APPENDIX A - Permit Submittal Requirements And Collection, Treatment And Control Standards For Discharges Specified in Subpart IV.A. (From Property With Existing Impervious Surfaces That Are Also Subject To A Previously Issued State Stormwater Permit)

This procedure shall be followed by permittees for designated discharges specified in Subpart IV..A. of the Department's NPDES General Permit 3-9030 for Designated Discharges to the Bartlett, Centennial, Englesby, Morehouse and Potash Brook Watersheds. **By June 30, 2011**, permittees for such designated discharges shall conduct and submit to the Department an analysis conducted in accordance with this procedure. This procedure provides a process by which permittees shall identify opportunities for maximizing on-site treatment of residually designated discharges and identify stormwater BMPs that shall be implemented by permittees in accordance with Subpart IV.A. **By no later than eighteen (18) months after the Secretary's approval of the analysis and BMP design plans,** the permittee shall implement the stormwater BMPs for the designated discharge in accordance with the approved plans.

Step One: Identification of Opportunities for On-Site Treatment

A site-specific analysis will be used for maximizing on-site treatment of stormwater runoff from existing impervious surfaces. The basis for this analysis is the Vermont State Stormwater Management Manual (VSWMM). The VSWMM was designed to set 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 designated discharges with pre-existing state stormwater permits to meet all practicable requirements on site for three of the five stormwater treatment standards in the VSWMM as defined by this Appendix. The engineering feasibility analysis covers the infiltration, channel protection (hydrology), and water quality treatment requirements in the VSWMM. These discharges 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 this analysis shall then be implemented at the site.

The existing *site* (including contiguous land owned or controlled by the subject property owner and within the impaired watershed of the designated discharge) shall be evaluated for its potential to maximize treatment for infiltration, channel protection and water quality treatment. The priority of treatment assessment is provided in Table 1. All necessary considerations for treatment suitability shall be followed, as provided in the VSWMM. In addition, all required design elements specified in the VSWMM shall be evaluated and incorporated into the final design of specific stormwater collection, treatment and control practices. Please note the increased infiltration requirements; infiltration of all runoff from impervious surfaces from the 1-year storm is required by this permit.

Step Two: Submittal of Engineering Feasibility Analysis Report

To comply with Subpart IV.A. of the General Permit for Designated Discharges, the permittee shall submit to the Department an Engineering Feasibility Analysis Report on a form to be provided by the Secretary.

Table 1
Residual Designation Engineering Feasibility Analysis
Priority Ranking of Retrofit Analysis

VSWMM Criteria	Specific Analysis Requirements in Order of Priority
Recharge Volume (Re_v)	1. Maximize infiltration of all impervious surface runoff from the 1-year storm. This requirement exceeds the RE_v requirement of the Manual
Channel Protection Volume (CP_v)	2. Provide 12 or 24-hr detention (depending on receiving water fishery status) of non-infiltrated runoff from the 1-yr storm.
Water Quality Volume (WQ_v)	3. Provide treatment of the Water Quality Volume. Infiltration of this volume is considered compliant with the Manual.

Table 2 identifies the feasibility criteria to be used to modify the feasibility analysis required by Table 1. These are intended to accommodate the space, development, and natural resource constraints on existing developed sites. The final feasibility analysis submitted to DEC shall reflect the treatment and control assessment undertaken in accordance with Table 1 as modified by the factors in Table 2.

Table 2

Residual Designation Engineering Feasibility Analysis

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 existing 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 existing 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.
9	Analysis will not require the construction of any infrastructure within the Fluvial Erosion Hazard area of any receiving water or within any wetland or its 50-foot buffer zone.
10	Analysis will not require the destruction of contiguous forested areas exceeding 1,000 square feet. The removal of trees in non-contiguous forested areas shall be considered when replacement of lost trees is feasible per this table.