
DEQ
VIRGINIA DEPARTMENT OF
ENVIRONMENTAL QUALITY

Stream Restoration at Virginia DEQ

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March 21, 2023

Programs Accepting Stream Restoration

- Virginia Water Protection (VWP)
  - Permit Program for Permanent Physical Impacts to Streams & Wetlands (Fill, excavation, reservoirs, water withdrawal, etc.)
- Virginia Pollution Discharge Elimination System (VPDES)
  - Permit Program for Pollutant Discharges to Streams (Stormwater)
- Storm Water Local Assistance Fund (SLAF)
  - State funded match for projects

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Virginia Water Protection (VWP) Permit Program

- Clean Water Act Section 404/401
- 2000 - Virginia General Assembly passed non-tidal wetland law independent of CWA
- Code of Virginia (§ 62.1-44.15:20) requires:
  - No net loss of existing wetland acreage and functions
  - No net loss of stream function
- Regulates all waters (surface & ground)
- All impacts to state waters (i.e. fill, excavation, permanent impoundment, etc.) require a permit and some form of compensation, once impacts are avoided and minimized

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DEQ 404 Program – Stream Restoration

Currently:

- 210 Mitigation Banks or In-Leu Fee Stream Mitigation Projects (Also includes preservation and buffer crediting)

- 1,058,763 stream mitigation credits in Virginia from mitigation banks (2002 - 2022) - This includes USM mitigation credits, Stream Condition Units (SCUs - Applicable in NOVA), and previous credit methodologies including linear feet

Virginia Pollution Discharge Elimination System (VPDES) Permit Program

- Based on Clean Water Act Section 402 (NPDES)
  - Requires permits to limit point source discharge of pollutants (in stormwater) to streams, rivers, & bays

- 2007 – Virginia General Assembly allows nonpoint source nutrient offsets for new and expanding point sources

- 2009 – Expanded VA Storm Water Management Act (§62.1-44.15:24 et seq.) includes a Nutrient Offset Trading Program
  - Stream restoration as an innovative practice

- 2012 Nutrient Trading Act – Virginia General Assembly

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DEQ Municipal Separate Storm Sewer System (MS4) – Stream Restoration

Currently:

- 188 projects completed or proposed (combined TMDL action plans 2013-2023)
- TSS: 11,580,478 lbs/yr
- P: 25,228 lbs/yr
- N: 51,382 lbs/yr

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SLAF funding for stream nutrient crediting 2022

- 17 Stream Restorations - $17,299,061
- 1 Stream and Wetland Restoration Project - $1,045,803
- 3 Outfall and Gully Stabilization Projects - $631,552

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Virginia Stream Restoration Nutrient Banking

- 9 Nutrient Stream Banks Approved since 2018
- 10 Nutrient Stream Banks proposed / currently under review

Goals for Stream Restoration

Stabilization, Habitat, Riparian Buffer and Nutrient Reduction

- 404 Mitigation Banking Credits can be generated from stream restoration and stream enhancement.
- Nutrient crediting must meet 2 of the 3 stream restoration goals of change in Dimension, Pattern and Profile to qualify as a creditable project (no localized stabilization credited)
- Voluntary Trout Unlimited, NRCS and DWR fish passage projects and other non credited projects are more habitat driven

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Reach vs. Downstream improvement approach

- TMDL projects focus on downstream improvement
- Watershed approach (more preferred in mitigation hierarchy during site selection)
- Restorations focus on stream lengths within site specific boundaries
  - Property limitations
  - Utility easements
  - Local interest (temporary disturbance of riparian function)

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Different stakeholders/drivers in Virginia

- 404 Mitigation Crediting
  - Federal
  - State
  - Localities
  - Tribal
  - NGO's
  - Public and Private Sponsors

- Nutrient Crediting
  - State
  - Localities
  - Private Sponsors

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Permitting projects

Our Current DEQ 401 Water Quality Certification (on the NW-27 permit) requires Natural Channel Design

Discussions on varying types of stream restoration

- Natural Channel Design variations (site specific limitations)
- Beaver Dam Analogs
- Stage 0 restoration
- Dam and barrier removal

Open to accepting all forms of restoration that are research verified

Current topics in Nutrient and Mitigation Banking in Virginia

- Flood plain restrictions / local ordinance – No rise amendments?
  - Raising stream to original floodplain
  - Lowering floodplain to current stream elevation
- Lack of monitoring requirements for less engineered design
- Final decision on acceptable increases in efficiency for Nutrient projects

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- Each panelist will have 15-minutes to discuss current regulatory and permitting processes, and voluntary efforts, and how they drive stream restoration goals. Specifically, we would like you to speak to **Virginia's efforts**.
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- Questions asked are the following: How have these drivers influenced 1) reach vs. downstream improvement approach, 2) stabilizations vs. habitat vs. water quality, and 3) diverse goals from different stakeholders/drivers of management.
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- A presentation is optional but can be helpful for members to follow along (2-3 opening slides on your work and background).