

## Chapter 75

### STORMWATER MANAGEMENT

#### ARTICLE I. GENERAL

##### Sec. 75-1. Intent and Purpose.

The purpose of this article is to protect the public health, safety and welfare of Village residents and to protect property values, quality of life, and natural systems relating to stormwater runoff control and management. The Village finds it is a matter of public concern and benefit to protect water bodies and properties within the Village and to reduce the future need for public expenditures relating to flooding, water quality, and stormwater system maintenance. Both the quality and quantity of stormwater runoff are a matter of public concern.

It is also the purpose of this article to establish minimum stormwater management requirements and controls to accomplish, among others, the following objectives:

- A. To provide environmental protection to the waters of the state consistent with the State and Federal Clean Water Acts;
- B. To regulate the contribution of pollutants to the stormwater drainage system and natural water bodies by stormwater discharges by any user;
- C. To prohibit illicit discharges and connections to the stormwater drainage system and natural water bodies;
- D. To remove existing pollutants into storm water and the degradation that said constituents may cause to the environment;
- E. To require permits for connections to the municipal separate storm sewer system (MS4);
- F. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this part; and
- G. To provide appropriate remedies for failure to comply with this part.

In addition to the requirements herein, a developer shall comply with the Village of Vicksburg construction requirements pertaining to stormwater sewer construction and stormwater drainage regulations.

## **Sec. 75-2. Statutory authority; enforcement.**

- A. This Chapter is adopted in accordance with the General Law Village Act, being MCL 61.12 et seq.; the Drain Code of 1956, as amended, being MCLA § 280.1 et seq.; the Land Division Act, as amended, being MCLA § 560.101 et seq.; the Revenue Bond Act, as amended, being MCLA § 141.101 et seq.; the Natural Resources and Environmental Protection Act, as amended, being MCLA § 324.101 et seq.; Section 401(p) of the Federal Water Pollution Control Act (also known as the Clean Water Act), as amended, being 33 U.S.C. § 1342(p) and 40 CFR Parts 9, 122, 123 and 124; and other applicable state and federal laws.
- B. The Village shall administer, implement and enforce the provisions of this part. Any powers granted or duties imposed upon the Village may be delegated in writing by the Village Council of the Village of Vicksburg to persons or entities acting in the beneficial interest of or in the employ of the Village. That person shall be known as the Stormwater Protection Administrator.

## **Sec. 75-3. Findings.**

The Village finds that stormwater regulation and management is a matter of public health, safety and welfare because:

- A. Water Bodies, roadways, structures, and other property within, and downstream of the Village are at times subjected to flooding.
- B. Flooding is a danger to the lives and property of the public and is also a danger to the natural resources of the Village and the region.
- C. Changes in land use alter the hydrologic response of watersheds, resulting in increased stormwater runoff rates and volumes, which further result in increased flooding, increased stream channel erosion, and increased sediment transport and deposition.
- D. Stormwater runoff produced by changes in land use contributes to increased quantities of water-borne pollutants.
- E. Illicit discharges contain pollutants that will significantly degrade the stream and Lake Michigan and water resources of the Village, thus threatening the health, safety and welfare of the citizenry.
- F. Illicit discharges enter the stormwater drainage system through either direct connections (e.g., wastewater piping either mistakenly or deliberately connected to the storm drains) or indirect connections (e.g., infiltration into the storm drain system or spills connected by drain inlets).
- G. Establishing the measures for controlling illicit discharges and connections contained in this part and implementing the same will address many of the deleterious effects of illicit discharges.
- H. Any condition caused or permitted to exist in violation of any of the provisions of this part is a threat to public health, safety and welfare and is declared and deemed a nuisance.

#### **Sec. 75-4. Applicability and general provisions.**

This part shall apply to all discharges entering the stormwater drainage system and natural water bodies generated on any developed and undeveloped lands within the Village.

#### **Sec. 75-5. Definitions.**

For the purpose of this article, the following words and phrases shall have the meanings respectively ascribed to them by this section unless the context in which they are used specifically indicates otherwise.

AUTHORIZED ENFORCEMENT AGENCY The Village of Vicksburg and/or any persons or agencies designated to act as the authorized enforcement agency by the Village Council of the Village of Vicksburg.

BEST MANAGEMENT PRACTICES (BMPs) Structural devices or nonstructural practices that are designed to prevent pollutants from entering stormwater flows, to direct the flow of stormwater, or to treat polluted stormwater flows. BMPs may include, but shall not be limited to, those described in the Michigan Department of Environmental Quality Guidebook of BMPs for Michigan watersheds. Equivalent practices and design criteria that accomplish the purposes of this part (including, but not limited to, minimizing stormwater runoff and preventing the discharge of pollutants into stormwater) shall be as determined by the Village Engineer and, when applicable, the standards of the Kalamazoo County Drain Commissioner.

CLEAN WATER ACT The Federal Water Pollution Control Act, 33 U.S.C. § 1251 et seq., as amended, and the applicable regulations promulgated thereunder.

DETENTION BASIN A structure or facility, natural or artificial, which stores stormwater on a temporary basis and releases it at a predetermined rate. A detention basin may drain completely after a storm event, or it may be a pond with a fixed minimum water elevation between runoff events.

DISCHARGE The introduction (intentionally or unintentionally, directly or indirectly) of any liquid, substance, pollutant or other material into a stormwater drainage system or natural water body.

DISCHARGE The rate of flow or volume of water passing a given point. Expressed as cubic feet per second.

DISCHARGE PERMIT — A permit issued by the owner of the municipal separate storm sewer system (MS4) to a user for a discharge into the MS4.

DISCHARGER Any person or entity who directly or indirectly discharges stormwater from any premises or property. "Discharger" also includes any employee, officer, director, partner, contractor or other person who participates in, or is legally or factually responsible for, any act or omission that is, or results in, a violation of this part.

