



## Legislation Text

File #: 00174, Version: 2

### Fiscal Note+

The proposed amendment of Section 37 requires various reductions in total suspended solids introduced into public waters. Funding for some of these efforts would be supported by the private sector. For those efforts supported by the public sector, funding for any actions undertaken to reduce suspended solids would have to be included in future year Engineering Division/Stormwater Utility capital and operating budgets. Other than those amounts identified in the 2005 Adopted Capital Improvement Program and the 2005 Adopted Operating Budget, the amount of such funding is not quantifiable at the present time. Appropriate amounts would be incorporated into future year capital and operating budgets as more information becomes available.

### Title

SUBSTITUTE - Amending Sections 37.02(2)(d), (e), (f) and (j), 37.03(4), 37.04, 37.05(1) and (7)(a), 37.09(3) and (4), creating Section 37.09(6), and amending Sections 37.11(1)(a) and 37.12(2), (3)(g) and (7)(a) of the Madison General Ordinances to modify various requirements of the Public Stormwater System.

### Body

The Common Council of the City of Madison do hereby ordain as follows:

1. Subdivision (d) of Subsection (2) of Section 37.02 entitled "Finding and Declaration of Purpose" of the Madison General Ordinances is amended to read as follows:

"(d) Protect functional values of natural ~~water courses~~ watercourses and wetlands;

2. Subdivision (e) of Subsection (2) of Section 37.02 entitled "Finding and Declaration of Purpose" of the Madison General Ordinances is amended to read as follows:

"(e) Provide a set of performance standards that are ~~consistent with~~ at least as protective of the environment and natural resources as and not in conflict with the standards set forth by Dane County and the Wisconsin Department of Natural Resources;"

3. Subdivision (f) of Subsection (2) of Section 37.02 entitled "Finding and Declaration of Purpose" of the Madison General Ordinances is amended to read as follows :

"(f) Achieve an 80% reduction in ~~sediment load rates~~ total suspended solids load to waters of the state as compared to no controls for all new development, a 40% reduction in ~~sediment load rates~~ total suspended solids load compared to no controls for all redevelopment and street reconstruction. Further, on a municipality-wide basis, achieve and a 20% reduction in sediment load rates total suspended solids load compared to no controls for existing developments by 2007; a 40% reduction in total suspended solids load compared to no controls by 2011."

4. Subdivision (j) of Subsection (2) of Section 37.02 entitled "Finding and Declaration of Purpose" of the Madison General Ordinances is amended to read as follows:

"(j) Ensure no increase in temperature of post-construction stormwater in order to protect cold-water communities;

5. Subsection (4) entitled "Effective Date" of Section 37.03 entitled "General Provisions" of the Madison General Ordinances is amended to read as follows:

"(4) Effective Date. This ordinance ID #31790 and #31804 shall become effective as of 12:01 AM on August 22, 2002. The amendments to ordinance ID #31790 and 31804 contained in ordinance ID # shall become effective January 1, 2005.

6. Section 37.04 entitled "Definitions" of the Madison General Ordinances is amended by adding or amending therein the following:

" Average Annual Rainfall" means the rainfall information for an average year as determined by the information in the following rainfall file: msn1981.ran. This file represents a synthetic rainfall record for the Madison area of 1981, running from March 12 through December 2. This file is available on the Wisconsin Department of Natural Resources web site www.dnr.state.wi.us/org/water/wrm/nps/models/SLAMM.htm

" Best Management Practices or "BMPs" means a practice, technique or measure that is an effective, practical means of preventing or reducing soil erosion or water pollution, or both, from runoff both during and after land development activities. These can include structural, vegetative or operational practices. structural or non-structural measures, practices, techniques or devices employed to avoid or minimize soil, sediment or pollutants carried in runoff to waters of the state.

" Design Storm means a hypothetical discrete rainstorm characterized by a specific duration, temporal distribution, rainfall intensity, return frequency and total depth of rainfall."

" Effective Infiltration Area means the area of the infiltration system that is used to infiltrate runoff and does not include the area used for site access, berms or pretreatment."

" Erosion (Soil Erosion) is the detachment and movement of soil or rock fragments by water, means the process by which the land's surface is worn away by the action of wind, water, ice, or gravity.

