

# Isolated Impervious Surface Guidance for Existing Stormwater Retrofit Sites

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Stormwater treatment standards for three-acre retrofit sites are described in General Permit 3-9050 Subparts 3.1.A, 3.1.B, and 3.1.C. In addition to three-acre sites, Subpart 3.1.C also includes standards for the renewal of a permit for existing impervious surfaces of less than three acres for which additional controls are needed for discharges to Lake Champlain, Lake Memphremagog, and/or stormwater-impaired waters. The specific classes of waters described in Subparts 3.1.A and 3.1.C have alternate requirements for existing isolated impervious surfaces on these retrofit sites that differ from the stormwater treatment practices in the Vermont Stormwater Management Manual (VSMM). These requirements are intended to reduce existing erosion and prevent future erosion from these surfaces, for which the benefits of providing enhanced VSMM stormwater treatment within the classes of waters specified in Subparts 3.1.A and 3.1.C are likely to be limited.

There are two categories of isolated impervious surface identified in the General Permit subject to these alternate requirements:

- Isolated roads or linear transportation facilities (3.1.A.5 and 3.1.C.4.c), and;
- Isolated impervious surfaces with a footprint of no more than 400 square feet where the impervious surface is separated from other impervious surface (except for roads and other linear transportation facilities) by a distance of at least 50 linear feet (3.1.A.6 and 3.1.C.4.d).

The following is guidance intended to assist applicants in understanding the requirements for these isolated impervious surfaces and their applicability.

## Applicability

- New development, redevelopment, and expansions of impervious surface may not utilize the isolated impervious surface standards in General Permit 3-9050 and must comply with the treatment standards in the Vermont Stormwater Management Manual.
- As defined in the General Permit “linear transportation facility” means, but is not limited to, highways, roads, streets, paths, and sidewalks. Surfaces subject to the treatment requirements for isolated linear transportation facilities (3.1.A.5 and 3.1.C.4.c) include sidewalks, or those that are gravel surfaces such as paths (including golf cart paths), if the runoff from the surface does not comeingle with runoff from adjoining or adjacent impervious surface. Note that earthen/dirt or vegetated recreational footpaths, hiking trails, cross-country ski trails, or mountain bike trails will not typically be regulated as impervious surfaces.
- Municipally owned roads or linear transportation facilities located on three-acre or impaired water retrofit sites must meet the standards in the Municipal Roads General Permit (GP 3-9040) and those in General Permit 3-9050 applicable to the specific site. The requirements in GP 3-9050 must be met for municipal roads or linear transportation facilities using practices in the Vermont Stormwater Management Manual rather than using the alternate treatment requirements for isolated roads or linear transportation facilities in Part 11 of General Permit 3-9050.
- The alternate treatment requirements for isolated impervious surfaces are not applicable for discharges to waters covered by Subpart 3.1.B (discharges to certain stormwater-impaired

waters without an adopted TMDL or WQRP). Existing impervious surfaces subject to Subpart 3.1.B, including isolated impervious surfaces, must meet treatment requirements in the Vermont Stormwater Management Manual determined to be technically feasible by an engineering feasibility analysis (EFA) conducted pursuant to Subpart 4.1, and are subject to stormwater impact fee or offset requirements of Subparts 4.2 and 4.4 if applicable treatment standards cannot be met. The Department does not have the authority to establish alternate treatment standards for any discharges to waters covered by Subpart 3.1.B, which have been established by 10 V.S.A. §1264(h)(2). Currently receiving waters subject to Subpart 3.1.B are the stormwater-impaired portions of Moon Brook in Rutland City, Roaring Brook and the East Branch of Roaring Brook in Killington, and Clay Brook in Warren.

## **Permit Coverage**

Unless exempt from coverage per Subpart 1.5 of the General Permit or proposed to be removed and restored to a pervious surface, the acreage of isolated impervious surfaces subject to the alternate treatment requirements in Subparts 3.1.A and 3.1.C must be included for permit coverage and is not waived from the application review fee calculation or from the annual operating fees after permit issuance. An applicant may propose that areas of isolated impervious surface on a three-acre site are removed and restored to a pervious surface such that the site no longer has three or more acres of impervious surface in total. In these cases the removed impervious surface is not subject to permit coverage.

## **Treatment Requirements**

Isolated roads or linear transportation facilities: these impervious surfaces, or segments of them, are categorized as isolated if their stormwater runoff does not comingle with runoff from adjoining or adjacent impervious surface that requires permit coverage as part of a project that includes the linear surface. They may also be categorized as hydrologically connected or hydrologically unconnected. A hydrologically connected segment has surface and drainage characteristics that indicate a likelihood of discharges to surface waters or wetlands, whereas an unconnected segment is not likely to discharge to surface waters or wetlands. Segments are 100 meters in length except for the last segment of an isolated road or linear transportation facility which may be less than 100 meters. If a field evaluation for hydrologic connectivity is conducted per Subpart 11.4 of General Permit 3-9050, the treatment requirements may be limited to those linear segments meeting the criteria in Subpart 11.4 for connectivity, and segments that were evaluated as not hydrologically connected then require no treatment. If the field evaluation described in Subpart 11.4 is not conducted, all isolated linear transportation facility segments (hydrologically connected and unconnected) are subject to treatment determined to be technically feasible by an EFA conducted pursuant to Subpart 4.1.