DISTURBED AREA An area of land subject to the removal of vegetative cover and/or earthmoving activities.

DRAIN Any and all conduits, facilities, measures, areas and structures that serve to convey, catch, hold, filter, store and/or receive stormwater or groundwater, either on a temporary or permanent basis.

DRAINAGE The collection, conveyance or discharge of groundwater and/or surface water.

DRAINAGE SYSTEM All facilities, areas, and structures which serve to convey, store, or receive stormwater, either on a temporary or permanent basis.

DRAINAGEWAY A natural or artificial facility, area, or structure which conveys or transports stormwater runoff from one location to a different location. This may include a drain, water body or floodplain.

EARTH CHANGE Any human activity which removes ground cover, changes the slope or contours of the land, or exposes the soil surface to the actions of wind and rain. Earth change includes, but is not limited to, any excavating, surface grading, filling, landscaping, or removal of vegetative roots.

EPA The U.S. Environmental Protection Agency.

EROSION The removal of soil particles from the land by the action of water, wind, ice, or other geological agents.

FLOODPLAIN The area, usually low lands, adjoining the channel of a river, stream or watercourse or lake or other body of standing water, that has been or may be covered by floodwater.

GRADING Any stripping, excavating, filling, and stockpiling of soil or any combination thereof and the land in its excavated or filled condition.

HAZARDOUS MATERIALS Any solid, liquid, semisolid or gaseous substance or material that because of its quantity, quality, concentration or physical, chemical or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness or serious incapacitating but reversible illness, or may pose a substantial present or potential hazard to human health or the environment if improperly treated, stored, transported, disposed of, or otherwise managed.

ILLCIT CONNECTION Any method or means or conduit for conveying an illicit discharge into a natural water body or a stormwater drainage system.

ILLCIT DISCHARGE Any discharge to a water body or a stormwater drainage system that does not consist entirely of stormwater, that is not allowed by the terms of an NPDES permit, or that is not an allowable discharge as defined by this part.

INFILTRATION The percolation and movement of water downward into and through the soil column. The rate of this movement is expressed in inches per hour.

MDEQ Michigan Department of Environmental Quality.

MS4 Municipal separate storm sewer system, as defined by federal and state laws.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT A permit issued by the EPA or a state under authority delegated pursuant to the Clean Water Act that allows the discharge of pollutants to waters of the United States.

NONSTORMWATER DISCHARGE Any discharge to the stormwater drainage system or a water body that is not composed entirely of stormwater.

OFFSITE FACILITY Any portion of a stormwater management system which is located off the development site which it serves.

100-YEAR STORM That water occupation adjacent to a body of water which results from a storm event having a 1 percent probability of occurrence in any given year. Thus, a 50-year storm has a 2 percent probability, a ten-year storm a 10 percent probability, etc.

PERFORMANCE STANDARD The technical standard or set of standards to be met. Performance standards may be periodically revised by the Village Council in response to state and federal regulatory requirements, changed scientific knowledge, or similar changed conditions and/or enhanced knowledge.

PERSON An individual, firm, partnership, association, public or private corporation, public agency, instrumentality or any other legal entity.

POLLUTANT Includes, but is not limited to, the following: any dredged spoil, solid waste, vehicle fluids, yard wastes, animal wastes, agricultural waste products, sediment, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological wastes, radioactive materials, hazardous materials, wrecked or discharged equipment, rock, sand, cellar dirt and industrial, municipal, commercial and agricultural waste, or any other contaminant or other substance defined as a pollutant under the Clean Water Act. "Pollutant" also includes properties or characteristics of water, including, but not limited to, pH, heat, TSS, turbidity, color, BOD, COD, toxicity and odor.

PREMISES Any building, structure, lot, parcel of land or portion of land, or property, whether improved or unimproved, including adjacent sidewalks and parking strips.

PRIMARY DRAINAGE SYSTEM Facilities, structures, and areas which convey, store, or receive runoff from storms up to a 10-year frequency.

PROPERTY OWNER Any person having legal or equitable title to property or premises or any person having or exercising care, custody or control over any property or premises.

RECEIVING BODY OF WATER Any watercourse or wetland into which surface waters are directed, either naturally or artificially.

RETENTION BASIN A holding area for stormwater, either natural or constructed, which does not have a positive outlet. Water is removed from retention basins through infiltration and/or evaporation processes, and may or may not have a permanent pool of water.

RUNOFF The portion of precipitation which does not infiltrate or percolate into the ground, but rather moves over the land, eventually reaching a body of water, wetland, or low area.

SECONDARY DRAINAGE SYSTEM Facilities, structures, and areas which convey, store or receive runoff from storms up to a 100-year frequency without causing serious damage to adjacent properties.

SEDIMENT Any solid particulate matter, both mineral and organic, which has been moved from the site of origin by erosion, is being transported by water, is in suspension in water, or has been deposited in a body of water, wetland or floodplain.

SITE Any tract, lot, or parcel of land or combination of tracts, lots, or parcels, which compose an area proposed for development and/or earth change.

SOIL EROSION The stripping of soil and weathered rock from land creating sediment for transportation by water, wind or ice, and enabling formation of new sedimentary deposits.

STATE OF MICHIGAN WATER QUALITY STANDARDS All applicable state rules, regulations, and laws pertaining to water quality, including the provisions of Section 3106 of Part 31 of 1994 P.A. 451, as amended.

STORM DRAIN A system of open or enclosed conduits and appurtenant structures intended to convey or manage stormwater runoff, groundwater and drainage.

STORMWATER DRAINAGE SYSTEM Storm sewers, conduits, curbs, gutters, catch basins, drains, ditches, pumping devices, parking lots, roads or other man-made channels that are designed or used, singly or together in combination with one another, for collecting or conveying stormwater.

