipped with bailouts and safe paths alongside for runners and hikers to use without conflict.

#### **Bike-Specific Trails**

Certain styles of bike trails are unsafe for other users and must be designed as one-directional, bikes-only trails, and clearly marked as such. Turkey Mountain's bike-specific trail system is strategically clustered across the bike park, the steepest terrain on the prow of the mountain, and the property surrounding the water tank in order to reduce conflict with other uses, minimize effort riding between routes and maximize fun for riders.





# **Trail Types**

## Diversifying Difficulties, Uses, and Users

#### **Trail Types**

Turkey Mountain's core program is its trails. The improved quality and range of trail types has the potential to revive Turkey Mountain as a tourist destination. Biking, hiking, trail running, and horseback riding are the four most popular activities at Turkey Mountain according to the Master Plan survey, and today they take place on the same trails. Years of sharing trails have proven that it's possible to do all of these activities on a shared multi-use trail network, but tailoring sections of trail to each mode of use will broaden the range of challenges, experiences, and fun to be had by each user group. Other routes are designed with the appropriate challenges and needs of adaptive sports participants and disabled users in mind—groups who today have little to no access to Turkey Mountain.

#### **Trail Difficulty**

The Master Plan proposes trails of progressive difficulty—easy main trails that everyone can use, and intermediate and advanced trails for veteran users. Whether beginner or advanced, trails will encompass a range of challenges that build the various skills required to tackle more difficult routes. An easy trail does not have to be boring, and an advanced trail does not need to be repetitive. Riders prefer to be challenged by a range of demands.

#### **New Users**

Diversifying the type and difficulty of trails will attract new users to Turkey Mountain. Beginner trails enable children and novice adult riders to participate, and the improved quality and range of types has the potential to revive Turkey Mountain as a tourist destination for mountain biking.

