Residual Designation Public Meeting

August 5, 2009

Water Quality Division
Vermont Department of Environmental Conservation
What is stormwater runoff?

“Precipitation, snowmelt, and the material dissolved or suspended in precipitation and snowmelt that runs off impervious surfaces and discharges into surface waters.”
Stormwater runoff can adversely affect:

- **Water quantity**
  - runoff is increased by impervious surfaces (paved and unpaved roads, parking areas, roofs, driveways, walkways)
  - can cause local flooding, channel erosion, and loss of infiltration to groundwater

- **Water quality**
  - pollutants carried in stormwater runoff (sediment, oil, metal particles, fertilizer, pesticides, waste)
  - physical impacts to channel (scour, washout, etc.)
  - reduced baseflow
VT’s 303(d) list of impaired waters

- Federally approved list of waters not meeting water quality standards
- States must adopt Total Maximum Daily Loads (TMDL) or equivalent cleanup plans for impaired waterbodies
- TMDL = amount of a pollutant that a waterbody can accommodate without exceeding water quality standards
EPA Approved TMDLs

- Potash Brook
  - December 6, 2006
- Centennial, Bartlett, Englesby, and Morehouse Brooks
  - September 28, 2007
How were TMDLs developed?

- After WRB overturn of WIP process
- In collaboration with Vermont’s Stormwater Advisory Group (SWAG) and EPA
- SWAG – representatives of academia, industry, consultants, EPA, municipalities, other government agencies
What do TMDLs require?

- **Bartlett**
  - Reduction in high flows: -33.9%
  - Increase in low flows: +13.9%

- **Centennial**
  - Reduction in high flows: -63.4%
  - Increase in low flows: +23.2%

- **Englesby**
  - Reduction in high flows: -34.4%
  - Increase in low flows: +11.2%

- **Morehouse**
  - Reduction in high flows: -65.3%
  - Increase in low flows: +15.0%

- **Potash**
  - Reduction in high flows: -17.9%
  - Increase in low flows: +12.2%
How will TMDLs be Implemented?

- SWAG was convened in Summer 2008 to discuss implementation
- Developed overall approach to implementation
  - TMDL Implementation Framework Report
Part 1 - Reissuance of MS4 permit by December 2009:

- Development of watershed-specific BMP plans with MS4 permittees – 3 years
- Identify “low hanging fruit” for implementation by MS4s
- Require implementation of required BMPs after BMP plan developed – either by MS4s or by individual property owners
- Encourage formation of stormwater utilities
TMDL Implementation Framework

- **Part 2 – Residual Designation Permits:**
  - Issued to discharges that do not drain through MS4 (municipal) system
40 CFR 122.26(a)(1) and (9) provide 4 major categories of stormwater discharges that require a federal NPDES permit:

- Discharges that had been permitted prior to February 4, 1987
- Large and Small Construction Discharges
- Large and Small MS4 discharges
- Industrial Stormwater Discharges
Residual Designation Authority

- Two additional categories of discharges that may be "residually designated" (40 CFR 122.26(a)(9)):
  - Stormwater discharges that are determined by the permitting agency to be causing or contributing to a water quality standards violation or are a significant contributor of pollutants.
  - Stormwater discharges that the permitting authority determines require stormwater controls based on wasteload allocations that are part of TMDLs that address the pollutants of concern.
Residual Designation Case

- In 2003, Conservation Law Foundation (CLF) files petition asking ANR to require NPDES permits for all existing discharges to five stormwater-impaired streams because they contribute to a water quality violation.

- ANR denied petition; CLF appealed to VT Water Resources Board and Board held that NPDES permits are required for all existing discharges to these brooks except for “de minimis discharges”
Residual Designation Case

- ANR and other interested parties appealed decision to Vermont Supreme Court

- August 2006, Supreme Court rejects Board’s decision and remands back to ANR to undertake RDA analysis

- In December 2006, ANR again denied CLF’s petition

- January 2007 – CLF appeals to Environmental Court
Residual Designation Case

August 2008 – Environmental Court issues Judgment Order to ANR:

- Directs ANR to notify all “currently unregulated” stormwater discharges of their obligation to apply for NPDES permit within 180 days

- “Unregulated” means not currently regulated under NPDES construction, MS4 or industrial permit or a state stormwater permit with an offset
RDA Notice Issued

- **June 19th** – RDA Notices Issued

- Approximately 400 dischargers were notified

- **Designated dischargers** must apply for NPDES permit within 180 days (December 16th, 2009)
What is a “designated discharge?”