STORMWATER FACILITY Methods, structures, BMP's, areas, or related items, which are used to control, store, receive, infiltrate, or convey runoff.

STORMWATER MANAGEMENT PLAN Maps and written information which describe the way in which stormwater will be controlled, both during and after construction.

STORMWATER POLLUTION PREVENTION PLAN A document that describes the BMPs and activities to be implemented by a person or business to identify sources of pollution or contamination at a site, and the actions to eliminate or reduce pollutant discharges to stormwater, a storm drain or stormwater drainage system, and/or a water body to the maximum extent practicable.

STORMWATER RUNOFF (or STORMWATER) The runoff and drainage of precipitation resulting from rainfall, snowmelt or other natural event or process.

TOXIC MATERIAL Any pollutant or combination of pollutants that is or can potentially be harmful to the public health or the environment, including without limitation those listed in 40 CFR 401.15 as toxic under the provisions of the Clean Water Act or listed in the Critical Materials Register promulgated by the Michigan Department of Environmental Quality, or as otherwise provided by local, state or federal laws, rules or regulations.

WASTEWATER Any water or other liquid, other than uncontaminated stormwater, discharged from a property or premises. The term includes any water that has in any way been used and degraded or physically or chemically altered.

WATER BODY A river, lake, stream, creek or other watercourse or wetlands.

WATERCOURSE Any waterway or other body of water having reasonably well defined banks, including rivers, streams, creeks and brooks, whether continually or intermittently flowing; and lakes and ponds, as shown on the official maps of the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.

WETLAND Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation and/or aquatic life. Also known as a bog, swamp, marsh, etc. (from § 324.30301 of Michigan Compiled Laws, Part 303 of NREPA, Wetlands Protection). The Michigan Department of Environmental Quality is the authority on the presence and regulatory status of wetlands.

**Sec. 75-6 – 75-9. Reserved.**

## **ARTICLE II. PROHIBITIONS AND ALLOWABLE DISCHARGES**

### **Sec. 75-10. Prohibited discharges.**

- A. It is unlawful for any person to discharge, or cause to be discharged, to a stormwater drainage system or water body, directly or indirectly, any substance or material, including, but not limited to, pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than stormwater or an allowable discharge. This prohibition includes the commencement, conducting or continuance of any illicit discharge by any person to a stormwater drainage system or water body.
- B. Any person discharging stormwater shall effectively prevent pollutants from being discharged with the stormwater, except in accordance with BMPs.
- C. The authorized enforcement agency is authorized to require dischargers to implement pollution prevention measures, using stormwater pollution prevention plans and BMPs, as determined necessary by the authorized enforcement agency to prevent or reduce the discharge of pollutants to a stormwater drainage system or water body.
- D. The discharge prohibitions of this section shall not apply to any non-stormwater discharge allowed under an NPDES permit, waiver or waste discharge order issued to the discharger and administered under the authority of the EPA, provided the discharger is in full compliance with all requirements of the permit, waiver or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the stormwater drainage system.

### **Sec. 75-11. Prohibited illicit connections.**

- A. It is unlawful for any person to construct, use, maintain (or to allow the construction, use, maintenance or continued existence of) an illicit connection.
- B. This prohibition expressly includes, without limitation, illicit connections made prior to the effective date of this part, and regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection.

### **Sec. 75-12. Allowable discharges.**

The following non-stormwater discharges are permissible, provided they do not result in a violation of State of Michigan water quality standards, and provided that they are undertaken in compliance with any applicable or required BMPs:

- A. Water supply line flushing.
- B. Landscape irrigation runoff.



- C. Diverted stream flows.
- D. Rising groundwater.
- E. Uncontaminated groundwater infiltration to storm drains.
- F. Uncontaminated pumped groundwater.
- G. Discharges from potable water sources.
- H. Foundation drains.
- I. Air-conditioning condensate.
- J. Irrigation water.
- K. Springs.
- L. Water from crawl space pumps.
- M. Footing drains and basement sump pumps.
- N. Lawn watering runoff.
- O. Waters from noncommercial car washing.
- P. Flows from riparian habitats and wetlands.
- Q. Residual street wash water.
- R. Discharges or flows from emergency firefighting activities.
- S. Single-family, residential swimming pool discharges so long as the pool waters have been effectively de-chlorinated (less than 0.5 parts per million chlorine) and so long as the discharge does not occur during times of heavy rains;
- T. Dye testing using MDEQ approved dyes, so long as authorized by a DEQ Rule 97 Certificate of Approval, and preceded by a written notification to and approval from the Stormwater Protection Administrator.

**Sec. 75-13. Storage of hazardous or toxic materials in drainageway.**

Except as permitted by law, it shall be unlawful for any person to store or stockpile within a drainageway any hazardous or toxic materials, unless adequate protection

and/or containment has been provided so as to prevent any such materials from entering a stormwater drainage system or water body.

**Sec. 75-14 – 75-19. Reserved.**

## **ARTICLE III. INSPECTION, MONITORING, REPORTING AND RECORDKEEPING**

### **Sec. 75-20. Inspection and sampling.**

The authorized enforcement agency may inspect and/or obtain samples from a discharger's property or premises as necessary to determine compliance with the requirements of this part. Upon request, the discharger shall allow the properly identified representatives of the authorized enforcement agency to enter the property or premises of the discharger at all hours necessary for the purposes of such inspection, investigation, or monitoring, including, but not limited to, smoke/dye testing, televising pipes, examination and/or copying of records that are required by this chapter to be maintained, sampling and excavation. The authorized enforcement agency shall provide the discharger reasonable advance notice of the need for such access, if possible and consistent with protection of public health and safety and the environment. The properly identified representatives may place on the discharger's property or premises the equipment or devices used for such sampling or inspection. Unreasonable delays in allowing access to a property or premises is a violation of this part.