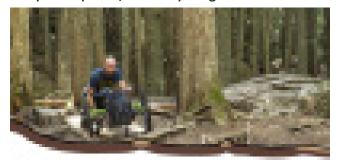
#### Hiking



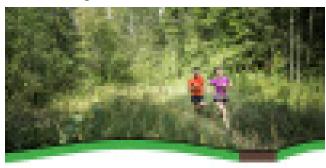
#### **Horseback Riding**



#### **Adaptive Sports / Hand Cycling**



**Trail Running** 



Biking



Shared Multi-Use



Technical / Rock Garden

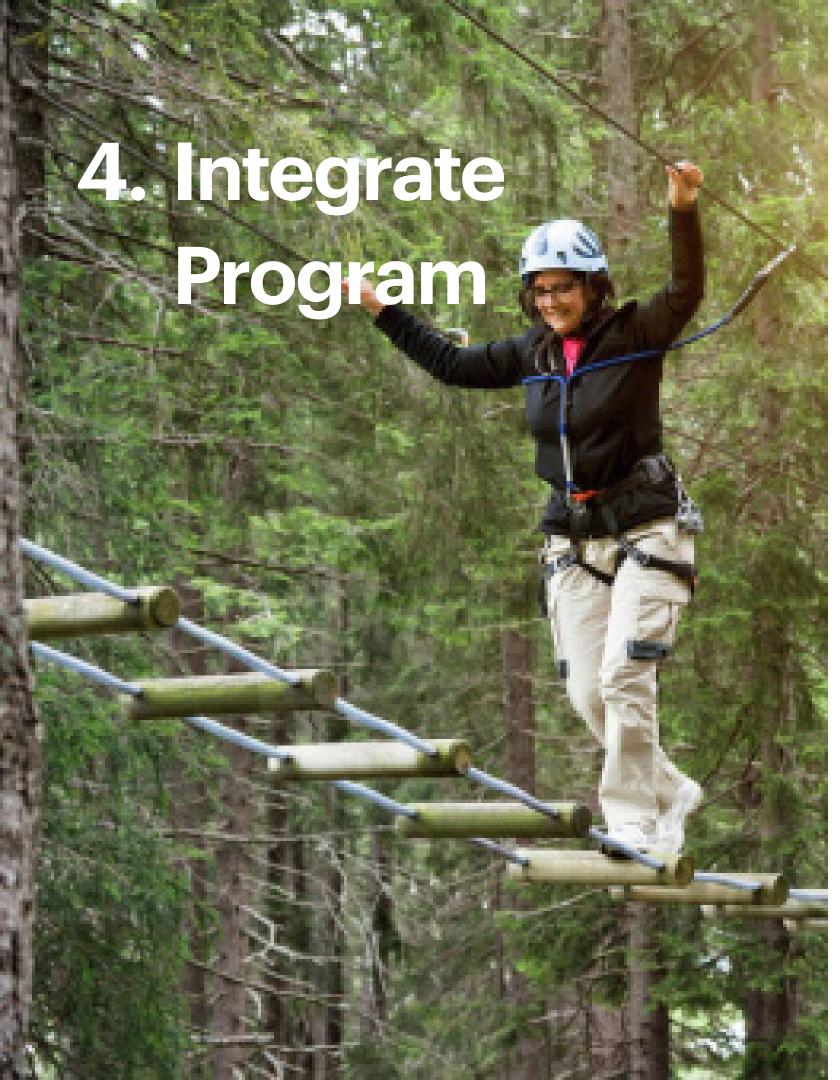


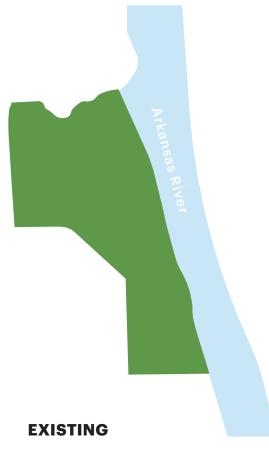
**ADA Accessible** 

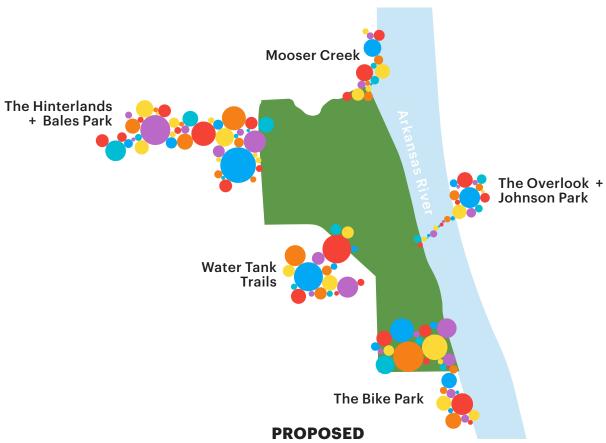


**Contour Flow** 









# **Mooser Creek and Northern Access**

# Accessing a Hidden Creek

#### **Greenway and Adaptive Reuse**

Restoring the currently inaccessible Mooser Creek corridor with the addition of a multi-use greenway and boardwalks along its length, and a bridge that crosses directly into Turkey Mountain from the north, will provide new access and opportunities to fish and get-downs to experience a lowland riparian landscape that Tulsans have never encountered.

Extending the greenway along the back side of the industrial park to the north has the potential to improve the industrial park site itself. The back of the site could accommodate new facilities that benefit from access to a well-used regional multiuse path.

#### **Northern Approach**

North of the creek, along the River Parks West Bank Trail, additional parking lots open onto riverfront picnic areas and boardwalks, enabling families to experience the Arkansas River up close.