"Impervious Surface means an area that releases as run-off all or a large portion of the precipitation that falls on it, except for frozen soil. Rooftops, sidewalks, driveways, parking lots and streets are examples of surfaces that typically are impervious.

" In-fill Area means an undeveloped area of land located within existing urban sewer service areas, surrounded by already existing development or existing development and natural or man-made features where development cannot occur."

" Infiltration means the process by which rainfall or runoff seeps into the entry and movement of precipitation or runoff into or through soil."

" Land-Disturbing Construction Activities or Uses are means any man-made alteration of the land changes surface which may resulting in a change in the topography or existing vegetative or non-vegetative soil cover, that may result in runoff and lead to an increase in soil erosion and movement of sediment into waters of the state, Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities, sedimentation and/or the increase in runoff; including but not limited to removal of ground cover, grading, excavating, and filling of land. Except that the term shall not include such minor land-disturbing activities as home gardens and repair and maintenance of private access roads less than 125 feet. Additionally, this term does not include agricultural land uses and wildlife plantings."

" MEP or "Maximum Extent Practicable" means a level of implementing best management practices in order to achieve a performance standard specified in this chapter which takes into account the best available technology, cost effectiveness and other competing issues such as human safety and welfare, endangered and threatened resources, historic properties and geographic features. MEP allows flexibility in the way to meet the performance standards and may vary based on the performance standard and site conditions."

" New Development means development resulting from the conversion of previously undeveloped land or agricultural land uses."

" Pervious Area means an area that releases as runoff a small portion of the precipitation that falls on it and shall be a minimum of 2.5 feet deep. Lawns, gardens, parks, forests or similar vegetated areas are examples of surfaces that typically are pervious. a surface, which is permeable by rainwater or melting snow, including but not limited to, turfed areas, agricultural lands and golf courses.

" Protective Areas means an area of land that commences at the top of the channel of lakes, streams, and rivers or at the delineated boundary of wetlands, and that is the greatest of the widths defined in Section 37.09(3)(h), as measured horizontally from the top of the channel or delineated wetland boundary to the closest impervious surface. However, protective area does not include any area of land adjacent to any stream enclosed within a pipe or culvert such that runoff cannot enter the enclosure at this location."

" Public Stormwater System shall mean all public storm sewers, drainage conduits, drainage conveyances, private non-exclusive drainage easements, public non-exclusive drainage easements, roadside ditches or curb and gutter on public rights-of-way, public greenways, and public parkways and all improvements thereto which by this section are constituted as the property and responsibility of the Stormwater Utility. These are to be operated to, among other things, conserve water, control discharges necessitated by rainfall events, incorporate methods to collect, convey, store, absorb, inhibit, treat, use or reuse water to prevent or reduce flooding, over-drainage, environmental degradation and water pollution or otherwise affect the quality and quantity of discharge from such system.

" Runoff ~~is the portion of~~ means storm water or precipitation including rainfall, ~~melted snow, ice melt or irrigation similar water that flows across the ground~~ moves on the land surface via sheet or channelized flow."

" Stormwater Runoff is the water derived from rains falling or snowmelt or ice melt occurring within a tributary drainage basin, flowing over the surface of the ground or collected in channels, watercourses or conduits.

" Type II Distribution means a rainfall type curve as established in the "United States Department of Agriculture, Soil Conservation Service, Technical Paper 149, published 1973", which is incorporated by reference for this chapter. The Type II curve is applicable to all of Wisconsin and represents the most intense storm pattern."

7. Subsection (1) entitled "Purpose and Necessity" of Section 37.05 entitled "The Public Stormwater System" of the Madison General Ordinances is amended to read as follows:

