Mt. Juliet, Tennessee

Mt. Juliet Parks & Recreation 1075 Charlie Daniels Pkwy. Mt. Juliet, TN 37122



Agenda - Final

Tuesday, November 4, 2025 6:00 PM

Charlie Daniels Park

Parks and Greenways Board

- 1. Call to Order and Declare a Quorum Present
- 2. Approval of Minutes
 - **2A.** Meeting Minutes to be approved

<u>1454</u>

Attachments: Mt Juliet Parks Board Mtg Notes 2025.09.02

- 3. Citizens Comments
- 4. Special Presentations
- 5. Park Director
- 6. Old Business
 - **6A.** Christmas Lights Contest
- 7. Friends of Mt. Juliet Parks
 - 7A. Treasurers Report
- 8. Adjournment



Mt. Juliet, Tennessee Staff Report

2425 North Mt. Juliet Rd Mt. Juliet, TN 37122

File #: 1454 Agenda Date: 11/4/2025 Agenda #: 2A.

Meeting Minutes to be approved

MT. JULIET PARKS BOARD MEETING MINUTES

SUBJECT: Bi-Monthly Board Meeting

MEETING DATE: September 2, 2025

LOCATION: Charlie Daniels Park (CDP) – Community Center

ATTENDEES:

Parks Board	Present	Not Present
Tina Hutsenpiller / Chairperson	X	
Dave Schilling / Secretary	X	
Taryn Tarter		X
Adrian Muniz III	X	
Ross Hayes	X	
Terri Atwood	X	

City Staff, Commissioners, Other Guests	Present	Not Present
Ross Hudson, Parks Director	X	
Jennifer Diekman, Parks Director Assistant	X	
Bill Trivett, City Commissioner		X
Others / Guests:		
Amy Rider	X	

- **1.** Meeting started at approximately 6:00 pm.
- 2. The July 1, 2025 Parks Board meeting minutes were approved.

3. Citizens Comments:

a. Amy Rider provided an update of her activities to remove invasive plants along the Cedar Creek Greenway. She noted she has the TDEC ARAP in hand and is looking to start up activities in October. A copy of the proposed plan is attached to these minutes.

4. Special Presentations:

a. None

5. Park Director's Report:

- a. An all-inclusive merry-go-round proposed by a non-profit group to be located near the Squirrel Run play equipment is costing around \$43,000 cost. The group had understood the cost would be split 50-50 with the City but this was never formalized. The group is looking for an alternative apparatus to help reduce the cost. A motion was made and seconded for the Friends of the Mt. Juliet Parks 501c to make a \$10,000 donation to this group towards this equipment. After discussion, the motion passed unanimously.
- b. Ross noted the July 4 event was a huge success.

- c. A number of planned activities are upcoming...
 - i. Sept. 13 Community Yar sale
 - ii. Sept. 25 Health Fair to benefit the animal shelter
 - iii. Oct. 4 Pickles for Pups
 - iv. Oct. 18 Halloween in the Park
- d. The MJ Christmas Parade is scheduled for Dec. 13. Route will be from the West Wilson Middle School to the MJ Chamber. Policy will be in place to not throw candy for safety reasons. Ross asked that the Parks Board be the float judges for this year.
- e. Christmas Light Contest:
 - i. Entries to start on November 30.
 - ii. Parks Board to judge the submitted entries on Dec. 8 (short list)
 - iii. Parks Board to visit the short-listed homes on Dec. 9.
 - iv. Presentation to be made that same night.
 - v. Discussed including a media feed such as Facebook Live during the Dec. 9 night tour
- f. Ava Splash Pad is closed for the season. The issues with over-crowding from bus drop-offs were managed without too much incident. Suggested to perhaps coordinate set times for drop-offs from childcare centers before next season starts up.
- g. Senior Center continues their process of taking over the old Police Station. The Parks Department may be limited to the old court room only (the available floor space for the father-daughter was deemed not adequate). The City will provide the building maintenance.
- h. Sidewalks for the future Activity Center are scheduled to be installed in the next few weeks
- i. Discussed the reservations of the Community Center gym. The volleyball community is looking for space to practice.

6. Old business

a. None.

7. New Business

a. None.

8. Friends of the Mt. Juliet Parks 501c

- a. Adrian reported the 501c financial balance is \$14,514.11
- b. See Item 5b above for proposed donation.
- **9.** Adjourned at approximately 7:12 pm. Next meeting is November 4 at 6:00 pm.

End of Meeting Minutes



Land Management and Restoration Plan

The following Land Management and Restoration Plan includes goals and implementation strategies for the approved sites owned by the City of Mt. Juliet.

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Amy Ritter
615-828-0688

ccgreenwayrestoration@
gmail.com

Land Management and Restoration Plan
Property Owner: City of Mt Juliet

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Land Management and Restoration Plan
Property Owner: City of Mt Juliet

The following are the interested parties that acknowledge and approve the following goals and implementation strategy for this Land Management and Restoration Plan.

Property Owner		Signature	Date
Board President			
Board Member			
Board Member			
CCGRP Representative	Amy Ritter		

<u>Purpose of the Cedar Creek Greenway Restoration</u> <u>Project</u>

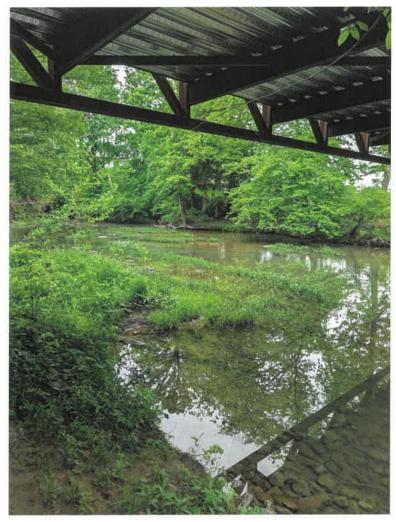
Improvement of habitat through stream bank buffering, invasive plant removal, and land management on parcels of land adjacent to Cedar Creek Greenway in Mt. Juliet with the approval of private property owners and the City of Mt. Juliet's.

