

ENVIRONMENTAL PROTECTION RULES

CHAPTER 22

**STORMWATER MANAGEMENT RULE
FOR STORMWATER-IMPAIRED WATERS**

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Department of Environmental Conservation

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**STORMWATER MANAGEMENT RULE FOR
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STORMWATER MANAGEMENT RULE FOR STORMWATER-IMPAIRED WATERS

Subchapter 1 – Purpose, Authority, Policy

§22-101 Purpose

(a) The Secretary is issuing this Rule to enhance the management of stormwater runoff in stormwater-impaired waters. Stormwater management is necessary to reduce stream channel instability, pollution, sedimentation and local flooding, all of which have adverse impacts on the surface water and land resources of the State. Stormwater management is also necessary to protect groundwater.

(b) This Rule:

- (1) Establishes a state permit program for post-construction management of discharges of regulated stormwater runoff to stormwater-impaired waters;
- (2) Establishes permitting thresholds for discharges of regulated stormwater runoff that require a stormwater discharge permit;
- (3) Sets forth treatment standards designed to minimize the adverse impacts of regulated stormwater runoff;
- (4) Provides for the issuance of individual permits for discharges of regulated stormwater runoff to stormwater-impaired waters during the interim period while the Agency develops TMDLs and/or WQRPs;
- (5) Provides for the issuance of individual and general permits to implement TMDLs and WQRPs once they are developed;
- (6) Provides for the implementation of offset projects and payment of stormwater impact fees in connection with discharges of regulated stormwater runoff to stormwater-impaired waters;
- (7) Provides for the issuance of permits for stand-alone offset projects;
- (8) Specifies application requirements, including the contents of permit applications and public notification requirements; and
- (9) Sets forth monitoring, reporting and maintenance requirements.

§22-102 Authority

This Rule is adopted pursuant to 10 V.S.A. § 1263, § 1264 and § 1264a.

§22-103 Policy

- (a) The primary goal for management of regulated stormwater runoff is to assure compliance with the Vermont Water Quality Standards. This goal will be reached through the use of technically sound and cost-effective stormwater management methods as required by 10 V.S.A. § 1264.
- (b) The Agency recognizes that stormwater runoff and its management differ from the discharge of sanitary and industrial wastes because of the influence of natural events on stormwater runoff, the variations in characteristics of those runoffs, and the increased stream flows and natural degradation of the receiving water quality at the time of discharge.

Subchapter 2 - DEFINITIONS

§ 22-201 Definitions

- (a) As used in this Rule, the following terms shall have the specified meaning. If a term is not defined, it shall have its common meaning:
 - (1) “Agency” means the Vermont Agency of Natural Resources.
 - (2) “Applicant” means a person applying for permit coverage. In some cases, more than one person may apply as co-applicants.
 - (3) “Authorization to Discharge” means an authorization to discharge issued by the Secretary pursuant to a general permit.
 - (4) “Best Management Practice” or “BMP” means a schedule of activities, prohibitions or practices, maintenance procedures, green infrastructure, and other management practices to prevent or reduce water pollution, including but not limited to the stormwater treatment practices (STPs) set forth in the Vermont Stormwater Management Manual.
 - (5) “Clean Water Act” means the federal Clean Water Act, 33 U.S.C.A. § 1251 et. seq.
 - (6) “Development” means the construction of impervious surface on a tract or tracts of land where no impervious surface previously existed.

- (7) “Existing impervious surface” means an impervious surface that is in existence, regardless of whether it ever required a stormwater discharge permit.
- (8) “Existing Stormwater Discharge” means a discharge of regulated stormwater runoff which first occurred prior to June 1, 2002 and that is subject to the permitting requirements of 10 V.S.A. Chapter 47.
- (9) “Expansion” and “the expanded portion of an existing discharge” mean an increase or addition of impervious surface to an existing impervious surface, such that the total resulting impervious surface is greater than the minimum regulatory threshold.
- (10) “Stormwater impaired watershed” means the total area of land contributing runoff to a stormwater-impaired water.
- (11) “Impervious Surface” means those man made surfaces, including, but not limited to, paved and unpaved roads, parking areas, roofs, driveways and walkways, from which precipitation runs off rather than infiltrates.
- (12) “Municipality” means an incorporated city, town, village or gore, a fire district established pursuant to state law, or any other duly authorized political subdivision of the state.
- (13) “NPDES” means the National Pollutant Discharge Elimination System for the issuance of permits under section 402 of the federal Clean Water Act and includes the Vermont-administered NPDES program authorized by the federal Environmental Protection Agency.
- (14) “New Stormwater Discharge” means a new or expanded discharge of regulated stormwater runoff, subject to the permitting requirements of 10 V.S.A. Chapter 47, which first occurs after June 1, 2002 and has not been previously authorized pursuant to 10 V.S.A. Chapter 47.
- (15) “Offset” or “offset project” means a state-permitted action or project within a stormwater-impaired water that a discharger or a third person may complete to mitigate the impacts that an existing or proposed discharge or discharges of regulated stormwater runoff has or is expected to have on the stormwater-impaired water.
- (16) “Offset charge” means the amount of sediment load or hydrologic impact that an offset must reduce or control in the stormwater-impaired water in which the offset is located.
- (17) “Offset charge capacity” means the amount of reduction in sediment load or hydrologic impact that an offset project generates.

- (18) “Person” means any individual, partnership, company, corporation, association, joint venture, trust, municipality, the state of Vermont or any agency, department or subdivision of the state, any federal agency, or any other legal or commercial entity.
- (19) “Project” means the development, expansion and/or redevelopment that the Secretary is considering for coverage under an individual or general permit or which has received coverage under an individual or general permit.
- (20) “Regulated stormwater runoff” means precipitation, snowmelt, and the material dissolved or suspended in precipitation and snowmelt that runs off impervious surfaces and discharges into surface waters or into groundwater via infiltration.
- (21) “Redevelopment” means the construction or reconstruction of an impervious surface where an impervious surface already exists when such new construction involves substantial site grading, substantial subsurface excavation, or substantial modification of an existing stormwater conveyance, such that the total of impervious surface to be constructed or reconstructed is greater than the minimum regulatory threshold. Redevelopment does not mean public road management activities on impervious surfaces, including any crack sealing, patching, coldplaning, resurfacing, paving a gravel road, reclaiming, or grading treatments used to maintain pavement, bridges and unpaved roads. Redevelopment does not include expansions.
- (22) “Secretary” means the Secretary of the Agency of Natural Resources or the Secretary’s duly authorized representative.
- (23) “Site” means the drainage area that includes all portions of a development contributing stormwater runoff to one or more discharge points; or the area that includes all portions of disturbed area within a development contributing stormwater runoff to one or more discharge points. The choice of either of these two methods of calculating the site area shall be at the discretion of the designer. In cases where there are multiple discharges to one or more waters, “site” shall mean the total area of the sub-watersheds. For linear projects, including but not limited to highways, roads and streets, the term “site” includes the entire right of way within the limits of the proposed work, or all portions of disturbed area within the right of way associated with the development. The method of calculating the site area for linear projects shall be at the discretion of the designer.
- (24) “Stand-alone offset project” means an offset project that is implemented by a person independent of the permitting of a discharge of regulated stormwater runoff.
- (25) “Stand-alone offset project NPDES permit” means a NPDES permit issued by the Secretary for a stand-alone offset project that is not completed prior to the initiation of the first discharge to which the offset charge capacity is assigned. A stand-alone offset project NPDES permit will be issued by the Secretary pursuant to the Agency’s federally-authorized NPDES program under 10 V.S.A. § 1258.

- (26) “Stand-alone offset project permit” means a state permit issued by the Secretary for a stand-alone offset project that is completed prior to the initiation of the first discharge to which the offset charge capacity is assigned.
- (27) “Stormwater discharge permit” or “stormwater permit” means a permit issued by the Secretary for the discharge of regulated stormwater runoff to a stormwater-impaired water, which permit may require the implementation of an offset project and the payment of a stormwater impact fee.
- (28) “Stormwater impact fee” means the monetary charge assessed to a permit applicant for the discharge of regulated stormwater runoff to a stormwater-impaired water that mitigates a sediment load level, or hydrologic impact that the discharger is unable to control through on-site treatment or completion of an offset on a site owned or controlled by the permit applicant.
- (29) “Stormwater-impaired water” means a state water that the Secretary determines is significantly impaired by discharges of regulated stormwater runoff and is listed as being impaired due to stormwater runoff on the EPA-approved State of Vermont 303(d) List of Waters prepared pursuant to 33 U.S.C. 1313(d).
- (30) “Stormwater runoff” means precipitation and snowmelt that does not infiltrate into the soil, including material dissolved or suspended in it, but does not include discharges from undisturbed natural terrain or wastes from combined sewer overflows.
- (31) “Substantially deteriorated” means the condition of a stormwater treatment practice that would necessitate repair or reconstruction beyond that which would be considered routine, periodic maintenance for a system of similar design.
- (32) “Total Maximum Daily Load” or “TMDL” means the calculations and plan for meeting water quality standards approved by the U.S. Environmental Protection Agency (EPA) and prepared pursuant to 33 U.S.C. § 1313(d) and federal regulations adopted under that law.
- (33) “Tract or tracts of land” means a portion of land with defined boundaries created by a deed. A deed may describe one or more tracts.
- (34) “Water Quality Remediation Plan” or “WQRP” means a plan, other than a TMDL or sediment load allocation, designed to bring an impaired water body into compliance with applicable water quality standards in accordance with 40 C.F.R. § 130.7(b)(1)(ii) and (iii).
- (35) “Watershed” means the total area of land contributing runoff to a specific point of interest within a receiving water.

(36) “Watershed Improvement Permit” means a general permit specific to a stormwater-impaired water that is designed to apply management strategies to existing and new discharges and that includes a schedule of compliance of no longer than five years reasonably designed to assure attainment of the Vermont water quality standards in the receiving waters.

(37) “Vermont Stormwater Management Manual” means the Agency of Natural Resources’ stormwater management manual, as adopted and amended by rule.

(38) “303(d) list” means the EPA-approved State of Vermont 303(d) List of Waters prepared pursuant to 33 U.S.C. 1313(d).

Subchapter 3 – Applicability and Administration

§22-301 Applicability

- (a) This Rule applies to discharges of regulated stormwater runoff to stormwater-impaired waters that meet the permitting thresholds in this Rule.
- (b) This Rule governs the issuance of individual and general stormwater discharge permits. This Rule also governs the issuance of stand-alone offset project permits.
- (c) This Rule does not apply to the issuance of:
 - (1) stand-alone offset project NPDES permits; and
 - (2) state-issued NPDES permits that are, or may be, required pursuant to the Agency’s federally-authorized NPDES stormwater permit program pursuant to 10 V.S.A. 1258, including but not limited to permits for:
 - (i) discharges of stormwater runoff associated with large and small construction activity;
 - (ii) discharges of stormwater runoff from certain industrial activities;
 - (iii) discharges of stormwater runoff from certain small separate storm sewer systems (MS4s);
 - (iv) discharges of stormwater runoff designated by the Secretary pursuant to 40 C.F.R. 122.26(a)(9)(i)(D); and
 - (v) discharges of stormwater runoff designated by the Secretary as requiring a NPDES permit pursuant to 40 C.F.R 122.26(a)(9)(i)(C) in connection with the implementation of a TMDL.

- (d) Stormwater runoff from impervious surfaces of less than one (1) acre that discharges to groundwater may require a permit from the Agency's Underground Injection Control Program, unless such discharges are covered by a stormwater discharge permit.
- (e) The Vermont Water Pollution Control Permit Regulations shall not apply to state stormwater discharge permits and stand-alone offset project permits issued pursuant to this Rule.
- (f) The Agency's Wasteload Allocation Process Rule shall not apply to the issuance of permits or authorizations to discharge pursuant to this Rule.
- (g) Starting January 9, 2006, the Agency's Stormwater Management Procedures effective December 15, 1997 shall be repealed as to stormwater-impaired waters. However, any permit previously issued pursuant to the December 1997 Procedures will remain in effect until the expiration date specified in the permit, unless otherwise revoked pursuant to statute or rule.

§22-302 Permit Required

- (a) A state stormwater discharge permit is required for the following discharges of regulated stormwater runoff to stormwater-impaired waters:
 - (1) A discharge from the development of new impervious surfaces equal to or greater than one (1) acre;
 - (2) A discharge from the expansion of an existing impervious surface, such that the total resulting impervious surface of a project is equal to or greater than one (1) acre, except that a permit is not required for an expansion that meets the exemption in subsection 22-304(a)(4) of this Rule;
 - (3) A discharge from the redevelopment of an existing impervious surface if the redeveloped portion of the existing impervious surface is equal to or greater than one (1) acre;
 - (4) A discharge from a combination of expansion and redevelopment of an existing impervious surface, such that the total resulting impervious surface is equal to or greater than one (1) acre, except that a permit is not required if the exemptions in subsections 22-304(a)(4) and (5) of this Rule are met;
 - (5) A discharge from any size of impervious surface if the Secretary determines that a permit is necessary to meet the requirements of a TMDL or WQRP;
 - (6) A discharge from any size of impervious surface if the Secretary determines that treatment is necessary to reduce the adverse impacts to water quality of the discharge taking into consideration any of the following factors: the size of the impervious surface, drainage patterns, hydraulic connectivity, installation or

modification of drainage or conveyance structures, location of the discharge, existing stormwater treatment, stormwater controls necessary to implement the wasteload allocation of a TMDL, or other factors identified by the Secretary; and

- (7) A discharge from an existing impervious surface of equal to or greater than one (1) acre if the Secretary has previously issued an individual stormwater discharge permit or individual temporary pollution permit for the discharge.

§22-303 Circumvention

If the Secretary determines that a person has separated a single development, redevelopment or expansion project into components in order to avoid the regulatory minimum threshold or other requirements of this Rule, the person shall be required to submit a permit application for the entire project. This subsection is not intended to include the types of scattered or non-contiguous developments that are set forth as planned development in long-range transportation plans, regional plans, municipal plans or housing authority plans.