"(1) Purpose and Necessity. The Common Council of the City of Madison finds that the management of stormwater and other surface water discharges within and beyond the Yahara River, the Sugar River, Door Creek and other bodies of water within the City is a matter that affects the health, safety, ~~and~~ welfare and well-being of the City, its citizens and businesses and others in the surrounding area. Failure to effectively manage stormwater affects the sanitary sewer utility operations of the City by, among other things, increasing the likelihood of infiltration and inflow into the sanitary sewer system. Surface water runoff may cause erosion of lands, threaten residences and businesses with water damage, and create environmental damage to the rivers, streams, and other bodies of water within and adjacent to the City. A system for the collection and disposal of stormwater provides benefits to all properties within the City and surrounding areas, including those properties not currently served by the system. Beyond designated initial Capital Expenses for system improvements, ~~the~~ cost of operating and maintaining the City stormwater management system and financing necessary repairs, replacements, improvements and extensions thereof should, to the extent practicable, be allocated in relationship to the services received from the system. In order to protect the health, safety and welfare of the public, the Common Council hereby exercises its authority to establish a stormwater utility and establish the rates for stormwater management services. Nothing in the foregoing shall affect the determination of the Common Council to provide for the payment of designated initial capital expenses for system improvements by other necessary and convenient means. In promulgating the regulations contained in this section, the City is acting pursuant to authority granted by Chapters 62 and 66 of the Wis. Stats. including, but not limited to, sec. 62.04, 62.11(5), 62.16(2), 62.18, 62.23(6), 66.0809, 66.0811, 66.0813, 66.0821, and 66.0627."

8. Subdivision (a) entitled "Permit Required for Connection" of Subsection (7) entitled "Connection to the

Public Stormwater System" of Section 37.05 entitled "The Public Stormwater System" of the Madison General Ordinances is amended to read as follows:

- "(a) Permit Required for Connection. No person shall do any work whatsoever for the purpose of connecting to the public stormwater system or existing building sewers or existing private sewers, or for the purpose of laying building sewers or private sewers, without first obtaining from the Administrative Authority a written permit to connect to the public stormwater system.
- A stormwater connection permit shall also be required for any disturbance or addition on property adjacent to either a public or private non-exclusive drainage easement. Disturbances or additions shall include but shall not be limited to all grading, building additions, structures, sheds, garages, utility boxes, gardens and other landscaped features that may alter the drainage pattern on the site. A permit to connect to the public stormwater system shall be required for any of the above mentioned activities either within a public or private non-exclusive drainage easement or adjacent to said easement or on lands which drain to the public stormwater system.
- All private sewers and all building sewers between the property line and terminating at the public stormwater system shall be installed by City forces, City contract, contract under the supervision of the Board of Public Works, a Contractor approved by the Board of Public Works for sewer construction, or a plumber qualified by the Board of Public Works (terrace only). All work shall comply with the City of Madison Standard Street and Sewer Specifications and General Conditions. For each original permit, the applicant shall pay to the City Treasurer, an application fee of one hundred dollars (\$100) and conform to procedures and regulations herein. The required permit to connect with the public sewer system shall be on the premises and in the hands of the person making the connection. Prior to allowing connections to the storm sewer system, for the purpose of a non-stormwater discharge, the applicant shall first obtain a permit from the City Health Department in accordance with Sec. 7.47 of the Madison General Ordinances."

9. Subdivision (e) of Subsection (3) entitled "Land-Disturbing Activities Subject to Stormwater Management" of Section 37.06 entitled "Land-Disturbing Activities Subject to Erosion Control and Stormwater Management" of the Madison General Ordinances is created to read as follows:

- "(e) Any land disturbance equal to or greater than one (1) acre regardless of impervious area which is part of the project after construction."

10. Subsection (3) entitled "Stormwater Management Performance Standards" of Section 37.09 entitled "Stormwater Management Plan Requirements" of the Madison General Ordinances is amended to read as follows:

- "(3) Stormwater Management Performance Standards. Proposed design, suggested location and phased implementation of effective, practicable stormwater management measures for plans shall be designed, engineered, sealed by a registered professional engineer in the Stat of Wisconsin, and implemented to achieve the following results:
- (a) Sediment Control.
1. For new development, by design construction, one of the following methods shall be used:
- a. design practices to retain soil particles greater than 5 microns on the site (80% reduction) resulting from a one-year 24-hour storm event, according to approved procedures, and assuming no sediment re-suspension; Reduce, to the maximum extent practicable, total suspended solids load leaving the site by 80%, based on the average annual rainfall, as compared to no runoff management controls. This method requires the use of a continuous model such as SLAMM, P8 or equivalent, and the use of approved grain size distribution curves and rainfall data. These files are managed and maintained by the Wisconsin Department of Natural Resources and are available on its website.
- No person shall be required to exceed an 80% total suspended solids reduction, for the site as a whole, to meet the requirements of this subdivision. This analysis shall use approved procedures and shall assume no re-suspension