Description of Existing Site Conditions

The following photographs are taken within the parcel: 054 114.01 - Owner - City of Mt. Juliet.

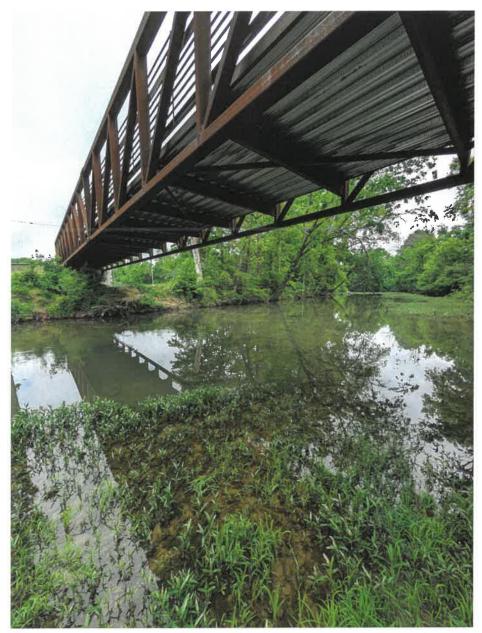
Stream bank is roughly 600 LF and is included in scope of work for modifications.

Land Management and Restoration Plan Property Owner: City of Mt Juliet



Stream bank - stream bank buffer includes invasive species and medium level diversity of native plant species that should be found in the area

Land Management and Restoration Plan Property Owner: City of Mt Juliet



Stream bank - stream bank buffer includes signs of erosion, high population of invasive species and low diversity of native plant species that should be found in the area

The following photographs are taken within the parcel: 054 105.04 - Owner - City of Mt. Juliet

Land Management and Restoration Plan Property Owner: City of Mt Juliet



Vegetation that exists is a high population of invasive bush honeysuckle with little understory growth and low diversity of native plant species that should be found in the area.

Land Management and Restoration Plan Property Owner: City of Mt Juliet



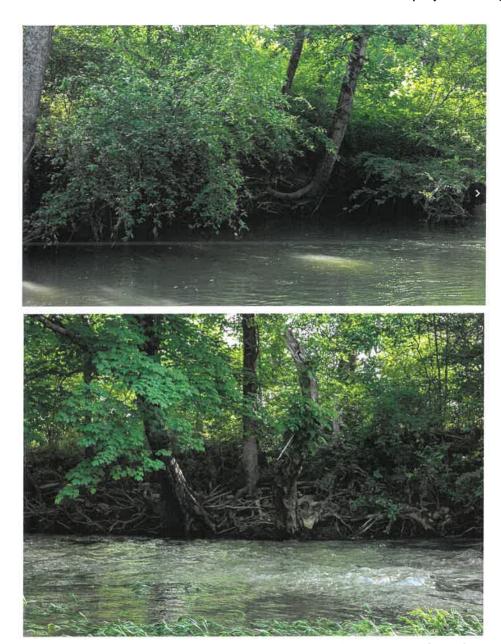
Stream bank is a steep, vertical drop with very little vegetation, high evidence of erosion.

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Land Management and Restoration Plan
Property Owner: City of Mt Juliet



Stream bank, as viewed from the opposite side of the creek, shows signs of erosion and near vertical stream banks in most areas.

Scope of work

Below is an image of the area(s) proposed for use within the Cedar Creek Greenway Project (CCGRP). The site parcel property line information was acquired from the TN Property Viewer website (https://tnmap.tn.gov/assessment/) and has been utilized for the creation of this image. The topography map of the site has been acquired from the U.S. Department of the Interior U.S. Geological Survey. If you have a property survey of the area you can provide, it would be greatly

Land Management and Restoration Plan
Property Owner: City of Mt Juliet

appreciated and will be used for the purpose of generating project maps related to your property. These property survey based maps may be used for communications or promotion of the Cedar Creek Greenway Restoration Project.

A map or documentation of the City's easement areas is requested to confirm the City's boundary of management.



City of Mt Juliet - Charlie Daniels Park - Parcel Map

Land Management and Restoration Plan Property Owner: City of Mt Juliet

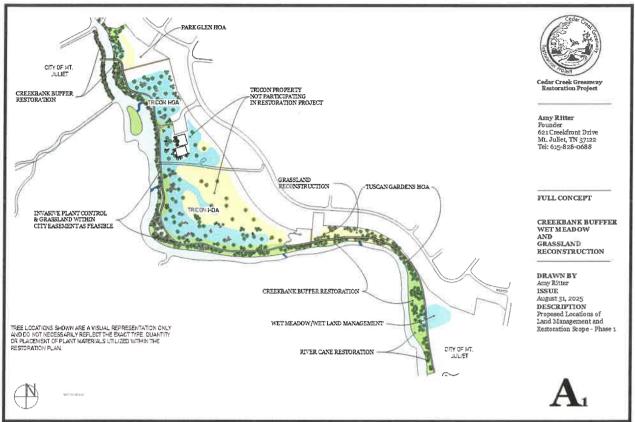


City of Mt Juliet - Soccer Field - Parcel Map



Land Management and Restoration Plan
Property Owner: City of Mt Juliet

City of Mt Juliet - Topography Map



City of Mt Juliet Proposed Scope of Work

Total area proposed within Charlie Daniels Park parcel Scope of Work:

