"Match the bank-full discharge" is offered to water quality managers as a policy idea for significantly reducing phosphorous loadings and the erosion of streams and water courses, as well as for providing excellent protection of stream-side vegetation and lake habitat. The policy is simple to implement. It requires minimal increases in work in terms of the approval process and follow-up monitoring (i.e. minimal increases in cost to the municipal agency). Simultaneously, it does not prescribe an artificially-constrained solution.

The municipal response to water quality protection generally relies on either policy/by-law standards or performance standards. The difficulty with policy or by-law standards is that they prescribe a particular "solution" without regard for site-specific conditions. This can result in an enormous increase in construction costs on sites that do not require them (if standards are uniformly high) or potentially huge water quality failures (if standards are uniformly low or average). The benefit of site-specific performance standards is that they can be tailored to the particular landscape condition. Yet this is also the weakness of the approach. Performance standards typically require detailed site investigations, which can be time-consuming and costly to both the municipality and developer.

An alternative to both approaches merits consideration. A policy to "match the bank-full discharge" can be argued to be scientifically valid. The bank-full discharge is the volume (intensity/duration) of water from the storm that shapes the stream and river channels of a watershed. By respecting this volume, channels and their associated habitat are protected. Depending on the development, proponents can choose to limit paving, provide storage, leave treed areas intact, or pursue other measures to reduce and delay flows.

In terms of implementation, the policy builds on the "100 year storm" that is currently used for design review by most municipalities for flood control and storm services design. Because a flow (as opposed to a concentration) is being regulated, an implementation mechanism can be readily devised. Interestingly, the policy seems intuitively benign on the surface; it appears to be an easy thing to carry out, though most of those who might have been expected to unearth and champion it (e.g. engineers and developers) seem to have missed its potentially beneficial implications.

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