- A stormwater discharge that is not currently regulated by:
  - A state stormwater permit with an offset or on-site controls that result in no net contribution to the impaired stream
  - A federal multi-sector, or MS4 permit
    - For the purposes of this designation any stormwater runoff that enters or commingles with the MS4 system is considered to have coverage under the MS4 permit.
What will RDA permit require?

- Permit currently under development
- Draft expected by end of August
- Public Comment Period
- Goal – issue final RDA permit by Oct. ‘09
- RDA Designation remains open until close of public comment period on draft permit
The RDA Permit – Preliminary Thoughts

Categories of permittees

1. Parcels with a previously issued state stormwater permit

2. Parcels without a state stormwater permit
   - Parcels with < 1 acre of impervious
   - Parcels with > 1 acre of impervious
Parcels with a state stormwater permit

- Conduct an Engineering Feasibility Assessment (EFA)
- Build treatment based on EFA
- EFA will not require:
  - Installation of sub-surface storage or treatment structures
  - Purchase or acquisition of additional land
  - Demolition of buildings or removal of existing impervious surface
  - Off-site treatment
  - Re-grading or re-contouring
  - Pumping or other mechanical re-routing of stormwater
  - Mechanical or chemical treatment of stormwater
  - Infiltration where basement flooding or subsurface pollutant plume transport will occur.
Parcels with no state stormwater permit and > 1 acre of impervious

- Conduct a limited site assessment
- A site assessment will look at:
  - Soils
  - Surface hydrology
  - Utility inventory
  - Impervious cover
  - Areas of active erosion or other potential problems
Parcels with no state stormwater permit and < 1 acre of impervious

- Follow good housekeeping practices on site (i.e., disconnection, sweeping, etc.)
- Most likely will not require construction under this permit
- Relatively inexpensive fixes
What’s next?

- Draft expected by end of August
- Public Comment Period
- Goal – issue final RDA permit by Oct. ’09
- Applications must be in by December 16\(^{\text{th}}\) 2009
- RDA Designation remains open until close of public comment period on draft permit
Overall Strategy Post RDA Decision

- Vermont will use a combination of MS4 permit and “Residual Designation Authority (RDA)” permit to implement TMDLs.
- MS4 permittees will be asked to take lead in development of watershed-specific BMP plans and implementation.
  - This plan may include RDA properties that are required to do site assessments.
- Permits will be issued as needed after BMP Plans developed.
Guiding Principles - Implementation

- Seek most cost-effective solution
- Work cooperatively with municipalities to develop watershed-specific BMP plans
- Develop best strategy to implement BMPs
- Issue watershed permits as necessary
- Ensure consistency across watershed – both in RDA areas and non-RDA areas
Guiding Principles - Implementation

- Continue to seek federal funding to aid implementation
- Provide time for implementation
- Maintain concept of “fairness”
- Implement monitoring to assess success and guide future implementation efforts
Questions?

Visit our website:

- http://www.vtwaterquality.org/stormwater

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What is a “point source” discharge?

- NPDES permits only required for “point source” discharges.
- Defined as “any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, conduit, well, discrete fissure, container, etc. from which pollutants are or may be discharge”
“Point source discharge”

Factors that courts have considered in determining if a point source discharge exists:

- Has operator changed the surface, directed the waterfall or otherwise impeded its progress?
- Do pollutants discharge from discernible, confined, discrete conveyances, either by gravitational or non-gravitational forces?
“Point source discharge”

- Are there gullies, ditches, rills, swales, erosion pathways to a stream?
- Was property graded so as to channel water a certain way?
- Is runoff traceable to a source and controllable at the source?
- Is activity emitting pollution from an identified point?
Point source discharge

- Point source discharges (open and closed conduits) to streams identified by Pioneer
- Subwatersheds draining to each point source delineated
- Discharges expected under storm events
- 40 CFR 122.21 – anyone “who discharges or proposes to discharge pollutants” must apply for NPDES permit