

RESOLUTION 2024-24

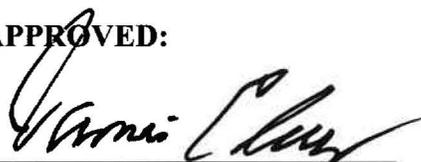
Sponsor: Clary

A RESOLUTION TO ADOPT OPERATING POLICIES BY THE CITY'S PUBLIC WORKS DEPARTMENT FOR ROUTINE STORMWATER SYSTEM MAINTENANCE

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF MAYOR AND ALDERMAN OF THE CITY OF HENDERSONVILLE, TENNESSEE, that the City hereby approves and adopts the Public Works Operating Policies for Routine System Maintenance, as set forth in the attached Exhibit A.

Adopted this the 11th day of June, 2024.

APPROVED:



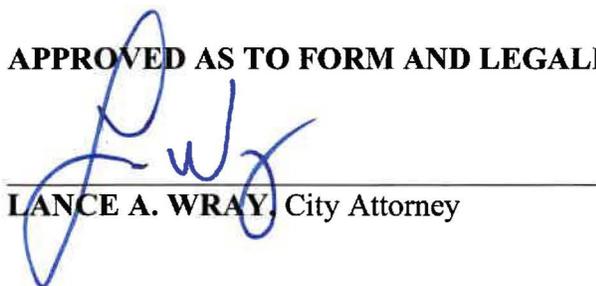
JAMIE CLARY, Mayor

ATTEST:



TAMARA INGERSOLL, City Recorder

APPROVED AS TO FORM AND LEGALITY:



LANCE A. WRAY, City Attorney

LEGISLATIVE HISTORY

Resolution 2024-24

Sponsor: Clary

Committee: Public Works

Date of Committee Meeting: May 28th, 2024

Committee Recommendation: Yes

BOMA Reading: June 11th, 2024

Vote: Aye: Burgdorf, Collins, Garton, Garza, Goodwin, Martin, Roberson, Skidmore, Waters, and Clary. Nay: None. Absent: Dixon, Peterson, and Sasse. *Motion carried.*

DATE:	June 11 th , 2024
ORDINANCE/RESOLUTION #	Resolution 2024-24
SPECIFIC REQUEST/ RECOMMENDATION:	A Resolution adopting the Public Works Operating Policy for Stormwater System Maintenance.
REPORT PREPARED BY:	Sarah Lock, PE, Public Works Director



BACKGROUND: 1

The Subdivision Regulations for the City of Hendersonville establish a process for development within the City. Once a residential subdivision is constructed and complete, the developer formally requests final acceptance of improvements and streets by the City. As part of this process, the City accepts ownership and maintenance of public stormwater infrastructure. The City has adopted a Stormwater Utility with associated revenues to fund the maintenance of this infrastructure and to maintain compliance with the Municipal Separate Storm Sewer System (MS4) permit with TDEC. A policy for stormwater maintenance is needed to protect the public’s health, safety, and water environment by responsibly providing stormwater system maintenance and to clearly define maintenance responsibilities.

DISCUSSION: 2

The City has adopted a Stormwater Utility with associated revenues to fund the maintenance of dedicated public stormwater infrastructure and to maintain compliance with the Municipal Separate Storm Sewer System (MS4) permit with TDEC. A policy for stormwater maintenance is needed to protect the public’s health, safety, and water environment by responsibly providing stormwater system maintenance and to clearly define maintenance responsibilities. The policy presented will provide a clear and consistent process for evaluating stormwater complaints, identifying maintenance responsibility/ownership, prioritizing projects and finalizing project scope.

FISCAL IMPACT: 3

n/a

ADDITIONAL INFORMATION / PHOTOS: 4

n/a

ATTACHMENTS: 5

- Resolution 2024-24
- Public Works Operating Policy – Stormwater System Maintenance



PUBLIC WORKS OPERATING POLICIES FOR ROUTINE STORMWATER SYSTEM MAINTENANCE

Prepared by:
The City of Hendersonville Public Works Department
November 2023

Adopted by:
The City of Hendersonville Public Works Committee
TBD

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Public Works Operating Policies for Routine Stormwater System Maintenance

Mission Statement

To protect the public's health, safety, and water environment by responsibly providing stormwater system maintenance.