19,330 Sq Ft or 0.444 Acre

Total area proposed within Soccer Fields parcel Scope of Work:

136,750 Sq Ft or 3.139 Acre

Management Objectives

Community Engagement	
Description	The Cedar Creek Greenway Restoration Project will interact with the greater Mt. Juliet community to communicate that the project is to be implemented and provide educational outreach opportunities

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Implementation	Signage will be included within the restoration areas prior to the start of any scope of work, as well as project announcements will be made through social media. Educational community events related to the project will take place largely from the trail and within the City's trail easement
Timeline Expectation	Throughout the year, yearly

Open Sight Lines	
Description	Provide viewing windows and/or open larger viewing area of specific highlights of the creek from trail
Implementation	Pruning of select branches during dormancy or by removing shrub material following implementation methods listed within the Invasive Plant Control, Woodland Health and Erosion Control sections
Timeline Expectation	Initial first year, as needed in subsequent years

Assist with Trail Easement Management	
Description	Assist Park and Greenways management team members in identifying invasive vs native species for removal or protection
Implementation	Training in plant identification and plant management for City employees who manage the trail easement. Paint-mark plant material for City removal and designate areas as low-mow areas for improved habitat management
Timeline Expectation	Initial first year, as needed in subsequent years

Debris Clean Up	
Description	Remove trash and debris from property site and waterway
Implementation	Annual volunteer events or as needed

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Timeline Expectation	Yearly
Invasive Plant Control	
Description	Remove and control growth of invasive plant materials within the site
Implementation	Combination of mechanical and limited application chemical methods at strategic times of year depending on species
Timeline Expectation	Yearly
Woodland Health	
Description	Improvement of existing tree canopy, as needed, and reintroduction of Wilson County native understory tree species.
Implementation	Thin out smaller, densely growing tree species to improve sunlight and nutrient resources to higher value and healthiest tree species. Practice proper pruning techniques, as possible, for overall plant health on understory species. Planting of understory tree species that are typically found within the open woodland, floodplain habitat that are very low in population or missing in representation
Timeline Expectation	3 year restoration plan, every ten years following
Erosion Control	
Description	Creekbank stabilization through vegetative root growth
Implementation	Installation of suggested plant materials either in the format of small bare root, live stake or seed
Timeline Expectation	3 year restoration plan
Wetland Management	

Land Management and Restoration Plan Property Owner: City of Mt Juliet

Description	Allow growth and protection for wetland indicator species that existing within areas with wetland hydrology indicators
Implementation	Limit mowing outside of dormant season and removal of undesirable plant species growth to maintain open wetland area
Timeline Expectation	Yearly

Habitat Improvement	
Description	Additional non-vegetative or vegetative strategies for improvement of wildlife habitat
Implementation	Suggested: Install Purple Martin Bird houses Suggested: Install Bat Houses - to be determined and potentially implemented by Fish and Wildlife Service
Timeline Expectation	Yearly for cleaning of bird houses

Beaver Mitigation	
Description	Protection of trees producing erosion control and shade for trail from beaver damage Reintroduction of high value tree and understory species to mitigate loss due to beaver activity
Implementation	Apply wire fencing around bottom 3 ft of main stem of trees deemed in need of protection, make adjustments to fencing to account for tree growth as needed
Timeline Expectation	Yearly

Objective Details

Community Engagement

Providing educational outreach to the greater Mt Juliet community about the middle Tennessee landscape and the importance of streambank restoration is a key element of the Cedar Creek

Land Management and Restoration Plan
Property Owner: City of Mt Juliet

Greenway Restoration Project. This outreach will be in several formats, including, but not limited to:

Signage

A sign will be placed on each portion of land that is participating in the Project to let the general public that uses the trail that the restoration project will be taking place with the partnership of the landowners. A QR code will be included with a link to our website to provide the public with information and a way to contact us should they have any questions or wish to assist in the Project.

Educational Trail Walks

Walks up the trail headed by a guide will be provided to the general public. These walks will be led by:

- A member of the Cedar Creek Greenway Restoration Project
- A member of an environmental group, such as Quail and Pheasant Forever, The Tennessee Natural Conservancy or the Tennessee Wildlife Federation
- An educational program such as a retired or active teacher from a local school or a certified TN Naturalist or a local county Master Gardener
- Or government organization, such as the Tennessee Department of Conservation,
 Tennessee Division of Natural Resources or a local Storm Water division

Additional community engagement activities may be planned in the future. Should any activity require the use of space outside of the trail or its easement, the City of Mt Juliet's Parks and Greenways Board's permission will be requested.

Open Sight Lines

- Find strategic locations for best creek views from trail and lower height of existing vegetation either by pruning or removal or by framing with reintroduction of species within the erosion control details on either side of ideal creek viewing locations
- Locate areas where sight lines create a safety hazard, such as limiting pedestrian or wildlife movement around a curve in the trail
- Prune dense vegetative growth as needed to open up views through understory growth to prevent pedestrian or wildlife view obstruction within 30 feet of path in paved trail areas

Assist with Trail Easement Management

One intent of the greenway trail is to provide a space where the community of Mt. Juliet can experience the Tennessee landscape and the beauty it has to offer. Management practices of plants within the trail's easement since its inception has led to the decline of several native plant species and improved the growth of invasive species. The Cedar Creek Greenway Restoration Project team will provide training to City management team members interested in being able to

Land Management and Restoration Plan Property Owner: City of Mt Juliet

identify invasive plants species vs. valued native plant species to minimize continued degradation of these valued species.

