

## **CITY OF OLIVE BRANCH DRAINAGE POLICY**

### **I. GENERAL**

The purpose of this policy is to provide guidelines for the investigation and management of drainage complaints in connection with drainage ditches, swales and inlets, as well as surface waters and natural watercourses.

State law \*1 prohibits a municipality from performing work solely for the benefit of private property or private property owners. Notwithstanding this prohibition, the Legislature has specifically empowered municipalities to perform drainage work under certain conditions on private property. Miss. Code Ann. Section 21-19-13(1) provides that the “governing authorities of municipalities shall have the power to establish, alter and change the channels of streams or other water courses, and to bridge the same, whenever so to do will promote the health, comfort, and convenience of the inhabitants of such municipality.” Subsection (2) of Section 21-19-13 provides that a municipality is authorized to address erosion on public or private property. Municipal authority to perform drainage work on private property is clear where the drainage problem is caused by the manner in which the City’s streets drain, or in situations where the drainage adversely affects the City’s streets or other public improvements.

However, the statute is clear that a municipality is not under any duty to perform work on private property. To the contrary, the statute does not impose “any obligation or duty upon the municipality and shall not create any additional rights for the benefit of any owner of public or private property.” Nothing in this Drainage Policy should be construed as expanding upon the obligations, powers, or duties of the City of Olive Branch under applicable law. The City will not undertake drainage work on private property solely for the benefit of the private property owner or owners. There must be a general and proper municipal purpose to be served before the City will commit public resources to a project. This policy should be interpreted and applied in keeping with applicable law, and in the event any portion of the policy is hereafter deemed illegal or unconstitutional, such portion shall be considered severable from the whole, and the remainder of this policy shall remain in full force and effect thereafter.

The consequences of excessive storm water runoff can be immediate and devastating, resulting in flooding and damages to lower or adjacent properties. Generally, storm water runoff can be divided into two categories: surface water flow and natural watercourses. Surface water flow is defined as water that falls to the ground from the sky, diffuses as overland flow on the surface of the land, and follows no defined course or channel. Surface water can also include that which arises from springs. Some or all surface water flow may be lost by being dispersed over the ground through infiltration and evaporation.

A natural watercourse is a channel with a defined bed and banks through which water normally passes as a body or stream during the seasons and at times when streams in the region usually flow. Alterations to a natural watercourse, such as construction of conduits or other improvements in the bed stream, do not generally affect its status as a natural watercourse. These natural water courses may be protected by the U.S. Army Corp of Engineers and the Mississippi Department of Environmental Quality.

1. Miss. Code Ann. Section 21-17-5  
Miss. AG OP Gabriel – Aug. 7, 2000  
Miss. AG OP Brewer – May 30, 2003

Many of the controversies over water issues in Mississippi have arisen when excessive water flowing from one owner's property is allowed to physically invade and damage another's property. Quite often these drainage issues arise in which no City drainage structures or easements are involved. As subdivisions mature, it is important to keep in mind that, drainage patterns change. Over time, fences, swimming pools, flowerbeds and sheds are built. Trees, bushes and other vegetation get larger and larger. Without proper homeowner planning and maintenance, all of the above mentioned items can adversely affect stormwater runoff, not only on the subject property but for that of the neighbors' properties as well. Property owners should be aware that they may have legal rights and responsibilities in regard to stormwater runoff entering and exiting their property. Such rights and responsibilities are often entirely private in nature, meaning that the municipality may lack jurisdiction to intervene in certain matters that are more properly handled in a civil context by and between adjoining property owners. Finally, property owners who are concerned about excessive water flow in or around their property are encouraged to ask their homeowner's insurance representative about the availability of flood insurance which may be available for homes regardless of the proximity to a flood zone.

It is seldom economical to design storm drainage facilities to handle the maximum runoff that may potentially occur. Rather, storm drainage improvements are designed with the understanding that they may be overloaded occasionally but should perform reasonably well for most storm events. It is customary to base the degree of protection on an economic balance between the average annual damages resulting from these occasional floods and cost of providing a greater capacity.

The stormwater storage system within the limits of the City of Olive Branch includes culverts, inlets, ditches, pipes, and detention and retention ponds. According to the City of Olive's Branch's DESIGN REVIEW ORDINANCE, Section 1.07 Minimum Standards of Design A. b (1) "The storage capacity of all storage facilities shall be sufficient to store one hundred fifteen (115) percent of the excess flow, in each watershed, which would result from a twenty five (25) year storm of twenty-four (24) hour duration.

This points out the importance of understanding the term 25 year storm. The term "25 year storm" is used in an attempt to simplify the definition of a rainfall event that

statistically has a 4-percent chance of occurring in any given year. In other words, any given storm event is expected to be less than the 25 year storm 96% of the time. However storms greater than a 25 year storm event can happen more than once in any given year.