### **Sec. 75-21. Stormwater-monitoring facilities.**

If directed in writing to do so by the authorized enforcement agency, a discharger of stormwater runoff from any property or premises shall provide and operate equipment or devices for the monitoring of stormwater runoff to provide for inspection, sampling and flow measurement of each discharge to a water body or a stormwater drainage system, as specified by the authorized enforcement agency. The authorized enforcement agency may require a discharger to provide and operate such equipment and devices if it is necessary or appropriate for the inspection, sampling and flow measurement of discharges in order to determine whether adverse effects from, or as a result of, such discharges may occur. All such equipment and devices for the inspection, sampling and flow measurement of discharges shall be installed and maintained at the discharger's expense in accordance with applicable laws, ordinances and regulations.

### **Sec. 75-22. Accidental discharges.**

Any discharger who accidentally discharges into a stormwater drainage system or a water body any substance other than stormwater or an allowable discharge shall immediately notify the authorized enforcement agency of the discharge. If the notification is given orally, a written report concerning the discharge shall be filed with the authorized enforcement agency within five days. The written report shall specify all of the following:

- A. The composition of the discharge and the cause thereof.
- B. The exact date, time and estimated volume of the discharge.

- C. All measures taken to clean up the discharge, all measures taken or proposed to be taken to mitigate any known or potential adverse impacts of the discharge, and all measures proposed to be taken to reduce and prevent any recurrences.
- D. The names and telephone numbers of the individual making the report and (if different) the individual who may be contacted for additional information regarding the discharge.

**Sec. 75-23. Recordkeeping requirement.**

Any person that violates the requirement of this part or that is subject to monitoring under this part shall retain and preserve for no less than five (5) years any and all books, drawings, plans, prints, documents, memoranda, reports, correspondence and records, including records on magnetic or electronic media, and any and all summaries of such records relating to monitoring, sampling and chemical analysis of any discharge or stormwater runoff from any property or premises connected with the violation or subject to monitoring.

**Sec. 75-24 – 75-29. Reserved.**

## **ARTICLE IV. PERFORMANCE AND DESIGN STANDARDS**

### **Sec. 75-30. Responsibility to implement BMPs.**

The owner or operator of a premises used for any multiple-family dwellings, mobile home parks, planned unit development, plat, site condominium, office, commercial or industrial purposes (regardless of parcel size) shall provide, at the owner's or operator's own expense, reasonable protection from an accidental discharge of prohibited materials or other wastes from entering into the stormwater drainage system or natural water body through the use of structural and nonstructural BMPs. Further, any person responsible for a property or premises that is, or may be, the source of an illicit discharge may be required to implement, at his expense, additional structural and nonstructural BMPs to prevent the further discharge of pollutants to the stormwater drainage system or natural water body. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of stormwater associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section.

### **Sec. 75-31. Performance Standards.**

1. Stormwater management areas and facilities, whether on-site or off-site, shall be designed, constructed, and maintained to prevent flooding and protect water quality. In order to be approved, all stormwater management plans must meet the following performance standards:

(a) Runoff leaving the site shall be controlled to a non-erosive velocity, both during and after construction.

(b) Minimum Treatment Volume. A minimum treatment volume is established to provide pollutant removal (pre-treatment) for prevalent precipitation events. The minimum treatment volume standard shall be one inch of runoff from the entire site. Use of the US Geological Service (USGS) runoff curve number method is the preferred means to calculate site runoff.

Treatment methods shall be designed on a site-specific basis to achieve a minimum of 80 percent removal of total suspended solids (TSS), as compared with uncontrolled runoff, or discharge concentrations of TSS not to exceed 80 milligrams per liter (mg/l).

A minimum treatment volume standard is not required where site conditions are such that TSS concentrations in stormwater discharges will not exceed 80 mg/l.

(c) Channel Protection Criteria. Channel protection criteria is established to protect stream channel bed and banks from excessive flows. The channel protection criteria is to maintain post-development site runoff volume and peak flow rate at or below existing levels for all storms up to the 2-year, 24-hour event. "Existing

levels” means the runoff flow volume and rate for the last land use prior to the planned new development or redevelopment.

An acceptable source of rainfall data for calculating runoff volume and peak flow rate is: Rainfall Frequency Atlas of the Midwest, Huff & Angel, NOAA Midwest Climate Center and Illinois State Water Survey, 1992. Methods for estimating pre- and post-development runoff shall follow the USGS runoff curve number method.

Curve number evaluation is described in a document titled "Computing Flood Discharges for Small Ungauged Watersheds", July 2003, which can be found at [www.michigan.gov/deqstormwater](http://www.michigan.gov/deqstormwater) under "Municipal Program/MS4 Permit Guidance" (go to "Stormwater Control Resources" and select "Guidance for Calculating Runoff Volume and Peak Flow Rate").

- (d) Flood Control. A flood control performance standard is required to ensure stormwater entering the Village MS4 is  $\leq$  than the existing (pre-development) conditions and on-site retainage is properly designed to protect neighboring properties. The Village Engineer or designee will review each site plan for approval on a case-by-case basis to determine if the proposed strategy meets industry standards and is appropriate for the specific site.
- (e) Riparian Buffers. A riparian buffer shall be provided for lands adjacent to streams and rivers and wetlands which are contiguous to these natural features. Riparian buffers shall also be required for noncontiguous wetlands if the full extent of the wetland as a natural feature is five (5) acres or greater.

The riparian buffer shall serve as a natural conservation area, where the principle best management practice is vegetative filtering and the conservation of trees, shrubs and herbaceous vegetation. The riparian buffer is a stormwater management measure to control soil loss and reduce water quality degradation caused by nutrients, animal wastes, toxics, sediment and runoff.