§22-304 Exemptions

- (a) No state stormwater discharge permit is required pursuant to this Rule for:
 - (1) Discharges of stormwater runoff from farms in compliance with agricultural practices adopted by the Secretary of Agriculture, Food and Markets and discharges of stormwater runoff from accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation, including practices which are in compliance with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, as adopted by the Commissioner of Forests, Parks and Recreation;
 - (2) Discharges of stormwater runoff that are already covered by a NPDES permit for a direct or indirect discharge from a wastewater treatment plant or by a permit issued pursuant to Vermont's Underground Injection Control Rule;
 - (3) Discharges of regulated stormwater runoff from the development, redevelopment, or expansion of impervious surfaces if the discharge did not require a permit prior to January 9, 2006, provided that:
 - (A) A technically complete application for all local, state, and federal permits, except NPDES construction activities permits, related to either the regulation of land use or a discharge to state waters has been submitted as of January 9, 2006, the applicant does not subsequently file an application for permit amendment that would have an adverse impact on water quality, and substantial construction (e.g. at least one phase of the project under a state or local permit) of the project commences within two years of July 1, 2005;

- (B) All local, state, and federal permits, except NPDES construction activities permits, related to either the regulation of land use or a discharge to state waters has been obtained as of January 9, 2006, and substantial construction (e.g. at least phase one of the project under a state or local permit) of the project commences within two years of July 1, 2005;
 - (C) No local, state, or federal permit, except NPDES construction activities permits, related to either the regulation of land use or a discharge to state waters is required, and substantial construction (e.g. at least phase one of the project under a state or local permit) of the project commences within two years of July 1, 2005; or
 - (D) The development, redevelopment, or expansion is a linear project, and an order of necessity has been issued or right-of-way acquisition has been substantially completed as of July 1, 2004, and construction of the project commences within five years after July 1, 2004;
- (4) (A) The expansion of an existing impervious surface, such that the total resulting impervious surface is equal to or greater than one (1) acre, if:
- (i) the increase or addition of impervious surface is less than 5,000 square feet; and
 - (ii) this exemption may only be used for consecutive expansions of an impervious surface after January 9, 2006 up to a cumulative total of 5,000 square feet. When the cumulative total expansion exceeds 5,000 square feet, the impervious surface in excess of 5,000 square feet must comply with the treatment standard in subsection 22-306(c)(1) of this Rule.
- (5) The redevelopment of an existing impervious surface if the redeveloped portion of the existing impervious surface is less than one (1) acre.
- (6) Stand-alone offset projects that receive an individual stand-alone offset project permit, an authorization to discharge under a general stand-alone offset project permit issued pursuant to Subchapter 5 of this Rule, or a stand-alone offset project NPDES permit;
- (7) Discharges of regulated stormwater runoff into a stormwater-impaired water from impervious surfaces in existence as of January 1, 1978;
- (8) Discharges of regulated stormwater runoff into a stormwater-impaired water from impervious surfaces of less than one (1) acre regardless of when constructed;
- (9) Discharges of regulated stormwater runoff from a single family or duplex residence, including associated driveways, that are not built as part of a subdivision or multi-family development; and

(10) Discharges of regulated stormwater runoff from the portion of a bridge superstructure that spans the normal water level of a receiving water and no water from the approaches flows to the bridge deck.

(b) Notwithstanding the exemptions in subsections 304(a)(1) – (10) of this section, a stormwater discharge permit is required for a discharge described in any such subsection if the Secretary makes a determination that a permit is required pursuant to subsection 22-302(a)(5) or (6) of this Rule.

§22-305 Types of Permits and Authorizations to Discharge

(a) The Secretary may issue different categories of stormwater discharge permits and authorizations to discharge under this Rule, including:

- (1) An individual permit if a TMDL, WQRP or Watershed Improvement Permit has not been established or issued, provided that the permitted discharge meets the discharge standard set forth Appendix A to this Rule;
- (2) A Watershed Improvement Permit;
- (3) A general or individual permit that is implementing a TMDL or WQRP;
- (4) An authorization to discharge under a general permit; or
- (5) a statewide general permit for new discharges that the Secretary deems necessary to assure attainment of the Vermont water quality standards (e.g. a general permit for linear projects).

(b) The Secretary may issue general permits for different classes of stormwater runoff.

(c) The Secretary may issue individual and general permits for stand-alone offset projects in accordance with Subchapter 5 of this Rule.

(d) The Secretary may issue an authorization to establish an offset project under a stand-alone offset project general permit.

§22-306 Permitting Standards for Discharges of Regulated Stormwater Runoff to Stormwater-Impaired Waters

(a) Prior to the issuance of a general permit to implement a TMDL or WQRP, the Secretary may issue an individual permit that meets the permitting standards in Appendix A to this Rule for a discharge of regulated stormwater runoff to a stormwater-impaired water.

- (b) After the Secretary has issued a general permit implementing a TMDL or WQRP for a stormwater-impaired water, all new stormwater discharges, stormwater discharges from redevelopment and expansions and existing stormwater discharges shall obtain coverage under the applicable general permit or obtain an individual permit if required by the general permit or this Rule. However, a permittee with a stormwater discharge permit or an authorization to discharge that has an expiration date that has not passed shall not be required to apply for coverage under the applicable general permit or apply for an individual permit, until 90 days prior to the expiration date of his/her permit or authorization to discharge.
- (c) Any general permit or individual permit issued to implement a TMDL or WQRP shall require that:
- (1) a new stormwater discharge or the expansion of an existing discharge shall meet the treatment standards for new development and expansion in the Vermont Stormwater Management Manual and any additional requirements deemed necessary by the Secretary to implement the TMDL or WQRP;
 - (2) a discharge of regulated stormwater runoff from redeveloped impervious surfaces:
 - (A) shall meet the treatment standards for redevelopment in the Vermont Stormwater Management Manual; and
 - (B) any additional requirements deemed necessary by the Secretary to implement the TMDL or WQRP;
 - (3) an existing stormwater discharge shall meet the treatment standards deemed necessary by the Secretary to implement a TMDL or WQRP;
 - (4) if a permit is required for an expansion of an existing impervious surface, discharges from the expansion shall meet the treatment standard in subsection 306(c)(1) of this section and the existing impervious surface shall meet the treatment standards deemed necessary by the Secretary to implement a TMDL or WQRP;
 - (5) if a permit is required for the redevelopment of existing impervious surfaces, the discharges from the redeveloped portion of the existing impervious surface shall meet the treatment standard in subsection 306(c)(2) of this section and discharges from the existing impervious surface that is not redeveloped shall meet the treatment standards deemed necessary by the Secretary to implement a TMDL or WQRP.
- (d) Any individual or general permit for discharges of regulated stormwater runoff to stormwater-impaired waters shall specify the use of best management practices to control regulated stormwater runoff. Permit compliance shall be judged on the basis of

performance of the terms and conditions of the discharge permit, including construction and maintenance in accordance with BMP specifications.

(e) A permittee that has an individual stormwater discharge permit issued by the Secretary prior to the effective date of this Rule shall continue to comply with the terms and conditions of the individual permit after the effective date of this Rule. The permittee shall apply for renewal of the individual permit in accordance with the terms of the permit and this Rule.

(f) In any permit issued pursuant to this section, the Secretary may require implementation of an offset project or payment of a stormwater impact fee, or both, as allowed by this Rule. The Secretary may require implementation of an offset project and/or payment of a stormwater impact fee after the issuance of a TMDL or WQRP for a stormwater-impaired water if necessary for the implementation of the TMDL or WQRP.

§22-307 Stormwater Discharge General Permit

(a) Purpose

This section sets forth a process for the development and issuance of stormwater discharge general permits for discharges of regulated stormwater runoff to stormwater-impaired waters.

(b) Issuance of Stormwater Discharge General Permits; Notice and Hearing

- (1) The Secretary shall prepare a draft stormwater discharge general permit and shall provide notice of the draft to the clerks of the municipalities in the geographic area covered by the general permit, on the Environmental Notice Bulletin and to a list of interested persons, if any.
- (2) The Secretary shall provide at least thirty (30) days from completion of the public notice requirements in subsection 307(b)(1) of this section for the submission of written public comments on the proposed draft general permit.
- (3) Any request for a public informational meeting must be submitted in writing to the Secretary during the public comment period. The Secretary shall hold a public informational meeting if there is a demonstrated interest in a meeting.
- (4) The Secretary shall publish notice of any public informational meeting at least thirty (30) days prior to the meeting. Notice shall be given in the same manner as notice of the draft general permit.

(c) General Requirements Applicable to Stormwater Discharge General Permits

A general permit for discharges of regulated stormwater runoff to stormwater-impaired waters:

- (1) shall require that a permittee allow the Secretary and his/her authorized representatives, at reasonable times, and upon presentation of credentials, to enter upon and inspect the permitted property and the stormwater collection, treatment and control system and to have access to and copy any records required to be kept pursuant to the permit;
- (2) shall require that the permittee properly operate and maintain all stormwater collection, treatment and control systems and that the permittee submit an annual inspection report on the operation, maintenance and condition of the stormwater collection, treatment and control systems. Inspections shall be conducted between the conclusion of spring snow melt and June 15th of each year and the inspection report shall be submitted to the Secretary by July 15th of each year, or by July 30th if performed by a utility or municipality pursuant to a duly adopted stormwater management ordinance. The first annual inspection report for a new development, redevelopment or expansion shall include a written certification by a designer, other than the landowner, stating that the stormwater system was installed in accordance with the conditions of the general permit and is functioning properly;
- (3) shall require BMP-based stormwater treatment practices and not individual source pollutant load allocations. Permit compliance shall be judged on the basis of performance with the terms and conditions of the discharge permit, including construction and maintenance in accordance with BMP specifications;
- (4) shall contain conditions as the Secretary deems necessary to implement an applicable TMDL or WQRP;
- (5) shall be reasonably designed to implement the TMDL or WQRP, taking into account the unique characteristics of each watershed, the scientific uncertainty in remediating stormwater-impaired waters and that the time needed for remediation may vary greatly across watersheds;
- (6) may use an adaptive management approach whereby stormwater controls are implemented, water quality monitoring is scheduled and performed as the Secretary deems appropriate to assess the effectiveness of the stormwater controls in implementing the TMDL or WQRP, and based on such monitoring, the general permit is amended as necessary to implement the TMDL or WQRP; this process of implementation, assessment and permit amendment may continue over one or more permitting cycles;
- (7) shall provide that the Secretary will conduct water quality monitoring to gather necessary information to determine the extent to which the general permit provides for the implementation of the TMDL or WQRP, and to determine what, if any, conditions or limitations must be included in subsequent permits. Such a monitoring program may include ambient monitoring, receiving water assessment or a combination of monitoring procedures, designed to gather the necessary

information. In lieu of the Secretary conducting the necessary water quality monitoring, the Secretary may approve a person, qualified group of persons, a municipality or a stormwater utility to conduct the necessary water quality monitoring in accordance with a quality assurance plan approved by the Secretary;

(8) may require the implementation of offset projects and payment of stormwater impact fees if necessary to implement a TMDL or WQRP; and

(9) shall require such additional conditions, requirements and restrictions as the Secretary deems necessary to achieve and maintain compliance with the Vermont Water Quality Standards including, but not limited to, requirements concerning recording, reporting and monitoring the effects on receiving waters due to the operation and maintenance of stormwater collection, treatment and control systems.

(d) Duration of General Permit

A general permit shall be valid for a period of time not to exceed five years.

(e) Modification of General Permit

(1) The Secretary may modify a general permit after providing an opportunity for public participation in the same manner as described in subsection 307(b) of this section. Grounds for modification include, but are not limited to:

(A) The statutes or rules on which the general permit is based have changed;

(B) There is a change in any condition that requires redrafting or alteration of the boundaries of a designated geographic area;

(C) If the general permit has been issued for a stormwater-impaired water and the Secretary finds that the water is not a stormwater-impaired water;

(D) When required by the reopener conditions in the general permit;

(E) To correct technical mistakes, such as errors in calculations or mistaken interpretations of law made in determining permit conditions; or

(F) When necessary to implement an applicable TMDL or WQRP.

§22-308 Authorizations to Discharge Under a Stormwater Discharge General Permit

(a) Purpose and Applicability

This section sets forth a process for the issuance of authorizations to discharge pursuant to stormwater discharge general permits issued for discharges of regulated stormwater runoff to stormwater-impaired waters.

(b) Application for Coverage under a Stormwater Discharge General Permit

- (1) An applicant for coverage under a stormwater discharge general permit shall submit a completed Notice of Intent (NOI) form with all necessary attachments and fees and all other application information required by the general permit and the Secretary.
- (2) The applicant shall own or control the impervious surfaces for which permit coverage is required. If the applicant merely controls the impervious surfaces, the owner of the impervious surfaces shall be a co-applicant, unless the applicant that controls the impervious surface is a municipality or stormwater utility that has assumed responsibility for the management of discharges of regulated stormwater runoff from the impervious surfaces.
- (3) A NOI shall be signed by a designer.
- (4) A municipality or stormwater utility may apply as the permittee in lieu of the owner(s) of the impervious surfaces for which coverage under a general stormwater discharge permit is sought, provided that the municipality or stormwater utility accepts responsibility for compliance with the general permit and has the legal authority to do so.
- (5) An application for an existing housing or commercial project shall include the owners' association, condominium association or other common association as co-permittee with applicant. The Secretary may waive this requirement for existing developments on a case-by-case basis if a responsible party or parties accepts responsibility for the stormwater management system. If application is made in connection with a new housing or commercial development, the developer and an owners' association, condominium association, other common association or other legal entity accepting responsibility for the stormwater management system shall apply as co-permittees.
- (6) An applicant shall submit the additional information required in subsections 402(b), (c) and (d) of this Rule, if the applicant is required by the general permit to implement an offset project and/or obtain an assignment of offset charge capacity from a stand-alone offset project and pay a stormwater impact fee.

(7) The Secretary may require an applicant to submit any additional information that the Secretary considers necessary in order to make a decision on the issuance or denial of an authorization to discharge under the general permit. The Secretary may deny coverage if the requested information is not provided within sixty (60) days of the Secretary's request.