Notice

The Public Works Director and/or the City Engineer have the authority to override or change the application of these policies to protect the City, public health, and safety.

1. Service Area

Purpose

To establish geographical boundaries and jurisdiction when receiving citizen (or resident) complaints, investigating the complaints, and developing and constructing projects to resolve the complaints.

Policy

The service area for the stormwater management program is defined as the incorporated municipal area of the City of Hendersonville. Land Disturbance Permitting and Enforcement applies only within the City of Hendersonville city limits. Stormwater complaints that originate on private property shall not be addressed by the City of Hendersonville, unless the complaint entails a violation of the Subdivision Regulations, Stormwater Ordinance, State law, or if the City of Hendersonville has violated the Natural Flow Rule.

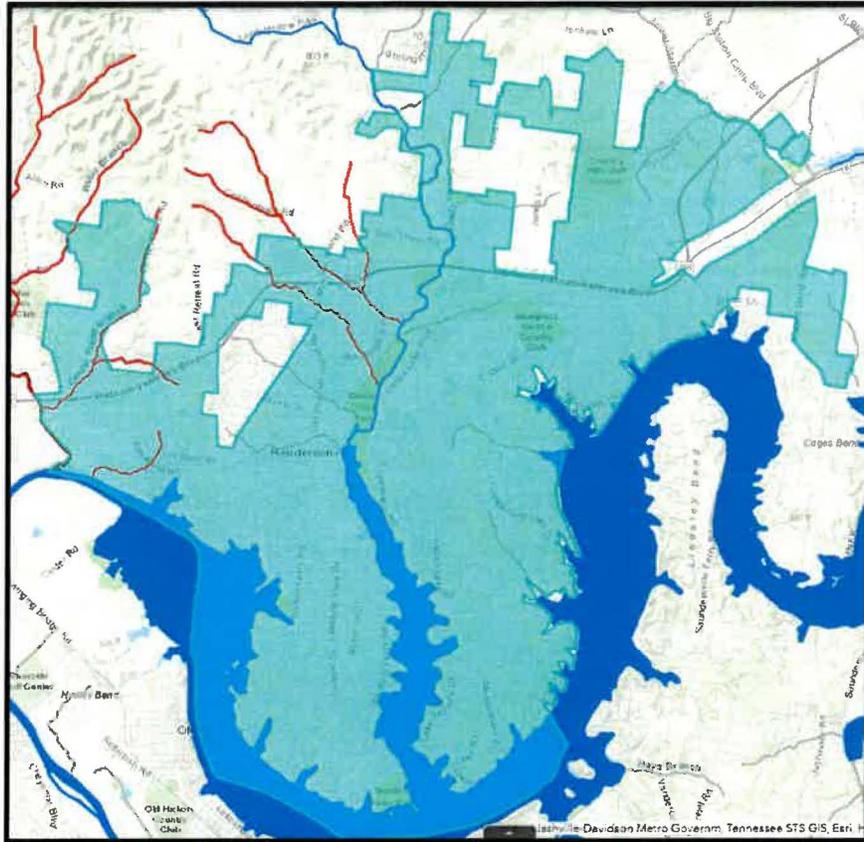


Figure 1. Hendersonville MS4 Regulated Area

2. Response to Service Requests

Purpose

To establish a consistent policy for the investigation and resolution of stormwater related requests for service.

Policy

Stormwater service requests will be investigated on a first-come first-served basis. Service requests may be evaluated ahead of others if there is potential for loss of life, real property, etc. For efficiency, multiple service requests in close geographic proximity may be investigated as a group regardless of the order in which they were received.

Service requests will be investigated and one of the following actions will be taken:

1. A work order will be issued to resolve the request through the Public Works Department;
2. The request will be forwarded to a private contractor for further investigation, engineering analysis, and/or project design;
3. The request will be forwarded to another agency or private entity for resolution; or
4. The property owner will be contacted stating that the service request is not related to stormwater or not the responsibility of the City of Hendersonville to resolve.