# Re-introduced

Mooser Creek

Greenway

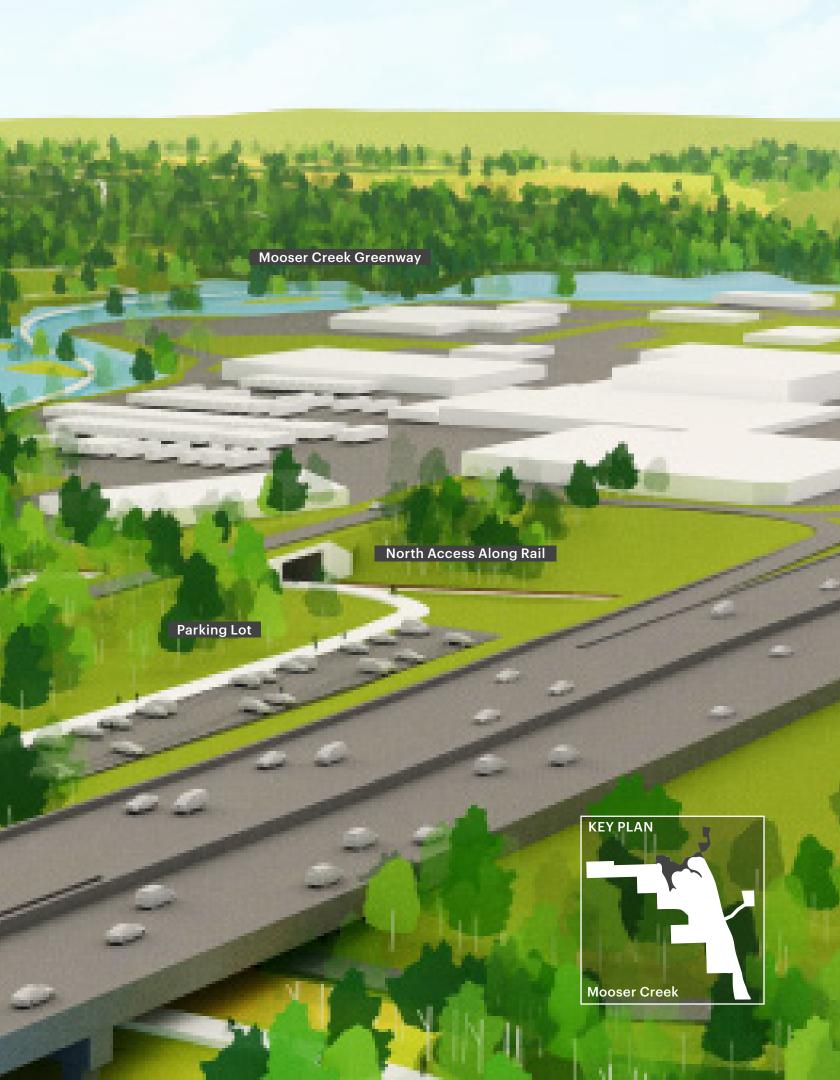
#### **Existing Condition**



**Creek Meander** 







# The Hinterlands and Bales Park

## Adventure Play and Group Activities

#### **Clustering Supervised Programs**

Adventure recreation programming, such as a canopy course or planned group camping, require greater staff involvement. These more intensive programs will be clustered in Bales Park and the Hinterlands where they can be easily supervised from the proposed base of operations in the repurposed Remington School. (Remington would also include a trade school with a maker space.) The Aerial Adventure zip lines and ropes course zigzag through the forest canopy beside a team-building agility course. The proposed youth cooperative equestrian center will expose Tulsa youth to horseback riding as well as the responsibility involved in caring for the horses. Wending their way through these facilities, more miles of trail connect Lubell Park in the west to Turkey Mountain.

#### **A City Park for Civic Events**

The proposed relocation of city baseball fields from Bales Park to Johnson Park makes way for an "event lawn" and expanded parking lot that will facilitate large gatherings. An interconnected group of tree houses occupies the woods alongside the event lawn. Beyond the tree houses are picnic pavilions that take advantage of the big view of downtown from the high point of the prairie north of the proposed Bales Bridge. Active programs such as the swimming hole and the archery range are strategically sited adjacent to the other supervised programs in The Hinterlands.

