



Chapter 23 - Storm Water Management

ARTICLE I - PURPOSE

- A. The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the City of Winooski, through the regulation of discharges to the storm drainage system to the maximum extent practicable as required by federal and state law.
- B. Nearly all of Winooski's land areas are already developed, so the City must carefully plan and monitor any new construction and redevelopment to reduce negative impacts to local waterways and wetlands. Polluted storm water runoff often flows into the municipal separate storm sewer system (MS4) and then into local streams and can cause physical, chemical, and biological harm to the waterways. Buffers adjacent to stream systems provide numerous environmental protections including removing pollutants delivered in urban storm water, reducing erosion and controlling sedimentation, stabilizing stream banks, and restoring and maintaining the chemical, physical and biological integrity of the water resources. It is the desire of the City of Winooski to protect and maintain the native vegetation along all stream areas by implementing specifications for the establishment, protection and maintenance of vegetation along all streams within our jurisdictional authority.
- C. This ordinance establishes methods for controlling the introduction of pollutants into the MS4 in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:
 - 1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by storm water discharges by any user.
 - 2. To prohibit Illicit Connections and Discharges to the municipal separate storm sewer system.
 - 3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance.



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ARTICLE III - GENERAL

SECTION 23.01 - DEFINITIONS

For the purpose of this ordinance, the following shall mean:

AUTHORIZED ENFORCEMENT AGENCY- Employees or designees of the director of the municipal agency designated to enforce this ordinance.

BEST MANAGEMENT PRACTICES (BMPs)- Schedules of activities, prohibitions of practices, general good housekeeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to storm water, receiving waters, or storm water conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

BUFFERS- A narrow, permanent strip of dense perennial vegetation established parallel to the contours of the waterway or wetlands for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from reaching surface waters.

CLEAN WATER ACT- The Federal Water Pollution Control Act (33 U.S.C. §1251 et seq.), and any subsequent amendments thereto.

CONSTRUCTION ACTIVITY- Activities subject to NPDES or State Construction Permits. These include construction projects resulting in land disturbance that would trigger a State or Federal Storm Water permit as outlined in the Vermont Storm Water Management Manual. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.



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FOREST BUFFER- A forested strip of land extending along both sides of a stream and its adjacent flood plains or slopes. The forest buffer shall be adjusted to include contiguous sensitive areas, such as steep slopes or erodible soils, where development or disturbance may adversely affect water quality, streams or other water bodies. The forest buffer shall begin at the edge of the stream bank of the active channel. The required width for all forest buffers shall be a minimum of 10 feet with the requirement to expand the buffer depending on stream order, percent slope, and critical areas.

HAZARDOUS MATERIALS- Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

ILLEGAL DISCHARGE- Any direct or indirect non-storm water discharge to the storm drain system.

ILLICIT CONNECTIONS- Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to (i) any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed permitted, or approved by an authorized agency; or (ii), any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency.

INDUSTRIAL ACTIVITY- Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b) (14).

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEMS (NPDES) STORM WATER DISCHARGE PERMIT- A permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342 (b)) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on



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an individual, group, or general area-wide basis.

NON-STORM WATER DISCHARGE- Any discharge to the storm drain system that is not composed entirely of storm water.

PERSON- Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

POLLUTANT- Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid such as laundry wastewater, gray water and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from construction a building or structure; and noxious or offensive matter of any kind.

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

STORM DRAINAGE SYSTEM- Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

STORM WATER- Any surface flow, runoff, or drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

STORM WATER POLLUTION PREVENTION PLAN- A document which describes the Best Management Practices and activities to be implemented by a person

WASTEWATER- Any water or other liquid, other than uncontaminated storm water, discharged from a facility.



ARTICLE IV - REGULATION.

SECTION 23.04 - DISCHARGE PROHIBITIONS

SECTION 23.04.01 - ILLEGAL DISCHARGE

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, 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 storm water. Erosion from private property that enters the MS4 causing water quality violations is prohibited. Examples include: Dirt or gravel on to public roads from unpaved driveways, erosion from home improvements or construction activities, wash down from concrete trucks, sweeping of dirt or debris on to public roads etc.