3. Right-of-Way and Easements

Purpose

To define when maintenance work can occur outside of the right-of-way or an easement.

Policy

Stormwater maintenance will occur within an easement dedicated for such purposes or within the public right-of-way except as noted:

1. At the discretion of the City, maintenance may be performed without specific easement when the projects involve the removal of trees and/or debris from conveyance systems where a Right of Entry (Appendix 1) is granted by the property owner to be used to allow City of Hendersonville crews or a City of Hendersonville contractor access to the property.

4. Enclosure of Ditches

Purpose

To define the criteria for enclosing an open channel conveyance in a culvert, pipe, or other closed conveyance.

Policy

To maintain natural filtration which benefits water quality, open channel drainage systems may not be enclosed except in the following circumstances:

1. The installation of new driveway culverts less than or equal to 20 feet in length.
2. When the open channel conveyance will not adequately pass the appropriate design event, a ditch may be enclosed with appropriate justification and approval by the City Engineer.
3. If the ditch does not convey the appropriate design event, the property owner can request to enclose the ditch and may do so after obtaining approval from the City Engineer. The property owner shall be responsible for all associated costs for enclosure of the ditch.

5. Pipe Materials

Purpose

To define acceptable pipe materials and uses of each material type.

Policy

Acceptable pipe materials and uses of each material type can be found in the Hendersonville Construction Manual (concrete or traffic rated plastic). Pipes on private property shall be the responsibility of the current property owner to maintain.

1. Pipes installed under public roadways will be reinforced concrete pipe (RCP) unless physical constraints at the site necessitate the use of corrugated metal pipe (CMP) or traffic rated plastic.
2. Driveway pipes and other pipes installed within a public right-of-way, but not under a public roadway, will be manufactured of either reinforced concrete pipe (RCP) or corrugated metal pipe (CMP).
3. The minimum diameter for a driveway pipe is 15 inches and the minimum diameter for a cross drain is 18 inches.

4. Traffic rated plastic stormwater drainage pipe may be installed within the public right-of-way with approval from the City Engineer, but may otherwise be installed on private property by the property owner to convey stormwater runoff originating from private property.

6. Driveway Pipe Maintenance

Purpose

To establish guidelines for the cleaning, repair, and replacement of driveway pipes within the public right-of-way.

Policy

Culverts under driveways (driveway pipes) will be cleared of any obstruction deemed to hinder the ability of the culvert to function as designed with the following exceptions:

1. Culverts that are so obstructed that it is more cost effective to replace the culvert instead of clearing the obstruction(s) may be replaced.
2. Culverts that do not meet the current design criteria for minimum pipe size, recommended pipe material, or conveyance capacity may be replaced at the expense of the property owner.

The portion of the driveway that must be removed for the installation of the pipe will be restored in kind (i.e., asphalt will be replaced with asphalt, concrete will be replaced with similar concrete). The replacement pipe will be no less than 15" in diameter. Pipes that are longer than 20' will be replaced with a new pipe not to exceed 24 linear feet. Replaced pipes shall match the diameter of existing pipe or upstream pipe, whichever is greater. Trench drains will not be replaced or installed when replacing a driveway pipe. The bottom of the pipe shall match the flow line of the ditch.

If any stormwater structure in the public right-of-way is damaged, COH may submit a claim to the Hendersonville City Attorney to recover the cost of repair or replacement.

7. Headwall Repair, Replacement, New Installation

Purpose

To establish guidelines for the repair or replacement of existing headwalls or the installation of new culvert headwalls.

Policy

At the discretion of the City, culvert headwalls will be repaired as necessary to maintain functionality of the stormwater drainage system. Headwall repair will be performed, within reason, to maintain an appearance consistent with the original construction materials. Headwall repair that is purely aesthetic in nature will not be performed.

Replaced headwalls will be constructed of concrete (either cast-in-place or pre-cast). If a property owner desires to be consistent with original construction, the property owner can coordinate construction with a private vendor provided they meet the minimum design criteria. COH will not construct headwalls on any extension installed by the property owner.

New culvert headwalls will be constructed in conjunction with the installation of new culverts (installed by COH) unless physical constraints at the site are not conducive to headwall installation. New culvert headwalls will be constructed of concrete (either cast-in-place or pre-cast).

