Around Tulsa, grasslands mix with post oak-hickory forest, creating a rich mosaic of prairies, savannas, woodlands, and forests known as the Cross Timbers.
A Unique, Disappearing Landscape That Can Be Preserved

50,000,000 acres of Midwest oak savanna once extended in a continuous band from Minnesota to Texas. Today, only 30,000 acres remain in degraded patches of 100 acres and less—a “globally imperiled” landscape.
At 600 acres, and with a high point that is 300 feet above the elevation of the Arkansas River, Turkey Mountain is one of Tulsa’s largest undeveloped spaces and its most visible natural landmark.

**Something You Can’t Buy or Build**

At 600 acres, and with a high point that is 300 feet above the elevation of the Arkansas River, Turkey Mountain is one of Tulsa’s largest undeveloped spaces and its most visible natural landmark.
We’ve Seen the Data—We Know Tulsans Love Turkey Mountain

We used fitness app data from Strava to see where users are biking and running. If you’re an outdoors enthusiast in Tulsa, this is your #1 destination.
Urban Wilderness Within the City Limits
Turkey Mountain is positioned to be a defining part of Tulsa’s identity.
Access to the Wild Without Travel Time or Cost

This is a special place that could offer outdoors experiences on par with some of our most popular national parks.
A Local Destination Any Tulsan Can Escape To

Turkey Mountain belongs to Tulsa, and it offers both the space and resources to serve the entire community.
Site Challenges
Trails were made by users and though they are well-loved, they are not sustainably constructed. As Turkey Mountain gains in popularity, it runs the risk of being loved to death.

**Eroding Trails Are a Problem**

Trails were made by users and though they are well-loved, they are not sustainably constructed. As Turkey Mountain gains in popularity, it runs the risk of being loved to death.
Poor Drainage Prevents the Full Use and Enjoyment of Trails

Users widen or cut new trails to avoid wet areas, causing further damage to the surrounding landscape and the trails themselves.
The Declining Landscape Will Continue To Get Worse

Natural disturbances such as grazing and frequent fires that once kept this Cross Timbers landscape healthy are no longer present, which has allowed the understory to become so thick it’s choking out the big trees, and it’s easy to get lost.
Invasives and Understory Trees are Outcompeting Old Native Oaks

The large, open-grown oaks of the Cross Timbers’s post-oak-hickory savanna are adapted to grow best when spread out. Invasives and the dense unmanaged understory are crowded these large trees out.
Already-Disturbed Areas Have Potential for Restoration and Better Uses
Mooser Creek Is Inaccessible and Struggling Ecologically

We hiked the creek in waders with our wetlands restoration experts from Inter-Fluve, and there is great potential to restore the creek as animal habitat and for recreation, but currently it is inaccessible.
Turkey Mountain Users are currently parking or trespassing on private property in order to get into the wilderness from the north. A new entrance for users approaching from the north would solve this problem.

The Only Northern Access to Site Today Is Through Private Pepsi Property

Turkey Mountain Users are currently parking or trespassing on private property in order to get into the wilderness from the north. A new entrance for users approaching from the north would solve this problem.
Users Told Us: “Keep Turkey Wild” and “Everyone Should Have Access”

MVVA and GKFF have hosted public meetings to bring the community together to craft a vision for the future of Turkey Mountain.
Adding new territory to the Turkey Mountain Urban Wilderness will improve access and enable Tulsans to enjoy new programs, while preserving the area’s wild character.

BIG IDEA: Added Sites Allow Places for Improved Access and New Experiences

Adding new territory to the Turkey Mountain Urban Wilderness will improve access and enable Tulsans to enjoy new programs, while preserving the area’s wild character.
Building an Urban Wilderness Relies on Cooperation

We visited The Knoxville Urban Wilderness, which was created using easements through state, city and private property.
Four Key Components of the Turkey Mountain Master Plan

- Restored Nature
- New Access
- Sustainable Trails
- Exciting Program
Turkey Mountain used to have a range of prairie to forest that is typical of the Cross Timbers ecoregion. Current practices and a fundamental lack of care have resulted in a uniformly dense forest.

A Restored Turkey Mountain Opens a Window Back in Time

Turkey Mountain used to have a range of prairie to forest that is typical of the Cross Timbers ecoregion. Current practices and a fundamental lack of care have resulted in a uniformly dense forest.
Prescribed burning is a practice that European settlers learned from Native Americans. Periodic fire is an important contributor to maintaining the partially dense/partially open mosaic of the Cross Timbers landscape.

Fire Management Is Traditionally the Way This Has Been Achieved
Lack of fire management allows fuels to accumulate, creating a real risk of wildfires. Reinstituting regular controlled burns that benefit the ecology will also reduce these risks.

