REPORT ON REGULATORY THRESHOLD FOR PERMITTING STORMWATER RUNOFF FROM IMPERVIOUS SURFACES

A RECOMMENDATION ON WHETHER THE LEGISLATURE SHOULD LOWER THE REGULATORY PERMITTING THRESHOLD FOR AN OPERATING PERMIT FOR STORMWATER RUNOFF IN 10 V.S.A. §1264

2015 Act 64, Section 32,

Submitted to the Vermont General Assembly

Agency of Natural Resources
Department of Environmental Conservation

January 15, 2016

This report is prepared pursuant to Sec. 32 of Act 64 of the Acts of 2015 and reports on the Department of Environmental Conservation's recommendation on whether and how the State should lower from one acre to one-half acre of impervious surface the regulatory permitting threshold for an operating permit for stormwater runoff from new development, redevelopment, or expansion.

In summary, the Department recommends lowering the permit threshold to one-half acre of impervious surface to more effectively limit the input of phosphorus and other pollutants to the waters of Vermont. The ability to implement such a program is dependent on obtaining an adequate level of staffing.

BACKGROUND

The specific reporting requirement from Act 64 is as follows:

Sec. 32. ANR REPORT ON REGULATORY THRESHOLD FOR PERMITTING STORMWATER RUNOFF FROM IMPERVIOUS SURFACES
(a) On or before January 15, 2016, the Secretary of Natural Resources shall submit to the House Committee on Fish, Wildlife and Water Resources and the Senate Committee on Natural Resources and Energy a report regarding whether and how the State should lower from one acre to one-half acre of impervious surface the regulatory permitting threshold for an operating permit for stormwater runoff from new development, redevelopment, or expansion. The report shall include:
(1) a recommendation as to whether the State should lower the regulatory permitting threshold from one acre to one-half acre of impervious surface;
(2) an estimate of the number of additional development projects that would require an operating permit for stormwater runoff if the regulatory permitting threshold were lowered from one acre to one-half acre of impervious surface;
(3) an estimate of the environmental benefit of reducing the regulatory permitting threshold from one acre to one-half acre of impervious surface;
(4) an estimate of the number of staff that would be needed by the Agency of Natural Resources to effectively implement a stormwater operating permit program with a regulatory permitting threshold of one-half acre of impervious surface; and
(5) a recommendation for regulating construction, redevelopment, or expansion of impervious surface based on a tiered system of acreage, square footage, or other measure.
(b) The definitions provided in 10 V.S.A. § 1264 shall apply to this section.

RECOMMENDATIONS

The Department's recommendations to the specific requests of the Act are as follows:

(1) a recommendation as to whether the State should lower the regulatory permitting threshold from one acre to one-half acre of impervious surface;

The regulatory permit threshold should be lowered to one-half acre of impervious surface.

The majority of existing impervious surface in Vermont was either developed before stormwater regulations went into effect, or was sub-jurisdictional at the time of development, and consequently does not have stormwater permit coverage or stormwater treatment systems.

The Department acknowledges the limitations of existing land-development data. However, it is understood that a significant percentage of new, ongoing development falls below the current one-acre permit threshold. This is evidenced, in part, by the fact that the Stormwater Program receives on the order of three times as many applications for construction permit coverage, where the regulatory threshold is one acre of disturbance, as it does applications for operational permit coverage, where the threshold is one acre of impervious surface. In short, a large percentage of known construction activity does not require an operational stormwater permit. This new, unregulated development contributes to existing water quality impairments, including excess sediment and scour in stormwater-impaired waters, and excessive phosphorus loading in Lake Champlain, as well as the associated economic impacts that result from a failure to maintain water quality standards.

Addressing the impacts of unregulated development requires existing developed land to be retrofitted with stormwater best management practices (BMPs). Retrofitting existing developed land is substantially more expensive than implementing sound BMPs on new development, and typically is not as effective due to site constraints faced by existing development. Roughly speaking, for every acre of new impervious surface that is created in an impaired watershed without a permit and associated BMPs, two acres of existing impervious surface must be retrofitted.

With TMDL implementation costs for developed land estimated to be in the hundreds of millions of dollars, and considering the vast economic benefit associated with maintaining high quality waters outside the impaired watersheds, it is advisable to lower the permit threshold.