Required treatment practices are described in Part 11 “BMPs for Existing Isolated Roads” and are broadly divided between standards for gravel and paved roads with no curbs and catch basins (open drainage systems – Subpart 11.1) and paved roads with curbs and catch basins (closed drainage systems – Subpart 11.2). Subpart 11.3 describes check dam specifications that may be required. If an isolated road or road segment meets the applicable BMP requirements in the existing condition at the time of permit application no action is required, however the permittee must maintain that condition and ensure the road continues to satisfy the requirements.

Isolated impervious surfaces  $\leq$  400 square feet: these impervious surfaces must have a footprint of no more than 400 square feet and be separated from other impervious surface by at least 50 linear feet, with the exception of impervious surface associated with roads and other linear transportation facilities. The treatment standard is to repair all areas of erosion from these surfaces where there are rivulets greater than 1" deep and prevent runoff from re-connecting with impervious surfaces when accomplishable without causing erosion or property damage. Rivulets greater than 1" in depth are expected to cause rill erosion. If there are no rivulets greater than 1" in depth and no need for preventing re-connection with other impervious surfaces there is no action required, however if the permittee does not maintain those conditions following permit issuance corrective action may be necessary to meet the required standard.

### **Relationship to Treatment Standards and Calculations**

Isolated impervious surfaces may not receive volumetric treatment credit for treatment or control practices in the VSMC and must meet the requirements for isolated impervious surfaces described in General Permit 3-9050. The total acreage of isolated impervious surface must be omitted from the calculations of both required and provided treatment or control volumes for applicable standards, including the Water Quality Treatment Standard, Redevelopment Standard, Groundwater Recharge Standard, and Channel Protection Standard. Isolated impervious surface that is removed and restored to a pervious surface may not be credited as impervious surface reduction toward satisfying the Redevelopment Standard.

### **Addressing Isolated Impervious Surfaces in the Permit Application Materials**

The Notice of Intent (NOI) must include the acreage of isolated impervious surfaces as impervious for permit coverage, unless the impervious is exempt from coverage per Subpart 1.5 of the General Permit. The NOI must also include the isolated impervious surface in the discharge point and Manner of Discharge information. The Manner of Discharge needs to specify the applicable treatment provided: Subpart 3.1 requirements in General Permit 3-9050 for isolated impervious surface of 400 square feet or less, or Part 11 BMPs for Existing Isolated Roads. Isolated impervious surface treatment should not be entered as a Structural or Non-Structural Treatment Practice in the NOI.

The EFA and/or Narrative should provide a breakdown of impervious types on the site including the area of isolated impervious surfaces, the area of impervious subject to treatment under the VSMC treatment requirements, and the total for permit coverage. The area of isolated impervious surface may be omitted from the impervious entered in the Standards Compliance Workbook so that it is not counted towards required treatment volumes, with a brief explanation provided in the Workbook notes field.

Design plans must identify all isolated impervious surfaces and depict how the treatment requirements for isolated impervious surfaces are met, including practice details as necessary and any necessary construction notes for the contractor. If an evaluation for hydrologic connectivity was conducted per Subpart 11.4, the plans need to clearly distinguish linear segments determined to be connected and those determined to be unconnected. To aid the permittee in maintaining their stormwater practices and performing annual inspections, the annotated maintenance plan sheet must identify maintenance activities that should be regularly performed and specific conditions that indicate when maintenance is needed for the best management practices utilized to treat isolated impervious surface.

## **Impact Fees and Offsets**

The stormwater impact fees and offset requirements of General Permit 3-9050 Subparts 4.2 and 4.4 do not apply to isolated impervious surfaces subject to Subparts 3.1.A.5, 3.1.A.6, 3.1.C.4.c, or 3.1.C.4.d that cannot feasibly meet the required treatment standards specified or referenced in those subsections of the General Permit. Impact fee and offset requirements not applying to these surfaces does not waive the requirement to treat these surfaces, if feasible per an EFA completed in accordance with Part 4 of the General Permit. Treatment of isolated impervious surfaces does not count toward eligibility for receipt of stormwater impact fees (Subpart 4.3 of General Permit 3-9050).

## **Part 11: Terminology**

Some of the terms or BMP names used in Part 11 of the General Permit are not defined in Subpart 1.7 “Definitions” in General Permit 3-9050. Applicants and designers may rely on the definitions set forth in Part 10 “Definitions” in General Permit 3-9040, the Municipal Roads General Permit, for guidance when terms are not otherwise defined in General Permit 3-9050.

[MRGP 2023 Final.pdf \(vermont.gov\)](#)

## **Part 11: Stone Check Dams Specifications Reference**

Subpart 11.1.B.2.b(ii) requires stabilization of ditches along isolated roads with open drainage systems on slopes 5% or greater but less than 8% “with grass and stone check dams per the specifications in *Subpart XX*.” The reference to Subpart XX is an error. The specifications for stone check dams in Subpart 11.3 were the intended reference.

## **Part 11: Website for Intermittent Stream Crossing Culvert Sizing Guidance**

The Stormwater Program website link referenced in General Permit 3-9050 Subparts 11.1.D.3 and 11.1.E.3 for Intermittent Stream Crossing Sizing Guidance is no longer active. Refer to the following link on the Stormwater Program website instead:

[https://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/Permitinformation/MunicipalRoads/sw\\_MRGP\\_IntermittentStreamCulvertSizingGuidance.pdf](https://dec.vermont.gov/sites/dec/files/wsm/stormwater/docs/Permitinformation/MunicipalRoads/sw_MRGP_IntermittentStreamCulvertSizingGuidance.pdf)

This guidance is also in Appendix C of the 2023 Municipal Roads General Permit:

[MRGP 2023 Final.pdf \(vermont.gov\)](#)