The riparian buffer shall begin at the edge of the stream bank of the active channel or the wetland boundary. The riparian buffer shall be composed of two distinct management zones in order to proscribe both permitted and restricted uses that provide progressive best management practices for stormwater quality protection.

- (i) Zone 1 – Stream Side Protection. Zone 1 begins at the edge of the stream bank or wetland and extends 25 feet upgradient and perpendicular to the protected natural feature. Zone 1 shall contain undisturbed natural vegetation. Allowable uses within this zone are restricted to flood control structures, utility right of ways, foot paths, and road crossings where permitted. Highly restricted vegetative trimmings and removal of woody brush/trees is allowed to provide a limited viewshed of the protected natural feature.

(ii) Zone 2 – Outer Zone. The Outer Zone (Zone 2) begins at the outer limit of the Stream Side Protection Zone (Zone 1) and extends 25 feet. Allowable uses within the Outer Zone are biking or hiking paths, approved stormwater management facilities, approved recreational facilities, and removal of mature tree cover. Shrub and herbaceous ground cover are to be protected from disturbance.

(iii) Permitted Activities. The following actions are permitted within Zones 1 and 2, provided the activity is undertaken in accordance with recognized best management practices. Other regulatory restrictions may apply, such as actions that may require separate federal, state or local permit or permit-by-rule provisions.

- (a) Stream restoration projects conducted with advice and guidance of the Michigan Department of Environmental Quality.
- (b) Removal of individual trees that are in danger of falling, causing damage to structures, or causing blockage of the stream.
- (c) Timber cutting techniques approved by state agencies, under advice and guidance, for purposes of forest management due to pest infestation, disease or threat from fire.
- (d) Riparian buffers are intended to grow into their vegetative target state naturally, however active methods to enhance successional process, reforestation or to ensure preservation and propagation of the buffer are allowed.

(iv) The width of each Zone may need to be increased if steep slopes are within close proximity of the protected natural feature. Guidelines of the US Geological Service may be used to determine the required equivalent length of vegetative filter capacity needed for slopes in excess of 15%.

(v) Encouragement of voluntary measures. Lands adjacent to the outer edge of the Outer Zone (Zone 2) are hereby defined as riparian lands. Riparian property owners have a unique and critical role in protecting water quality, preserving critical natural features and accommodating wildlife whose survival depends upon water features and conservation corridors. For example, some studies suggest that riparian buffers of 150 feet may be required for certain Michigan threatened species to successfully move between larger conservation areas and maintain healthy breeding populations. Therefore, it is a policy of the Village to educate, outreach and otherwise assist riparian land owners in the implantation of additional voluntary stormwater best management practices.

2. Stormwater storage facilities which protect water quality and prevent adverse flooding on-site and off-site shall be required for all sites. In order to improve the quality of stormwater runoff and reduce the discharge of sediment into wetlands, watercourses, roadways, structures and other property within, and downstream of

the Village of Vicksburg, the following techniques (a) through (f) and standards (g) through (i) shall be used:

- (a) Infiltration of runoff provided that soils and groundwater conditions are suitable.
- (b) Retention basins with a fixed minimum water elevation between runoff events (e.g., wet ponds).
- (c) Detention basins which drain completely after a storm event (e.g., dry basins) but which discharge stormwater to wetlands or constructed basins which trap sediment carried by stormwater runoff.
- (d) Detention basins which hold stormwater for more than 24 hours before completely draining to become a dry basin (Extended detention basins).
- (e) Detention basins with a positive outlet shall be designed to hold runoff from a 10-year storm event, as a minimum. Retention basins without a positive outlet shall be designed to hold runoff from a 100-year storm event.
- (f) The banks of detention basins shall not exceed a 1:5 slope unless a fence is constructed.
- (g) Natural watercourses shall not be dredged, cleared of vegetation, deepened, widened, straightened, stabilized or otherwise altered without approval from the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.
- (h) Discharge of runoff from commercial and industrial sites which may contain oil, grease, toxic chemicals, or other polluting materials shall be prohibited unless approval has been obtained from the Michigan Department of Natural Resources and Kalamazoo County Drain Commissioner.
- (i) The use of stormwater management areas and vegetated buffer areas as open space, recreation, and conservation areas shall be encouraged.
- (j) *Right of entry; furnishing information.* Representatives of the Village, State of Michigan DNR or DEQ, Michigan Department of Transportation, and Kalamazoo County Drain Commission shall have the right to enter at any reasonable time any property served by a stormwater drainage facility for inspections, investigations, or monitoring. On request, the owner, lessees or occupants of any property so served shall furnish to the inspection agency any pertinent information regarding the drainage system or systems on such property. The refusal of such information or refusal of access, when requested, shall be deemed evidence of the presence of unlawful discharge.



3. Pipes, conduits, ditches, drains, or other conveyance facilities shall not discharge directly to the following receiving waters without providing the minimum treatment volume and channel protection criteria:
  - (a) Any natural watercourses, including lakes, ponds, rivers and streams.
  - (b) Wetlands with unique or natural wildlife or habitat characteristics as defined by a professional wetlands delineation specialist, biologist or ecologist.
  - (c) Wetlands which are within a 500 foot distance of any natural lake or pond.
  - (d) Wetlands which are within a 100 foot distance of any river or stream.
4. Discharges from stormwater conveyance facilities shall be routed through swales, vegetated buffer strips, stormwater basins, hydrologically isolated wetlands, and other facilities designed to decrease runoff velocity and volume, allow for natural infiltration, allow suspended solids to settle, and remove pollutants.
5. If wetlands are proposed for stormwater detention, runoff must be diffused to non-erosive velocities before it reaches the wetlands.
6. Operation and Maintenance. All structural and vegetative best management practices installed as a performance standard for stormwater management shall include a plan for maintaining maximum performance through long-term operation and maintenance (O&M). The plan shall include a schedule for O&M procedures and recordkeeping provisions such as periodic inspections.
7. Records Retention. Inspections and other records pertaining to the O&M of best management practices for stormwater water quality protection shall be maintained by the property owner and retained for a minimum of five years.
8. No stormwater management plan shall be approved if the Village of Vicksburg Planning Commission finds that the action will or is likely to pollute, impair or destroy air, water or other natural resources or the public trust therein, provided that there is a feasible and prudent alternative consistent with the reasonable requirements of the public health, safety and welfare.