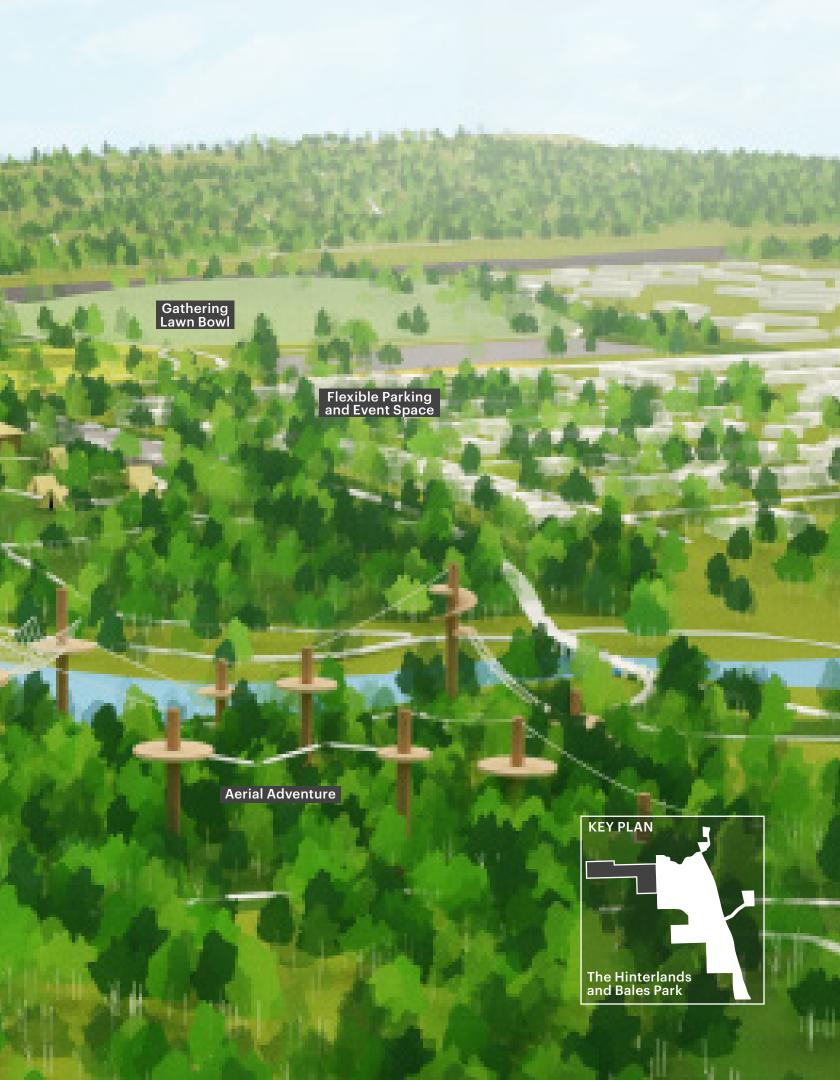
#### **Existing Condition**











# The Overlook and Johnson Park

## A Route from River to Ridge

#### **Facilitating Easy Visits**

For those wanting a brief and easy experience, an ADA-accessible path leads from the water tank parking lot to nearby boardwalks over ponds and then through each landscape—wetland, prairie, savanna, woodland, and forest. These accessible routes then lead to The Overlook, with views of the Arkansas River and Downtown Tulsa. All of this can be experienced in under 30 minutes.

Others approaching from the east and looking for a challenge can enter Turkey Mountain from Johnson Bridge or the River Parks West Bank Trail, climb the Rock Scramble—a steep training feature for runners and a light challenge for the average hiker—and arrive at The Overlook.

#### **Civic Sports Park**

The Master Plan positions Johnson Park as a point of entry into Turkey Mountain and as a neighborhood park that is a destination itself. Relocating the baseball fields from Bales Park in conjunction with other new team sports facilities has the potential to remake Johnson Park as a civic sports park capable of holding citywide events. The redesign of Johnson Park would follow a cityled process of public engagement to determine an appropriate mix of sports and other uses.