Recurrence intervals and probabilities of occurrences		
Recurrence interval, in years	Probability of occurrence in any given year	Percent chance of occurrence in any given year
100	1 in 100	1
50	1 in 50	2
25	1 in 25	4
10	1 in 10	10
5	1 in 5	20
2	1 in 2	50

According to the Mississippi Department of Environmental Quality PLANNING & DESIGN MANUAL FOR CONTROL OF EROSION, SEDIMENT & STORMWATER the rainfall event with a probable recurrence interval of once in 25 years with a duration of 24 hours, as defined in Table 6.3 Rainfall frequency values for DeSoto County is 6.7 inches in a 24 hour time period. The rainfall quantity for the 25 year storm period can be estimated to 2.9 inches in a 1 hour time period.

Often during rain events it is common to see stormwater storing in passive routes such as streets and parking areas. This is permissible for short periods of time to facilitate the conveyance of stormwater to the numerous ditches, creeks and tributaries located within the City of Olive Branch. Should a rain event exceed the rainfall value for a 25 year storm, the stormwater drainage system may become overwhelmed..

The City of Olive Branch is often called upon to investigate drainage problems and determine a responsible party, and the City strives to address these requests in accordance with the general purpose statement contained hereinabove. The City has determined a basic guideline for establishing responsibility for typical drainage structures.

Historically, the City has been fortunate to not have devastating floods like those experienced in other parts of the United States. To the extent that flooding occurs in the future, the City will categorize flooding as follows:

- Devastating (Destruction of physical property)
- Damaging (Water damage to physical property & contents)
- Nuisance (Water in yards or street only)

Obviously the worst type of flooding will be rated the Highest and used by the Board of Aldermen to determine funding for drainage projects. Devastating floods may be eligible

for State and Federal Funds. Damaging Floods will have a high priority for capital funding to widen ditches or provide greater detention. Nuisance floods will have a lower priority and may not be funded by the Board unless there are a large number of homes affected or flooded streets. It is not the policy of the City to improve the value of private property.

## II. RESPONSIBILITY

### a. Driveway Culverts

Ownership and maintenance of culverts either in the ROW or on private property installed for private driveways are the responsibility of the landowner. Maintenance includes but is not limited to sediment removal, vegetation removal and erosion control. The landowner shall be responsible for the cost of installation or replacement of the culvert.

### b. Retention or Detention Ponds

Ownership and maintenance on individually owned property shall be the responsibility of the owner of record.

Ownership and maintenance as common areas within residential developments shall be the responsibility of the developer during residential development and the appropriate neighborhood association once the development is complete or substantially complete.

Ownership and maintenance within multifamily, industrial, commercial and/or institutional type developments shall be the responsibility of the owner of the respective property.

Should it be deemed necessary the City shall have the primary right to remove sediment, at the owner's expense, when the basin's function is impaired. The owner of record and/or property owners' association shall be responsible for all other maintenance, planting, reseeding, or resodding. The owner shall also be responsible for removing and replacing any landscaping, playground equipment, or other facilities within the basin. Should the owner not maintain a detention or retention pond, the pond may be declared by the City to be a menace to the public health, safety and welfare of the community pursuant to Miss. Code Ann. Section 21-19-11. The cost of City provided maintenance pursuant to such declaration may be levied against the property by the City plus a penalty to be determined by the Board of Aldermen.

### c. Underground Stormwater Drain Pipes

Ownership and maintenance of drain pipes that are publicly owned and/ or installed within a right of way of a city street shall be the responsibility of the City.

Ownership and maintenance of drain pipes, installed within recorded drainage easements across private property for the purpose of facilitating street stormwater drainage, shall be the responsibility of the City to the extent such easements are

conveyed to the City and to the extent such drainage structures are part of the City's drainage system.

The owner of record shall be responsible for the removing and replacing landscaping, playground equipment or other facilities within the easement area, except as stated otherwise in a recorded easement. Ground maintenance, mowing, and trash clean up shall also be the responsibility of the owner of record. The City shall be responsible for maintenance on the drain pipe including reseeding or resodding.

d. Drainage Swales, ditches and Creeks

Ownership and maintenance on individually owned property shall be the responsibility of the owner of record.

Ownership and maintenance within residential developments shall be the responsibility of the developer during residential development and the appropriate neighborhood association once the development is complete or substantially complete.

Ownership and maintenance within multifamily, industrial, commercial and/or institutional type developments shall be the responsibility of the owner of the respective property.

Routine mowing of swales, within rights-of-way or easements that can be maintained with a standard lawn mower or hand-held weed trimmer, is considered the responsibility of the adjacent property owner.

## **ADDITIONAL ISSUES**

1. The City of Olive Branch will not perform maintenance in areas where there is not a recorded drainage easement, recorded right of way, or temporary construction easement granted by the owner of the property. The City reserves the right to use the eminent domain procedures provided by State law in order to acquire necessary access to property to secure the overall public health and welfare.