(c) Public Notice for Applications for an Authorization to Discharge

(1) Once the Secretary determines that an application for coverage under a stormwater discharge general permit is complete, the Secretary shall provide public notice to the clerk of the municipality in which the discharge is located, shall post notice on the Environmental Notice Bulletin, shall provide notice to a list of interested persons, if any, and shall provide notice to all municipalities within the watershed of the stormwater-impaired water.

(2) For a period of ten (10) days following completion of the public notice requirements in subsection 308(c)(1) of this section, the Secretary shall provide an opportunity to the public to provide written comment regarding whether the application complies with the terms and conditions of the general permit.

(3) The period for public comment may be extended at the sole discretion of the Secretary.

(4) The applicant shall comply with any additional notice requirements specified in the general permit.

(d) Interested Persons List

The Secretary shall maintain an interested persons list for those individuals/groups that wish to receive copies of notices of all general permit applications within the State or within a certain geographic area.

(e) Changes Made to a Project After the Public Comment Period and Prior to Issuance of an Authorization to Discharge

If a proposed project changes after the public comment period has ended, but before the authorization to discharge is issued, the project does not need to be re-noticed for public comment if:

(1) the proposed project changes do not reduce the quality of the stormwater discharge;

(2) the proposed project changes do not substantially increase the quantity of the discharge or change the discharge location so as to adversely affect the instream hydrology or geomorphology;

- (3) there is not a significant change in the type and nature of proposed treatment; and
- (4) there is no change in the use of offsets, if any.

(f) Issuance or Denial of Authorizations to Discharge

- (1) If the Secretary determines that an application is complete and that the discharge meets the terms and conditions of the general permit, the Secretary shall issue an authorization to discharge unless the Secretary determines that an individual permit is required pursuant to subsection 308(1) of this section.
- (2) Denials of an authorization to discharge shall be issued in writing, stating the reasons for the denial.
- (3) If an application is denied for lack of technical or other information, the Secretary will provide appropriate information to help the applicant correct the deficiencies and re-apply for an authorization to discharge.

(g) Renewal of an Authorization to Discharge

A permittee who wishes to continue to discharge after the expiration date of his/her authorization to discharge shall apply for renewal in accordance with the general permit. The Secretary may require any permittee authorized by a general permit to apply for an individual stormwater discharge permit in accordance with subsection 308(1) of this section.

(h) Transfer of Authorization to Discharge or Addition of a Co-Permittee

- (1) A permittee may transfer an authorization to discharge by submitting a notice of transfer on a form provided by the Secretary. The notice shall be submitted at least five (5) days prior to transfer and shall include, at a minimum:
 - (A) the name and address of the new permittee;
 - (B) the name and address of the former permittee;
 - (C) the date of transfer; and
 - (D) a statement, signed by the new permittee, stating that he/she has read and is familiar with the terms of the general permit and the authorization to discharge and agrees to comply with all the terms and conditions of the general permit and the authorization to discharge.
- (2) A permittee may add a co-permittee by submitting a notice of addition of co-permittee on a form provided by the Secretary. The form notice shall include, at a minimum, the information listed in subsections 308(h)(1)(A)-(D) of this section.

(i) Changes to Permitted Impervious Surfaces

The permittee shall notify the Secretary of any planned expansion or change that may result in new or increased discharges of regulated stormwater runoff at least sixty (60) days prior to the expansion or change. The Secretary may require the permittee to submit additional information on the proposed change or expansion. The Secretary shall determine the appropriateness of continued inclusion under the general permit.

(j) Modification of an Authorization to Discharge

If a project changes after the issuance of an authorization to discharge is issued, but before the project is built, the authorization to discharge may be amended without renoticing for public comment if:

- (1) the proposed project changes do not reduce the quality of the stormwater discharge;
- (2) the proposed project changes do not substantially increase the quantity of the stormwater discharge or change the stormwater discharge location so as to adversely affect the instream hydrology or geomorphology;
- (3) there is not a significant change in the type or nature of proposed treatment; and
- (4) there is no change in the use of offsets, if any.

(k) Revocation of Authorization to Discharge

The Secretary may, after notice and opportunity for public hearing, revoke or suspend, in whole or in part, an authorization to discharge under a general permit for cause, including but not limited to:

- (1) violation of the terms or conditions of the general permit;
- (2) obtaining coverage under a general permit by misrepresentation or failure to disclose fully all relevant facts; and
- (3) a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted activity or discharge.

(l) Requiring or Requesting an Individual Permit Rather than Coverage under a General Permit

- (1) The Secretary may require a permittee applying for coverage under a general permit to apply for an individual permit. Cases where an individual permit may be required include, but are not limited to, the following:

- (A) The discharger is not in compliance with the terms and conditions of the general permit;
 - (B) The discharge does not qualify for general permit coverage taking into account:
 - (i) the location of the discharge;
 - (ii) the size of the discharge; or
 - (iii) the impact on the receiving water;
 - (C) When necessary to implement an applicable TMDL or WQRP; or
 - (D) If a permit applicant proposes to use an alternative stormwater treatment system pursuant to the Vermont Stormwater Management Manual.
- (2) If the Secretary determines that a permittee authorized by a general permit is required to apply for an individual permit, the Secretary shall so notify the permittee. This notice shall include a brief statement of the reasons for this decision, an application form and the timeframe for the permittee to file the application.
- (3) When an individual permit is issued to a person otherwise subject to a general permit, the applicability of the general permit to the individual permittee is automatically terminated on the effective date of the individual permit.
- (4) Any permittee authorized by a general permit may request to be excluded from the coverage of the general permit provided the permittee submits information supporting the request. If the Secretary finds that the terms and conditions of the general permit do not apply to the activity or discharge, or that the activity or discharge is more appropriately covered by an individual permit, the Secretary shall grant the request and shall so notify the permittee in writing of his/her decision. Upon receipt of such notification, the permittee shall submit to the Secretary an application for an individual permit.
- (m) Requiring Coverage under a General Permit
- (1) The Secretary may require any person applying for an individual permit to apply for coverage under a general permit provided the Secretary finds the discharge complies with all conditions of the general permit and the discharge is more appropriately covered under the general permit.
- (2) Any permittee subject to an individual permit and wishing to obtain coverage under a general permit may file a notice on forms provided by the Secretary. Upon

the request of the Secretary, any person who files a notice shall submit such additional information that may be necessary to enable the Secretary to authorize the activity or discharge under the terms of a general permit.

- (3) Any permittee subject to an individual permit shall be authorized to discharge under the terms of a general permit upon issuance of a notice by the Secretary authorizing the discharge under the general permit. The applicability of the individual permit to the permittee is automatically terminated on the effective date of the authorization to discharge under the general permit.

§22-309 Individual Stormwater Discharge Permits

(a) Purpose and Applicability

- (1) This section sets forth a process for the development and issuance of individual stormwater discharge permits for discharges of regulated stormwater runoff to stormwater-impaired waters.
- (2) This section applies to the issuance of individual stormwater discharge permits during the interim period before the Secretary issues a general permit to implement a TMDL or WQRP for a stormwater-impaired water and after the interim period.

(b) Application for an Individual Stormwater Permit

- (1) An applicant for an individual permit shall submit a completed application form with all necessary attachments and fees.
- (2) The applicant shall own or control the impervious surfaces for which permit coverage is required. If the applicant merely controls the impervious surfaces, the owner of the impervious surfaces shall be a co-applicant, unless the applicant that controls the impervious surface is a municipality or stormwater utility that has assumed responsibility for the management of discharges of regulated stormwater runoff from the impervious surfaces.
- (3) An application for an existing housing or commercial project shall include the owner's association, condominium association or other common association as a co-permittee. The Secretary may waive this requirement for existing developments on a case-by-case basis if a responsible party or parties accepts responsibility for the stormwater management system. If application is made in connection with a new housing or commercial development, the developer and an owners' association, condominium association, other common association, or other legal entity accepting responsibility for the stormwater management system shall apply as co-permittees.
- (4) A municipality or stormwater utility may apply as a permittee in lieu of the owner(s) of the impervious surfaces for which an individual stormwater permit is

required, provided that the municipality or stormwater utility accepts responsibility for compliance with the individual permit and has the legal authority to do so.

- (5) During the interim period before the Secretary issues a general permit to implement a TMDL or WQRP for a stormwater-impaired water, an applicant shall submit with its application an engineering feasibility analysis for its stormwater discharge prepared in accordance with Appendix B of this Rule;
- (6) An applicant shall also submit the additional information required in subsections 402(b), (c) and (d) of this Rule, if the applicant must implement an offset project in connection with its stormwater discharge permit and/or obtain an assignment from a stand-alone offset project and pay a stormwater impact in order to meet the applicable treatment standards in section 306 of this Rule.

(c) Additional Information Requested by the Secretary

The Secretary may require an applicant to submit additional information that the Secretary considers necessary in order to make a decision on the issuance or denial of an individual permit. The Secretary may deny the individual permit if the requested information is not provided within sixty (60) days of the Secretary's request.

(d) Public Notice and Hearing for Applications for an Individual Stormwater Discharge Permit

- (1) If the Secretary determines that an application for an individual stormwater discharge permit is complete, the Secretary shall prepare a draft stormwater discharge permit and shall provide notice to the clerk of the municipality in which the discharge is located, on the Environmental Notice Bulletin, and to a list of interested persons, if any.
- (2) The Secretary shall provide thirty (30) days from completion of the public notice requirements in subsection 309(d)(1) of this section for persons to submit written comments on the application and the draft individual stormwater discharge permit.
- (3) The period for public comment may be extended at the sole discretion of the Secretary.
- (4) Any request for a public informational meeting must be submitted in writing to the Secretary during the thirty (30) day public comment period. The Secretary will hold a public informational meeting if there is a demonstrated public interest in holding such a meeting.
- (5) The Secretary shall publish notice of a public informational meeting at least thirty (30) days prior to the meeting. Notice shall be given in the same manner as notice of the permit application.

(e) Interested Persons List

The Secretary shall maintain an interested persons list for those individuals/groups that wish to receive copies of notices of all individual stormwater permit applications within the State or within a certain geographic area.

(f) Changes Made to Project After Public Comment Period and Prior to Issuance of Final Individual Permit

If a proposed project changes after the public comment period has passed, but before the final individual permit is issued, the project does not need to be re-noticed for public comment if:

- (1) the proposed changes do not reduce the quality of the stormwater discharge;
- (2) the proposed changes do not substantially increase the quantity of the stormwater discharge or change the discharge location so as to adversely affect the instream hydrology or geomorphology;
- (3) there is not a significant change in the type or nature of proposed treatment; and
- (4) there is no change in the use of offsets, if any.

(g) Issuance or Denial of an Individual Permit

If the Secretary approves an application, the Secretary may issue an individual permit. Denials of an individual permit shall be issued in writing, stating the reasons for the denial. If the permit application is denied for lack of technical or other information, the Secretary will provide information sufficient to help the applicant correct the deficiencies and re-apply for an individual permit.

(h) Transfer of Authorization to Discharge and Addition of Co-Permittee

- (1) A permittee may transfer an individual permit by submitting a notice of transfer on a form provided by the Secretary. The notice shall be submitted at least five (5) days prior to the transfer and shall include, at a minimum:
 - (A) the name and address of the new permittee;
 - (B) the name and address of the former permittee;
 - (C) the date of transfer; and
 - (D) a statement, signed by the new permittee, stating that he/she has read and is familiar with the terms of the individual permit and agrees to comply with the individual permit.

(2) A permittee may add a co-permittee by submitting a notice of addition of co-permittee on a form provided by the Secretary. The form notice shall include, at a minimum, the information listed in subsections 309(h)(1)(A)-(D) of this section.

(i) Permit Modification

(1) The Secretary may modify an individual permit after providing an opportunity for public participation in the same manner described in subsection 309(d) of this section. The Secretary may modify an individual permit for cause, including but not limited to the following:

- (A) The statutes or rules on which the individual permit is based have changed;
- (B) There is a change in any condition that requires redrafting or alteration of the boundaries of a designated geographic area;
- (C) If the individual permit has been issued for a stormwater-impaired water and the Secretary finds that the water is not a stormwater-impaired water;
- (D) When necessary to implement an applicable TMDL or WQRP;
- (E) When required by the reopener conditions in the individual permit; or
- (F) To correct technical mistakes, such as errors in calculations or mistaken interpretations of law made in determining permit conditions.

(2) Notwithstanding subsection 22-309(i)(1) of this section, if a project changes after the issuance of an individual permit, but before the project is built, the individual permit may be amended without re-noticing for public comment if:

- (A) the proposed project changes do not reduce the quality of the stormwater discharge;
- (B) the proposed project changes do not substantially increase the quantity of the stormwater discharge or change the stormwater discharge location so as to adversely affect the instream hydrology or geomorphology;
- (C) there is not a significant change in the type or nature of proposed treatment;
and
- (D) there is no change in the use of offsets, if any.

(j) Revocation of Individual Permits

(1) The Secretary may, after notice and opportunity for public hearing, revoke or suspend, in whole or in part, an individual permit for cause, including but not limited to:

(A) violation of the terms or conditions of the individual permit;

(B) obtaining coverage under an individual permit by misrepresentation or failure to disclose fully all relevant facts; and

(C) a change in any condition that requires either a temporary or permanent reduction in or elimination of the permitted discharge.

(k) Permit Renewal

(1) A permittee who wishes to continue to discharge after the expiration date of his/her individual permit shall file an application for reissuance of the individual permit, on a form provided by the Secretary, at least 90 days prior to its expiration. A renewal application shall be noticed subject to the public participation requirements set forth in subsection 309(d) of this section. The Secretary may require an applicant for renewal of an individual permit to be subject to a general permit in accordance with subsection 308(m) of this Rule.

(2) The Secretary may require an applicant to submit additional information that the Secretary considers necessary in order to make a decision on the renewal of an individual permit. The Secretary may deny the renewal if the requested information is not provided within sixty (60) days of the Secretary's request.