Turkey Mountain Is Already Experiencing *Uncontrolled* Burns

Lack of fire management allows fuels to accumulate, creating a real risk of wildfires. Reinstating regular controlled burns that benefit the ecology will also reduce these risks.
John Weir, OSU Natural Resources and Environmental Management
Practicing Fire Manager, Prescribed Fire Researcher and Educator
Wildfire - Any non-structure fire, other than prescribed fire, that occurs in the wildland.

• What causes them?
• When do they occur?
• Under what conditions?
• Have you been exposed to any other type of fire?

All fire is not wildfire!
Prescribed Fire
• Planned application of fire under specific conditions to achieve specific goals and objectives
• Based on science, fact, and experience

Do we burn in Oklahoma?
• Prescribed Fire in OK
  • 1-2 million acres annually
• Wildfire in OK
  • 2000-2007 85,432 acres annually
  • 2006-2017 208,000 acres annually
From Guyette et al. Ecosystems 2012
Benefits of Fire
• Healthy forests and grasslands
• Plant and animal diversity
• Wildfire control
• Cedar control
• Improve wildlife habitat
• Water quality and quantity
How do we burn?

- First, determine goals and objectives.
- Develop a fire plan and prescription based on the unit of land in question.
- Determine needs: training, personnel, equipment, and firebreaks.
- Consultation with a fire management specialist to develop plans and training.
- Conduct burns when conditions are proper to achieve goals and reduce impact on the public.
Turkey Mountain Burn Plan - Year 1 - 120 Units

Burn units, the amount of land burned at a time, utilize existing trails and other natural fire breaks as boundaries. The plan begins with many smaller units to safely burn high fuel loads accumulated over year of fire suppression.
By year 5 burn units would begin to shift, using newly constructed trails as fire breaks, and could begin to be grouped into larger units as fuel loads decrease.
Turkey Mountain Burn Plan - Year 10 - 60 Units

By year 10 the burn crews conducting burns will shift from restoring the landscape to maintaining it. Larger burn units mean fewer burns need to be conducted each year, further lowering the cost and labor associated with maintenance.
Mooser Creek is dangerous and inaccessible today, but it’s ideally positioned to provide northeast access to Turkey Mountain. Reintroducing the creek’s meander and stabilizing its eroding banks facilitates fishing and interacting with the water.

Wetland Restoration and Bioengineering the Creek Channel

Mooser Creek Today

Restored Creek Channel Precedent
Greg Koonce, Inter-Fluve Wetlands Restoration and Bioengineering

Founding Principal and Fisheries Biologist
Squalicum Creek - Bellingham, Washington

The new channel flows along a natural meandering path with pools and riffles.
Squalicum Creek - Bellingham, Washington

The new channel flows along a natural meandering path with pools and riffles.
The wood adjacent to the floodplain supports riparian forest and wetland.
Squalicum Creek - Bellingham, Washington

The restored channel flows along a walking path (right), and interstate highway (left).
The existing riverbed was dry with stagnant pooling water most of the year and occasional flooding.
The channel bed was lowered to create a low-flowing stream to provide cold-water rearing and refuge habitat for coho, Chinook, and steelhead.

Milo McIver State Park - Calackamas River, Oregon

AFTER (+4 Years)
During floods, submerged log jams help slow down water, reducing erosive forces on the landscape.

Milo McIver State Park - Calackamas River, Oregon

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During floods, submerged log jams help slow down water, reducing erosive forces on the landscape.

Milo McIver State Park - Calackamas River, Oregon

AFTER (+4 Years)
New Access
New Bike and Pedestrian Access Into Turkey Mountain

Improving bike and pedestrian connectivity between urban and wild means crossing creeks, rivers, and highways. These bridges will help increase daily use, and be features themselves.
Mooser Bridge Provides New Northern Access
Precedent: Jarrold Bridge - Norwich, England
Johnson Bridge Connects Over The Arkansas River
Precedent: American River Bicycle Trail - Sacramento, CA
Bales Bridge Flies Over US-75
Precedent: Wing Tip Bridge at Summit Bechtel Reserve - Glen Jean, WV
Hinterlands Bridge Allows Access From The West
Precedent: Log Bridge at Summit Bechtel Reserve - Glen Jean, WV
Four New Bike and Pedestrian Bridge Connections into Turkey Mountain
Four New Bike and Pedestrian Bridge Connections into Turkey Mountain

- Hinterlands Bridge
- Bales Bridge
- Mooser Bridge
- Johnson Bridge
Existing Access and Parking
Limited Parking Only Accessible from the South

