ORDINANCE NO. 1540

An ordinance to create a comprehensive
Stormwater Discharge Plan
An ordinance establishing procedures for regulation and control of precipitation and other liquid discharges from vehicles, commercial and industrial facilities, construction sites and individual residential sites; providing a penalty for violation.

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHICKASAW, ALABAMA, AS FOLLOWS:

ARTICLE I

General Provisions

Section 1. The purpose of this ordinance is to provide for the protection of human health and the environment through the establishment of procedures to control discharges from commercial and industrial facilities, construction sites, and individual residences. This ordinance provides measures that will conserve water quality, and the application of this ordinance shall not be deemed a limitation or repeal of any State statute.

Section 2. DEFINITIONS: For the purpose of this ordinance, the following terms shall have the meaning given herein:

(a) **Best management practices** shall mean a wide range of management procedures, schedules of activities, prohibitions on practices and other management practices which have been demonstrated to effectively control the quality and/or quantity of storm water runoff and which are compatible with the planned land use.

(b) **Development** shall generally mean any of the following action undertaken by a public or private individual or entity:

-the division of a lot, tract or parcel of land into two or more lots, plots sites, tracts, parcels or other divisions by plat or deed,

-any land change, including, without limitation, clearing, tree removal, grubbing, stripping, dredging, grading, excavating, transporting and filling of land.

(c) **Develop land** shall mean to change the runoff characteristics of a parcel of land in conjunction with residential, commercial, industrial, or institutional constriction or alteration.

(d) **Hazardous substance or material** shall mean any substance or material defined as hazardous by the US Department of Transportation, the US Environmental Protection Agency, the Alabama Public Service Commission, the Alabama Department of Environmental Management or any other federal or state agency, including but not limited to the definitions and illustrations given in the Code of Federal Regulations. Title 40, Section 171.8, as may be amended from time to time.

(e) **Person** shall mean an individual, partnership, association, syndicate, company, firm, trust, corporation, business, government entity, or any entity recognized by law.

(f) **Illicit discharge** shall mean any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other the the NPDES permit for discharges for the municipal separate storm sewer) and discharges resulting from fire fighting activities.

(g) **Pollutant** shall mean those pollutants specified in Code of Alabama 1975, Section 22-22-1(b)(3) and any other effluent characteristics specified in a NPDES permit.

(h) **Storm water management** shall mean the collection, conveyance, storage, treatment and disposal of storm water runoff in a manner to minimize accelerated channel erosion, increased flood damage, and/or degradation of water quality and in a manner to enhance and ensure the public health, safety, and general welfare.

(i) **Storm drain or storm sewer** shall mean a drain or sewer for conveying precipitation from a storm event.

(j) **Storm water runoff** shall mean the direct response of a watershed to precipitation and includes the surface and subsurface runoff that enters a ditch, stream, storm drain or other concentrated flow during and following precipitation.

(k) **Ten-year storm** shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of one in 10 years. It may also be expressed as an exceedance probability with a 10 percent chance of being equaled or exceeded in any given year.

(l) **Twenty-five year storm** shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of one in 25 years. It may also be expressed as an exceedance probability with a 4 percent chance of being equaled or exceeded in any given year.

(m) **Two-year storm** shall mean a storm that is capable of producing rainfall expected to be equaled or exceeded on the average of one in 2 years. It may also be expressed as an exceedance probability with a 50 percent chance of being equaled or exceeded in any given year.

(n) **Water quality** shall mean those characteristics of storm water runoff that relate to the physical, chemical, biological, or radiological integrity of the water.

(o) **Watershed** shall mean the drainage area contributing storm water runoff to a single point.

ARTICLE II

Illicit Discharges

Section 1. It shall be unlawful for any person, firm, or corporation to allow water or any other liquid to run or flow continuously from a private premises in the City of Chickasaw, Alabama, into, on, or upon the streets or into the storm drain system, excepting however, rain, sleet or snow failing on said private premise by an Act of God.

Section 2. It shall be unlawful for any person, firm, or corporation to discharge a pollutant to the City's storm water system that will have a deleterious impact on the environment. Any pollutant, associated with an industrial or commercial activity that is covered by the National Pollutant Discharge Elimination System as dictated by 40 CFR 122.26, can be discharged to the City storm water system only if the discharge is covered by an NPDES permit for storm water.