#### **Existing Condition**











# The Bike Park and Water Tank Trails

### A Destination for Riders

#### More Bikeable Miles of Trail

The Water Tank Trails area expands the core site and reestablishes multi-use trails where the "Lolli-Pop Trails" once were. Top quality bike-specific trails crisscross southern slopes and connect up to the high point of Turkey Mountain's ridgeline.

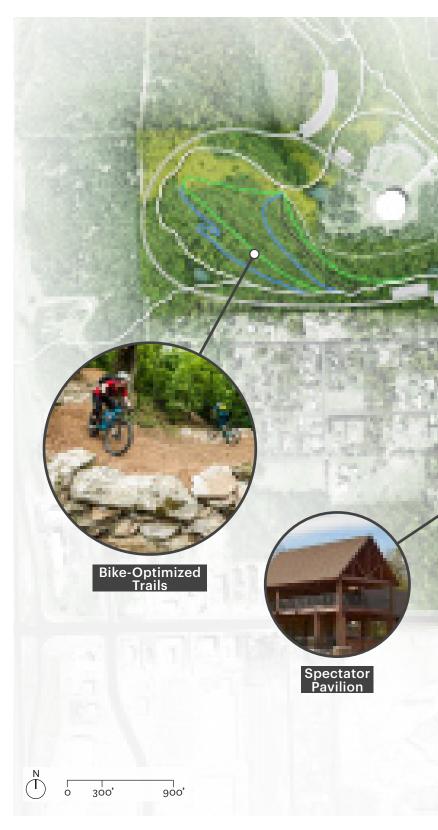
Downhill bike trails, cutting through dense forest on the prow of Turkey Mountain's steepest and most prominent slope, flow directly into The Bike Park, which offers a huge variety of bike trails in one place.

#### **A Destination Bike Park**

The main multi-use trail extends through the Bike Park connecting no-pedal, no-brake contour trails; a skills area where riders can practice their technical abilities; the "Northshore" boardwalk course packed with elevated wooden tracks; two jumps parks, poised to host races in collaboration with Tulsa-headquartered BMX USA; and the new outdoor velodrome, offering a potential site for NICA races and other large track cycling events. These two major event venues—the jumps parks and velodrome—flank the 71st Street Bridge, making them highly visible, iconic aspects of Turkey Mountain.

#### **Existing Condition**











The Turkey Mountain Master Plan is a long-term plan to restore, connect, program, and grow a 600-acre site to as large as 1,000 acres. Full implementation may take decades.

The phasing recommendations that follow focus on prioritizing the restoration of the Turkey Mountain Core Site through prescribed burn management, trails construction, and the addition of key access points to enhance Turkey Mountain's essential program—easy access to an experience of wilderness in the city.

Future phases of development are sequenced to provide a contiguous expansion outward from the core site, but their development may proceed in any order without any one impacting the viability of another.

#### **The First Phase**

#### Where to Start

Phase 1 proposes the sequence below for implementing the Master Plan vision for the Turkey Mountain Core Site:

#### 1. Prescribed Burn Restoration

The full impact of prescribed burn management will take years to realize. However, just one season of burns will significantly thin the dense understory, making the work of all other construction projects easier to mobilize.

#### 2. Pond Water Quality Tests

Ponds in Turkey Mountain were likely used in the process of oil-drilling and may therefore be contaminated with heavy metals or other pollutants. Water and sediment analysis would clarify whether fishing and swimming are feasible potential programs.

#### 3. Trails Construction

Trails are the primary means of experiencing Turkey Mountain and are therefore prioritized as the first construction project to be undertaken in the Core Site.

#### 4. Northeast Access Elements

With the construction of the rail underpass at the mouth of Mooser Creek and the Mooser Bridge, bikers and pedestrians would gain access to Turkey Mountain from the River Parks West Bank Trail to the north.

#### 5. South Elwood Ave Closure

South Elwood Ave, if closed, demolished, and removed, would enable access to the adjacent Water Tank Trails area, providing more wild terrain through which users can hike, bike, run, and explore.