(2) an estimate of the number of additional development projects that would require an operating permit for stormwater runoff if the regulatory permitting threshold were lowered from one acre to one-half acre of impervious surface;

We estimate that lowering the threshold to one-half acre of impervious surface will result in 150-300 additional projects requiring a permit, annually.

This is a rough estimate because the Department does not have data on the types, and amount, of new development. We only have data on projects that meet the current permit threshold. However, we are informed to some degree by the types of projects that require a construction permit, but not an operational permit, permit determinations, and review of Act 250 permit applications. We are further informed by VTrans' estimates of the increase in the number of their projects that will require a permit. We expect that lowering the permit threshold will, at least, result in as many new projects requiring permit coverage as we currently experience. During periods of low application volume we have seen roughly 150 applications per year; busier years have had 300 or more applications. Therefore, we estimate that a decrease in the

permitting threshold to one-half acre will increase the volume of applications from an average of 225 per year, to 450 per year.

(3) an estimate of the environmental benefit of reducing the regulatory permitting threshold from one acre to one-half acre of impervious surface;

Reducing the permit threshold would result in stormwater management being provided for roughly 100 acres of new or redeveloped impervious surface per year. The cumulative benefits of providing management for this level of development, over a longer period, such as 10-20 years, would be substantial. The benefits will include reduced sediment and phosphorus loading to Vermont's waters, reduced clean-up costs for impaired waters, and better protection of high quality waters.

The Lake Champlain TMDL (draft as of 12/2015) includes a "future growth allocation" for developed land. This allocation acknowledges that new development will contribute some level of phosphorus to the lake, and consequently must be addressed by our stormwater programs by both minimizing these new inputs, and compensating for any increases that do occur through reductions from existing sources. As previously mentioned, it is much more cost effective to prevent stormwater pollution associated with new development than through retrofitting existing development.

(*4) an estimate of the number of staff that would be needed by the Agency of Natural Resources to effectively implement a stormwater operating permit program with a regulatory permitting threshold of one-half acre of impervious surface; and*

A reduction in the permit threshold would result in the need for two additional staff (2 FTE) at the Department.

There is a significant technical review component associated with applications for operational permit coverage, as well as compliance and enforcement. We estimate the need for 1 FTE for an Environmental Analyst. Operational permits also have a significant, and long-term, tracking and management component. Regulated projects submit annual inspection reports, fees, re-certifications, transfers, and permit renewals for the life of the project. As such, an additional 1 FTE would be dedicated to the Watershed Management Division's administrative program.

(5) *a recommendation for regulating construction, redevelopment, or expansion of impervious surface based on a tiered system of acreage, square footage, or other measure.*

At this point we propose regulating non-VTrans projects largely using the existing system. The Vermont Stormwater Management Manual effectively imposes a tiered system whereby projects under a certain size are exempt from some of the required criteria. For example, a project with more than one-half acre of impervious surface, but less than one acre, would likely be exempt from three of the five required standards of the Stormwater Manual. (Smaller projects are exempt from the "Channel Protection," "QP10" and "QP100" standards.)

We anticipate a disproportionate increase in the number of new VTrans projects relative to other project types. Because all VTrans highways and facilities will be subject to the forthcoming state-wide Transportation Separate Storm Sewer System General Permit (TS4 GP), and because of the substantial engineering and stormwater expertise at VTrans, it may be advisable to address the one-half to one-acre category of projects through a programmatic approach where these projects are certified as meeting standards by a professional engineer, and reported on annually, versus individually authorized under the general permit.

It may be further advisable to statutorily provide municipalities regulated under the Municipal Separate Storm Sewer System General Permit (MS4 GP) the ability administer their "post construction program" as the equivalent of the Department's stormwater program. In such cases a project requiring a stormwater permit for regulated stormwater, where such project was authorized by the municipality, would not be required to obtain a separate stormwater permit from the Department.

Finally, to ensure that the Department does not dedicate undue staff resources to the review of smaller, i.e. less than one-acre projects, we anticipate implementing additional tiered measures through changes to the Stormwater Manual and general permits. These processes are informed by stakeholder groups, as well as public review and comment. Additional efficiencies may be gained through improvements to permit processes over time.