Section 3. Where an illicit discharge is suspected by the City of originating from a facility, it shall be the right of the City to designate employees, bearing proper credentials and identification, to enter facility grounds for the purpose of inspection, observation, measurement, sampling and testing in accordance with this ordinance.

Section 4. Authority is hereby granted to the City to halt any discharge from a facility that is suspected by the City of being potentially harmful to human health or the environment.

Section 5. All costs incurred by the City in association with the ceasing of a potentially harmful discharge will be reimbursed by the discharging facility.

ARTICLE III

Releases from Hazardous Materials Transportation Vehicles

Section 1. The release or threatened release of hazard materials into the environment in violation of this ordinance shall be considered a nuisance. It shall be unlawful for any person to permit, cause, or maintain any such nuisance within the City.

Section 2. All persons, companies, other legal entities and all motor vehicles engaged in transportation operations for commercial purposes shall comply with all federal and state laws and regulations. These regulations shall include but are not limited to regulations enacted by the US Department of Transportation, Federal Highway Administration, the US Environmental Protection Agency, the Alabama Department of Environmental Management and the Alabama Public Service Commission, as fully set out and incorporated herein. Any violation of the above laws or regulations shall be a violation of this ordinance. The City police department is hereby authorized to stop and inspect any vehicles suspected of engaging in improper transportation operations which can potentially lead to a release in order to ensure compliance with this ordinance.

Section 3. It shall be unlawful for any person or other legal entity to transport, convey, store or offer for transportation any hazardous material as defined herein, unless such material is properly packaged, marked, labeled and accompanied by the proper documentation as required by Title 49 of the Code of Federal Regulation.

Section 4. Any person responsible for a release or threatened release of hazardous materials into the environment which results in an emergency action shall be liable to the City for the City's recoverable expenses resulting from such action.

The staffs of each City department involved in an emergency action to stabilize a release shall keep a detailed record of its recoverable expenses resulting from the emergency action. Promptly after completion of the emergency action, the staff shall certify those expenses with the City Clerk. The City Clerk shall mail an invoice to the person responsible for the emergency action. The invoice shall be payable within thirty days and if payment is not received within thirty days the City may initiate a civil action for the collection of the claim. This civil action shall be in addition to and not in lieu of any criminal prosecution or penalty.

The recoverable expenses resulting from an emergency response to any spill or release of a hazardous substance, as defined herein, which poses a significant present threat or potential hazard to human life, property or environment, shall be a charge against the person or entity whose conduct or conduct of its employees, agents or contractors, caused or permitted the incident resulting in the emergency response.

ARTICLE IV

Control of Runoff from construction Sites

Section 1. No person shall develop any land without having provided for appropriate storm water management measures that control or manage runoff, in compliance with this ordinance. Exceptions include the following:

Land disturbing activities on agricultural land for production of plants and animals useful to man, excluding the construction of an agricultural structure of one or more acres that require a building permit;

Land disturbing activities undertaken on forest land for the production and harvesting of timber and timber products;

Construction or improvement of single family residences or their accessory buildings which are separately built and not part of multiple construction of a subdivision development.

Section 2. (A) In developing plans for residential subdivisions, individual lots in a residential subdivision development shall not be considered to be separate land disturbing activities and shall not require development of a storm water management plan. Instead the residential subdivision development, as a whole, shall be considered to be a single land disturbing activity. Hydrologic parameters that reflect the ultimate subdivision development shall be used in all engineering calculations.

If individual lots or sections in a residential subdivision are being developed by different property owners, all land disturbing activities related to the residential subdivision shall be covered by the approved

storm water management plan for the residential subdivision. Individual lot owners or developers shall sign a certificate of compliance that all activities on the lot will be carried out in accordance with the approved plan.

Residential subdivisions which were approved prior to the effective date of these regulations are exempt from these requirements. Development of new phases of existing subdivisions which were not previously approved shall comply with the provisions of these regulations.