SECTION 23.04.02 - WASTE DISPOSAL

No person shall throw, deposit, leave, maintain, keep or permit to be thrown, deposited, left or maintained in or upon any public or private property, driveway, parking area, street, alley, sidewalk, component of the storm drain system, or water of Winooski, any refuse, rubbish, garbage, animal waste, litter, or other discarded or abandoned objects, articles and accumulations, so that the same may cause or contribute to pollution. Wastes deposited in streets in proper waste receptacles for the purposes of collection are exempted from this prohibition.

SECTION 23.04.03 - ILLICIT CONNECTIONS

The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.



SECTION 23.05 - CONSTRUCTION STORMWATER

SECTION 23.05.01 - EROSION/SEDIMENT CONTROL

The City of Winooski, under coverage of the MS4 Permit, is responsible to report to the State of Vermont any Construction activities that result in a land disturbance of greater than or equal to one acre as well as the five-acre threshold. Reduction of storm water discharges from construction activities disturbing less than one acre, will be subject to local review processes and inspections. At a minimum, the City requires that an erosion control checklist and plan be completed when obtaining a permit that involves land disturbance (list possibilities. excavation, landscaping, paving, house additions etc.) Any project that disturbs more than one acre will require coverage of a State or Federal NPDES storm water permit as stated earlier.

SECTION 23.05.02 - PRE-POST CONSTRUCTION OPERATION & MAINTENANCE

Any construction project that disturbs more than one acre of land will need to design, operate and maintain a storm water erosion and control system, built in accordance with BMPs, at the site to control construction site runoff. All such systems shall be designed to minimize the need for maintenance and reduce the chances of failure. Design guidelines are outlined in the most recent version of The Vermont Storm Water Management Manual. Final design shall be reviewed by the City of Winooski, and approved by the State of VT Storm Water division. All such systems shall be maintained according to the measures outlined in the most recent version of The Vermont Storm Water Management Manual, and as approved in the permit. The person(s) or organization(s) responsible for maintenance shall be designated in the plan. The person(s) or organization(s) responsible for maintenance shall inspect storm water control systems on a regular basis as outlined in the plan. Authorized representatives of the City of Winooski may enter at reasonable times to conduct on-site inspections or routine maintenance.



SECTION 23.05.03 - REDEVELOPMENT

- A. The design of a redeveloped site is expected to comply with the requirements of the VT Storm Water Management Manual. All redevelopment projects shall reduce existing site impervious areas by at least 20%. Where site conditions prevent the reduction of impervious area, then storm water management practices shall be implemented to provide qualitative control for at least 20% of the site's impervious area. When a combination of impervious area reduction and storm water practice implementation is used, the combined area shall equal or exceed 20% of the site.

- B. Where conditions prevent strict compliance with the standards, practical alternatives may be considered, including but not limited to:
 - 1. contribution to a city-managed Watershed/Stream Restoration Fund program or the state offset fund for impaired waters
 - 2. off-site BMP implementation for a drainage area of comparable characteristics to that of the project within the same watershed
 - 3. other City determined options including, but not limited to, donation of open space to a stream buffer zone, donation of land to the city for public use, etc. Special exemption, variance, and waiver considerations may be granted in the review as deemed appropriate by the City

SECTION 23.05.04 - BUFFERS

The purpose of this section is to establish minimal acceptable requirements for the design of buffers to protect the streams and rivers of the City of Winooski and to provide for environmentally sound use of the City of Winooski's land resources.

SECTION 23.05.04.01 - FOREST BUFFERS

The forest buffer shall be managed to enhance and maximize the unique value of these resources. Management includes specific limitations on alteration of the natural conditions of these resources. The following practices and



activities are permitted in the forest buffer with specific design or maintenance features subject to the review and approval of the City of Winooski.

1) Roads bridges, paths, and utilities

- a) An analysis needs to be conducted to ensure that no economically feasible alternative is available.
- b) The right of way should be the minimum width needed to allow for maintenance access and installation.
- c) The angle of the crossing shall be perpendicular to the stream or buffer in order to minimize clearing requirements
- d) The minimum number of road crossing should be used within each subdivision and no more than one fairway crossing is allowed for every 1000 feet of buffer.

2) Storm water management

- a) An analysis needs to be conducted to ensure that no economically feasible alternative is available and that the project is either necessary or significantly improves the water quality or habitat in the stream.
- b) In new developments, on-site and non-structural alternatives will be preferred over larger facilities within the stream buffer.
- c) During construction, the area cleared will be limited to the area required for construction and adequate maintenance access, as outlined in the most recent edition of The Vermont Storm Water Management Manual.
- d) Material dredged or otherwise removed shall be stored outside the buffer or in accordance with BMP.