The Cedar Creek Greenway Restoration Project team will mark plant materials to be removed with landscape marking paint so City management team members can remove it at its earliest convenience.

For areas that require additional management attention within the City's easement, the Cedar Creek Greenway Restoration Project team will manage the care of these areas to restore them to a healthier habitat. These areas will be determined by agreement with both the Cedar Creek Greenway Restoration Project and the City of Mt. Juliet Parks and Greenways Board. A map or documentation of the City's easement areas is requested to confirm the City's boundary of management.

Debris Clean Up

Clean up events will occur within the site during invasive plant removal events or during an Aquatic Stream Clean-Up volunteer event. Debris removed from the site and disposed by CCGRP individuals.

Invasive Plant Removal and Control

The outline below are excerpts from the "Tennessee Urban Riparian Buffer Handbook: A Practical Guide to Establishing Healthy Streamside Buffers" (*TN Department of Agriculture Division of Forestry and US Department of Agriculture Forest Service*) and "A Management Guide for Invasive Plants in Southern Forests" (*United States Department of Agriculture Forest Service*). Portions have been summarized or slightly modified to fit the context of use within the Cedar Creek Greenway Restoration Project.

For full information, please see:

https://www.tn.gov/content/dam/tn/agriculture/documents/forestry/2018/UrbanRiparianBufferHandbook.pdf and https://www.srs.fs.usda.gov/pubs/gtr/gtr_srs131.pdf

Native plants vs. Invasive plants

- Native plants are those that naturally occur in a region or habitat and have co-evolved over geologic time with other plants and animals to develop specialized ecological relationships.
- Invasive plants are those that naturally occur in other regions of the world and have become introduced into our native ecosystem. They have fast reproductive abilities and exhibit attributes that allow them to outcompete with native vegetation at the detriment to both native plant and wildlife species.

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Property Owner: City of Mt Juliet

Impacts of Non-native, Invasive Plants

Riparian buffers, woodlands and savannah areas are increasingly being encroached upon by nonnative plants that are invasive. This is partially due to buffers being located along waterways that attract more seed-carrying wildlife. However, invasive plants also tend to establish in disrupted habitats. Buffers in many urban areas have commonly had their structure and composition dramatically altered, providing a prime area for invasive plants to establish.

A healthy riparian buffer contains native plants that create an ecologically balanced forest community. This balance is disrupted when nonnative plants predominate and the impacts can be extensive.

- Native plants are crowded out: Buffers provide food, cover, water and breeding areas for a wide range of birds and other wildlife. Invasive plants can reduce host plants needed for local fauna, reducing food sources and breeding grounds.
- Dense subcanopy layers are created: The healthy mix of subcanopy species created by a native plant community is replaced by one or two invasive species. This change in subcanopy structure dramatically reduces habitat types including those needed by birds for safe nesting.
- Dense physical and visual barriers are created: Urban riparian buffers serve as corridors, allowing for movement of wildlife. This is disrupted with thickets of invasive plants. It can also present problems for upland adjacent property owners who wish to visually or physically access the waterway.

Approaches to Removing Invasive Plants

There are a range of control methods for invasive species, but care should be taken when selecting one to ensure it is appropriate for the targeted plant species. Two commonly used invasive plant removal methods are mechanical control and herbicide application:

Mechanical Control

Mechanical control can include hand pulling or using a pulling-tool such as a Weed Wrench™.

- Hand pulling can be effective on some young shrubs and tree saplings, but care should be taken not to break off the stem and leave root fragments that can resprout.
- A Weed Wrench™ has a specialized claw to grip the stem and provides a lever to pull
 the plant up and out. There are varying sizes of weed wrenches based on the stem size.
 The challenge with using weed wrenches in riparian areas is that they work best on firm
 ground and not soft substrate as is often the case in these areas.

It is important to not mechanically remove plants immediately adjacent to a waterway when the plants' root systems are serving to stabilize the waterway's bank. In situations like this, it may be necessary to keep the plant pruned back until the installed natives have matured enough to provide the needed bank stability.

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Property Owner: City of Mt Juliet

Herbicide Application

Foliar Spray Herbicide Treatment

This method is applied to active green vegetation. The appropriate herbicide must be selected and best identified timing of application considered. As with all herbicide applications, all application directions should be strictly followed.

Cut Stump Herbicide Treatment

This method involves cutting the plants' stems and applying an herbicide to each stem by spraying or painting the stems' end. The appropriate herbicide must be selected. As with all herbicide applications, all application directions should be strictly followed.

The best time to apply an herbicide is determined by the physiology of the plant, so it is important to reference plant-specific guidelines. A dye may be mixed with the herbicide to ensure the herbicide is being appropriately placed and to easily see which plants have been Treated.

Herbicides for spray treatment

During the growing season, while leaves are still on the trees, Glysophate or an equivalent herbicide should suffice. Various soil-active herbicides, including imazapyr, should **not** be used when implementing broadcast applications because of potential damage to desirable overstory trees. However, glyphosate and triclopyr are not soil active and work very well as a foliar application to control 7 most undesirable plants, including Oriental bittersweet, garlic mustard, English ivy, Chinese privet, bush honeysuckle, multiflora rose, autumn olive and shrub lespedeza. Foliar applications using a 4-5 percent solution of a glyphosate or triclopyr herbicide are recommended for most woody plants. (*Forest Stand Improvement, UT Extension*) 20 percent solution is best for cut and stump spray on woody shrub invasives such as honeysuckle and privet. (*Tennessee Invasive Plant Council*)

Directions on herbicide labels are to always be followed while wearing the proper personal protection equipment.