(B) For land disturbing activities involving two acres or less for a residential development and all acreage for a commercial development which are not part of a larger common plan of development or sale, the person responsible for the land disturbing activity may be required by the Building Inspector to submit a simplified storm water management plan. This plan will require approval of the City Building Inspector but not professional certification. This plan will require, unless dictated differently by the City Building Inpector, the following:

-A narrative description of the storm water management facilitates to be used;

-A general description of topographic and soil conditions of the development site;

-A general description of adjacent property and a description of existing structures, buildings, and other fixed improvements located on surrounding properties;

-A sketch plan to accompany the narrative which shall contain:

-A site location drawing of the proposed project, indicating the location of the proposed project in relation to roadways,

jurisdictional boundaries, streams and rivers;

-The boundary lines of the site on which the work is to be performed; and

-All areas within the site which will be included in the land disturbing activities shall be identified and the total disturbed area calculated.

-A topographic map of site;

-Anticipated starting and completion dates of the various stages of land disturbing activities and the expected date the final stabilization will be complete.

-The location of temporary and permanent vegetative and structural storm water management control measures.

-Storm water management plans shall contain certification by the persons responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the plan.

-Storm water management plans shall contain certification by the person responsible for the land disturbing activity that the City Building Inspector has the right to conduct on-site inspections. Land disturbing activities more than two acres shall meet the requirements of Section 3-6.

Section 3. A storm water management plan shall be submitted to the City Building Inspector for review and approval. Should any plan involve any storm waster management facilities or land dedicated to public use, the same information shall also be submitted for review and approval to the department having jurisdiction over the land or other appropriate departments or agencies identified by the City Building Inspector for review and approval. This storm water

management plan shall serve as the basis for all subsequent construction. to public use, the same information shall also be submitted for review and approval to the department having jurisdiction over the land or other appropriate departments or agencies identified by the City Building Inspector for review and approval. This storm water management plan shall serve as the basis for all subsequent construction.

The City Building inspector shall review the plan within five working days from the receipt of the plan. Within ten working days from the receipt of the storm water management plan, the City Building Inspector shall issue a decision approving, rejecting or conditionally approving the plan with modification.

Storm water management plan requirements are found in Appendix A.

Section 4. A list of fees for plan review and other fees associated with this ordinance can be obtained from the City Building Inspector.

Section 5. Storm water management facilities may include both structural and nonstructual elements. Natural swales and other natural runoff conduits shall be retained where practicable.

Where additional storm water management facilities are required to satisfy the minimum control requirements, the following measures are examples of what may be used:

-Storm water detention structures (dry basins);

-Storm water retention structures (wet ponds);

-Facilities designed to encourage overland flow, slow velocities of flow, and flow through buffer zones; and

-Infiltration practices.

Where detention and retention structures are used, consolidation of these facilities into a limited number of large structures will be preferred over designs which utilize a large number of small structures. Storm water management plans can be rejected by the City Building Inspector if they incorporate structures and facilities that will demand considerable maintenance, will be difficult to maintain, or utilize numerous small structures if other alternatives are physically possible.

The drainage systems and all storm water management structures within the City will be designed in accordance with the technical criteria and standards established by the City Building Inspector.

Section 6. Storm water management plans shall be prepared, certified, and stamped/sealed by a qualified registered Professional Engineer, Land Surveyor or Landscape Architect, using acceptable engineering standards and practices.

ARTICLE V

Miscellaneous Provisions

Section 1. Variances. The City Building Inspector may grant a variance from the requirements of this ordinance if there are exceptional circumstances applicable to the site such that strict adherence to the site such that strict adherence to the provisions of the ordinance will result in unnecessary hardship and not fulfill the intent of the ordinance.

A written request for a variance shall be required and shall state the specific variance sought and the reasons, with supporting data, for their granting. The request shall include descriptions, drawings,

calculations and any other information that is necessary to evaluate the proposed variance.

The City Building Inspection will conduct a review of the request for a variance within ten working days. Failure of the City Building Inspector to act by the end of the tenth working day will result in the automatic approval of the variance.