(l) General Requirements

(1) Each individual permit:

(A) shall require proper operation and maintenance of all stormwater collection, treatment and control systems and shall require that the permittee submit an annual inspection report on the operation, maintenance and condition of the stormwater collection, treatment and control systems. Inspections shall commence after the stormwater collection, treatment and control system is built. Inspections shall be conducted between the conclusion of spring snow melt and June 15th of each year and the inspection report shall be submitted to the Secretary by July 15th of each year, or by July 30th if performed by a utility or municipality pursuant to a duly adopted stormwater management ordinance. The first annual inspection report for a new development, redevelopment or expansion shall include a written certification by a designer, other than the landowner, stating that the stormwater system was installed in accordance with the conditions of the individual permit and is functioning properly. If a project

has been permitted but not built, the permittee shall submit written notice of this fact to the Secretary by July 15th of each year;

- (B) shall require that the permittee allow the Secretary and his/her authorized representatives, at reasonable times and upon presentation of credentials, to enter upon and inspect the permitted property and to have access to and copy any records required to be kept pursuant to the permit;
- (C) may contain such additional conditions, requirements and restrictions as the Secretary deems necessary to achieve and maintain compliance with the Vermont Water Quality Standards, including but not limited to requirements concerning recording, reporting and monitoring the effects on receiving waters due to operation and maintenance of stormwater collection, treatment and control systems;
- (D) shall require BMP-based stormwater treatment practices and not individual source pollutant load allocations; Permit compliance shall be judged on the basis of performance with the terms and conditions of the discharge permit, including construction and maintenance in accordance with BMP specifications;
- (E) shall contain any conditions the Secretary deems necessary to implement an applicable TMDL or WQRP; and
- (F) may require, as the Secretary deems necessary to implement an applicable TMDL or WQRP, implementation of an offset project through the individual stormwater permit and/or assignment of an offset charge capacity from a stand-alone offset project and payment of a stormwater impact fee.

§22-310 Compliance with Existing Permits

Unless otherwise provided herein, this Rule does not affect the responsibility of a permittee to comply with the most recent previously issued stormwater permit.

§22-311 Stormwater Utilities

- (a) This Rule recognizes that a municipality may elect to form a stormwater utility or join with other municipalities to form a regional stormwater-utility, or adopt an ordinance related to stormwater management, to assume responsibility for the management of regulated stormwater runoff. In such cases, the stormwater utility or municipality may apply for permit coverage in lieu of other entities that own or control impervious surfaces that require a permit pursuant to this Rule.
- (b) Any individual permit or authorization to discharge under a general permit issued to a stormwater utility, or to a municipality pursuant to an ordinance-based stormwater management program, shall be consistent with the scope of the authority of the utility or management program, and may include permit requirements for, including but not

limited to, construction of stormwater management systems, performance of maintenance and inspection duties, submittal of certifications of compliance, implementation of offset projects, payment of stormwater permit fees and stormwater impact fees, retention of records and compliance with all other applicable provisions of this Rule and any applicable individual or general permit.

§22-312 Validity of Permit and Authorization to Discharge; Recording in Land Records

- (a) A one-page notice of the issuance of an individual stormwater permit and an authorization to discharge pursuant to a general stormwater permit shall be recorded by the permittee in the local land records within fourteen (14) days of the issuance of the individual permit or authorization. A copy of a one-page notice form may be obtained from the Secretary. A copy of the recording shall be provided to the Secretary within fourteen (14) days of the permittee's receipt of a copy of the recording from the local land records.
- (b) An individual stormwater permit or authorization to discharge under a general stormwater permit shall not be effective until the one-page notice is filed in the local land records in accordance with subsection 312(a) of this section.
- (c) If applicable, a permittee shall also comply with the recording requirements in section 509 of this Rule for access agreements and easements in connection with offset projects.

§22-313 Enforcement

This Rule may be enforced in accordance with 10 V.S.A. Chapter 47 and 10 V.S.A. Chapters 201 and 211.

§22-314 Appeals

A person aggrieved by a final act or decision of the Secretary under this Rule may appeal in accordance with 10 V.S.A. Chapter 220.

§22-315 Liability

The issuance of a permit or authorization to discharge under this Rule does not relieve the permittee from the responsibility for proper operation of any stormwater collection, treatment and control system and does not limit liability under common law or statutes pertaining to ground and surface water protection or rights.

Subchapter 4 Offset Projects and Stormwater Impact Fees in Connection with the Permitting of Discharges of Regulated Stormwater Runoff to a Stormwater-Impaired Water

§22-401 Purpose and Applicability

- (a) This subchapter establishes a process for the development of offset projects, the assignment of offset charge capacity and the payment of stormwater impact fees in connection with the issuance of an individual stormwater permit or coverage under a stormwater general permit for a discharge of regulated stormwater runoff to a stormwater-impaired water.
- (b) An individual or general stormwater permit for a discharge of regulated stormwater runoff to a stormwater-impaired water may require one or more of the following in order to meet the applicable treatment standard set forth in section 306 of this Rule:
 - (1) implementation of an offset project through the stormwater discharge permit so that the required treatment standards are met by using reductions in sediment loading or hydrologic impact from another source in the same stormwater-impaired watershed; or
 - (2) assignment of an offset charge capacity from a stand-alone offset project and payment of a stormwater impact fee; or
 - (3) a combination of subsections 401(b)(1) and (2) of this section.
- (c) This subchapter applies to the issuance of individual stormwater permits for discharges of regulated stormwater runoff to a stormwater-impaired water during the interim period before the Secretary issues a general permit to implement a TMDL or WQRP for a stormwater-impaired water.
- (d) This subchapter applies to the issuance of individual and general stormwater permits for discharges of regulated stormwater runoff to a stormwater-impaired water after the Secretary issues a general permit to implement a TMDL or WQRP.
- (e) This subchapter does not apply to stand-alone offset projects that are implemented independently of a stormwater discharge permit. Subchapter 5 of this Rule governs stand-alone offset projects.

§22-402 Offset Projects; Assignment of Offset Charge Capacity and Payment of Stormwater Impact Fees Pursuant to the Issuance of Stormwater Discharge Permits; Permit Application Requirements

- (a) Acceptable Offset Projects to be Implemented Pursuant to a Stormwater Discharge Permit

- (1) An applicant for stormwater discharge permit coverage for a discharge of regulated stormwater runoff to a stormwater-impaired water may propose one or more of the following offset projects in order to meet applicable treatment standards:
 - (A) Implementation of stormwater treatment of any discharge of regulated stormwater runoff initiated prior to 1978;
 - (B) Implementation of stormwater treatment of any discharge of regulated stormwater runoff initiated after 1978 where the Secretary did not previously issue or require a stormwater discharge permit or temporary pollution permit for the discharge;
 - (C) Conversion of land use to reduce sediment load or hydrologic impact, especially in riparian areas;
 - (D) Restoration of an eroding or unstable stream bank where supported by a geomorphic assessment acceptable to the Secretary;
 - (E) Replacement of existing undersized or deteriorated culverts that have an impact on stream channel stability; or
 - (F) Other stream restoration or stormwater treatment projects that the Secretary deems necessary or appropriate to reduce sediment load or reduce hydrologic impact in a stormwater-impaired water.

(2) Before approving a proposed offset project described in subsection 402(a)(1)(C) that will be implemented on agricultural land, the Secretary will require an applicant to first explore the viability of offset projects described in subsections 402(a)(1)(A), (B), (D), (E) and (F) and offset projects described in subsection 402(a)(1)(C) that would be implemented on non-agricultural land. The Secretary will identify potential offset projects described in subsection 402(a)(1)(A) and (B) in the watershed of the proposed discharge and will provide this information to the applicant.

(b) Application Requirements for a Stormwater Discharge Permit that Will Require Implementation of an Offset Project

- (1) If an applicant proposes to implement an offset project as part of its stormwater discharge permit application, the applicant shall submit the following information:
 - (A) The location of the proposed offset project;
 - (B) If the proposed offset project involves conversion of agricultural land, documentation showing that the applicant has explored the viability of offset projects described in subsections 402(a)(1)(A), (B), (D), (E) and (F) and offset

projects described in subsection 402(a)(1)(C) that would be implemented on non-agricultural land, and the reason(s) that the offset project(s) are or are not viable.

- (C) If the proposed offset project involves conversion of agricultural land, documentation showing that the applicant has contacted the municipality(ies) in the watershed of the proposed discharge regarding potential offset projects described in subsection 402(a)(1)(A) and (B) and the reasons that the projects suggested by the municipality(ies) are or are not viable.
- (D) A description of the proposed offset project, including the activities and management practices that will be used to generate offset charge capacity;
- (E) The name, address and other contact information of the person responsible for implementing the offset project;
- (F) The reduction in sediment load and/or hydrologic impact that will be generated by the offset project and the margin of safety;
- (G) The date of anticipated completion of the offset project;
- (H) The methods, procedures and calculations used to determine the offset charge capacity;
- (I) The name and contact information of the person who shall be responsible for long-term operation and maintenance of the offset project;
- (J) If the applicant will contract for the construction of an offset project on property that the applicant does not own, the applicant shall submit:
 - (i) an access agreement or easement that will be effective prior to or upon the issuance of the stormwater discharge permit by the Secretary and that authorizes the permit applicant to have access to the offset project to construct, monitor, restore, replace and maintain the offset project; and/or
 - (ii) an agreement between the applicant and the owner of the property on which the offset project will be constructed wherein the applicant agrees to pay the property owner or another responsible party to construct, monitor, restore, replace and/or maintain the offset project.
- (K) If the applicant proposes to perform an offset project described in subsections 402(a)(1)(A) or (B) of this section, the applicant shall submit an engineering feasibility study of the offset project prepared in accordance with Appendix B to this Rule; and

(L) If the applicant proposes to perform an offset project described in subsections 402(a)(1)(C), (D), (E) or (F) of this section, the applicant shall submit an offset project designed to meet the objectives in subsection 402(e)(1)(B) of this section and shall submit the required technical supporting data and analyses set forth section IV of Appendix C of this Rule.

(c) Application Requirements for a Stormwater Discharge Permit that will Use an Assignment of Offset Charge Capacity from a Stand-Alone Offset Project in Order to Meet Applicable Treatment Standards

(1) If an applicant for stormwater permit coverage needs the Secretary to assign an offset charge capacity from a stand-alone offset project in order to meet applicable treatment standards in section 306 of this Rule, the applicant shall submit a form provided by the Secretary, which shall include, at a minimum:

(A) The sediment load and/or hydrologic impact that will remain after implementation of the required on-site stormwater management practices;

(B) The amount of offset charge capacity that needs to be assigned to the permit in order to meet the applicable treatment standards in section 306 of this Rule;

(C) A description of all applicable treatment standards in section 306 of this Rule that will be complied with through the use of offset charge capacity; and

(D) The effective date of the use of the offset charge capacity.

(d) Application Requirements for a Stormwater Discharge Permit that Will Require Payment of a Stormwater Impact Fee

(1) If payment of a stormwater impact fee is required for stormwater discharge permit coverage, the applicant shall:

(A) Submit with its permit application, a calculation in accordance with Appendix B to this Rule of the stormwater impact fee that must be paid to mitigate any remaining sediment loading and/or hydrologic impact; and

(B) Submit a check for the full amount of the stormwater impact fee prior to the issuance by the Secretary of an individual stormwater discharge permit or an authorization to discharge under a general stormwater discharge permit. Reimbursement of monies paid pursuant to this subsection is available in accordance with subsection 601(g) of this Rule if a project is not constructed and the stormwater permit or authorization to discharge is abandoned by the permittee.

(e) General Requirements for Issuance of Stormwater Permit Coverage that Will Include Implementation of an Offset Project and/or Assignment of an Offset Charge Capacity

(1) The Secretary shall not issue an individual stormwater discharge permit or an authorization to discharge under a general stormwater permit that requires implementation of an offset project unless:

(A) In the case of an offset project described in subsections 402(a)(1)(A) or (B) of this section, the offset project is developed in accordance with Appendix B;

(B) In the case of an offset project described in subsections 402(a)(1)(C), (D), (E) or (F) of this section the offset project is designed to achieve the following objectives:

Primary:

- Project must enhance hydrologic and/or sediment attenuation; either through reduction of sediment production, or increasing sediment storage within the stream corridor

Secondary:

- Contributes to or achieves, and permanently protects a state which is supportive of or accommodates the physical expression, through retention or active (structural treatments) or passive (corridor protection) restoration, of the Fluvial Geomorphic Equilibrium Condition (FGEC) both within the treatment reach and within adjacent or affected stream reaches
- Reduces existing or potential conflict between fluvial adjustments and human investments in property and infrastructure

(C) Any discharge that an offset project is mitigating must be located in the same watershed as that in which the offset project is located.

(D) For a new stormwater discharge, the permit or authorization to discharge states that no discharge shall be initiated until the offset project has been completed.

(E) The offset project is consistent with the following, if applicable:

- (i) a TMDL;
- (ii) a WQRP;
- (iii) a Watershed Improvement Permit; or

(iv) a general permit implementing a TMDL or WQRP.

(F) The stormwater discharge permit or authorization to discharge provides that the owner of the property on which the offset project is located shall provide access to the Secretary and his/her authorized representatives, at reasonable times, and upon presentation of credentials, to enter upon the property on which the offset is located and inspect the offset project and to have access to and copy any records required to be kept pursuant to the permit or authorization.

(2) The Secretary shall not issue an individual stormwater permit or an authorization to discharge under a general stormwater permit that includes the assignment of an offset charge capacity from a stand-alone offset project permitted pursuant to subchapter 5 of this Rule, unless:

(A) the offset charge capacity is to be used in connection with the permitting of new development or an expansion, then the offset project must be constructed and functioning and the associated offset charge capacity must be assigned by the Secretary prior to the initiation of the discharge for which the Secretary has issued an individual stormwater discharge permit or an authorization to discharge under a general stormwater discharge permit;

(B) offset charge capacity is to be used in connection with the permitting of redevelopment, an existing discharge operating under an expired stormwater discharge permit or with any combination of development, redevelopment and expansion greater than one acre, then:

(i) the offset project must be constructed and functioning no later than two years from the issuance of the individual stormwater discharge permit or authorization to discharge that is assigned the offset discharge capacity; and

(ii) the assigned offset charge capacity is from a stand-alone offset project that has obtained a stand-alone offset project NPDES permit pursuant to the Agency's federally authorized NPDES program.