- of particles. This analysis shall require tracking of the particulate sizes trapped by each device used in series (or treatment train). Serial redundant removal efficiencies shall not be allowed. For example, two (2) sediment traps used in series each being 40% effective does not provide an 80% removal efficiency. Rather, as these devices both trap essentially the same particle size the combined efficiency of these two (2) devices used in series remains at 40%.
- b. Retain soil particles greater than five (5) microns on the site, as measured during a one (1) year 24-hour storm event. This analysis shall use approved procedures and shall assume no re-suspension of particles. This analysis requires tracking of the particulate sizes trapped by each device used in series (or treatment train). Serial redundant removal efficiencies shall not be allowed. For example, two (2) sediment traps used in series each being 40% effective does not provide an 80% removal efficiency. Rather, as these devices both trap essentially the same particle size the combined efficiency of these two (2) devices used in series remains at 40%.
2. For redevelopment, by design, one of the following methods shall be used: resulting in exposed surface parking lots and associated traffic areas, design practices to retain soil particles greater than 20 microns on the entire site (40% reduction) resulting from a one-year 24-hour storm event, according to approved procedures, and assuming no sediment re-suspension. Under no circumstances shall the site's existing sediment control level or trapping efficiency be reduced as a result of the redevelopment.
- a. Reduce, to the maximum extent practicable, total suspended solids loads leaving the site by 40%, based on average rainfall, as compared to no runoff management controls. This method requires the use of a continuous model such as SLAMM, P8 or equivalent, and the use of approved grain size distribution curves and rainfall data. These files are managed and maintained by the Wisconsin Department of Natural Resources and are available on its website.
- No person shall be required to exceed 40% total suspended solids reduction, for the site as a whole, to meet the requirements of this subdivision. This analysis shall use approved procedures and assume no re-suspension of particles. This analysis shall require tracking of the particulate sizes trapped by each device used in series (or treatment train). Serial redundant removal efficiencies shall not be allowed. For example, a catchbasin and an inlet filter, each being approximately 25% effective, do not provide a 50% removal efficiency. Rather, as these devices both trap the same particle size the combined efficiency of these two (2) devices used in series remains at 25%.
- b. Retain soil particles greater than twenty (20) microns on the site, as measured during a one (1) year, 24-hour storm event. This analysis shall use approved procedures and shall assume no re-suspension of particles. This analysis shall require tracking of the particulate sizes trapped by each device used in series (or treatment train). Serial redundant removal efficiencies shall not be allowed. For example, a catchbasin and an inlet filter, each being approximately 25% effective, do not provide a 50% removal efficiency. Rather, as these devices both trap the same particle size the combined efficiency of these two (2) devices used in series remains at 25%.
3. For in-fill development under 5 acres that occurs within 5 years of October 1, 2004, by design, reduce to the maximum extent practicable, the total suspended solids load by 40% based on the criteria in 2.a. or b., above.
4. For in-fill development that occurs 5 or more years after October 1, 2004 by design, reduce to the maximum extent practicable, the total suspended solids load by 80% based on the criteria in 1.a. or b., above. No person shall be required to exceed an 80% total suspended solids reduction to meet the requirements of this subdivision.
- (b) Oil and Grease Control. For all stormwater plans for commercial or industrial developments and all other uses where the potential for pollution by oil or grease, or both, exists, the first 0.5 inches of runoff will be treated using the best oil and grease removal technology available. The Administrative Authority may waive this requirement only when the applicant can demonstrate