Section 2. Appeals. Any person aggrieved by a decision of the City Building Inspector (including any decision with reference to the granting or denial of a variance from the terms of this ordinance) may appeal by filing a written notice of appeal with the City Building within thirty calendar days of the issuance of the decision by the City Building Inspector. The City Building Inspector may reverse his/her decision or send this notice to the City Council. A notice of appeal shall state the specific reasons why the decision of the City Building Inspector is alleged to be in error and the City Building Inspector shall prepare and send to the City Council and the Appellant, within 15 days of the notice of appeal, a written response to said notice of appeal.

All such appeals shall be heard by the City Council at a regularly scheduled meeting, not to exceed thirty days after receipt of the notice of appeal or at such other time as may be mutually agreed upon in writing by the Appellant and the City Council. The City Council will then render a decision within fifteen days after the appeal has been heard.

Section 3. Penalties. Upon determination that a violation of this ordinance has occurred the City shall provide the violator

written notice of the violation and the time in which to correct the deficiencies.

Any person violating this ordinance or any part thereof shall be, upon conviction, fined not more than 500 hundred dollars or imprisoned not more than thirty days for each offense. Each separate interval of 24 hours, or every day, that such violations continue, are committed or exist, shall constitute a new and separate offense and shall be punished, as aforesaid, for each separate period of violation.

The City may institute injunctive, mandamus or other appropriate action or proceedings at law or equity for the enforcement of this ordinance or to correct violations of the ordinance, and any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus or other appropriate forms of remedy or relief.

Section 4. Whenever the provision of this ordinance imposes more restrictive standards than are required in or under any other ordinance, the regulation herein contained shall prevail. Whenever the provisions of any other ordinance require more strict standards than are required herein, the requirement of such shall prevail.

Section 5. If any section, sentence, clause, or phrase of this ordinance is for any reason held to be invalid or unconstitutional by declaration of any court of competent jurisdiction, such declaration shall not affect the validity of remaining portions of this ordinance. The City Council hereby declares that it would have adopted this ordinance and each section, sentence, clause, or phrase thereof irrespective of the fact that one or more articles, sections, sentences, clauses, or phrases be declared invalid or unconstitutional.

Section 6. This ordinance may be amended in the manner as prescribed by City procedure for ordinance amendment.

Section 7. Neither the approval of a plan under the provisions of this ordinance nor the compliance with the provisions of this ordinance shall relieve any person from the responsibility for damage to any person or property otherwise imposed by law nor shall it impose any liability upon the City for damage to any person or property.

Section 8. This ordinance shall take effect upon its due adoption and publication as required by law.

Adopted this 1st day of December 1998

Approved:

Jim Trout

Mayor

Attest:

City Clerk

APPENDIX A

PLAN REQUIREMENTS

Storm water management plans shall include as a minimum the following:

1. A vicinity map indicating a north arrow, scale, boundary lines of the site, and other information necessary to locate the development site.

2. The existing and proposed topography of the development site except for individual lot grading plans in single family subdivisions.

3. Physical improvements on the site, including present development and proposed development.

4. Location, dimensions, elevations, and characteristics of all storm water management facilities.

5. All areas within the site which will be included in the land disturbing activities shall be identified and the total disturbed area calculated.

6. The location of temporary and permanent vegetative and structural storm water management control measures.

7. An anticipated starting and completion date of the various stages of land disturbing activities and the expected date the final stabilization will be completed.

8. A determination that no occupied first floor elevation of any structure is below the 100-year plus one foot flood elevation.

9. At the discretion of the City Building Inspector, for all portions of the drainage system which are expected to carry between 50 and 150 cfs for the 100-year storm, the 100-year plus one foot flood elevation analysis shall be required. To require the 100-year plus one foot flood elevation analysis, the City Building Inspector should determine that one of the following conditions may exist:

    a. The estimated runoff would create a hazard for adjacent property or residents.

    b. The flood limits would be of such magnitude that adjacent residents should be informed of these limits.

10. For all portions of the drainage system which are expected to carry 150 cfs or more for the 100-year storm, the 100-year plus one foot flood elevation analysis shall be done and flood limits shall be shown on the storm water management plans.