#### 6. Bales Bridge

Bales Bridge would connect users to hundreds of additional parking spaces without constructing a new parking lot in Turkey Mountain, and would open a new front door to the site for those arriving from the west.

#### 7. The Overlook and Rock Scramble

The Overlook and Rock Scramble would together create an exciting new feature that could directly connect the peak of Turkey Mountain to the River Parks West Bank Trail, creating a fun new challenge, a singular view, and another corridor of access into the Core Site.



## **Early Expansion**

Phases 1 and 2



**Phase 1: Restore the Core Site** 



**Phase 2: Expand Regional Access** 

## **The Long Term Vision**

Phases 3 and 4



**Phase 3: Integrate City of Tulsa Parks** 

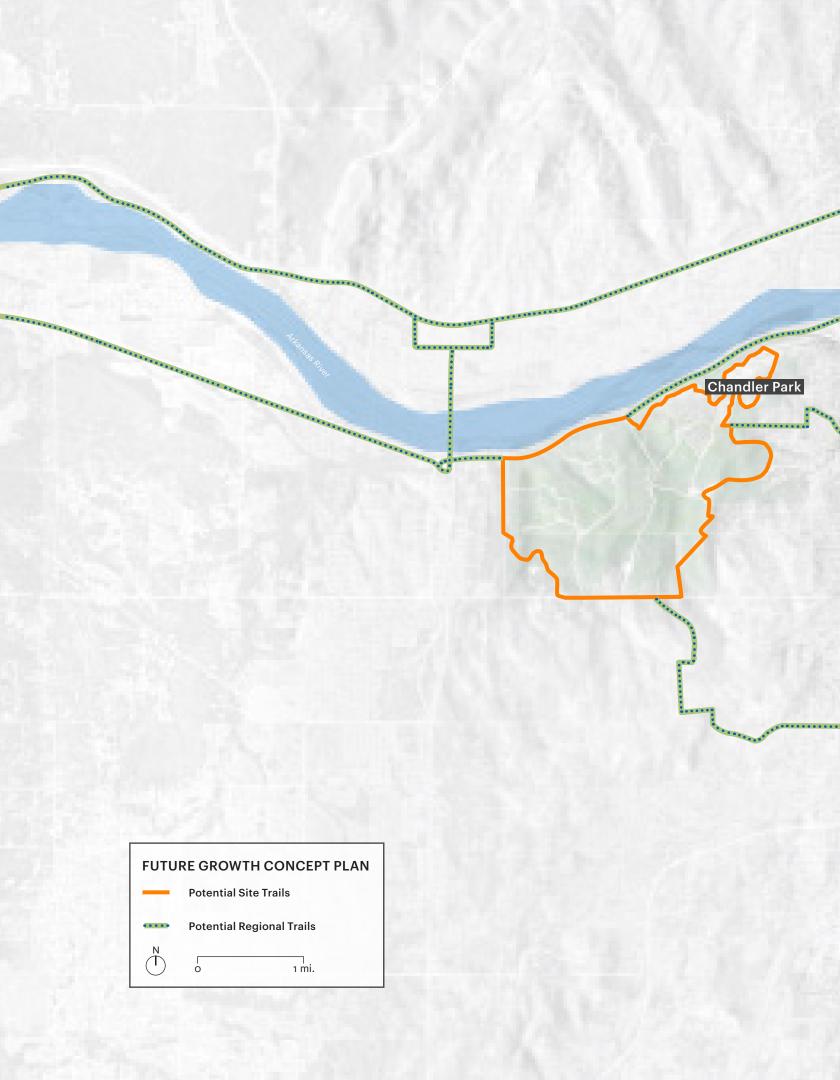


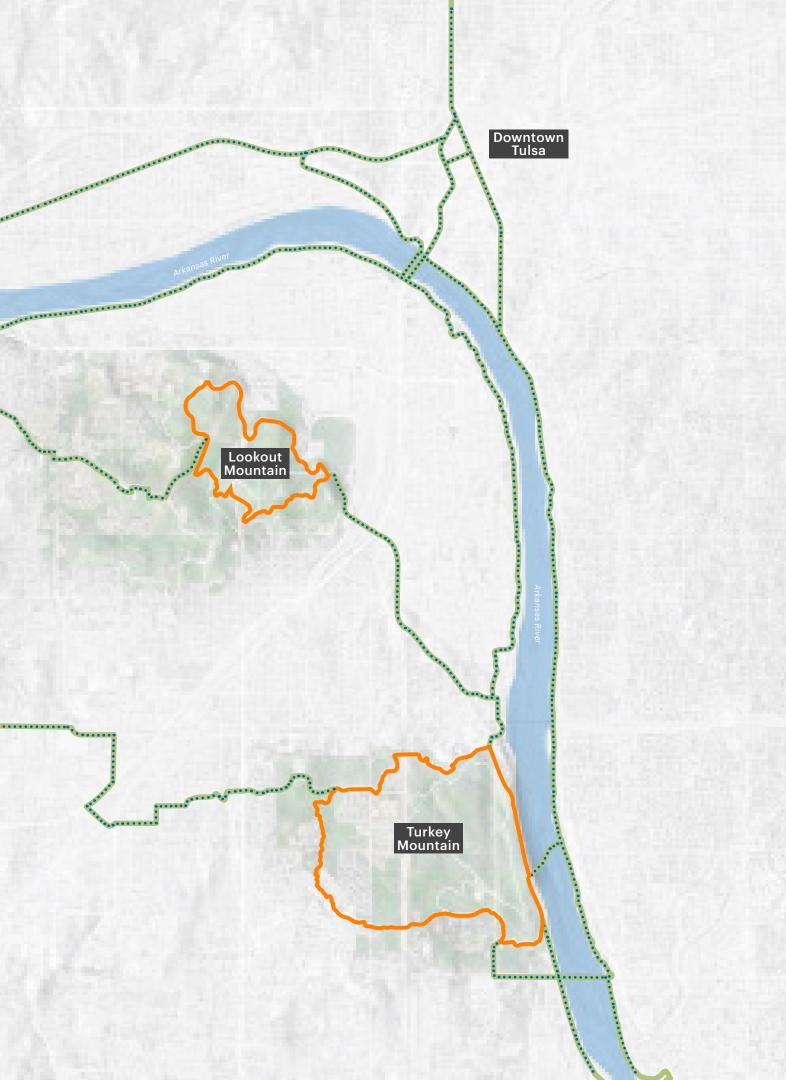
Phase 4: Develop Adventure Center

# Turkey Mountain's Legacy

Building stewardship around this much-loved wild space has the power to affect real positive change through the health benefits of the active lifestyles it promotes, the economic benefits of reestablishing Turkey Mountain as a destination for tourism in the region, and civic pride felt by Tulsans for the urban wilderness that is so much part of the city's identity.

Turkey Mountain is something you cannot buy—an irreplaceable resource that can be saved, restored, and enjoyed by future generations to come.





#### **George Kaiser Family Foundation**

The George Kaiser Family Foundation (GKFF) is a Tulsa-based charitable organization with a mission to provide equal opportunity for children in Tulsa. As a complement, GKFF works on a variety of civic enhancement efforts to ensure Tulsa is a vibrant and inclusive city for those children and their families to live. GKFF has contributed over 200 acres of property to the Turkey Mountain Urban Wilderness and funded improvements to the main trailhead.

#### **River Parks Authority**

River Parks Authority (RPA) is a public trust that manages over 1,000 acres of park land and facilities. RPA's mission is to enhance community life through stewardship of premier parks and public spaces that offer a diversity of outdoor experiences along the banks of the Arkansas River in Tulsa.

#### **Project Consultants and Advisors**

Prescribed Fire Management: **John R. Weir** 

Wetland Restoration: Inter-Fluve Ecology: Timothy J. O'Connell

Bike Trails: Progressive Trail Design

Public Engagement: Saxum Strategic Communications

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