Where damage occurs as the result of a vehicle accident, COH reserves the right to seek cost recovery from the individual involved in the accident personally or through the insurance company.

8. Inlet Maintenance

Purpose

To formalize maintenance responsibilities for the cleaning, repair, and replacement of stormwater inlets and related structures.

Policy

1. *Drainage Systems within the public right-of-way (ROW).*

COH will assume responsibility for the maintenance of stormwater inlets and structures including, but not limited to, pipes, boxes, frames, grates, hoods, and curb backs. Inlet maintenance may consist of cleaning, repair, and/or replacement.

2. *Drainage Systems on Private Property.*

COH will perform inlet maintenance as described in Item 1 above on private property when the drainage system was constructed within an easement and explicitly accepted for public maintenance.

COH will not perform inlet maintenance on private property when the drainage system only conveys stormwater runoff from private properties and/or does not convey stormwater runoff from a public right-of-way.

3. *Drainage Systems within State of Tennessee right-of-way (ROW).*

COH may perform inlet maintenance on drainage systems along State roadways, except for the Interstate, if there is a safety issue identified that could result in injury or loss of life. If emergency maintenance is necessary, the COH will notify TDOT via phone at 615-451-5822.

9. Open Channel Lining Materials

Purpose

To establish guidelines for the use of natural and man-made channel lining. It is the goal of COH to establish or reestablish open channel conveyance systems using vegetative linings.

Policy

COH will use seed/straw or erosion control matting at its' discretion to establish permanent vegetation with the following exceptions:

1. Rock, manufactured stone, or similar materials may be used when necessary to protect an open channel drainage system from erosive forces.
2. Concrete may be used when necessary to facilitate positive conveyance in an open channel drainage system that has a slope less than 0.5% to avoid standing water during dry periods.

When using non-vegetative channel lining, COH will limit installation quantities to the minimum necessary to dissipate energy, mitigate erosion, or promote positive conveyance.

10. Restoring Drainage Systems

Purpose

To establish guidelines for the restoration of drainage systems.

Policy

It is the goal of COH to restore the intended function of the drainage system as designed and/or as amended to convey the required design storm.

10.1 Restoring systems inside the public right-of-way.

COH will perform maintenance on the drainage systems within the public right-of-way when necessary to restore the intended function of the drainage system.

10.2 Restoring systems outside the public right-of-way with/without customer approval.

COH will maintain drainage systems outside of the public right-of-way to restore the intended system functionality when the drainage system conveys stormwater runoff from a public right-of-way and the work can be performed within a drainage easement. The COH will seek property owner buy-in but proceed with minimum required measures to restore functionality.

Drainage system restoration or maintenance requests that originate on private property shall not be addressed by the City of Hendersonville, unless the complaint entails a violation of the Subdivision Regulations, Stormwater Ordinances, or State Law, or if the City of Hendersonville has violated the Natural Flow Rule.

10.3 Systems constructed or modified without COH approval.

COH reserves the right to require the property owner to remove any unauthorized construction and to restore the area to a proper condition especially if the construction impedes the natural flow of water, increases the natural velocity or volume of water, or if it is in violation of the stormwater ordinances, MS4 Permit or Subdivision Regulations. If corrective action is not taken, COH reserves the right to initiate legal action.

11. Vegetation in Conveyances

Purpose

To establish guidelines for the removal of vegetation within a conveyance system.

Policy

Vegetative control and maintenance within conveyance systems, regardless of the presence of an easement, is the responsibility of the property owner. Vegetative control includes mowing and trimming vegetation. If a property owner is responsible for decreased function or obstruction of a stormwater conveyance system, COH may take enforcement action in the following manner:

1. PW reserves the right to require the property owner to remove vegetation to restore the area to a proper condition. If corrective action is not taken, a "Notice of Violation" will be issued by PW. Failure to comply may result in legal action being taken by the COH. Certain cases may be referred to the Property Maintenance Officer for enforcement.
2. PW will remove vegetation, at their sole discretion, when in their judgment the activity is necessary for proper system function and no reasonable expectation exists that the property owner will perform the maintenance within a timely manner.