- that installation of such practices is not necessary.
- (c) Runoff Rate Control - Hydrologic Calculations. All runoff calculations for event driven analysis shall be according to the methodology described in the Natural Resources Conservation Service's Technical Release 55, "Urban Hydrology for Small Watersheds" (commonly known as TR-55), for analysis requiring average annual results SLAMM or other Technical Standards and Specifications as provided in Sec. 37.10(2). For agricultural land subject to this section, the maximum runoff curve number (RCN) used in such calculations shall be 51 for hydrologic soil group (HSG) A, 68 for HSG B, 79 for HSG C, and 84 for HSG D. The TR-55-specified curve numbers for other land uses shall be used. Heavily disturbed sites will be lowered one permeability class for hydrologic calculations. Lightly disturbed areas require no modification. ~~Where practices have been implemented to restore soil structure to pre-developed conditions, no permeability class modification is required.~~
- (d) Runoff Rate Control - Design Standards. All stormwater facilities shall be designed, installed and maintained to effectively accomplish the following:
1. Maintain predevelopment peak runoff rates for the 2-year, 24-hour storm event (2.9 inches over 24 hours duration).
  2. Maintain predevelopment peak runoff rates for the 10-year, 24-hour storm event (4.2 inches over 24 hours duration.)
  3. Safely pass the 100-year, 24-hour storm event (6.0 inches over 24-hour duration).
  4. Development/Redevelopment shall be required to implement runoff rate controls upon a cumulative increase in impervious area equal or exceeding 20,000 square feet. Incremental increases over a period of years such that multiple small incremental increases in impervious area eventually exceeds the 20,000 square foot criteria shall be retroactively controlled once the cumulative increase in impervious area meets or exceeds 20,000 square feet.
  5. Lands that are to be developed in the Upper or Lower Badger Mill Creek Watersheds are required to maintain predevelopment peak runoff rates for the 100-year, 24-hour storm event (6.0 inches over 24 hours duration). This is required in addition to the requirements of Paragraphs 1-4. Further, the applicant shall be aware that development in both of these watersheds is subject to City of Madison impact fees notwithstanding any provision set forth herein.
  6. Redevelopment or Infill Development.
    - a. Lands that are known to the City Engineer to be within watersheds experiencing significant flooding shall provide detention volume equal to the known surcharge volume in the watershed (during a 25-year storm event) multiplied by the proposed development's impervious area and divided by the total impervious area of the watershed as determined by the City of Madison Stormwater Utility Records. This is intended to create a proportional allocation of the excess flood volume by impervious area within the watershed. Any redevelopment or infill development shall provide detention commensurate with the proportion of the flooding problem. For purposes of this calculation, timing and routing issues of stormwater shall be ignored.
    - b. For the University/Midvale watershed (also known as ME01), the applicant shall provide 0.06 acre-ft of detention per acre of proposed impervious area.
- (e) Outlets. Discharges from new construction sites must have a stable outlet capable of carrying designed flow as required in Sec. 37.09(3)(d), at a non-erosive velocity. Outlet design must consider flow capacity and flow duration. This requirement applies to both the site outlet and the ultimate outlet to stormwater conveyance or water body.
- (f) Infiltration.
1. All lots, plats, or Certified Survey Maps which have a total disturbed area of one (1) acre or more are required per Wisconsin Administrative Code NR 216 and this paragraph to obtain a Notice of Intent (NOI) permit from the Wisconsin Department of Natural Resources or the Commerce Department (if the disturbance is associated with a commercial building).. If an NOI is obtained after October 1, 2004, the applicant shall be subject to and shall comply with a stormwater infiltration requirement. This requirement shall be in accordance with the standards established in Wisconsin Administrative Code NR 151.12(5)(c).

All stormwater management plans submitted to the City of Madison for infiltration review shall meet the requirements of Wisconsin Administrative Code NR 151.12(5)(c). The stormwater management plans shall also comply with the sections entitled "Criteria" within the associated Infiltration Technical Standards. These standards have been produced by the Standards Oversight Council and are administered by the Wisconsin Department of Natural Resources and are available on the Wisconsin Department of Natural Resources website (a link to this website can be found on the City of Madison website).

2. All downspouts, driveways and other impervious areas in residential development shall be directed to pervious surfaces, where feasible, or unless the applicant can demonstrate that the practice is likely to result in groundwater contamination or will cause significant structural damage.
3. Use of distributed detention devices (e.g. rain gardens) will require a deed restriction and maintenance agreement, both recorded against individual parcels. If these devices are utilized to meet the requirements of Wisconsin Administrative Code NR 151 no credit shall be given towards the volume requirements for Runoff Rate Control--Hydrologic Calculations or Design Standards, in Sec. 37.09(3)(c) and (d) of the Madison General Ordinances.
4. Infiltration systems designed in accordance with this section shall, to the extent technically and economically feasible, minimize the level of pollutants infiltrating to the groundwater and shall maintain compliance with the prevention action limits at a point of standards application in accordance with State of Wisconsin Administrative Code NR-140 for all pollutants excepting chloride. Further, if site-specific information indicates that compliance with the applicable prevention action limit is not achievable, the infiltration device shall not be installed or shall be modified to prevent infiltration to the maximum extent practicable.