Invasive Plant Removal Plan

Below is a summary of removal methods for the most prolific invasive plant species found within the project site and includes ideal times for manual/mechanical removal or herbicide treatment of most invasive species. Shortly following a rain event to soften the soil is ideal for the removal of all roots. Due to flood plain conditions within the project site, herbicides will not be applied during months with higher precipitation averages (January-May) to limit washing into the water system. See *A Management Guide for Invasive Plants in Southern Forests* for detailed information.

Land Management and Restoration Plan
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- <u>Tree of Heaven Ailanthus altissima</u> (roughly 15'> tall) girdle and immediately spray with herbicide prior to seed set, let die in place/standing
- <u>Chinese Holly *Ilex cornuta*</u> (roughly <8' tall) cut prior to seed set and immediately spray with herbicide
- Bradford/Callery Pear Pyrus calleryana (seedings) hand pull/cut at ground level, or foliar spray with herbicide, (saplings) cut at ground level and immediately spray with herbicide, (less than 6" caliper) cut prior to seed set and immediately spray with herbicide or (more than 6" caliper) girdle and immediately spray with herbicide prior to seed set, let die in place/standing
- Burning Bush Euonymus alatus (less than 36" tall) mechanical removal, (more than 3' tall) cut prior to seed set and immediately spray with herbicide if needed
- Chinese Privet Ligustrum sinense (roughly 36" tall or less than 1/4" caliper)
 mechanical removal or cut at ground level or foliar spray in spring prior to other plants
 leafing out, (roughly 1/4" to 2" caliper) cut prior to seed set and immediately spray with
 herbicide if needed, (2" caliper or larger) cut prior to seed set, re-cut in fall and
 immediately spray with herbicide if needed
- Bush Honeysuckle Lonicera mackii (roughly 36" tall or less than 1/4" caliper) hand pull/cut at ground level or foliar spray in spring prior to other plants leaving out, (roughly 1/4" to 2" caliper) cut prior to seed set and immediately spray with herbicide if needed
- <u>Leatherleaf Mahonia Mahonia bealei</u> (less than 24" tall) hand pull/cut at ground level or foliar spray
- Heavenly Bamboo Nandina domestica (less than 5' tall) cut prior to seed set and immediately spray with herbicide (Ortho Brush-B-Gon undiluted)
- <u>Multiflora Rose Rosa multiflora</u> cut Jan-Feb or May-Oct, and immediately spray with herbicide
- English Ivy Hedra helix hand pull/cut at ground level prior to seed set (gloves), foliar spray
- Wintercreeper Euonymus hederaceus spot apply boiling water to remove wax coating and immediately foliar spray with herbicide, repeat on spring growth 2nd year
- <u>Japanese Honeysuckle Lonicera japonica</u> cut to ground level in moist soil prior to fruit set or foliar spray
- Garlic Mustard Alliaria petiolata hand pull/cut/mow at ground level prior to seed set.
 Foliar spray (April/May) limits plant diversity
- <u>Chinese Bushclover Sericea lespedeza</u> mow/cut at ground level prior to seed set (July/September) followed by foliar spray
- <u>Johnsongrass Sorghum halepense</u> spray with herbicide prior to seed set. Mechanical removal is not recommended due to rhizomatous root system is extensive and can generate new plants from rhizome remaining rhizome segments
- Japanese Stilt grass Microstegium vimineum hand pull/cut/mow at ground level prior to seed set. Foliar spray (August/September) limits plant diversity

Suggested dye:

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- Hi-Light Blue Vegetation Dye - to be used to mark vegetation that is had herbicide applied

Tools used for removal process

Tools needed for larger volunteer mechanical removal events will be donated from partner organizations. Herbicide wand applicators used will be for pinpointed stump application or for application to siltgrass to limit drift and waste. Hand pump sprayers will be used for foliar sprays when deemed necessary. Foliage applications will be highly limited and only used on select species in which foliar applications are listed as the best control method and are not within 20 feet of the water way. Equipment required for herbicide applications will be provided through CCGRP and applied by trained CCGRP team members or herbicide certified volunteers.

Continued Invasive Plant Management

Following the first year of removal and control, invasive plants are to be controlled by mechanical removal and selective spot spray herbicide applications each spring and fall

Woodland Health

Forest Stand Improvement (FSI) is a forest management practice that aims to improve the health, quality, and productivity of a forest. FSI can involve removing undesirable trees, shrubs, and vines, or controlling invasive plant populations.

Forest Stand Improvement Goals

- Improve the species composition of a forest stand
- Improve the growing conditions for remaining trees

Forest Stand Benefits

- Promote regeneration of native understory growth for wildlife habitat
- Recover potential tree mortality
- Enhance the overall health and quality of a forest stand

Forest Stand Improvement Plan

- Concurrently with the initial Invasive Plant Removal event, thinning and removal of dense understory trees is to take place, omitting trees included within the vertical or near vertical creekbank or within two feet of the creekbank.
- Growth of hardwood tree saplings in desired locations are to remain
- Cut grape vine on desirable tree species to limit health decline. Grape vine on non-select trees to remain as an important food source for wildlife and human foraging use
- Deer protection is to be applied to young tree saplings at risk of over browsing or rutting by deer

Continued Forest Stand Management

Land Management and Restoration Plan
Property Owner: City of Mt Juliet

- Deer protection is to be applied to from young tree saplings at risk of over browsing or rutting by deer as needed
- Deer protection is to be removed from young trees no longer in the size range typically at risk of deer rutting
- Control of undesirable tree species or density is to be performed roughly every ten years after the initial five year project timeline

Erosion Control

An erosion control area is referred to as a riparian buffer. This buffer is created through the use of a combination of tree, shrub and herbaceous materials for the stabilization of soil using root growth.