### **§ 75-32. Design Standards.**

The Village shall maintain design standards on file at the Village office. If specific BMPs design standards are not on file, design for such BMPs shall be in accordance with acceptable engineering practices and current design manuals.

### **Sec. 75-33 “Hot Spots” Properties.**

If the subject property is a potential “Hot Spot” area with the potential for significant pollutant loading or with the potential for contaminating public water supply (wells), additionally site-specific requirements may apply to address the contaminate(s) of concern. Example of typical “hot spots” areas included, but not limited to gas stations, commercial vehicle maintenance and repair, auto recyclers, recycling centers, and scrap yards.

### **Sec. 75-34 Contaminated Properties.**

If the subject property contains soil and/or groundwater contamination, site-specific requirements may apply. See MDEQ Post-Construction Storm Water Runoff Controls Program Compliance Assistance Document (MDEQ, 2014) for specifics regarding stormwater. The property owner or the property owner’s representative shall contact the Kalamazoo District MDEQ Office Remediation and Redevelopment staff prior to approval of the site plan for answers to questions regarding all state environmental regulations and requirements pertaining to site specific requirements. Property owner shall provide documentation and supporting material to the Village regarding aforementioned contact and MDEQ requirements prior to approval. The Village will make any site plan approval contingent to the property owner meeting the MDEQ requirements.

### **Sec. 75-35 – 75-39. Reserved.**

## **ARTICLE V. STORMWATER MANAGEMENT PLAN AND POST CONSTRUCTION**

### **Sec. 75-40. Stormwater Management Plan.**

No building, grading, or sediment control permit shall be issued until a satisfactory stormwater management plan (or a waiver thereof) shall have undergone a review and been approved by the Village after determining that the plan or waiver is consistent with the requirements of this chapter. After review of the stormwater management plan, and modifications to that plan as deemed necessary by Village, a stormwater management final plan must be submitted to the Village for approval. The stormwater management plan shall at a minimum include the following:

- A. Contact Information: The name, address, and telephone number of all persons having a legal interest in the property and the tax reference number and parcel number of the property or properties affected.
- B. Topographic Base Map: 1" = 200' topographic base map of the site which extends a minimum of 100 feet beyond the limits of the proposed development and indicates existing surface water drainage including streams, ponds, culverts, ditches, and wetlands; current land use including all existing structures; locations of utilities, roads, and easements; and significant natural and manmade features not otherwise shown.
- C. Calculations: Hydrologic and hydraulic design calculations for the pre-development and post-development conditions for the design storms.
- D. Soils Information: If a stormwater BMP depends on the hydrologic properties of soils (e.g., infiltration basins), then a soils report shall be submitted. The soils report shall be based on on-site boring logs or soil pit profiles. The number and location of required soil borings or soil sites shall be determined based on what is needed to determine the suitability and distribution of soil types present at the location of the BMP.
- E. Maintenance and Repair Plan: The design and planning of all stormwater management facilities shall include detailed maintenance and repair procedures to ensure their continued function. These plans will identify the parts or components of a stormwater BMP that need to be maintained and the equipment and skills or training necessary. Provisions for the periodic review and evaluation of the effectiveness of the maintenance program and the need for revisions or additional maintenance procedures shall be included in the plan.
- F. Landscaping Plan: The applicant must present a detailed plan for management of vegetation at the site after construction is finished, including who will be responsible for the maintenance of vegetation at the site and what practices will be employed to ensure that adequate vegetative cover is preserved.

- G. Stormwater Best Management Practices Operations & Maintenance Agreement: Proof of a recorded Stormwater Best Management Practices Operations & Maintenance Agreement binding on all subsequent owners of land served by stormwater BMPs to ensure maintenance and repair in accordance with the specifications of this chapter.

**Sec. 75-41. Maintenance and Repair of Stormwater BMPs.**

- A. Stormwater Best Management Practices Operations & Maintenance Agreement: Prior to the issuance of any permit for development involving any stormwater BMP, the applicant or owner of the site must execute a Stormwater Best Management Practices Operations & Maintenance Agreement that shall be binding on all subsequent owners of land served by the stormwater BMP. The agreement shall provide for access to the BMP and the land it serves at reasonable times for periodic inspection by Village or Village's designee and for regular or special assessments of property owners to ensure that the BMP is maintained in proper working condition to meet Village stormwater requirements. The agreement shall be recorded by Village at the expense of the permit holder or property owners.
- B. Maintenance Covenants: Maintenance of all stormwater BMPs shall be ensured through the creation of a formal maintenance covenant that must be approved by the Village and recorded prior to the stormwater management final plan approval. As part of the covenant, a schedule shall be developed for when and how often maintenance will occur to ensure proper function of the stormwater BMPs. The covenant shall also include plans for periodic inspections to ensure proper performance of the BMPs between scheduled cleanouts.
- C. Requirements for Maintenance Covenants: All stormwater BMPs must undergo, at the minimum, an annual inspection to document maintenance and repair needs and ensure compliance with the requirements of this chapter and accomplishment of its purposes. These needs may include (but are not limited to) removal of silt, litter, and other debris from all stormwater treatment and conveyance facilities including ponds, infiltration basins, raingardens, catch basins, inlets, and drainage pipes, grass cutting and vegetation removal, and necessary replacement of landscape vegetation. Any maintenance or repair needs detected must be corrected by the developer or entity responsible under a written maintenance agreement within 30 days, as determined by Village, and the inspection and maintenance requirement may be increased as deemed necessary to ensure proper functioning of the stormwater BMPs.
- D. Inspection of Stormwater BMPs: Inspection programs may be established on any reasonable basis, including but not limited to: routine inspections; random inspections; inspections based upon complaints or other notice of possible violations; inspection of drainage basins or areas identified as higher than typical sources of sediment or other contaminants or pollutants; inspections of businesses or industries of a type associated with higher than usual discharges of contaminants