- (g) Thermal Control. The stormwater management plan shall include provisions and practices to reduce the temperature of runoff for sites located within the watershed of a river or stream identified by the Wisconsin Department of Natural Resources as a Cold Water Community through NR 102.04(3)(a), NR 104, Wisconsin Administrative Code, and Class I, Class II, and Class III Trout Streams identified in "Wisconsin Trout Streams", DNR publication 6-3600(80) or its successor.

The stormwater management plan does not have to meet this thermal control requirement if the applicant can justify by use of a model approved by the Dane County Conservationist and the Administrative Authority that practices are not necessary because the temperature increase of runoff from the site post-development will be zero.

A current list and maps of affected watersheds shall be available for reference at the office of the Administrative Authority.

Meeting the infiltration standards of Wisconsin Administrative Code NR 151.12(5)(c) shall satisfy all requirements for thermal control. If a site is exempt or excluded from infiltration requirements in accordance with Wisconsin Administrative Code NR 151.12(5)(c)5. and 6. but is located in a thermal control watershed, the thermal requirements of this section apply and shall be met.

- (h) Protective Areas. Impervious surfaces shall be kept out of the protective areas to the maximum extent practicable. The storm water management plan shall contain a written site-specific explanation for any parts of the protective area that are disturbed. Where land disturbance occurs within the protective area and where no impervious surface is present, adequate sod or self-sustaining vegetative cover of 70% (of the disturbed area) or greater shall be established and maintained. Best management practices may be located within protective areas.
1. For outstanding resources waters and exceptional resources waters and for wetlands in areas of special natural resource interest as specified in Wisconsin Administrative code NR-103.04 -- the protective distance is 75 feet.
  2. For perennial and intermittent streams identified on a United States Geological Survey 7.5 minute series topographic map, or on a county soil survey map, which is more current -- the protective distance is 50 feet.
  3. For lakes -- the protective distance is 50 feet.
  4. For highly susceptible wetlands -- the protective distance is 50 feet..

5. For less susceptible wetlands -- the protective distance is 10% of the average wetland width, but not less than 10 feet nor more than 30 feet.
6. For concentrated flow channels with drainage areas greater than 130 acres -- the protective distance is 10 feet.
7. redevelopment post-construction sites and infill development (less than five (5) acres) sites are exempt from the protective area requirements.
8. Structures that cross or access surface waters are exempt from the protective area requirements."

10. Subsection (4) entitled "Stormwater Management Goals" of Section 37.09 entitled "Stormwater Management Plan Requirements" of the Madison General Ordinances is amended to read as follows:

- "(4) Municipal Stormwater Management Goals. ~~The following standards shall be met whenever possible, and proposed design, suggested location and implementation of practices to meet these goals shall be included in the plans:~~
- (a) For existing development, ~~design~~ implement practices to reduce by 20% the anticipated total suspended solids entering waters of the state, as compared to no controls, by March 10, 2007 and a 40% reduction by March 10, 2011. This as designed/modeled standard will be met on a municipality wide basis. In the event that the majority of the communities in the Madison Lakes watershed fail to adopt similar provisions, then the requirements of this section shall revert to those contained in State of Wisconsin Administrative Code NR-151.13(2). retain soil particles greater than 40 microns on the site (20% reduction) resulting from a one-year, 24-hour storm event, according to approved procedures, and assuming no sediment resuspension.
  - (b) For new street construction, not associated with new plat development (as stormwater management for these types of streets shall be addressed with the development), or with street reconstruction, the following shall apply:
    1. Total Suspended Solids (TSS) Sediment Control - Reduce, to the maximum extent practicable, total suspended solids loads leaving the site by 40%, based on average rainfall, as compared to no runoff management controls. This method requires the use of a continuous model such as SLAMM or P8, and of approved grain size distribution curves and rainfall data. These files are managed and maintained by the Wisconsin Department of Natural Resources and are available on its website.