2. Localized flooding of yards, gardens, driveways, docks, accessory structures and sheds and problems caused by high ground water, such as septic tank and/or water well malfunctions, irrigation systems, wet yards, or standing water, are not the responsibility of the City of Olive Branch.

3. Removal of grass sod and shrubbery may occur during maintenance of drainage facilities. Any sod removed during maintenance will be replaced with the same type sod (if available). Property owners will be solely responsible for salvaging or replacing any fences, landscaping, sprinkler systems, property improvements or other amenities within the rights-of-way/drainage easements that are impacted due to maintenance.

4. Owners of sprinkler systems, fencing, landscaping, property improvements, or other amenities that have modified the original design or intent of a public drainage facility are responsible for all damages resulting from, and costs associated with, the removal of such improvements or amenities and restoring the drainage facility to its original design. The City is not responsible for any loss or damages resulting from the City's use of its facilities.

5. Standing water in ditches, swales, wetlands, preservation areas, areas regulated by water control structures, and other low lying lands does not constitute a need for maintenance by the city.

6. The maintenance of the drainage system solely for aesthetic purposes, or for the control of snakes and other wildlife, will not be undertaken by the City.

## DRAINAGE ASSISTANCE PROGRAM POLICY

This program is designed to assist private property owners with drainage problems.

1. Upon receiving a drainage related service request, the engineering department will conduct an initial investigation. The problem will be identified and categorized using the Drainage complaint Investigation Form. The person(s) requesting City assistance will provide the Engineering Department with information needed to fill out the form. The engineering Department will visit the site to verify this information and to obtain as much additional information as possible.
2. The Engineering Department will prioritize the service request based on the information gathered. Projects with expected costs of less than \$5,000 will be placed in the Category "A". Projects with expected costs greater than \$5,000 will be placed in Category "B". Projects in both categories will be ranked according to the type of complaints as detailed on the Drainage Complaint Investigation Form.
3. Flooding problems causing damage to homes or causing structural damage to any building or roadway will generally receive the highest priority. Flood damages to other private property or nuisance flooding problems that cause little or no actual damage will receive the lowest priority. Over bank flooding or storage problems will have a higher priority than water ponding in yards.
4. Once a project is categorized and ranked, staff will initiate detailed engineering, starting with the highest ranked projects. The numbers of projects initiated in each category will depend on budgeted amounts for construction in each category. Engineering staff will seek prior Board of Alderman approval before commencing detailed design of Category B projects if staff time is expected to exceed 50 man-hours. Board of Alderman approval will not be required to initiate detailed engineering solutions for Category A Projects.
5. The City of Olive Branch's Engineering Staff (or private consultant) will strive to design a cost effective solution to the drainage problem. Priority will be given to simple, low cost solutions. Priority will also be given to designing projects which can be maintained by the residents rather than the City.

Taken by \_\_\_\_\_

**DRAINAGE COMPLAINT INVESTIGATION FORM**

Names: \_\_\_\_\_ Address: \_\_\_\_\_

Date: \_\_\_\_\_ Home Phone: \_\_\_\_\_

Cell Phone \_\_\_\_\_ Subdivision/Lot \_\_\_\_\_

**A. Location of Flooding – show number of properties for all that apply**

Private Property ( ) Other ( ) explain below  
Building ( ) explanation \_\_\_\_\_  
Yards ( ) \_\_\_\_\_

City Property  
Sidewalks ( ) Right of Way ( )  
Buildings ( ) Streets ( )  
Other ( ) Other ( )  
\_\_\_\_\_  
\_\_\_\_\_

**B. Type of Flooding**

Existing ditch of storm water blocked or surcharges ( )  
Overland sheet flow from other parcels ( )  
Creek, pond or other body of water overtops its bank ( )  
Water collects at low spot with or without outlet ( )  
Existing sanitary sewer discharge ( )  
Other ( )  
Explanation: \_\_\_\_\_  
\_\_\_\_\_

**C. Type of flood damage**

Privately owned facilities Structural Damage ( )  
Non-structural damage ( )  
Publicly owned facilities Structural Damage ( )  
Non-structural Damage ( )  
Damage to lawns, gardens, sheds, etc. ( )  
Roadway Damage ( )  
Other Damage ( )  
Explanation: \_\_\_\_\_  
\_\_\_\_\_

**D. Health and safety hazard**

Street/road impassable ( ) Deep ponding in low areas ( )  
Flooded structural interior ( ) Flooded garages ( )  
Ground saturated ( ) Sewage surcharging ( )  
Flooded septic fields ( ) Stagnant water ( )  
Other ( ) Erosion ( )  
Explanation \_\_\_\_\_  
\_\_\_\_\_