11. Storm water management plans shall include designation of all easements needed for inspection and maintenance of the drainage system and storm water management facilities. As a minimum, easements shall have the following characteristics:

    a. Provided adequate access to all portions of the drainage system and structures.

    b. Provide sufficient land area for maintenance equipment and personnel to adequately and efficiently maintain the system with a minimum of ten (10) feet along both sides of all drainage ways, streams, channels, etc., and around the perimeter of all detention and retention facilities, or sufficient land area for equipment access for maintenance of all storm water management facilities. This distance shall be measured from the top of the bank or toe of the facility, whichever is applicable.

    c. Restriction of easements shall include prohibiting all fences and structures which would interfere with access to the easement areas and/or the maintenance function of the drainage system.

12. To improve the aesthetic aspects of the drainage system, a landscape plan for all portions of the drainage system shall be part of the storm water management plan. This landscape plan shall address the following:

    a. Tree saving and planting plan;

    b. Types of vegetation that will be used for stream bank stabilization, erosion control, sediment control, aesthetics and water quality improvement;

    c. Any special requirements related to the landscaping of the drainage system and efforts necessary to preserve the natural aspects of the drainage system.

13. To improve the water quality aspects of the drainage system, the storm water management plan shall include best management practices to control the water quality of the runoff during the land disturbing activities and during the life of the development.

14. The Storm water management plan shall include all engineering calculations needed to design the system and associated structures including per- and post- development velocities, peak rates or discharge, and inflow and outflow hydrographs of storm water runoff at all existing and proposed points of discharge from the site.

15. Description of site conditions around points of all surface water discharge including vegetation and method of flow conveyance from the land disturbing activity.

16. Construction and design details from structural controls.

17. The expected timing of flood peaks through the downstream drainage system shall be assessed when planning the use of detention facilities.

18. In determining downstream effects from storm water management and the development, hydrologic-hydraulic engineering studies shall extend downstream to a point where the proposed represents less than ten (10) percent of the total watershed.

19. All storm water management facilities and all major portions of the conveyance system through the proposed development (i.e., channels, culverts) shall be analyzed, using the design and 100-year storms, for design conditions and operating conditions which can reasonably be expected during the life of the facility. The results of the analysis shall be included in the hydrologic-hydraulic study.

20. If the storm water management plan and/or design report indicates that there may be a drainage or flooding problem at the exit of the proposed development or at any location between the exit point and the 10 percent downstream point, the City Building Inspector may require:

    a. Water surface profiles plotted for the conditions of pre- and post- development for the 10-year design storm;

    b. Water surface profiles plotted for the conditions of pre- and post- development for the 100-year design storm;

    c. Elevations of all structures potentially damaged by 10- and/or 100-year flows.

21. All storm water management plans submitted for approval shall contain certification by the person responsible for the land disturbing activity that the land disturbing activity will be accomplished pursuant to the approved plan and that responsible personnel will be assigned to the project.

22. All storm water management plans shall contain certification, by the person responsible for the land disturbing activity, of the right of the City Building Inspector to conduct on-site inspections.

23. The storm water management plan shall not be considered approved without the inclusion of a signature and date on the plans by the City Building Inspector. The signature on the plans is solely an acknowledgment of satisfactory compliance with the requirements of these regulations. The signature does not constitute a

representation or warranty to the applicant or any other person concerning the safety, appropriateness or effectiveness of any provision, or omission from the storm water management plan.

24. Approved storm water management plans remain valid for five (5) years from the date of an approval. Extensions or renewals of the plan approval will be granted by the City Building Inspector upon written request by the person responsible for the land disturbing activity.

PLAN HYDROLOGIC CRITERIA

The hydrologic criteria to be used for the storm water management plans shall be as follows:

1. 25-year design storm for all cross-drain culverts and drainage designs.

2. 10-year design storm for all interior culverts and drainage designs.

3. 2- and 10-year design storms for all detention and retention basins using procedures approved by City Building Inspector.

4. All drainage designs shall be checked using the 100-year storm for analysis of local flooding, and possible flood hazards to adjacent structures and/or property.

5. All hydrologic analysis will be based on land use conditions.

6. For the design of storage facilities, a secondary outlet device or emergency spillway shall be provided to discharge the excess runoff in such a way that no danger of loss of life or facility failure is created. The size of the outlet device or emergency spillway shall be designed to pass the 100-year storm as a minimum requirement.