Application of herbicides/pesticides/fertilizers in ditches, streams, stream buffer, or other conveyance systems is prohibited by Hendersonville Municipal Code Title 18, Chapter 2.

12. Paving

Purpose

To establish guidelines for street paving and related activities to alleviate standing water and/or improve the function of stormwater drainage systems.

Policy

Public Works will perform pavement maintenance on public roads under the following circumstances:

1. Stormwater is not properly conveyed to drainage inlets.
2. Standing stormwater poses a hazard to roadway users.
3. Stormwater is diverted in concentrated flow onto private property.
4. Stormwater flowing off a roadway has, or can potentially, cause damage to private property.

13. Public Notifications

Purpose

To establish guidelines for providing notifications before, during, or after maintenance activities.

Policy

Notifications will be given in the following cases:

1. Before maintenance activities PW will notify affected property owners by mail or in person by PW staff. Property owners in the proximity of maintenance activities will be notified via Public Notice on the City's website.
2. During maintenance activities, PW staff will clearly communicate any delays or issues with the project.
3. Upon maintenance completion, PW staff will notify affected property owners directly and provide contact information for any follow up questions or concerns.

14. Tree Removal

Purpose

To establish guidelines for removal of trees from conveyance systems.

Policy

Fallen trees may be removed from conveyance systems if the tree blocks the flow of water, causing flooding. It is the responsibility of the property owner to remove trees from the conveyance system unless the conveyance system lies within an easement for a city-owned facility.

Live trees will not be removed from ditches, streams, stream buffers, or other conveyance systems except in the following cases:

1. Live vegetation may be removed from ditches when performing ditch cleaning activities. Vegetation shall be reestablished at the discretion of the PW department.
2. Live trees may be removed from conveyance systems (streams and/or buffers) that fall under the jurisdiction of the Tennessee Department of Environment and Conservation (TDEC) and/or the U.S. Army Corps of Engineers (USACE), only upon receipt of a permit from TDEC/USACE allowing the activity.

15. Groundwater and Springs

Purpose

To define responsibilities for the correction of drainage concerns associated with groundwater, springs, and other subsurface discharges.

Policy

PW may consult with (citizens, residents, or property owners) who report concerns related to groundwater, springs, and other subsurface runoff.

PW will only perform maintenance activities to correct the concern when the water adversely affects the stability of public infrastructure.

16. Utility Conflicts

Purpose

To define responsibilities for moving utilities that conflict with stormwater maintenance activities.

Policy

Upon recognition that utility conflicts exist in or along a conveyance system scheduled for maintenance, PW will notify the respective utility and request that the utility line in conflict be relocated at the utility company's expense.

17. Replacement of Yard Features

Purpose

To establish guidance for the replacement of yard features removed in the process of maintaining or constructing stormwater drainage systems. Yard features include, but are not limited to, trees, shrubs, fences, light fixtures, mailboxes, driveways, patios, sheds, doghouses, vegetable gardens, flower gardens, invisible pet fences and sprinkler systems (irrigation).

Policy

Unless addressed in specific language for a dedicated easement or other legal document, yard features will not be replaced. Yard features within the public road right-of-way will not be replaced, except for those required by the Planning Department through an approved Landscape Plan.

Yard features deemed by PW to be obstructing the expected design flow of an open channel conveyance system will not be replaced by PW and should not be replaced by the property owner without approval by PW.

Yard features damaged during maintenance activities or removed solely for site access and not located within an easement shall be replaced upon completion of maintenance activities. PW will give advance notification regarding maintenance activities in accordance with this policy.

18. Sinkhole, Depression/Hole

Purpose

To define the circumstances necessary for a sinkhole to be repaired by Public Works.

Policy

If a sinkhole or depression/hole in the public drainage system is not impacting the public roadway or storm sewer, PW is not obligated to address. Sinkholes are the responsibility of the property owner and will not be repaired except in the following circumstances:

1. A depression/hole formed by a failure of the public storm sewer will be addressed by PW.
2. A sinkhole within the public roadway is the responsibility of Public Works.
3. A true sinkhole that is caused by geological reasons may be addressed if it has the potential to affect public infrastructure.