Riparian buffers can be created through the installation of potted materials, bare root material, live stake cuttings, seed applications and supplementary herbaceous plug installation. A live stake is a cutting from a woody shrub species that is capable of producing a root system from vegetation cuttings.

Erosion Control Goals

Healthy erosion control methods provide a range of environmental, economic, and social functions that are of significant benefit to our communities. An erosion control barrier is known as a riparian buffer.

- Creekbank stabilization
- Water quality improvement
- Flood control mitigation

Erosion Control Benefits

- Reduces erosion, which can result in property loss and sediment input that can harm our waterways
- Reduces sediment introduction into waterways
- Minimizes safety hazards created by unstable streambanks
- Provides vegetative areas which reduce water movement speed which allows sediment, pathogens, and nutrients to settle, creating healthier waterways for aquatic life and recreation, while also building the floodplain
- Vegetative roots provide higher water storage capacity during heavy rains, reducing local flood damage.
- Overhanging branches create shade that cools the water and contributes organic materials that are used as in-stream food sources. On land, plants provide food and shelter for birds and other wildlife. Both on land and in the waterway, biodiversity is increased.
- Provides eco-friendly tourism opportunities (e.g. bird watching)

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Property Owner: City of Mt Juliet

How do buffers change over time?

Riparian buffer changes in both appearance and function over time through a process referred to as ecological succession. From planting to maturity, these changes can be categorized into three stages:

- 1. Early: Soon after installing tree and shrub livestakes and seedlings in an open sunny streamside area, many opportunistic plants will seek to establish themselves, competing for space, nutrients and sun. This will include herbaceous unwanted plants (aka weeds) that result in an "unkept" or "wild and wooly" appearance. You can expect this kind of appearance for at least the first five years.
 - a. Management of these early succession plants with be managed through annual volunteer plant removal events
- 2. **Middle:** Eventually as the installed shrubs and trees gain height, they will begin to provide shade. The shade will help to suppress weed growth, providing the shrubs and trees with a competitive edge.
- 3. Late: After eight to ten years, the buffer will begin to take on more of the characteristics of a mature and healthy woodland, with distinctive vegetative layers. The upper layer or canopy serves the critical function of providing shade for the adjacent waterbody, cooling water temperatures needed for healthy aquatic life. The canopy and subcanopy (lower canopy) layers create an environment for the understory tree and shrub species that require less light. This space should contain a range of plants of varying heights and is an important habitat for native birds and other wildlife.

Riparian Restoration Plan

- The creekbank edges and soil substrates will not be altered and will be minimally disturbed. No changes will occur within the creek itself.
- Existing invasive vegetation on the vertical or near vertical creekbank and within two feet
 of the creekbank will not be removed during the initial invasive plant removal event of the
 area, and will not be removed until riparian buffer plants root systems have had time to
 establish (roughly 24 months)
- Existing invasive vegetation on the vertical or near vertical creekbank and within two feet of the creekbank are to be cut to about 18 inches tall at the start of seed set, to be determined by species
- Existing invasive vegetation that is farther than two feet from the creekbank and is roughly 36 inches or shorter are either to be mechanically removed or receive a foliar herbicide application during the active growing season prior to seed set
- Existing invasive vegetation that is farther than two feet from the creekbank and is roughly 36 inches or taller are to be mechanically removed and, if necessary, receive a stump herbicide application within 5 seconds of mechanical removal
- Smaller, mechanically removed vegetation is to remain on site for habitat creation and decomposition

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- Larger, mechanically removed vegetation will be removed from the site and taken to the debris location within Charlie Daniels Park for city pick-up. Assistance from City management team members may be requested for the movement of debris
- Application of a seed cover crop will be applied. Species selection, timing of application and heavy seed rate instructions provided by Roundstone seed to be followed
- Live stakes are to be collected from a combination of existing native woody plant materials existing on the City of Mt Juliet's community property or other properties participating within the Project with provided permission. Live stakes are to be cut during dormancy and ideally less than a week prior to installation. Installation should take place shortly after a rain event. Fresh cut stakes can be soaked for 1-7 days prior to installation, with ½ bottom of the live stake being soaked. Additional live stakes that are associated with Wilson county riparian and grassland plant communities may be acquired to rejuvenate biodiversity
- The type of plant stock will determine how the plants are spaced or their planting density.
- Bare root seedlings or live stakes are to be placed between two to six feet apart from one another. Decrease staking distance to 1 foot when in high erosion areas.
- Live stakes are to be installed during dormancy and shortly after a rain event. Each
 stake is to be installed by pressing the live stake into the soft soil, covering as many
 buds on the live stake as is feasible. This may require a pilot hole to be created prior to
 pressing the live stake into the soil. Rebar can be used for this purpose. The hole should
 have a tight fit around the live stake with minimal movement for the stake
- Bare root trees and shrubs will be installed either during a live staking or seeding event
- Riparian buffer seed mix to be applied in late April/early May following a rain event after scoring the top soil surface with a garden rake at a depth no deeper than ¼ inch. Seed will be broadcast onto prepped soil surface and then seed to soil contact will be enhanced by walking over the applied seed as feasible
- Seedling trees of native species will be planted and protected from deer and beaver to encourage new generations of tree canopy growth