PLAN WATER QUALITY CRITERIA

Following are the criteria related to using storm water management facilities for water quality purposes.

<u>Ponds, Lakes and Reservoirs</u>

1. When the land disturbing activity consists of the construction of a pond, lake or reservoir which is singly built and not part of a permitted land disturbing activity, the following procedures will apply:

   a. A storm water management plan will not be required if the pond, lake or reservoir has received prior State approval. Best management practices should be used to minimize the impact of erosion and sediment.

b. A storm water management plan will be required for the construction of all ponds, lakes or reservoirs not meeting the conditions in (a) above that otherwise meet the size requirements for storm water management plan approval.

2. When ponds are used for water quality protection, the ponds shall be designed as both quantity and quality control structures. Sediment storage volume shall be calculated considering the clean out and maintenance schedules specified by the designer during the land disturbing activity. Sediment storage volumes may be predicted by the Universal Soil Loss Equation or methods acceptable to the City Engineer.

3. Storm water runoff and drainage to a single outlet from land disturbing activities which disturb ten (10) acres or more shall be controlled during the land disturbing activity by the sediment basin where sufficient space and other factors allow these controls to be used until the final inspection. The sediment basin shall be designed and constructed to accommodate the anticipated sediment load from the land disturbing activity and meet a removal efficiency of 80 percent suspended solids or 0.5 ML/L peak settable solids concentration, whichever is less. The outfall device or system design shall take into account the total drainage area flowing through the disturbed area draining to the basin.

4. Other practices may be acceptable to the City Building Inspector if they achieve an equivalent removal efficiency of 80 percent for suspended solids or 0.5 ML/L peak settable solids concentration, whichever is less. The efficiency shall be calculated for disturbed conditions for the 10-year, 24-hour design storm event.

5. Permanent water quality ponds having a permanent pool shall be designed to store and release the first 1/2-inch of runoff from the site over a 24-hour period. The storage volume shall be designed to accommodate, at least, 1/2-inch of runoff from the entire site.

6. Permanent water quality ponds, not having a permanent pool, shall be designed to release the first inch of runoff from the site over a 24-hour period.

7. The use of measures other than ponds to achieve water quality improvement are recommended on sites containing less than ten (10) disturbed areas.

<u>Infiltration Practice</u>

1. Permanent infiltration practices, when used, shall be designed to accept, at a minimum, the first inch of runoff from all impervious areas.

2. Areas draining to infiltration practices must be established and vegetative filters established prior to runoff entering the

system. Infiltration practices shall not be used if a suspended solids filter system does not accompany the practice. If vegetation is the intended filter, there shall be at least a 20-foot width of vegetative filter prior to storm water runoff entering the infiltration practice.

3. The bottom of the infiltration practice shall be at least 2.0 feet above the seasonal high water table, whether perched or regional, determined by direct piezometer by direct piezometer measurements which can be demonstrated by to representative of the maximum height of the water table on an annual basis during years of normal precipitation, or by the depth in the soil at which mottling first occurs.

4. The infiltration practice shall be designed to completely drain water within 72 hours.

5. Soils must have adequate permeability to allow water to infiltrate. Infiltration practices are limited to soils having an infiltration rate of at least 0.30 inches per hour. Initial consideration will be based on a review of the appropriate soil survey, and the survey may serve as a basis for rejection. On-site soil borings and textural classifications must be accomplished to verify the actual site and seasonal high water table conditions when infiltration is to be utilized.

6. Infiltration practices greater than three feet deep shall be located at least 10 feet from subsurface walls.

7. Infiltration practices designed to handle runoff from impervious parking areas shall be a minimum of 150 feet from any public or private water supply well.

8. The design of infiltration practice shall incorporate an overflow system with measures to provide a non-erosive velocity of flow along its length and at the outfall.

9. The slope of the bottom of the infiltration practice shall not exceed five percent. Also, the practice shall not be installed in fill materials, as piping along the fill/natural ground interface may cause slope failure.

10. An infiltration practice shall not be installed on or atop a slope whose natural angle of incline exceeds 20 percent.

11. Clean outs will be provided, at a minimum, every 100 feet along the infiltration practice to allow for access and maintenance.