(C) The use of the offset charge capacity is consistent with the following, if applicable:

a. a TMDL;

b. a WQRP;

c. a Watershed Improvement Permit; and

d. an individual or general stormwater discharge permit issued by the Secretary.

Subchapter 5 STAND-ALONE OFFSET PROJECTS

§22-501 Purpose and Applicability

- (a) In order to meet applicable treatment standards, a permittee for an individual or general stormwater discharge permit may need the assignment of offset charge capacity from a stand-alone offset project. This subchapter governs the development and permitting of stand-alone offset projects that will be completed prior to the initiation of the first stormwater discharge to which the stand-alone offset project's offset charge capacity is assigned.
- (b) If a stand-alone offset project will not be completed prior to the initiation of stormwater discharge or discharges to which its offset charge capacity will be assigned, then a stand-alone offset project NPDES permit is required. A stand-alone offset project NPDES permit is not governed by this Rule, but will be issued by the Secretary in accordance with the Agency's federally authorized NPDES program under 10 V.S.A. § 1258.
- (c) This subchapter governs the permitting of stand-alone offset projects during the interim period before the Secretary issues a general permit to implement a TMDL or WQRP for a stormwater-impaired water and after the interim period.
- (d) This subchapter applies to both individual and general stand-alone offset project permits.
- (e) This subchapter does not apply to offset projects that are permitted pursuant to a stormwater discharge permit issued under Subchapter 4 of this Rule.

§22-502 General Requirements Applicable to Individual and General Stand-Alone Offset Project Permits

- (a) A stand-alone offset project must obtain permit coverage from the Agency before it can generate offset charge capacity.
- (b) A stand-alone offset project shall be consistent with the following, if applicable:
 - (1) a TMDL;
 - (2) a WQRP;
 - (3) a Watershed Improvement Permit;
 - (4) an individual or general stormwater discharge permit issued by the Secretary.

(c) Each individual and general stand-alone offset project permit:

- (1) Shall require that a permittee allow the Secretary and his/her authorized representatives, at reasonable times, and upon presentation of credentials, to enter upon and inspect the permitted offset project and to have access to and copy any records required to be kept pursuant to the offset permit;
- (2) Shall require that the permittee properly operate and maintain all aspects of the offset project and that the permittee submit an annual inspection report on the operation, maintenance and condition of offset project. Inspections shall be conducted between the conclusion of snow melt and June 15th of each year and the inspection report shall be submitted to the Secretary by July 15th of each year, or by July 30th if performed by a utility or municipality pursuant to a duly adopted stormwater management ordinance.
- (3) Shall contain any conditions the Secretary deems necessary to implement an applicable TMDL or WQRP;
- (4) Shall require additional conditions, requirements and restrictions the Secretary deems necessary to achieve and maintain compliance with the Vermont Water Quality Standards and 10 V.S.A. § 1264 and § 1264a, including but not limited to providing for specific best management practices, effluent limitations, and levels of treatment technology; monitoring, recording, and reporting standards; entry and inspection authority for state and, as determined by the secretary, federal officials; and reporting of substantial changes in the character or nature of permitted activities on waters of the state;
- (5) Shall include the requirement that any discharge that an offset project is mitigating must be located in the same watershed as that in which the offset project is located;
- (6) Shall quantify the offset charge capacity generated by the offset project;
- (7) Shall identify the party or parties responsible for the construction, operation, maintenance and repair of the offset project;
- (8) Shall be completed after April 1, 2004;
- (9) May include a requirement to provide financial security in the form of an authorized surety bond, a cash deposit or cash equivalent, or an irrevocable letter of credit issued by qualified financial institution to ensure adequate construction and maintenance of the offset, except that municipalities and public stormwater utilities shall be exempt from this requirement; and
- (10) Shall include a plan for the operation and maintenance of the offset project.

§22-503 Eligible Stand-Alone Offset Projects

(a) Individual or general permit coverage may be issued for the following stand-alone offset projects:

- (1) Implementation of stormwater treatment of any discharge of regulated stormwater runoff initiated prior to 1978;
- (2) Implementation of stormwater treatment of any discharge of regulated stormwater runoff initiated after 1978 where the Secretary did not previously issue or require a stormwater discharge permit or temporary pollution permit for the discharge;
- (3) Conversion of land use to reduce sediment load or hydrologic impact, especially in riparian areas;
- (4) Restoration of an eroding or unstable stream bank where supported by a geomorphic assessment acceptable to the Secretary;
- (5) Replacement of existing undersized or deteriorated culverts that have an impact on stream channel stability; or
- (6) Other stream restoration or stormwater treatment projects that the Secretary deems necessary or appropriate to reduce sediment load or reduce hydrologic impact in a stormwater-impaired water.

(b) Before approving a proposed offset project described in subsection 503(a)(3) that will be implemented on agricultural land, the Secretary will require an applicant to first explore the viability of offset projects described in subsections 503(a)(1), (2), (4), (5) and (6) and offset projects described in subsection 402(a)(1)(C) that would be implemented on non-agricultural land. The Secretary will identify potential offset projects described in subsections 503(a)(1) and (2) in the watershed of the proposed discharge and will provide this information to the applicant.

(c) In addition to the projects listed in subsections §§22-503(a)(1) - (6) of this section, an individual offset project permit or authorization under a general offset project permit may be issued in conjunction with a stormwater discharge permit when the applicant for a discharge permit seeks to construct an offset that will exceed the sediment load or hydrologic impact that the discharger must mitigate to meet the discharge standard for the proposed discharge.

§22-504 Individual Stand-Alone Offset Project Permit

(a) Application for an Individual Stand-alone Offset Project Permit

- (1) An applicant for an individual stand-alone offset project permit shall submit an application form provided by the Secretary, which shall include, at a minimum:

- (A) The location of the offset project and the name of the affected watershed;
- (B) If the proposed offset project involves the conversion of agricultural land, documentation showing that the applicant has explored the viability of offset projects described in subsections 503(a)(1), (2), (4), (5) and (6) and offset projects described in subsection 503(a)(3) that would be implemented on non-agricultural land, and the reason(s) that the offset project(s) are or are not viable.
- (C) If the proposed offset project involves the conversion of agricultural land, documentation showing that the applicant has contacted the municipality(ies) in the watershed of the proposed discharge regarding potential offset projects described in subsection 503(a)(1) and (2) and the reasons that the projects suggested by the municipality(ies) are or are not viable.
- (D) The name, address and other contact information of the person responsible for the offset project;
- (E) A general description of the proposed offset project;
- (F) A description of the activities and management practices that will be used to generate offset charge capacity;
- (G) The reduction in sediment load and/or hydrologic impact that will be generated by the offset project;
- (H) The date of anticipated completion of the offset project;
- (I) The methods, procedures, and calculations used to determine the offset charge capacity;
- (J) The name and contact information for the person who shall be responsible for long-term operation and maintenance of the offset project during the time that it is used to generate offset charge capacity;
- (K) For offset projects listed in subsections 503(a)(1) and (2) of this Rule, a copy of an engineering feasibility analysis performed pursuant to Appendix B to this Rule;
- (L) For offset projects listed in subsections 503(a)(3), (4), (5) or (6) of this Rule, an offset project design that will meet the following objectives:
- (M) Primary:
 - (i) Project must enhance hydrologic and/or sediment attenuation; either through reduction of sediment production, or increasing sediment storage within the stream corridor

(N) Secondary:

- (i) Contributes to or achieves, and permanently protects a state which is supportive of or accommodates the physical expression, through retention or active (structural treatments) or passive (corridor protection) restoration, of the Fluvial Geomorphic Equilibrium Condition (FGEC) both within the treatment reach and within adjacent or affected stream reaches
- (ii) Reduces existing or potential conflict between fluvial adjustments and human investments in property and infrastructure

(O) For offset projects listed in subsections 503(a)(3), (4), (5) or (6) of this Rule, the required technical supporting data and analyses set forth in section IV of Appendix C of this Rule;

(P) The margin of safety applied to the offset project.

(2) The applicant shall own the land on which the offset project will be implemented or, if the applicant does not own the land, the applicant shall submit:

(A) an access agreement or easement that will be effective prior to or upon the issuance of the stand-alone offset project permit by the Secretary and that authorizes the applicant to access the land on which the offset project is located to construct, monitor, maintain, restore, replace and maintain the offset project; or

(B) an agreement between the applicant and the owner of the property on which the offset project will be constructed wherein the applicant agrees to pay the property owner to construct, monitor, restore, replace and/or maintain the offset project.

(b) Additional Information Requested by the Secretary.

The Secretary may require an applicant to submit any additional information that the Secretary considers necessary in order to make a decision on the issuance of an individual stand-alone offset project permit. The Secretary may deny the permit if the requested information is not provided within sixty (60) days of the Secretary's request.

(c) Public Notice and Hearing for Applications for an Individual Stand-alone Offset Project Permit

(1) Once the Secretary has determined that an application for an individual stand-alone offset project permit is complete, the Secretary shall prepare a draft individual stand-alone offset project permit and shall provide notice to the municipal clerk, on the Environmental Notice Bulletin, to a list of interested persons, if any, and to any appropriate officials of another state and federal government, including the administrator of the United States Environmental Protection Agency.

- (2) The Secretary shall provide at least thirty (30) days for the submission of public comments on the proposed draft individual stand-alone offset project permit.
- (3) Any request for a public informational meeting must be submitted in writing to the Secretary during the public comment period. The Secretary shall hold a public informational meeting if there is demonstrated interest in a meeting.
- (4) The Secretary shall publish notice of any public informational meeting at least thirty (30) days prior to the meeting. Notice shall be given in the same manner as provided in subsection 504(c)(1) of this section.

(d) Interested Persons List

The Secretary shall maintain an interested persons list for those individuals/groups that wish to receive copies of notices of all individual stand-alone offset project permit applications within the State.

(e) Issuance or Denial of an Individual Stand-Alone Offset Project Permit

- (1) If the Secretary determines that a proposed offset project will not violate any applicable provisions of state or federal law or regulation, the Secretary shall issue an individual stand-alone offset project permit containing the terms and conditions necessary to carry out the purposes of 10 V.S.A. § 1264 and § 1264a, unless the Secretary determines that coverage under a stand-alone offset project general permit is more appropriate in accordance with subsection 504(k) of this section.
- (2) Denials of a permit application shall be issued in writing, stating the reasons for the denial. If the permit application is denied for lack of sufficient technical or other information, the Secretary will provide appropriate information sufficient to help the applicant correct the deficiencies and re-apply for an individual permit.

(f) Renewal of an Individual Stand-alone Offset Project Permit

- (1) A permittee shall file an application for renewal of its individual stand-alone offset project permit on a form provided by the Secretary at least 180 days prior to its expiration. The Secretary may require an applicant for renewal of an individual stand-alone offset project permit to be subject to a stand-alone offset project general permit in accordance with section 506(k) of this Rule.
- (2) The Secretary may require an applicant to submit additional information that the Secretary considers necessary in order to make a decision on the renewal of an individual stand-alone offset project permit.
- (3) An application for renewal of an individual stand-alone offset project permit shall be subject to the notice and public comment requirements in subsection 504(c) of this section.

(g) Transfer of an Individual Stand-alone Offset Project Permit

- (1) A permittee may apply to transfer a stand-alone offset project permit by submitting a notice of transfer on a form provided by the Secretary. The notice shall be submitted at least five (5) days prior to the transfer and shall include, at a minimum:
 - (A) the name and address of the former permittee;
 - (B) the name and address of the new permittee;
 - (C) the date of transfer;
 - (D) a statement, signed by the new permittee stating that he/she is familiar with the terms and conditions of the individual stand-alone offset project permit and agrees to comply with all the terms and conditions of the individual stand-alone offset project permit.
- (2) The Secretary shall review the application for transfer and shall approve the application only if the Secretary determines, in his/her sole discretion, that the transferee has the organizational and financial capacity to operate, maintain and repair the offset project.

(h) Changes made to a Stand-alone Offset Project

The permittee shall notify the Secretary of any planned changes to a stand-alone offset project. The Secretary may require a permittee to submit any additional information on the proposed change. The Secretary shall determine if the individual permit needs to be modified.

(i) Modification of an Individual Stand-alone Offset Project Permit

- (1) The Secretary may modify an individual stand-alone offset project permit after providing an opportunity for public participation in the same manner described in subsection 504(c) of this section. The Secretary may modify an individual stand-alone offset project permit for cause, including but not limited to the following:
 - (A) The statutes or rules on which the individual permit is based have changed;
 - (B) There is a change in any condition that requires redrafting or alteration of the boundaries of a designated geographic area;
 - (C) When necessary to implement an applicable TMDL or WQRP;
 - (D) When required by the reopener conditions in the individual permit; or
 - (E) To correct technical mistakes, such as errors in calculations or mistaken interpretations of law made in determining permit conditions.

(j) Revocation of an Individual Stand-alone Offset Project Permit

(1) The Secretary may, after notice and opportunity for public hearing, revoke or suspend, in whole or in part, an individual stand-alone offset project permit for cause, including but not limited to:

(A) violation of the terms or conditions of the individual permit;

(B) obtaining coverage under an individual permit by misrepresentation or failure to disclose fully all relevant facts; and

(C) a change in any condition that requires either a temporary or permanent reduction in or elimination of the permitted offset project.

(k) Requiring Coverage under a General Stand-alone Offset Project Permit

The Secretary may require any person applying for an individual stand-alone offset project permit to apply for coverage under a stand-alone offset project general permit in accordance with section 506(k) of this Rule.