3) Stream restoration projects, facilities and activities approved by the City of Winooski are permitted within the forest buffer.

4) Water quality monitoring and stream gauging are permitted within the forest buffer as approved by the City of Winooski.



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- 5) Individual trees within the forest buffer may be removed which are in danger of falling, causing damage to dwellings or other structures, or causing blockage of the stream.
- 6) Other timber cutting techniques approved by the City of Winooski may be undertaken within the forest buffer under the advice and guidance of the State of Vermont, if necessary to preserve the forest from extensive pest infestation, disease infestation, or threat from fire.
- 7) Forest buffer area may be allowed to grow into their vegetative target state naturally, but methods to enhance the successional process such as active reforestation may be used when deemed necessary by the State of Vermont to ensure the preservation and propagation of the buffer area.

SECTION 23.05.04.02 - BUFFER RESTRICTIONS

- 1) The following practices and activities are restricted within a buffer, except with approval by the City of Winooski.
 - a) Clearing of existing vegetation
 - b) Soil disturbance by grading, stripping, or other practices
 - c) Filling or dumping
 - d) Drainage by ditching, underdrains, or other systems
 - e) Use, storage, or application of pesticides
 - f) Housing, grazing, or other maintenance of livestock
 - g) Storage or operation of motorized vehicles



ARTICLE V - SPECIAL PROVISIONS

SECTION 23.06 - UNPERMITTED DISCHARGE EXCEPTIONS

- A. The commencement, conduct, or continuance of any unpermitted discharge to the storm drain system is prohibited except as follows:
1. water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm water drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, de-chlorinated swimming pools (typically less than one PPM chlorine level, firefighting activities, and any other water source not containing pollutants.
 2. Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
 3. Dye testing, but requires a verbal notification to the authorized enforcement agency prior to the time of the test.

ARTICLE VI - APPEALS AND SEVERABILITY

SECTION 23.07 - VARIANCE, WAIVERS AND APPEALS

This ordinance shall apply to all proposed development.



SECTION 23.07.01 - VARIANCES

- A. The City may grant a variance for the following:
1. Those projects or activities where it can be demonstrated that strict compliance with the ordinance would result in practical difficulty or financial hardship.
 2. Those projects or activities serving a public need where no feasible alternative is available.

SECTION 23.07.02 - WAIVERS

- A. Waivers for development may also be granted in two forms if deemed appropriate by the City:
1. The buffer width may be relaxed and the buffer permitted to become narrower at some points as long as the average width of the buffer meets the minimum requirement.
 2. The City of Winooski may offer credit for additional density elsewhere on the site in compensation for the loss of developable land due to the requirement of this ordinance.

SECTION 23.07.03 - APPEALS

Appeals of any provision provided herein will be made to the City Council.

SECTION 23.08 - SEVERABILITY

Where the standards and management requirement of this ordinance are in conflict with other laws, regulations, and policies regarding streams, steep slopes, erodible soils, wetlands, floodplains, timber harvesting, land disturbance activities or other environmental protective measures, the more restrictive shall apply.



ARTICLE VII - VIOLATION OF CHAPTER; PENALTIES

SECTION 23.09 - VIOLATION OF CHAPTER

- A. Any person found violating any provision of this chapter shall be served by the City with a written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations. Failure to do so will result in criminal or civil penalties as provided for in this chapter.

- B. Any person violating any of the provisions of this chapter shall become liable to the city for any expense, loss or damage occasioned the city by reason of such violation.

SECTION 23.10 - CIVIL ACTION

In additional to the enforcement authority set forth in this chapter, the City shall have the right to institute civil action which it deems appropriate to obtain injunctive or monetary relief.

SECTION 23.11 - PENALTIES

- A. Any first (1st) or second (2nd) violation of this Chapter shall be a civil violation and subject to civil penalties and enforcement as provided for in Chapter 1, Section 1.11 of Winooski City Code.

- B. All third (3rd) and subsequent violations of this Chapter will be a criminal violation and subject to criminal penalties and enforcement as provided for in Chapter 1, Section 1.11 of the Winooski City Code.