Continued Riparian Management

- The second year following the initial riparian buffer planting event, invasive vegetation on the vertical or near vertical creekbank and within two feet of the creekbank are to be cut to about 18 inches tall at the start of seed set, to be determined by species
- The second fall following the initial riparian buffer planting event, a second installation of live stakes and bare root materials are to be installed to replace any losses within the first year
- After assessing what germinates, in subsequent years, additional native species that
 would likely occur within the area may be added to broaden diversity to support wildlife
 habitat and showiness for human interest. Plugs of desired supplemental riparian
 species may be installed during the spring
- Roughly twenty-four months following the initial riparian buffer planting event, if live stakes have adequate growth, removal of invasive species within the vertical or near

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vertical creek bank or within two feet of the creekbank are to be mechanically cut with a stump paint herbicide application

Riparian Plant Species

The following plant species have been selected for use within the riparian buffer planting based on the following considerations:

- Species selected represent historically accurate plant materials naturally occurring within this portion of Wilson County. Tennessee
- Species selected are based on natural ecotype occurring within site conditions (i.e., riparian/floodplain/bottomland, woodland, grassland, soil type)
- Species placement is to mimic naturally occurring growth patterns and habits to prevent a manicured "landscaped" look within the restoration space
- Plants listed below with an * have been identified along the 1.1 mile greenway trail border Cedar Creek (as of 9/1/2025) - NOTE - not all plants along the trail have been accurately identified nor is this list exhaustive of all plant species that may be used within the riparian buffer area.

Canopy Tree species:

*Ohio Buckeye - Asculus glabra

Bitternut Hickory - Carya cordiformis

Pignut Hickory - Carya glabra

*Shellbark Hickory - Carya laciniosa

*Shagbark Hickory - Carya ovata

Mockernut Hickory - Carya tomentosa

*Persimmon - Diospyros virginiana

*Sweetgum - Liquidambar styracifula

*Tulip Poplar - Liriodendron tulipifera

*Red Mulberry - Morus rubra

Blackgum - Nyssa sylvatica

*American Sycamore - Platanus occidentalis

*Black Cherry - Prunus serotina

White Oak - Quercus alba

*Scarlet Oak - Quercus coccinea

*Shingle Oak - Quercus imbricaria

*Overcup Oak - Quercus lyrata

*Burr Oak - Quercus macrocarpa

*Chinkapin Oak - Quercus muehlenbergii

*Shumard Oak - Quercus shumardii

*Black Willow - Salix nigra

Sassafras - Sassafras albidum

*Basswood - Tilia americana

*Winged Elm - Ulmus alata

Understory Tree Species:

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- *Pawpaw Asiminia triloba
- *Eastern Redbud Cercis canadensis
- *Flowering Dogwood Cornus florida

American Plum - Prunus americana

Chickawaw Plum - Prunus angustifolia

- *Hoptree Ptelea trifoliata
- *Smooth Sumac Rhus glabra
- *Staphylea trifolia American Bladdernut
- *Viburnum prunifolium Blackhaw Viburnum
- *Viburnum rufidulum Rusty Blackhaw Viburnum

Understory Shrub Species:

Hazel alder - Alnus serrulata

American Beautyberry - Callicarpa americana

Buttonbush - Cephalanthus occidentalis

*Roughleaf dogwood - Cornus drummondii

Hazelnut - Corylus americana

- *Hearts-a-bustin Euonymus americanus
- *Eastern Wahoo Euonymus atropurpureus
- *Spicebush Lindera benzoin
- *Aromatic Sumac Rhus aromatica
- *Carolina Rose Rosa carolina
- *Climbing Prairie Rose Rosa setigera
- *Blackberry Rhus spp.
- *Elderberry Sambucus canadensis
- *Coralberry Symphoricarpos orbiculatus

Grasses, Rushes and Sedges Ground Layer:

Split Beardstem - Andopogon ternarius

- *Broomsedge Andropogon virginicus
- *Giant River Cane Arundinaria gigantea

Side Oats Grama - Bouteloua curtipendula

Cherokee Sedge - Carex cherokeensis

Franks's Sedge - Carex frankii

Hop Sedge - Carex Iupulina

Fox Sedge - Carex vulpinoidea

- *River Oats Chasmanthium latifolium
- *Bottlebrush grass Elymus hystrix
- *Virginia Wild Rye Elymus virginicus

Common rush - Juncus effusus

Path Rush - Juncus tenuis

Fall Panicum - Panicum anceps

*Deer Tongue - Panicum clandestinum

Switchgrass - Panicum virgatum

Little Bluestem - Schizachrium scoparium

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Dark green Bullrush - Scripus atrovirens Indian grass - Sorghastrum nutans

Flowering Ground Layer:

*Tall Thimbleweed - Anemone virginiana

Swamp Milkweed - Asclepias incarnata

*Downy Pagoda Plant - Blephilia ciliata

Wild Senna - Cassia marilandica

*Illinois Bundleflower - Desmanthus illinoensis

Joe-Pye Weed - Eupatorium fistulosum

White Snakeroot - Eupatorium rugosum

*Sneezeweed - Helenium autumnale

Woodland sunflower - Helianthus divaricatus

*Common Jewelweed - Impatiens capensis

Spiked Blazing Star - Liatris spicata

*Blue Lobelia - Lobelia spicata

*Monkey Flower - Mimulus ringens

Bergamont - Monarda fistulosa

*Golden Ragwort - Packers aurea

*Long-sepal Beardtongue - Penstemon calycosus

*Woodland Phlox - Phlox divaricata

*Smooth Ruellia - Ruellia strepens

*Hairy Skullcap - Scuttelaria elliptica

*Heart-leaved Skullcap - Scutellaria ovata

*Blue-eved Grass - Sisyrinchium spp.