22-505 General Permits for Stand-alone Offset Projects

(a) Issuance of Stand-alone Offset Project General Permits

(1) The Secretary shall prepare a draft stand-alone offset project general permit and shall provide notice of the draft to the clerk of the municipalities in the geographic area covered by the general permit, on the Environmental Notice Bulletin, to a list of interested persons, if any, and to any appropriate officials of another state and the federal government, including the administrator of the United States Environmental Protection Agency.

(2) The Secretary shall provide at least thirty (30) days from completion of the notification requirements in subsection 505(a)(1) of this section for the submission of public comments on the proposed draft general permit.

(3) Any request for a public informational meeting must be submitted in writing to the Secretary during the public comment period. The Secretary shall hold a public hearing if there is a demonstrated interest in a meeting.

(4) The Secretary shall publish notice of any public informational meeting at least thirty (30) days prior to the meeting. Notice shall be given in the same manner as notice of the draft general permit.

(b) Duration of Stand-alone Offset Project General Permit

The Secretary may specify the period of time for which a stand-alone offset project general permit is valid other than five years where such time is consistent with the provisions of 10 V.S.A. § 1264 and § 1264a.

(c) Modification of General Stand-alone Offset Project Permits

(1) The Secretary may modify a general permit after providing an opportunity for public participation in the same manner as described in subsection 505(a) of this section. Grounds for modification include, but are not limited to:

- (A) The statutes or rules on which the general permit is based have changed;
- (B) There is a change in any condition that requires redrafting or alteration of the boundaries of a designated geographic area;
- (C) When required by the reopener conditions in the general permit;
- (D) To correct technical mistakes, such as errors in calculations or mistaken interpretations of law made in determining permit conditions; or
- (E) When necessary to implement a TMDL or WQRP.

§22-506 Authorizations Under a Stand-alone Offset Project General Permit

(a) Application for Coverage under a Offset Stand-alone Offset Project General Permit

(1) An applicant for coverage under a stand-alone offset project general permit shall submit a completed Notice of Intent (NOI) form with all necessary attachments and fees and all other application information required by the general permit and the Secretary. The form shall contain, at a minimum, the items listed in sections 504(a)(1)(A)-(L) of this Rule.

(2) The applicant shall own the land on which the offset project will be implemented or, if the applicant does not own the land, the applicant shall submit:

- (A) an access agreement or easement that will be effective prior to or upon the issuance of the stormwater discharge permit by the Secretary and that authorizes the applicant to access the land on which the offset project is located to construct, monitor, maintain, restore, replace and maintain the offset project; or
- (B) an agreement between the applicant and the owner of the property on which the offset project will be constructed wherein the applicant agrees to pay the property owner to construct, monitor, restore, replace and/or maintain the offset project.

(3) The Secretary may require an applicant to submit any additional information which the Secretary considers necessary to process the application and may refuse to grant coverage under a stand-alone offset project general permit until the information is furnished and evaluated.

(4) The NOI shall be signed by a designer.

(b) Public Notice for Applications for an Authorization

(1) Once the Secretary determines that an application for coverage under a stand-alone offset project general permit is complete, the Secretary shall provide public notice to the clerk of the municipality in which the discharge is located, shall post notice on the Environmental Notice Bulletin and shall provide notice to a list of interested persons, if any.

(2) For a period of at least ten (10) days following completion of the notification requirements in subsection 506(b)(1) of this section, the Secretary shall provide an opportunity to the public to provide written comment regarding whether the application complies with the terms and conditions of the general permit.

(3) The applicant shall comply with any additional notice requirements specified in the general permit.

(c) Interested Persons List

The Secretary shall maintain an interested persons list for those individuals/groups that wish to receive copies of notices of all general offset permit applications within the State or within a certain geographic area.

(d) Issuance or Denial of Authorizations

(1) If the Secretary determines that an application is complete and that the offset project meets the terms and conditions of the stand-alone offset project general permit, the Secretary shall issue an authorization to implement the offset project unless the Secretary determines that an individual permit is required pursuant to subsection 506(j) of this section.

(2) Denials of an authorization to implement an offset project shall be issued in writing, stating the reasons for the denial.

(3) If an application is denied for lack of technical or other information, the Secretary will provide information sufficient to help the applicant correct the deficiencies and re-apply for an authorization.

(e) Renewal of an Authorization

A permittee who wishes to continue its coverage after the expiration of its authorization shall apply for renewal in accordance with the stand-alone offset project general permit. The Secretary may require any permittee authorized by a stand-alone offset project general permit to apply for an individual permit in accordance with subsection 506(j) of this section.

(f) Transfer of Authorization

(1) A permittee may apply to transfer an authorization to implement an offset project by submitting a notice of transfer on a form provided by the Secretary. The notice shall be submitted within at least five (5) days prior to transfer and shall include, at a minimum:

(A) the name and address of the new permittee;

(B) the name and address of the former permittee;

(C) the date of transfer; and

(D) a statement, signed by the new permittee, stating that he/she has read and is familiar with the terms of the general permit and the authorization to discharge and agrees to comply with all the terms and conditions of the general permit and the authorization.

(2) The Secretary shall review the application for transfer and shall approve the application only if the Secretary determines, in his/her sole discretion, that the transferee has the organizational and financial capacity to operate, maintain and repair the offset project.

(g) Changes Made to an Offset Project

The permittee shall notify the Secretary of any planned changes to an offset project. The Secretary may require a permittee to submit additional information on the proposed change. The Secretary shall determine the appropriateness of continued inclusion under the general stand-alone offset project permit.

(h) Modification of Authorization

(1) The Secretary may modify an authorization to implement an offset project after providing an opportunity for public participation in the same manner as described in subsection 506(b) of this section. Grounds for modification include, but are not limited to:

(A) The statutes or rules on which the authorization is based have changed;

- (B) There is a change in any condition that requires redrafting or alteration of the boundaries of a designated geographic area;
- (C) When required by the reopener conditions in the general permit;
- (D) To correct technical mistakes, such as errors in calculations or mistaken interpretations of law made in determining permit conditions; or
- (E) When necessary to implement a TMDL or WQRP.

(i) Revocation of an Authorization

The Secretary may, after notice and opportunity for public hearing, revoke or suspend, in whole or in part, an authorization to implement an offset project under a general permit for cause, including but not limited to:

- (1) violation of the terms or conditions of the general permit or authorization;
- (2) obtaining coverage under a general permit by misrepresentation or failure to disclose fully all relevant facts; and
- (3) a change in any condition that requires either a temporary or permanent reduction or elimination of the permitted offset project activity or discharge.

(j) Requiring an Individual Offset Permit rather than Coverage Under a General Stand-alone Offset Project Permit

- (1) The Secretary may require a permittee applying for coverage under a stand-alone offset project general permit to apply for coverage under an individual stand-alone offset project permit. Cases where an individual stand-alone offset project permit may be required, include, but are not limited to, the following:
 - i. the permittee is not in compliance with the terms and conditions of the general permit;
 - ii. the offset project does not qualify for general permit coverage;
 - iii. where necessary to implement an applicable TMDL or WQRP; or
 - iv. An individual permit is necessary to implement a waste management strategy in an applicable basin plan.
- (2) If the Secretary determines that a permittee authorized by a stand-alone offset project general permit is required to apply for an individual stand-alone offset project permit, the requirements of section 504 of this Rule shall apply.

(k) Requiring Coverage under a General Stand-alone Offset Project Permit Rather than an Individual Stand-alone Offset Project Permit

- (1) The Secretary may require any person applying for an individual stand-alone offset project permit to apply for coverage under a stand-alone offset project general permit provided the Secretary finds the offset project complies with all conditions of the stand-alone offset project general permit and is more appropriately covered under the stand-alone offset project general permit.
- (2) If the Secretary finds that an offset project should be covered under a stand-alone offset project general permit rather than an individual stand-alone offset project permit, the requirements of this section shall apply.

§22-507 Registration of Offset Projects and Assignment of Offset Charge Capacity

- (a) Once the Secretary has determined that an application for the use of offset charge capacity from a stand-alone offset project is consistent with this Rule, the Agency shall enter the information submitted into the Offset Project Registry established in section 508 of this Rule.
- (b) If a watershed lacks an offset with sufficient capacity to accommodate a proposed offset charge, the Secretary shall assign an offset charge when offset capacity becomes available and in the order of the Secretary's determination that the stormwater discharge permit application is technically complete.
- (c) Notwithstanding the provisions of subsection 507(b) of this section, the Secretary may, at the request of a municipality or governmental subdivision, agency or instrumentality, reserve offset charge capacity that is generated by a municipal or governmental subdivision, agency or instrumentality offset project. Any reserved offset charge capacity will be assigned by the Secretary to stormwater discharge permits issued for discharges within the municipality or within or to the governmental subdivision, agency or instrumentality that performed the offset project and will be assigned in the order of the Secretary's determination that a stormwater discharge permit application is technically complete. The municipality performing the offset project may contract with another municipality within the impaired watershed for use of a portion of the offset charge capacity under mutually agreeable terms. If two municipalities enter into such a contract, the Secretary will assign the reserved offset charge capacity to stormwater discharge permits in the municipality specified in the contract and will assign the offset charge capacity in the order of the Secretary's determination that a stormwater discharge permit application is technically complete. Such a contract between two municipalities does not relieve either municipality from the requirements of this Rule.

§22-508 Offset Project Registry

- (a) The Secretary shall establish and maintain an Offset Project Registry for the following purposes:

- (1) Registering sediment load and hydrologic impact reductions that are generated under this Rule;
- (2) Registering and tracking the generation and use of offset charge capacity;
- (3) Registering the sediment load and hydrologic impact reductions that are contributed as a margin of safety; and
- (4) Providing public access to information on offset projects in stormwater-impaired waters.

(b) The Secretary will make all of the following information contained in the Offset Project Registry available to the public:

- (1) The name and location, by address, county, and watershed, of the sources at which offset charge capacity has been or will be generated;
- (2) A brief description of each source at which offset charge capacity has been or will be generated;
- (3) The sediment load and stormwater management practices specified by an applicable state stormwater permit, the actual sediment load or existing management practices, and associated loadings, the reduced load and impact that must be complied with during the time reductions are made to generate offset charge capacity;
- (4) The offset charge capacity in pounds of sediment per year that have been registered;
- (5) A brief description of the method or methods used, or to be used, to generate reductions in sediment load and hydrologic impact;
- (6) The effective date of the offset charge capacity that has been or will be generated;
- (7) The name and location, by address, county, and receiving water or watershed, of the permitted stormwater discharges at which registered offset charge capacity is used; and
- (8) The remaining offset charge capacity at each offset project.

§22-509 Recording of Stand-alone Offset Project Permits, Access Agreements and Easements

- (a) A one-page notice of the issuance of an individual stand-alone offset project permit and an authorization to implement an offset project under a general stand-alone offset project permit, and any access agreement or easement required by this Rule in

connection with an offset project, shall be recorded by the permittee in the local land records within fourteen (14) days of issuance of the individual permit or authorization. A copy of a one-page notice form may be obtained from the Secretary.

(b) The permittee shall provide a copy of the recording(s) to the Secretary within fourteen (14) days of the permittee's receipt of a copy of the recording(s) from the local land records.

(c) An individual stand-alone offset project permit or authorization under a general stand-alone offset project permit shall not be valid until the one-page notice form is recorded in the local land records in accordance with subsection 509(a) of this section.

§22-510 Delineation of Watersheds for Purposes of Offset Projects

Offset projects may only be undertaken in watersheds contributing to stormwater-impaired waters as delineated by the Secretary. A map of stormwater-impaired waters and watershed boundaries is available from the Secretary.

§22-511 Compliance

A permittee for a stand-alone offset project is solely responsible for compliance with the individual stand-alone offset project permit or authorization to discharge under a general stand-alone offset project permit.

Subchapter 6 STORMWATER IMPAIRED WATERS RESTORATION FUND

§22-601 Distribution of Funds from the Stormwater Impaired Waters Restoration Fund

(a) Applicability

This subsection describes the process for the distribution of funds from the Stormwater Impaired Waters Restoration Fund for the design and implementation of offset projects. The Fund shall be administered by the Secretary through the Agency's Facilities Engineering Section.

(b) The Fund shall consist of:

- (1) \$1.2 million in public monies allocated by the Vermont General Assembly in the 2003-2004 legislative session;
- (2) Such additional sums as may be appropriated or transferred to the Fund by the General Assembly and any funds from the State Emergency Board, or the Joint Fiscal Committee during such times that the General Assembly is not in session;

- (3) Stormwater impact fees paid by permittees in order to meet applicable permitting standards for the discharges of regulated stormwater runoff to stormwater-impaired waters;
- (4) Principal and interest received from the repayment of loans made from the Fund;
- (5) Private gifts, bequests and donations made to the State for any of the purposes for which the Fund was established; and
- (6) Other funds from any public or private source intended for use for any of the purposes for which the Fund was established.

(c) The Facilities Engineering Division will authorize disbursements from the Fund to offset projects that meet the requirements of 10 V.S.A. 1264a(e) and this Rule.

(1) The \$1.2 million in public funds used to capitalize the Fund shall:

- (A) Be disbursed only to an offset that is owned or operated by a municipality or a governmental subdivision, agency, or instrumentality; and
- (B) Be disbursed only to reimburse a municipality or governmental subdivision, agency, or instrumentality for those funds provided by the municipality or governmental subdivision, agency, or instrumentality to complete or construct an offset.

(2) The \$1.2 million in public funds may also be used to pay interest on short-term borrowing of grant payments if pre-approved by the Facilities Engineering Division.

(d) The Facilities Engineering Division will conduct necessary construction inspections to ensure proper construction of offset projects receiving monies from the Fund.

(e) (1) Monies from the Fund will be distributed to projects ready to proceed in the subject funding year in accordance with the requirements of 10 V.S.A. § 1264b and prioritized on the basis of the following factors:

- (A) Is the relative cost-effectiveness of the offset project (i.e., cost per pound of sediment removed) better than other projects in the watershed. The Facilities Engineering Division shall verify the reasonableness of funding requests relative to typical construction costs for similar projects;
- (B) Is there partial funding for the offset project from sources other than the stormwater impaired waters restoration fund; and
- (C) How does the offset charge capacity of the offset project compare in size to other offset projects in the watershed.