No person shall be required to exceed 40% total suspended solids reduction to meet the requirements of this subdivision. This analysis shall use approved procedures and assume no re-suspension of particles. This analysis shall require tracking of the particulate sizes trapped by each device used in series (or treatment train). Serial redundant removal efficiencies shall not be allowed. For example, a catchbasin and an inlet filter, each being approximately 25% effective, do not provide a 50% removal efficiency. Rather, as these devices both trap the same particle size the combined efficiency of these two (2) devices used in series remains at 25%. design practices to retain soil particles greater than 20 microns on the site (40% reduction) resulting from a one-year, 24-hour storm event, according to approved procedures, and assuming no sediment resuspension.
    2. Infiltration - design practices to infiltrate stormwater runoff from the roadway in accordance with Wisconsin Administrative Code NR-151.24(5).
    3. Peak Discharge -- design practice to reduce peak runoff from the roadway in accordance with Wisconsin Administrative Code NR-151.24(4)"

11. Subsection (6) entitled "Annual Stormwater Management Plan" of Section 37.09 entitled "Stormwater Management Plan Requirements" of the Madison General Ordinances is created to read as follows:

- "(6) Annual Stormwater Management Plan. Each applicant who is granted a stormwater management permit, and who has signed and recorded the required maintenance agreement, shall submit to City Engineering an annual report on the condition of the site's stormwater treatment devices. This report shall consist of the following:

- (a) documentation of completion of required annual maintenance, including copies of receipts from agents hired to perform the work and date the work was completed;
- (b) photos of the treatment device post completion of required maintenance."

12. Subdivision (a) of Subsection (1) entitled "Permit Required; Procedure and Fees" of Section 37.11 entitled "Applications and Issuance of Permits" of the Madison General Ordinances is amended to read as follows:

- "(a) Unless specifically excluded by this ordinance in Sec. 37.06, no person may undertake an activity subject to this ordinance without receiving an erosion control and stormwater management permit issued by the Administrative Authority. Each person desiring to undertake a regulated activity subject to this ordinance shall submit an application for an initial permit together with the appropriate fee.
- 1. There is a \$50 base fee for the erosion control and stormwater management permit.
  - 2. For the erosion control permit there shall be an additional fee of \$.004 per square foot of disturbed area.
  - 3. For the initial stormwater management permit there shall be an additional fee of \$.005 per square foot of impervious area or redeveloped impervious area. Each subsequent application shall include:
    - a. A \$50 base fee for the erosion control and stormwater management permit.
    - b. Receipts for continual maintenance as designated in initial stormwater permit application.

13. Subsection (2) entitled "Administrative Duties" of Section 37.12 entitled "Administration" of the Madison General Ordinances is amended to read as follows:

- "(2) Administrative Duties. The administration and enforcement of this ordinance, shall include the following duties:
- (a) Keep an accurate record of all plan data received, plans approved, permits issued, inspections made and other official actions.
  - (b) Review all plans and permit applications received when accompanied with the necessary information and the appropriate fee and issue the permits.
  - (c) Investigate all complaints made to the application of this ordinance.
  - (d) Maintain a database of all properties responsible for annual reports. This database shall track annual reports sent in and shall flag delinquent or deficient reports. Staff shall take appropriate action on flagged reports to bring those properties into compliance.
  - (e) Revoke any permit granted under this ordinance if the holder of the permit has misrepresented any material fact in the permit application or plan; or has failed to comply with the plan as originally approved or as modified in writing; or has violated any of the other conditions of the permit as issued to the applicant."

14. Subdivision (g) of Subsection (3) entitled "Inspection Authority" of Section 37.12 entitled "Administration" of the Madison General Ordinances is amended to read as follows:

- "(g) Maintenance is the responsibility of the owner, and facilities are subject to inspection and orders for repairs. Proof of maintenance is required with each annual report."

15. Subdivision (a) of Subsection (7) entitled "Penalties of Section 37.12 entitled "Administration" of the Madison General Ordinances is amended to read as follows:

- "(a) Any person who violates, disobeys, omits, neglects or refuses to comply with or resists the enforcement of any of the provisions of this ordinance shall, upon conviction thereof, be subject to a forfeiture of not less than ~~\$25~~ \$50 (fifty dollars) nor more than \$500 (five hundred dollars) for each and every violation thereof. Each day that a violation exists shall constitute a separate offense."