Today Turkey Mountain is only accessible from two parking lots at its southwestern edge.
S Elwood Drive Closed to Thru Traffic and Upper Parking Lot Moved

S Elwood Drive is a dangerous cut through that disconnects property on either side.
Expanded Parking At The Edge Retains Turkey Mountain’s Remoteness

Additional parking will be necessary as Turkey Mountain attracts more users, but by grouping the parking along the edges, the wild and remote character of Turkey Mountain will be preserved.
A Significant Increase in Parking

By strategically connecting to large existing parking lots in Bales and Johnson Parks, and carefully placed new parking lots, Turkey Mountain users will be able to park closer to where they’re headed.
The curving park drives break with Tulsa’s street grid, signaling entry into Turkey Mountain.
A Second Option for Gravel Drives Prevents Thru Traffic Altogether

Access to all the same parking lots is maintained but there is no access to thru traffic.
A National Park-Inspired Drive

Gravel drives in keeping with Turkey Mountain’s wilderness allow those who don’t hike or bike to experience the rugged landscape.
Sustainable Trails
Some uses combine easily for shared multi-use trails. Other special types of trails must be kept separate so they can be enjoyed without undue risk.

A Range of Trail Types so Everyone’s Included

Some uses combine easily for shared multi-use trails. Other special types of trails must be kept separate so they can be enjoyed without undue risk.
Beginner Trails That Are Still Exciting

Turkey Mountain needs more trails for beginners, but just because they’re easier doesn’t mean they have to be dull.
Most expert trails in Turkey Mountain today get their difficulty from the technical, rocky terrain. Other types of challenges for advanced riders can be introduced to provide a wider range of experiences.
Accessible and adaptive users also benefit from a range of difficulties and trail types.
Inviting New Audiences of All Ages
Volunteer Trail Crews Have Done What They Can

The erosion and drainage issues Turkey Mountain’s trails show are a result of where and how they have been cut. We can’t put a band-aid on the problem, it requires a fundamental fix.
Trails Will Need to Be Closed and Rebuilt to Be Improved

Many of the existing trails in Turkey Mountain will need to be rebuilt in order to prevent erosion and improve overall trail conditions, but the plan proposes to add XX miles of trail to the existing system.
Major Multi-use Trails Create a Framework for Wayfinding

Existing trails may need to be widened and realigned to prevent erosion. They will be connected to new trails to create an intuitive system of loops that always bring you back to a parking lot.
Smaller Multi-Use Trails are Restored In-Place Where Possible

Many existing trails will be restored and extended into added sites to extend the trails available to everyone.
Bike-Optimized Trails Connect To Multi-Use Without Conflicts

Two-directional trails that are optimized for bikes, but are also designed with trail runners in mind connect to the major trails and expand the system of sustainable trails.
Bike-Specific Trails Expand the Quantity and Quality of Trails for Riders

One-directional dirt trails, downhill, and contour flow create an unprecedented density of bikes only trails for riders that do not conflict with other uses.
The Master Plan Calls for A Net Increase in Trail Mileage, Variety, and Interest
Jason Stouder
Vice President

Joel McCourt
Creative Director
Trail Alignment on “Fall Line”
example of severe erosion due to unsustainable trail alignment.
Trail Alignment on “Fall Line”
trail will continue to erode and cup even with water bars and short reroutes
Sustainable Trail Alignment
example of proper trail grade on side slope
Sustainable Trail Alignment
trail is build into the existing environment and natural features while maintaining grade
Multi-Use Trails

eexample of a decomposed granite surface trail - appropriate for shallow grades and wide trail
Rock Armoring
rock is used for interface between hard and soft surface trails, armoring berms and wet trail locations to minimize maintenance
Exciting Program
The Turkey Mountain Core Forest
The Turkey Mountain Core Forest Woodland Savanna Prairie Riparian Lowlands Multi-Use Dirt Trails Regional Ashpalt Trail

The Turkey Mountain Core
The Turkey Mountain Core
Precedent: Oak-Hickory Forest
The Turkey Mountain Core

Forest
Woodland
Savanna
Prairie
Riparian Lowlands
Multi-Use Dirt Trails
Regional Ashpalt Trail

Woodland

The Turkey Mountain Core
Precedent: Woodland
The Turkey Mountain Core

Forest
Woodland
Savanna
Prairie
Riparian Lowlands
Multi-Use Dirt Trails
Regional Asphalt Trail

Savanna
Precedent: Oak Savanna
The Turkey Mountain Core

Forest
Woodland
Savanna
Prairie
Riparian Lowlands
Multi-Use Dirt Trails
Regional Asphalt Trail