- (2) A party applying to the Fund for monies to design and implement an offset project shall submit information addressing each of the factors in subsection (e) of this section. Disbursements will be approved or disapproved based on the factors in subsection (e) of this section.
- (f) A municipality or governmental subdivision, agency, or instrumentality may, on an annual basis, reserve capacity in an offset that the municipality or governmental subdivision, agency, or instrumentality operates or owns and that meets the requirements of 10 V.S.A. 1264a(e).
- (1) If a municipality or governmental subdivision, agency, or instrumentality reserves offset capacity for a municipal or other governmental project, it shall inform the Secretary of the offset capacity reserved. The municipality, governmental subdivision, agency or other instrumentality that reserves capacity as an offset may only receive disbursement from the Fund when the municipality, governmental subdivision, agency or other instrumentality is issued a permit for the discharge of regulated stormwater runoff under 10 V.S.A. 1264(b)(1) which utilizes the reserved offset capacity.
- (2) If a municipality or governmental subdivision, agency, or instrumentality does not reserve offset capacity for its use from an offset that the municipality or governmental subdivision, agency or other instrumentality operates or owns, then the municipal or governmental entity may submit a request for disbursement from the Fund for the cost of the offset project. Fund monies shall be disbursed on a first come-first served basis.
- (g) If a permittee pays a stormwater impact fee in accordance with subsection 402(d)(1)(B) of this Rule and subsequently does not construct the permitted project and abandons its stormwater discharge permit, the permittee may request that the Secretary reimburse the stormwater impact fee. The Secretary shall reimburse the permittee when sufficient monies become available in the Fund. Requests for reimbursement shall be honored in the order in which they are received by the Secretary.
- (h) The Fund shall maintain separate accounts for each stormwater-impaired water and the monies in each account shall only be used to fund offsets for the subject watershed.
- (i) All balances at the end of any fiscal year shall be carried forward and remain a part of the Fund. Interest earned by the Fund shall be deposited in the Fund.

Subchapter 7 TMDLS

§22-701 Development of TMDLs

- (a) The Secretary shall submit a TMDL to EPA for approval or establish a WQRP for each of the stormwater-impaired waters on the 303(d) list.
- (b) Each TMDL shall be prepared pursuant to 33 U.S.C. 1313(d) and federal regulations adopted thereunder. At a minimum, each TMDL will include the following components as appropriate:
- (1) Identification of waterbody, pollutant of concern, pollutant sources and priority ranking;
 - (2) Description of applicable water quality standards and numeric water quality target;
 - (3) Identification of the loading capacity and linking water quality and pollutant sources;
 - (4) Development of loading allocations (LAs);
 - (5) Development of wasteload allocations (WLAs);
 - (6) Calculation of a margin of safety (MOS);
 - (7) Consideration of seasonal variations;
 - (8) Monitoring plan to track TMDL effectiveness; and
 - (9) Reasonable assurances for LAs.
- (c) Each WQRP shall be designed to bring the subject stormwater-impaired water into compliance with applicable water quality standards in accordance with 40 C.F.R. 130.7(b)(1)(ii) and (iii).
- (d) The Secretary shall provide an opportunity for public comment and a public informational meeting on each draft TMDL and draft WQRP.

APPENDIX A - Interim Permitting Requirements (10 V.S.A. 1264a)

- (a) The definitions found in the Stormwater Management Rule shall apply to this Appendix A.
- (b) Prior to the issuance of a general permit to implement a TMDL or Water Quality Remediation Plan, the Secretary may issue an individual permit in a stormwater-impaired water for:
- (1) A discharge of regulated stormwater runoff from an impervious surface equal to or greater than one acre if:
 - (A) A new discharge or the expanded portion of an existing discharge meets the requirements of the Stormwater Management Manual and does not increase the sediment load in the receiving stormwater-impaired water; or
 - (B) A discharge from redevelopment; from an existing discharge operating under an expired stormwater discharge permit where the property owner applies for a new permit; or from any combination of development, redevelopment, and expansion meets on-site the water quality, recharge, and channel protection criteria set forth in the Stormwater Management Manual that are determined to be technically feasible by an engineering feasibility analysis conducted pursuant to Appendix B and if the sediment load from the discharge approximates the natural runoff from an undeveloped field or open meadow that is not used for agricultural activity.
 - (2) A discharge of regulated stormwater runoff from any size of impervious surface if the secretary determines that treatment is necessary to reduce the adverse impacts of the discharge due to the size of the impervious surface, drainage pattern, hydraulic connectivity, existing stormwater treatment, or other factors identified by the secretary. In order to receive a permit under this paragraph (b)(2), a discharge must meet the applicable discharge standard in paragraph (b)(1) of this Appendix A.
- (c) If after completion of the on-site stormwater management requirements of the Stormwater Management Manual a discharger does not meet the discharge standard for a discharge permitted under paragraph (b)(1)(A) of this Appendix A or if after completion of the water quality, recharge, and channel protection criteria set forth in the Stormwater Management Manual that are determined to be technically feasible by the engineering feasibility analysis required under Appendix B a discharger does not meet the discharge standard for a discharge permitted under paragraph (b)(1)(B) of this Appendix A, the discharger may meet the relevant discharge standard by mitigating any uncontrolled sediment load or hydrologic impact. Mitigation of the uncontrolled sediment load or hydrologic impact may be achieved by:
- (1) Completing an offset on property that the permit applicant owns or controls within the watershed of the stormwater-impaired water prior to or concurrently with

the permitted discharge when an engineering feasibility analysis required under Appendix B determines that an offset is technically feasible. If in completing an offset under this subparagraph a permit applicant contracts for the construction of an offset on property that the applicant does not own within the watershed of the stormwater-impaired water, the applicant shall submit to the Secretary an access agreement or easement that demonstrates that the permit applicant shall have access to the offset; or

(2) Paying a stormwater impact fee under subsection (d) of this Appendix A when completion of an offset is not technically feasible as determined by an engineering feasibility analysis conducted under Appendix B or if the discharge standard required by subsection (b)(1) of this Appendix A is not met after completing an offset.

(d) (1) A stormwater impact fee due under paragraph (c) of this Appendix A shall be \$30,000.00 per acre of impervious surface. An individual discharger can reduce the stormwater impact fee through compliance with the engineering feasibility analysis under Appendix B. After an individual discharger of regulated stormwater completes the relevant impact fee and offset charge analysis under Appendix B, the discharger shall submit to the Secretary a proposed stormwater impact fee, a proposed offset charge, and documentation of the calculation of the fee and the offset charge. The Secretary shall approve or disapprove of the proposed stormwater impact fee and offset charge.

APPENDIX B - VTDEC Procedure for Evaluation of Stormwater Discharges and Offsets in Stormwater Impaired Watersheds

Introduction:

This procedure provides a process for permitting discharges of regulated stormwater runoff into waters that are listed as principally impaired due to stormwater runoff on the EPA-approved State of Vermont 303(d) list. This procedure will apply during the interim period prior to the adoption of a TMDL or Water Quality Remediation Plan for a stormwater-impaired water and this procedure will apply after a TMDL or Water Quality Remediation Plan is adopted for the stormwater-impaired water only to the extent specified in the general permit issued by the Secretary to implement the TMDL or WQRP.

This procedure will apply to the evaluation of offset projects, and to the issuance of stormwater discharge permits for:

- new development and the expansion of existing impervious surfaces;
- redevelopment (whether or not there is a currently valid permit); and
- renewal of stormwater permits for previously-permitted discharges with expired stormwater permits.

This procedure establishes a process for:

- conducting an engineering feasibility analysis to maximize on-site stormwater treatment for redevelopment projects and for existing discharges with expired permits;
- conducting an analysis of offset projects to assure their feasibility and to assign an offset charge capacity (i.e. the total amount of the reduction in sediment loading or hydrologic impact the offset project has achieved and is available to be charged against by the discharge project requiring an offset); and
- assessing stormwater impact fees.

Application of this procedure will result in the development of stormwater discharge permits and offset permits that together result in a net-zero discharge to receiving waters in accordance with statutorily designated baselines. This standard will be achieved through a combination of best practicable on-site treatment and the use of any necessary offsets, either constructed by the discharger or enabled through the collection of impact fee payments. A stormwater impact fee of \$30,000 per impervious acre (which is reduced by credits for pollutant reduction achieved by the applicant) is based upon an assumption for the 'typical' cost of providing stormwater treatment to meet the requirements of the Vermont Stormwater Management Manual (VSWMM). The stormwater impact fees will be used to fund offset projects within the same watershed as the discharge for which the impact fees are collected. Payment of necessary stormwater impact fees and assignment of appropriate corresponding offset credits will be made in accordance with 10 V.S.A. § 1264a.

Calculation of Impact Fees for New Development and Expansions:

Development of new impervious surfaces of one acre or more must meet all treatment and control criteria in the Vermont Stormwater Management Manual (VSWMM). On a case-by-case basis, the Secretary may require a stormwater permit for new impervious surfaces of less than one acre if necessary to reduce the adverse impacts of the discharge due to the size of the impervious surface, drainage patterns, hydraulic connectivity, installation or modification of conveyance structures, location of the discharge, existing stormwater treatment, or other factors identified by the Secretary.

The level of stormwater treatment obtained by compliance with VSWMM is assumed to result in an 80% reduction in loading to the receiving water, and represents the best practicable treatment for new development. The Simple Method Model (Schueler, T. 1987. *Controlling Urban Runoff: A Practical Manual for Planning and Designing Urban Best Management Practices*. MWCOCG. Washington, D.C.) or a similar model will be used to determine both pre-development and post-development loads from the site. Pre-development site conditions will be characterized as the actual, existing site condition. DEC will review the history of land-use at the site where there is the appearance of land-use manipulation for the purpose of artificially increasing loading from pre-development site conditions, and where appropriate adjust existing site conditions to account for any such manipulation. Post-development loads will reflect the 80% reduction in loading to be achieved through application of VSWMM treatment and control criteria.

Results of the Simple Method analysis will be represented as the net percent increase in loading from a site, and will be used to give credit for pre-existing site conditions to calculate the necessary stormwater impact fee payment. In addition, the net increase in sediment estimated by the Simple Method will be used to represent the total sediment loading that must be offset.

Engineering Feasibility Analysis and Calculation of Impact Fees for Redevelopment and Existing Discharges with Expired Permits:

A site-specific engineering feasibility analysis will be conducted by permittees subject to this procedure in order to maximize on-site treatment of stormwater runoff from existing impervious surfaces. The engineering feasibility analysis approach is necessitated by the fact that the VSWMM only sets stormwater management standards for new construction on undeveloped sites and not for retrofits of already developed sites. In lieu of adopting a separate set of standards appropriate for retrofit projects, the Secretary will require redevelopment projects and existing discharges with expired permits to meet all practicable requirements in the VSWMM for infiltration, channel protection (hydrology) and water quality, as determined by the engineering feasibility analysis. These projects will not be required to meet the VSWMM requirements for the ten and one hundred year floods. Priority for on-site retrofit implementation is given first to recharge, then hydrological control, and finally wash-off load reduction. The specific treatment and control practices determined through use of the engineering feasibility analysis must then be implemented on-site.

The statutorily established “net zero” discharge standard will be achieved through a combination of:

- implementation of the on-site treatment required through the engineering feasibility analysis; and
- any necessary on-site or off-site offset project undertaken by the permittee;
- or payment of a stormwater impact fee and assignment of offset credits from a stand-alone offset project that has the capacity to offset the post-control sediment load or hydrologic impact from the discharge.

The impact fee of \$30,000.00 per impervious acre is based upon an assumption for the ‘typical’ cost of providing stormwater treatment to meet the requirements of the VSWMM. On-site treatment requirements that are achieved, as determined through this engineering feasibility analysis, will be applied as a continuous sliding-scale credit towards this area-based fee. If an individual treatment or control criteria can be fully complied with, then the maximum credit for that criteria will be applied. Partial compliance with any individual criterion will be credited on a linear basis, calculated by the percentage of total volume able to be treated or controlled.

The existing *site* (including contiguous land owned or controlled by the subject property owner and within the impaired watershed of the discharge) shall be evaluated for its potential to provide treatment towards the VSWMM. All necessary considerations for treatment suitability shall be followed, as outlined in the VSWMM. In addition, all required design elements of the VSWMM shall be evaluated and incorporated into the final design of specific stormwater treatment practices. The analysis of a given site’s ability to achieve the designated treatment and control practices will be evaluated in the order of priority shown in Table 1. However, all three applicable criteria (Re_v , CP_v , WQ_v) must be assessed, and the stormwater retrofit practices that are determined to be applicable for each criteria must be implemented.

The Simple Method Model (Schueler, 1987) or a similar model will then be used to determine both pre-development and post-development loads from the site. Pre-development site conditions will be characterized as the natural runoff from an undeveloped field or open meadow that is not used for agricultural activity. Post-development loads will reflect the reduction in loading to be achieved through application of the treatment and control practices required by the engineering feasibility analysis.

Results of the Simple Method analysis will be represented as the net percent increase in loading from a site, and will be used to give credit for pre-existing site conditions to calculate the necessary fee payment. In addition, the net increase in sediment estimated by the Simple Method will be used to represent the total sediment loading that must be offset.

The treatment and control techniques listed in Table 2 will not be required as part of this analysis, although they may be voluntarily considered at the discretion of the permit

applicant. Any resulting treatment and control achieved through the application of these techniques will be credited toward the area-based fee.