19. Animals in Inlet Pipes

Purpose

To formalize maintenance responsibilities for the removal of either live or dead animals from stormwater inlets and pipes within the public right-of-way.

Policy

PW staff will contact the selected vendor for removal of live or dead animals from stormwater inlets and pipes within the public right of way.

20. Project Selection

Purpose

To establish Stormwater Maintenance project selection criteria.

Policy

PW investigates all complaints related to flooding or drainage issues. Investigation findings are placed in one of four categories:

1. PW Stormwater
2. Private property
3. No action warranted
4. Another department or agency

Other than "No action warranted", the category determines responsibility.

Stormwater Project Selection Criteria

Issues that threaten public infrastructure and public safety are given priority. Project construction is based on the amount of available funds in a fiscal year. When there are more projects to be done than funding allows, severity is the first determining factor followed by the extent of time the problem has been in our system.

For details related to investigation categories and project selection see the following pages.

Stormwater Maintenance Project Selection

Investigation Determination Process

Public Works investigates all complaints related to flooding or drainage issues. After an investigator visits the site to survey the issue and/or meets with the person who submitted the concern, the issue is placed in one of four categories: PW Stormwater, Private property, No corrective action warranted, Referred to another department or agency. Other than “No action warranted”, the category determines the responsibility.

Private Property Owner Issues

The following are items that would be deemed “private property” issues which would be the responsibility of the property owner to address:

- Groundwater impacting yard, building foundation, basement, etc.
- Springs that surface on private property
- Properties built in the floodway or floodplain that experience flooding or ponding
- Issues with walls not built by City of Hendersonville agencies
- Issues with drainage structures built by current or previous property owners
- Detention ponds
- Retention ponds
- Water quality structures
- Mowing vegetation along ditches or other channels
- Any complaint not caused by water from a public drainage system
- Runoff from one privately owned property onto another privately owned property
- Issues related to structure settling
- Drainage conveyances determined to be under the State’s jurisdiction, will be maintained in a manner compliant with their regulations

Public Infrastructure Maintenance

The following are types of public infrastructure that would be deemed the responsibility of Public Works to address:

- Repair of failed or damaged drainage system or structures
- Upgrade of undersized drainage system structures
- Redefining of existing ditches along the public right-of-way or that carries water from the public right-of-way
- Installing structures or drainage system to protect properties being damaged by water from the public right-of-way or from a public drainage system
- Cleaning or replacing existing culverts and other drainage structures that are in the right-of-way or part of a public drainage system
- Repair or replacement of walls along roadway and channels that were built by the City of Hendersonville
- Depressions that form as the result of a failed stormwater culvert
- Sinkholes that form in the ditches along the right-of-way or that carry water from the public right-of-way

- Remove fallen trees or other items that cause a blockage in a ditch or other channel

Issues that are determined to be the responsibility of other departments or agencies are transferred so that the issues will be properly addressed. For example, issues related to sanitary sewers are sent to the Hendersonville Utility District, issues related to the roadway are sent to the Road Department, etc.

DEFINITIONS

Definitions are in the adopted Subdivision Rules and Regulations Chapter 5.

APPENDIX 1- RIGHT OF ENTRY

RIGHT-OF-ENTRY FOR TEMPORARY CONSTRUCTION PURPOSES

Property Owner's Name: _____ Date: _____
Address: _____ Phone: _____
City
City Official's Name: _____

I do hereby covenant with the City of Hendersonville that I am the lawful owner of the above-described property and have a good and lawful right to grant this right of entry.

I do hereby authorize the City of Hendersonville or their designee to enter my property and perform whatever work is necessary on my property, on easements, on easements adjacent to my property, and/or rights-of-way adjacent to my property for the well-being and benefit of the community. The work to be performed has been explained to me by the city official named above. I agree to the work to be accomplished and to the benefits to be derived. I agree to accept responsibility for future maintenance. I further agree to and expect no compensation for the alterations to my property, and to hold the City of Hendersonville or its designees harmless for any damages done to my property, to easements, to easements adjacent to my property, and/or rights-of-way adjacent to my property. This access will be for the duration of the project and will be rescinded once the project is complete.

Property Owner's Signature: _____