Prairie
The Turkey Mountain Core

Forest
Woodland
Savanna
Prairie
Riparian Lowlands
Multi-Use Dirt Trails
Regional Asphalt Trail

Restored Trails
Precedent: Restored Trails
The Turkey Mountain Core Forest Woodland Savanna Prairie Riparian Lowlands Multi-Use Dirt Trails Regional Asphalt Trail

US-75 I-44 W 61st St E 61st St S Elwood Ave Riverside Dr S Peoria Ave Prairie Savanna Forest Woodland Restored Trails

The Turkey Mountain Core
Looking South from Pepsi Lake
Northeast Access + Mooser Creek
Northeast Access + Mooser Creek
Precedent: Big Stairs
Northeast Access + Mooser Creek

Existing Shale Escarpment
Existing Shale Escarpment
Northeast Access + Mooser Creek
Precedent: Restored Creek Channel
Northeast Access + Mooser Creek
Precedent: Re-Meandered Creek
Precedent: Regional Asphalt Trail
Precedent: Boardwalks Along Regional Trail
Precedent: Family Picnicking Areas
Northeast Access + Mooser Creek
Northeast Access + Mooser Creek

- Existing Shale Escarpment
- Regional Trail Connection
- Re-Introduced Creek Meander
- Restored Riparian Corridor
- Big Stairs
- New Entrance Under Rail
- Family Picknicking
- Boardwalk Islands
Looking Southwest from I-44 Bridge
Bridge Over Mooser Creek
Northeast Access
New Entrance Under Rail
Regional Path Connection
Existing Shale Escarpment
North Access Along Rail
New Parking Lot
Looking Southwest from W Skelly Drive

Turkey Mountain

Rail Bridge Over Mooser Creek
Lowland Habitat
Bridge Over Mooser Creek
Existing Shale Escarpment
Regional Path Connection
Re-Meandered Creek Bed
New Entrance Under Rail
Boardwalk Overlook and Johnson Park
Boardwalk Overlook and Johnson Park
Boardwalk Overlook and Johnson Park

Boardwalks over Ponds
Boardwalk Overlook and Johnson Park
Precedent: Cliffside Overlook
Precedent: Rock Stair / Scramble
Boardwalk Overlook and Johnson Park
Precedent: American River Bicycle Trail - Sacramento, CA
Boardwalk Overlook and Johnson Park

- Johnson Bridge Over Arkansas River
- Overlook to Downtown
- Rock Stair Scramble
- Boardwalks over Ponds
Looking West from Johnson Park

Turkey Mountain

Riverside Drive

Johnson Park
Bike Park + Water Tank Trails
Bike Park + Water Tank Trails
Bike Park + Water Tank Trails

Bike-Specific Trails
Precedent: Bike-Specific Trail
Precedent: Downhill Trails
Bike Park + Water Tank Trails
Precedent: Contour Flow Trails
Bike Park + Water Tank Trails
Precedent: “North Shore” or Ladder Trails
Bike Park + Water Tank Trails
Precedent: Skills Area
Bike Park + Water Tank Trails
Precedent: Jumps Course
Bike Park + Water Tank Trails
Precedent: Outdoor Velodrome
Bike Park + Water Tank Trails
Precedent: Spectator Pavilion
Bike Park + Water Tank Trails
Looking North from the Red Trail

Peak of Turkey Mountain

Downtown Tulsa

Existing Asphalt Path
Bales Park

Event Space
Precedent: Swimming Hole
Precedent: Tree Houses
Bales Park

Archery Range
Precedent: Archery Range
Bales Park
Precedent: Picnicking
Precedent: WPA-Era Pavilions in Mohawk Park
The Hinterlands
The Hinterlands
Precedent: Group Camping
The Hinterlands

Aerial Adventure
Precedent: Aerial Adventure
The Hinterlands

Agility Course
Precedent: Agility Course
The Hinterlands

Youth Equestrian Co-Op
Precedent: Youth Equestrian Co-op
The Hinterlands
Precedent: Maker Space / Trade School
The Hinterlands
Beginner Bike Trails at Lubell Park
Looking East from Remington School
Turkey Mountain Has Potential to Make an Imprint on Tulsa’s Identity

Taken together, the multiple elements that go into the Plan for Turkey Mountain (for instance, the creation of the longest downhill mountain bike trail in Oklahoma) can help increase the Wilderness Area’s role as a destination for Tulsans as well as outside visitors.
Restored Nature Can Stimulate Tulsa’s Growth

A destination for nature recreation to draw outdoors enthusiasts to Tulsa and promote community health.
Turkey Mountain Master Plan

A Plan to Protect and Preserve Turkey Mountain For Generations to Come.