Table 1
Engineering Feasibility Analysis
Priority Ranking of Retrofit Analysis

VSWMM Criteria	Specific Analysis Requirements in Order of Priority	Impact Fee Credit
Recharge Volume (Re _v)	<ol style="list-style-type: none"> 1. Maximize infiltration of rooftop runoff through VSWMM approved non-structural means 2. Maximize infiltration of impervious surface runoff through VSWMM approved non-structural means 	Up to 10 %
Channel Protection Volume (CP _v)	<ol style="list-style-type: none"> 3. Maximize detention of runoff from 1 year storm through re-design, retrofit and/or expansion of existing detention structures 	Up to 50 %
Water Quality Volume (WQ _v)	<ol style="list-style-type: none"> 4. Maximize water quality treatment by routing flows through engineered grass channels whenever possible, or through re-design and expansion of existing detention structures, or through infiltration in excess of the Re_v quantity, or through a combination of these techniques 	Up to 20 %
Zero Load	<ol style="list-style-type: none"> 5. If all runoff from the 1 year storm is able to be infiltrated (net zero-loading condition), then no impact fee shall be assessed 	100%

Table 2

Engineering Feasibility Analysis
Voluntary Treatment and Control Practices

1	Analysis will not require installation of sub-surface storage or treatment structures
2	Analysis will not require purchase or acquisition of additional land
3	Analysis will not require demolition of buildings or removal of existing impervious surfaces to point of interference with either the land use or material conditions of any existing land use permits
4	Analysis will not require off-site treatment of stormwater
5	Analysis will not require either site re-grading or site re-contouring to point of permanent interference with either the land use or material conditions of any existing land use permits
6	Analysis will not require pumping or otherwise mechanical re-routing of stormwater runoff.
7	Analysis will not require mechanical or chemical treatment of stormwater
8	Analysis will not allow infiltration where basement flooding or subsurface pollutant plume transport will occur

Offset Project Analysis and Management:

Many permit applicants will be unable to meet statutorily defined treatment and control standards solely through on-site treatment. These applicants will need to construct an on-site or off-site offset project or rely on a stand-alone offset project developed by a third party in order to obtain a permit for new development, expansion, redevelopment or renewal of an expired stormwater permit.

The eligibility criteria for offset projects are set forth in 10 V.S.A. § 1264a(e)(4). Offset projects will be permitted and analyzed separately from those projects requiring such offsets and may include mitigation activities other than treatment and control of existing discharges, such as stream corridor improvements. Each offset project will be assigned an offset charge capacity which represents the total amount of the reduction in sediment loading or hydrologic impact that the Secretary has determined that the offset has achieved, and which is therefore available to be used by a stormwater permit applicant to meet necessary treatment and control standards. Stormwater impact fees that are calculated as described in the preceding sections of this procedure may be used to fund these offset projects. The discharge and its corresponding offset project must both be within the same stormwater impaired watershed. The use of offset charge capacity

created by offset projects will be tracked by DEC to assure accurate accounting of the offset credits.

The Simple Method Model will be used to determine allowable offset charge capacity for offset projects that implement or improve treatment or control practices at existing impervious surfaces. This model will be used to determine both pre-development and post-development loads from the site. Pre-development site conditions will be characterized as the actual, existing site condition. Post-development loads will reflect actual reductions in loading to be achieved through application of treatment and control practices. Results of this Simple Method analysis will be represented as the net reduction in pounds of sediment derived by subtracting post-development loadings following proposed treatment from the pre-development loadings under the existing site conditions. Treatment must be provided that meets, at a minimum, those levels that would be prescribed in the engineering feasibility analysis (Table 1).

Hydrologic credits for control provided at offset sites will be expressed in units of channel protection volume CP_v . These credits will be calculated as a direct percentage of the theoretical channel protection volume for the proposed offset site as described in the Vermont Stormwater Management Manual, and following the proposed level of control determined via the criteria in Table 1. Control must be provided that meets, at a minimum, those levels that would be prescribed in the engineering feasibility analysis (Table 1).

For non-impervious-surface offset projects, (e.g., culvert replacements, riparian buffer zone acquisition, stream-bank restorations) credit will necessarily be determined on a case-by-case using DEC's "Technical Guidance for the Evaluation of Non-Impervious Surface Treatment Offset Projects (NISTOP) Within Impaired Watersheds.

To facilitate offset projects, the Agency will explore the possibility of adopting an offset project general permit. Individual offset projects that meet the terms of an offset project general permit would be eligible to obtain coverage under the general permit with the abbreviated public notice schedule authorized in statute. Offset projects that did not meet the terms of the general permit would still be eligible for an individual offset project permit.

A separate database will be maintained for each stormwater-impaired watershed to track new permitting actions, impact fee assessment and collection, offset project development and load reductions, and use of these offset credits. New or expanded discharges must identify a completed offset project or one that will be completed by the time the discharge is initiated. A discharge associated with either redevelopment or an existing discharge with an expired permit may use a completed offset project or an offset project that will be completed within two years of the initiation of its discharge. DEC will assist applicants in identifying an appropriate offset project in the watershed of the discharge that received an offset permit or coverage under a general offset permit and:

- (a) that is eligible to receive funding from the stormwater-impaired waters restoration fund;
- (b) that has already been completed or will be completed by the time the discharge is initiated, or in the case of redevelopment or renewal of an expired permit, will be completed within two years;
- (c) that has remaining offset charge capacity, and
- (d) that will agree to accept an offset charge from the discharger.

APPENDIX C - Technical Guidance for the Evaluation of Non-Imperious Surface Treatment Offset Projects (NISTOP) Within Impaired Watersheds

I. NISTOP Objectives/Outcomes

Primary:

- Project must enhance hydrologic and/or sediment attenuation; either through reduction of sediment production, or increasing sediment storage within the stream corridor

Secondary:

- Contributes to or achieves, and permanently protects a state which is supportive of or accommodates the physical expression, through retention or active (structural treatments) or passive (corridor protection) restoration, of the Fluvial Geomorphic Equilibrium Condition (FGEC) both within the treatment reach and within adjacent or affected stream reaches
- Reduces existing or potential conflict between fluvial adjustments and human investments in property and infrastructure

II. NISTOP Categories

Category 1, *Riparian Corridor Protection* [1264a(e)(1)(C)]: Conversion of land use through the establishment and protection of forested riparian corridors where the corridor functions to slow stormwater flows, thereby reducing hydrologic impact and protecting stream channels from degradation. For individual NISTOPs, the permit applicant shall own the land on which the NISTOP will be implemented or shall hold an easement to the land containing the NISTOP such that the NISTOP shall be protected and the applicant is authorized access to the land to construct, monitor, and maintain, the NISTOP for the life of the individual stormwater permit. For stand-alone NISTOPs, a permanent easement providing permanent protection of the NISTOP and authorizing permanent access to the land to construct, monitor, and maintain the NISTOP shall be transferred to a municipality, or a local, regional or state non-profit lands conservation organization registered with the Secretary of State.

Category 2, *Buffer Establishment and Protection* [1264a(e)(1)(C)]: Conversion of land use through the establishment and protection of forested riparian buffers adjacent to stream reaches that effectively treat stormwater runoff by capturing runoff draining by sheet flow from pervious and impervious areas adjacent to a stream. For individual NISTOPs, the permit applicant shall own the land on which the NISTOP will be implemented or shall hold an easement to the land containing the NISTOP such that the NISTOP shall be protected and the applicant is authorized access to the land to construct, monitor, and maintain, the NISTOP for the life of the individual stormwater permit. For

stand-alone NISTOPs, a permanent easement providing permanent protection of the NISTOP and authorizing permanent access to the land to construct, monitor, and maintain the NISTOP shall be transferred to municipality, or a local, regional or state non-profit lands conservation organization registered with the Secretary of State.

Category 3, *Channel Modifications* [1264a(e)(1)(D)&(F)]: Stabilization of eroding streambanks, stream restoration, and flood plain enhancement or restoration projects which support or achieve retention or re-establishment of FGEC, and enhance hydrologic and/or sediment attenuation. For projects involving structural treatments, the primary project element, in the establishment of the FGEC, will typically consist of some treatment other than structurally increasing channel boundary resistance.

Category 4, *Infrastructure Modifications* [1264a(e)(1)(E)]: Culvert replacement or other transportation infrastructure modifications within a channel, floodplain, or riparian corridor which support or achieve retention or re-establishment of FGEC, and enhance hydrologic and/or sediment attenuation.

III. Calculation of Offset Charge Capacity Derived from Proposed NISTOPs

Category 1, *Riparian Corridor Establishment and Protection*: Riparian corridor protection offsets shall consist of a hydrologic offset charge capacity. The hydrologic offset charge capacity shall be calculated by determining the change in the channel protection volume at an off site location generated through the permanent establishment of a forested riparian corridor. The change in the channel protection volume can be used to offset the required Channel Protection Treatment Standard of the most current VSWMM for proposed redevelopment and existing discharges with expired permits.

The Riparian Corridor Establishment and Protection offset is subject to the following conditions:

- The average contributing overland slope to and across the riparian corridor shall be less than or equal to 5.0%.
- The vegetative target for the riparian corridor shall be a mature native riparian plant community maintained in a natural condition.

Category 2, *Buffer Establishment and Protection*: Buffer establishment and protection offsets shall consist of a sediment offset charge capacity and a hydrologic offset charge capacity. The sediment offset charge capacity shall be calculated by comparing pre-development sediment loads with post-development sediment loads using the Simple Method Model and applying a 50% sediment removal efficiency for the proposed buffer. Sediment reduction shall be calculated in pounds per year. The hydrologic offset charge capacity shall be calculated by determining the change in the channel protection volume at an off site location generated through the permanent establishment of a forested riparian buffer. The change in the channel protection volume can be used to offset the required Channel Protection Treatment Standard of the most current VSWMM for proposed redevelopment and existing discharges with expired permits.

The Buffer Establishment and Protection offset is subject to the following conditions:

- The minimum buffer width shall be 50 feet as measured from the top of bank elevation of a stream or the boundary of a Class 1 or 2 wetland.
- The maximum contributing path shall be 150 feet for pervious surfaces and 75 feet for impervious surfaces. As this restriction is primarily to ensure that runoff to the buffer occurs as overland sheet flow (as buffers require the presence of sheet flow to be effective), if it can be shown that maximum runoff velocities are non-erosive (do not exceed 2 fps for the 2-year storm) and sheet flow can be maintained (e.g. through installation of level-spreading device), then the length of contributing area may be exceeded.
- The average contributing overland slope to and across the stream buffer shall be less than or equal to 5.0%.
- Runoff shall enter the stream buffer as sheet flow. A level spreading device shall be utilized where local site conditions prevent sheet flow from being maintained.
- The vegetative target for the buffer shall be a mature native riparian plant community maintained in a natural condition.

Category 3, *Channel Modifications*: Channel modification offsets shall generally consist of a sediment offset charge capacity only. Both sediment and hydrologic offset charge capacity can be achieved if the project includes structural elements located outside the channel but within a riparian corridor that attenuate watershed hydrology; such as flood plain restoration or riparian corridor wetland restoration. Screening Criteria, provided by the Secretary of Natural Resources shall be initially applied to prospective channel modification NISTOPs to determine eligibility. If deemed eligible by the Secretary, analysis shall consider stream condition, stage of adjustment process, sensitivity, and anticipated geomorphic response to the structural treatments on appropriate spatial and temporal scales, as indicated through application of VT DEC Stream Geomorphic Assessments, Phase 2 (Rapid Stream Assessment), and any additional analyses necessary (including but not limited to the required technical supporting data/analyses listed in Section IV. below). Sediment reduction shall be calculated in pounds per year. Project effect on the sediment budget must be calculated on a reach scale including consideration of adjacent or other affected reaches.

Category 4, *Infrastructure Modifications*: Infrastructure modification offsets shall consist of sediment offset charge capacity only. Screening Criteria, provided by the Secretary of Natural Resources shall be initially applied to prospective culvert replacement NISTOPs to determine eligibility. If deemed eligible by the Secretary, analysis to determine offset charge capacity shall include Phase 2 geomorphic assessment of upstream and downstream reaches, characterization of sediment regime, basis for determination of enhanced sediment attenuation, and design details of proposed conditions. Other infrastructure modifications (non-culvert) shall be calculated as for category 3.

IV. Required Technical Supporting Data/Analyses

The following supporting technical data/analyses are required:

Required Technical Supporting Data/Analyses	NISTOP Category			
	1	2	3	4
Report of the results of VT DEC Phase 2 Stream Geomorphic Assessment for the treatment reach and adjacent or affected reaches			✓	✓
Design details of vegetative treatments, channel or flood plain modifications, and/or infrastructure modifications	✓	✓	✓	✓
Characterization of the existing and proposed sediment regime for the treatment reach, adjacent reaches, and affected reaches			✓	✓
Basis for determination of enhanced hydrologic and/or sediment attenuation			✓	✓
Digital geographic location data of corridor or buffer establishment, channel/flood plain modifications, or infrastructure modifications	✓	✓	✓	✓
Evaluate channel modification screening criteria			✓	
Evaluate culvert replacement screening criteria				✓

V. Assigned Margin of Safety (MOS)

NISTOPs shall be assigned an appropriate margin of safety (MOS) in order to account for the variability and uncertainty in quantifying the existing and proposed hydrologic/sediment loads and the temporally limited sustainability of sediment load reductions that will generally be attainable through the implementation of NISTOPs.

Category 1 and 2 NISTOPs (Riparian Corridor and Buffer Establishment) shall be quantified applying an MOS of 1.

Category 3 (Channel Modification) NISTOPs shall be quantified applying an MOS in the range of 3-10. Assignment of MOS shall be made on a case-by-case basis depending on the temporal variability of sediment production volume, anticipated temporally limited sustainability of water quality benefits, level of uncertainty in sediment production calculations, and the lack of information or feasibility of analysis of the relative impacts of the sediments produced from stream channel erosion and the sediments produced from new stormwater wash-off on aquatic life use.

Category 4 (Infrastructure Modification) NISTOPs shall be quantified applying an MOS in the range of 3-10. Assignment of MOS shall be made on a case-by-case basis. The primary consideration in the assignment of MOS will be the extent to which the existing conditions at a proposed culvert replacement or infrastructure modification site are exhibited or expressed relative to Screening Criteria (site indicators) provided by the Secretary of the Agency of Natural Resources. Sites at which most of the site indicators

are identified will be assigned an MOS at the low end of the range. Sites at which few site indicators are identified will be assigned an MOS at the high end of the range. Sites may exhibit so little evidence of culvert related stream channel stability, as indicated through the screening criteria, as to be deemed not eligible for assignment of offset charge capacity.