or pollutants or with discharges of a type which are more likely than the typical discharge to cause violations of State or Federal water or sediment quality standards or the NPDES stormwater permit; and joint inspections with other agencies inspecting under environmental or safety laws. Inspections may include but are not limited to: reviewing maintenance and repair records; sampling discharges, surface water, groundwater, and material or water in stormwater BMPs, and evaluating the condition of stormwater BMPs.

- E. Right of Entry for Inspection, Investigation, or Monitoring: When any new stormwater BMP is installed on private property, or when any new connection is made between private property and a public stormwater management facility, sanitary sewer or combined sewer, the property owner shall grant to Village the right to enter the property at reasonable times and in a reasonable manner for the purpose of inspection, investigation, or monitoring. This includes the right to enter a property when Village has a reasonable basis to believe that a violation of this chapter is occurring or has occurred, and to enter when necessary for abatement of a public nuisance or correction of a violation of this chapter.
- G. Records of Installation and Maintenance and Repair Activities: Parties responsible for the operation and maintenance of stormwater BMPs shall submit to the Village Clerk an annual maintenance and inspection report including all records of the installation and of all maintenance and repairs conducted. The responsible parties shall retain the records for at least five (5) years or longer if the Village Inspector deems it necessary. These records shall be made available to Village during inspection of the facility and at other reasonable times upon request.
- H. Failure to Maintain Stormwater BMPs: If a responsible party fails or refuses to meet the requirements of the maintenance covenant or any provision of this chapter, the Village, after reasonable notice, may correct a violation by performing all necessary work to place the BMP in proper working condition. In the event that the stormwater BMP becomes a danger to public safety or public health, the Village shall notify the party responsible for maintenance of the stormwater BMP in writing. Upon receipt of that notice, the responsible person shall have thirty (30) days to effect maintenance and repair of the stormwater BMP in an approved manner. After proper notice, the Village may assess, jointly and severally, the owners of the stormwater BMP or the property owners or the parties responsible for maintenance under any applicable written agreement for the cost of repair work and any penalties; and the cost of the work shall be a lien on the property, or prorated against the beneficial users of the property, and may be placed on the tax bill and collected as ordinary taxes.

**Sec. 75-42 – 75-49. Reserved.**

## **ARTICLE VI. ENFORCEMENT**

### **Sec. 75-50. Sanctions for violation.**

Violation: Any person who: 1) knew or should have known that a pollutant or substance was discharged contrary to any provision of this part or contrary to any notice, order, permit, decision or determination promulgated, issued or made by the authorized enforcement agency under this part; or 2) intentionally makes a false statement, representation or certification in an application for or form pertaining to a permit, or in a notice, report or record required by this part, or in any other correspondence or communication, written or oral, with the authorized enforcement agency regarding matters regulated by this part; or 3) intentionally falsifies, tampers with or renders inaccurate any sampling or monitoring device or record required to be maintained by this part; or 4) commits any other act that is punishable under state law by imprisonment for more than 90 days shall, upon conviction, be guilty of a misdemeanor punishable by a fine of \$500 per violation, per day, or imprisonment for up to 90 days, or both, in the discretion of the Court.

### **Sec. 75-51. Failure to comply; completion.**

The authorized enforcement agency is authorized, after giving reasonable notice and opportunity for compliance, to correct any violation of this part or damage or impairment to the stormwater drainage system caused by a discharge and to bill the person causing the violation or discharge for the costs of the work to be reimbursed. The costs reimbursable under this section shall be in addition to fees, amounts or other costs and expenses required to be paid to the authorized enforcement agency under other sections of this part.

### **Sec. 75-52. Emergency measures.**

If emergency measures are necessary to respond to a nuisance; to protect public safety, health and welfare; and/or to prevent loss of life, injury or damage to property, the authorized enforcement agency is authorized to carry out or arrange for all such emergency measures. Property owners shall be responsible for the cost of such measures made necessary as a result of a violation of this part and shall promptly reimburse the Village for all of such costs.

### **Sec. 75-53. Cost recovery for damage to stormwater drainage system.**

Any person who discharges to a stormwater drainage system or a water body, including, but not limited to, any person who causes or creates a discharge that violates any provision of this part, produces a deposit or obstruction or otherwise damages or impairs a stormwater drainage system, or causes or contributes to a violation of any federal, state or local law governing the Village, shall be liable to and shall fully reimburse the Village for all expenses, costs, losses or damages (direct or indirect) payable or incurred by the Village as a result of any such discharge, deposit,

obstruction, damage, impairment, violation, exceedance or noncompliance. The costs that must be reimbursed to the Village shall include, but shall not be limited to, all of the following:

- A. All costs incurred by the Village in responding to the violation or discharge, including expenses for any cleaning, repair or replacement work, and the costs of sampling, monitoring and treatment, as a result of the discharge, violation, exceedance or noncompliance.
- B. All costs to the Village of monitoring, surveillance and enforcement in connection with investigating, verifying and prosecuting any discharge, violation, exceedance or noncompliance.
- C. The full amount of any fines, assessments, penalties and claims, including natural resource damages, levied against the Village or any Village representative by any governmental agency or third party as a result of a violation of applicable laws or regulations that is caused by or contributed to by any discharge, violation, exceedance or noncompliance.
- D. The full value of any Village staff time (including any required overtime), consultant and engineering fees, and actual attorneys' fees and defense costs (including the Village legal counsel and any special legal counsel) associated with responding to, investigating, verifying and prosecuting any discharge, violation, exceedance or noncompliance, or otherwise enforcing the requirements of this part.

