To: **Tom Dalziel**

From: Dan Cloak

Subject: Alternative Compliance for Stormwater Treatment Requirements

"Banking" Impervious Areas Provided LID Treatment

Date: 22 February 2011

Summary and Recommendation

When municipalities apply LID to public projects that are not Regulated Projects under MRP Provision C.3, staff should consider "banking" the impervious area to which LID is applied.

Candidates for "banking" may include impervious area reductions from urban greening and traffic calming, "green streets" LID retrofit projects, and low-cost retrofit opportunities identified when reconstructing streets or designing drainage improvements.

"Banked" areas may then be used as alternative compliance for left turn lane pockets or other lane additions that are subject to Provision C.3 requirements. Municipalities could also credit "banked" impervious area to private developments if needed to promote economic development.

Background and Discussion

Municipal Regional Permit Provision C.3.c requires Regulated Projects to implement Low Impact Development treatment measures. The requirement goes into effect for private projects on 1 December 2011 and for public projects on 1 December 2012. For public projects, Regulated Projects include construction of 10,000 square feet or more of new streets or roads (including sidewalks or bicycle lanes) and widening of existing streets or roads with additional traffic lanes.

Provision C.3.e. states municipalities may allow a Regulated Project to provide alternative compliance by treating "a portion of the amount of runoff... with LID treatment measures onsite... and treat the remaining portion... with LID treatment measures at an offsite project in the same watershed." Offsite projects must be constructed by the end of construction of the Regulated Project. If more time is needed, offsite projects can be construted up to three years later, if the offsite project provides an additional 10% of the calculated equivalent quantity of both stormwater runoff and pollutant loading for each year.

Under the provisions of the previous permit (in effect 2005-2009), alternative compliance provisions were rarely used. The MRP provides considerably less flexibility with regard to the selection of treatment options. In contrast, the MRP alternative compliance provision is considerably *more* flexible: A demonstration of the infeasibility of on-site treatment is no longer required.

"Banking" Retrofit Impervious Areas for Alternative Compliance 22 February 2011

To be useful to municipalities, the MRP alternative compliance provision requires some interpretation of its vague language. First, the "portion of the amount of runoff" to be treated on-site must be nominal or perhaps zero, because it is impractical and costly to build and maintain treatment facilities on-site and then build and maintain additional facilities off-site. Second, "watershed" in the phrase "in the same watershed" is not further defined in the permit; within reasonable limits it may be assumed that for most municipalities the entire jurisdiction is within the same "watershed."

In the context of alternative compliance, the removal of impervious area and creation of landscaped pervious area (self-treating or self-retaining areas) in its place should be regarded as equivalent to providing LID treatment. Self-treating and self-retaining areas are defined and discussed on pp. 44-47 and pp. 61-63 of the *Stormwater C.3 Guidebook*, 5th Edition. These practices have an equivalent (or better) effect with regard to runoff quantity and quality as routing runoff to an LID treatment facility.

The alternative compliance provision may be used to create "banked" credits and apply them to road projects that would otherwise be very difficult to bring into compliance. For example, it could be very difficult to incorporate LID treatment for runoff from newly created left turn pockets or for added lanes, particularly where right-of-way is already constrained and/or the topography does not lend itself to draining the newly created pavement to a landscaped area.

There may be, within a municipality's jurisdiction, cost-effective opportunities to divert flow from an existing drainage pipe to a bioretention facility constructed in a currently disused area. The alternative compliance provision could become a driver for implementation of beneficial "green streets" or "green infrastructure" projects, some of which may be also eligible for grant funding.