Missouri Goldenrod - Solidago missouriensis

Showy Goldenrod - Solidago speciosa

*Elm-leafed Goldenrod - Solidago ulmifolia

*Woodland Pinkroot - Spigelia marilandica

*American Germander - Teucrium canadense

*Yellow Windstem - Verbesinia alternifolia

*Iron Weed - Vernonia altissima

*Golden Alexanders - Zizia aurea

Erosion Control Measures

Activities that disturb soil will be kept as minimal as possible, but in the event that an activity within the scope disturbs soil, such as hand pulling invasive vegetation or planting small bare root tree or shrub materials, a silt sock will be applied perpendicular to the flow of water, downhill from the area disturbed and staked in place. This method will be used so that no trenching is required, limiting further soil disturbance.

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Wetland Management

While an official Hydrologic Determination of the property owned by the City of Mt Juliet has not been conducted by the Department of Water Resources, in the last 12 months observations of wetland indicators have been determined to exist within two areas managed by the City of Mt Juliet:

- 1) Within the mow zone of the Soccer Field parcel
- Within the mowed easement next to the wooden boardwalk nearest the back of Charlie Daniels Park

Observed primary wetland indicators include:

- 1) Surface water
- 2) Saturation
- 3) Drift deposits
- 4) Saturation
- 5) Aquatic Fauna

Observed secondary wetland indicators include:

- 1) Surface Soil Cracks
- 2) Sparsley Vegetated Concave Surface
- 3) Drainage Patterns
- 4) Geomorphic Position

Wetland indicator plants were identified in a mowed area within the Soccer Field parcel, but were mowed before all plants could be identified. USDA has wetland indicator statuses:

OBL - Obligate Wetland - always occurring in wetlands

FACW - Facultative Wetland - typically occurring within wetlands, but not always

FAC - Facultative - occurs in both wetlands and non-welands

A list of species identified with their USDA wetland status are below:

Golden Cattail Sedge - Carex aureolensis - OBL

Canada Rush - Juncus canadensis - OBL

Forked Rush - Juncus dichotomus - FWAC

Dark Green Bulrush - Scirpus atrovirens - OBL

Nodding Bulrush - Scirpus pendulus - OBL

One species of toad, the eastern narrow-mouthed toad, has been identified as using this habitat for breeding. While the eastern narrow-mouthed toad is not identified in Tennessee with any special wetland status or protection indicators, wetlands are crucial for the breeding stage of its life cycle.

These areas with observed wetland indicators are currently being mowed down by the City of Mt Juliet at the earliest opportunity in the late spring or summer when the soil is dry enough to move over the soil. This causes plant life to be cut short on seed production, limits the plants ability to photosynthesis which weakens its ability to get through drought and winter stressors. Mowing also exposes the soil surface to sunlight and heat, causing it to dry out quickly which can be detrimental to the plant and wildlife species that are dependent on this unique habitat. The Cedar Creek Greenway Restoration Project proposes to take over the management of

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these areas and post signage for these areas to notify the general public of these special areas. An annual top cut of this vegetation along with mechanical removal of undesirable species will take place throughout the year. Management strategy assistance from the Tennessee Department of Conservation will be requested when plant materials have rejuvenated and can be appropriately identified.

Habitat Improvement

Additional non-vegetative or vegetative strategies for improvement of wildlife habitat may be implemented as recommended. Yearly evaluation of the site may produce recommendations of habitat improvement that will be presented to the City of Mt Juliet Parks and Greenways Board to determine if the improvement should be implemented and its process for implementation.

Current potential habitat improvement elements that have been recommended are:

Installation of Bat Houses was suggested by the Fish and Wildlife Services. With the
Parks and Greenways Board's permission, a member or team from the Fish and Wildlife
Service would survey the site to determine if it would be suitable for one of their research
bat houses. If it is determined an appropriate site, they would be responsible for the
installation and maintenance of the bat house they install.

Beaver Mitigation

The Cedar Creek is home to at least one family of beaver that use the resources along the greenway trail for food and materials for shelter. While they may be a hindrance to some of our restoration processes, we understand that they are a naturally occurring wildlife species, one that is known as a keystone species. A "keystone species" is a species in which other species largely depend and if they are removed from the ecosystem, it can be drastically altered. While the beaver in our area of Cedar Creek do not currently show any signs of building a dam and their aquatic impact is minimal, there has historically been a beaver dam in the area and portions of the Cedar Creek floodplain that contains the greenway trail contain some wetland indicators that either have supported or currently support wetland species.

The beavers are active on the banks of both sides of Cedar Creek, chewing on bark of larger trees, as well as cutting and removing smaller woody vegetation for food resources during the winter months. They have been a helpful ally in the reduction of some invasive species along the Cedar Creek trail and we plan to continue to work along with them in these efforts. We do, however, wish to limit their damage to some of the larger, higher wildlife value and shade value trees that are within the areas participating within the Project. For these trees and understory woody growth that we wish to protect, wire fencing will be applied and maintained around the main stem of the plant to protect the bark from being removed or the majority of the shrub from being cut down. Young bare root seedlings that are installed will be protected as well to assist in a healthy future generations of shade trees and understory plantings as well. Not all trees and shrubs will be protected, only those that serve a very specific purpose and are deemed high value to the restoration of the area.

Streambank and Habitat Restoration Project in Progress

Mt. Juliet Parks
And
Greenways



Master
Gardeners of
Wilson County

Please Respect Fenced Off Areas

For more information visit:

cedarcreekgreenwayrestorationproject.org

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