**Sec. 75-54. Collection of costs; lien.**

Costs incurred by the Village pursuant to §§ 75-51, 75-52, 75-53 and 75-55A shall constitute a lien on the property or premises, which shall be enforceable in accordance with Act No. 94 of the Public Acts of 1933, as amended from time to time, or as otherwise authorized by law. Any such charges that are delinquent for six months or more may be certified to the Village of Vicksburg Treasurer, who shall enter the lien on the next tax roll against the property or premises, the costs shall be collected and the lien shall be enforced in the same manner as provided for in the collection of taxes assessed upon the roll and the enforcement of a lien for taxes. In addition to any other lawful enforcement methods, the Village shall have all remedies authorized by Act No. 94 of the Public Acts of 1933, as amended, and by other applicable laws.

The failure by any person to pay any amounts required to be reimbursed to the Village as provided by this part shall constitute an additional violation of this part.

**Sec. 75-55. Suspension of access to stormwater drainage system.**

- A. Suspension due to illicit discharges in emergency situations. The authorized enforcement agency may, without prior notice, suspend access to the stormwater drainage system to any property or premises when such suspension is necessary to

stop an actual or threatened discharge that presents or may present imminent and substantial danger to the environment or to the health or welfare of persons or to the stormwater drainage system or a water body. If the property or premises owner fails to comply with a suspension order issued in an emergency, the authorized enforcement agency may take such steps as deemed necessary to prevent or minimize damage to the stormwater drainage system or the environment or to minimize danger to persons, and bill the property or premises owner for the costs incurred by the Village.

- B. Suspension due to the detection of illicit discharge. Any person discharging to the stormwater drainage system in violation of this part may have his access to the system terminated, if the authorized enforcement agency determines that such termination would abate or reduce an illicit discharge. The authorized enforcement agency will notify a discharger of the proposed termination of access. It shall be unlawful for any person to reinstate access of the stormwater drainage system to a property or premises terminated pursuant to this section without the prior written approval of the authorized enforcement agency.

#### **Sec. 75-56. Appeals.**

Any person who has been cited for a violation of this part or has been ordered to take action to comply with the provisions of this part may appeal in writing to the Village Council of the Village of Vicksburg not later than 30 days after the action or decision being appealed. Such appeal shall identify the matter being appealed and the basis for the appeal. The Village Council shall consider the appeal and make a decision whereby it affirms, rejects or modifies the action being appealed. In considering any such appeal, the Village Council may consider the recommendations of the authorized enforcement agency and the comments of other persons having knowledge or expertise regarding the matter. In considering any such appeal, the Village Council may grant a temporary variance from the terms of this part so as to provide relief, in whole or in part, from the action being appealed, but only upon finding that the following requirements are satisfied:

- A. The application of the ordinance provisions being appealed will present or cause unnecessary hardship for the property or premises owner appealing; provided, however, that unnecessary hardship shall not include the need for a property or premises owner to incur additional reasonable expenses in order to comply with the part; and
- B. The granting of the relief requested will not prevent accomplishment of the goals and purposes of this part, nor result in less effective management of stormwater runoff.

#### **Sec. 75-57. Judicial relief.**

The Village may institute legal proceedings in a court of competent jurisdiction to seek all appropriate relief for violations of this part or of any permit, order, notice or



agreement issued or entered into under this part. The action may seek temporary or permanent injunctive relief, damages, penalties, costs and any other relief, at law or equity, that a court may order. The Village may also seek collection of fines, penalties and any other amounts assessed and due to the Village that remain unpaid.

**Sec. 75-58. Civil Infraction.**

Any violation of this Ordinance shall be considered a civil infraction, subject to a fine of not more than \$500.00 .together with costs as provided for by ordinance. Each day a violation exists shall be deemed a separate violation. A citation charging such a violation may be issued by the Village Ordinance Enforcement Officer, or his or her designee.

**Sec. 75-59. Remedies not exclusive.**

The remedies listed in this chapter are not exclusive of any other remedies available under any applicable federal, state, or local law and it is within the discretion of the Village to seek cumulative remedies.

**Sec. 75-60. Cumulative remedies.**

The imposition of a single penalty, fine, order, damage or surcharge upon any person for a violation of this part or of any permit, order, notice or agreement issued or entered into under this part shall not preclude the imposition by the Village, the authorized enforcement agency, or a court of competent jurisdiction of a combination of any or all of those sanctions and remedies or additional sanctions and remedies with respect to the same violation, consistent with applicable limitations on penalty amounts under state or federal laws or regulations. A criminal citation and prosecution of a criminal action against a person shall not be dependent upon and need not be held in abeyance during any civil, judicial or administrative proceeding, conference or hearing regarding the person.

**Sec. 75-61 – 75-69. Reserved.**

## **ARTICLE VII. INTERPRETATION**

### **Sec. 75-70. Interpretation of words and phrases.**

Words and phrases in this part shall be construed according to their common and accepted meanings, except those words and phrases that are defined in Sec. **75-5** shall be construed according to the respective definitions given in that section. Technical words and technical phrases not defined in this part, but which have acquired particular meanings in law or in technical usage, shall be construed according to such meanings.

### **Sec. 75-71. Catch-line headings.**

The catch-line headings of the articles and sections of this part are intended for convenience only and shall not be construed as affecting the meaning or interpretation of the text of the articles or sections to which they may refer.

### **Sec. 75-72 – 75-99. Reserved.**