Vapor Intrusion in Virginia: Three Decades, Thousands of Data Points, One Evolving Story

Cortney Marquette, Voluntary Remediation and Brownfields Program Manager

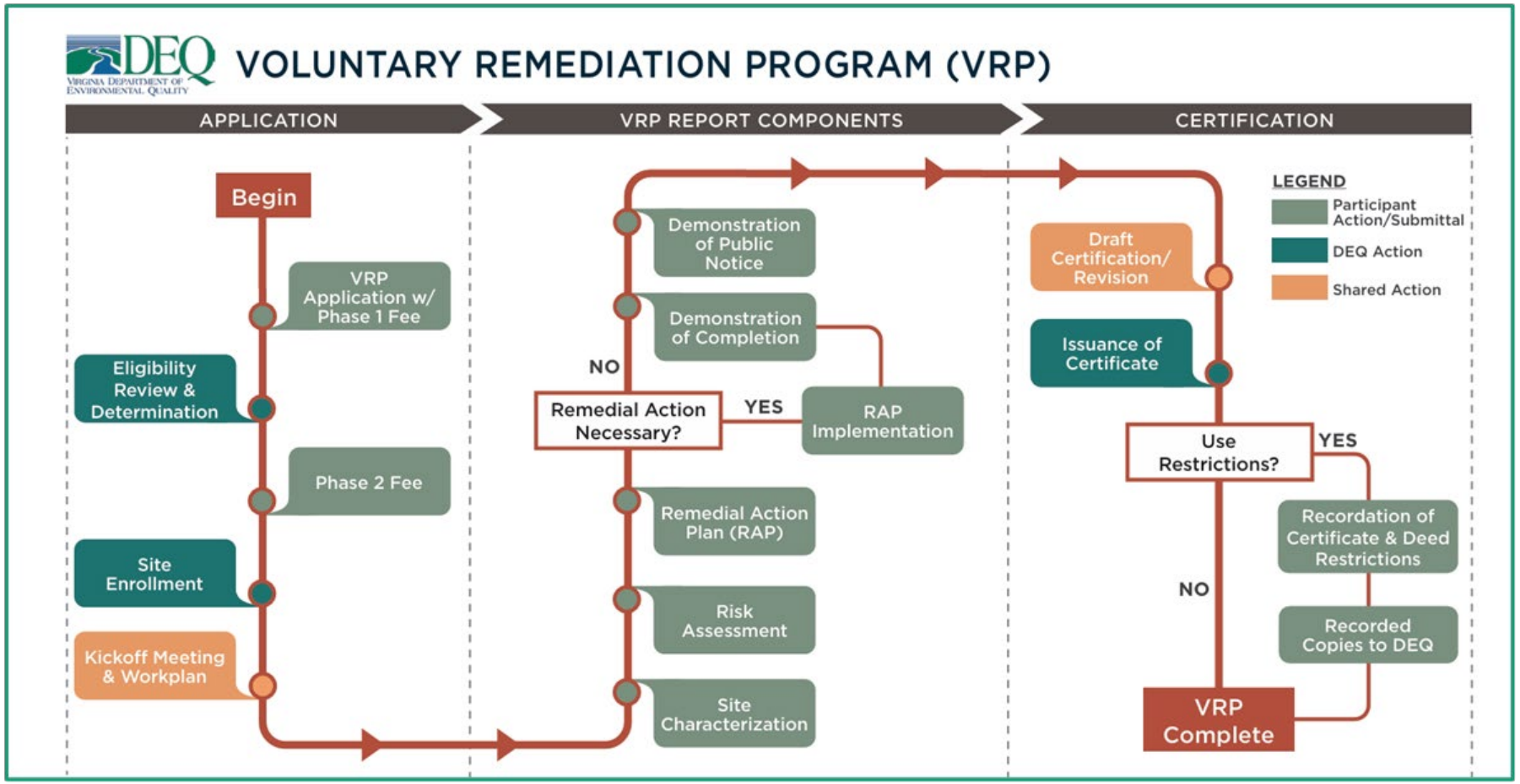
Virginia Department of Environmental Quality

Oct. 5, 2026

Voluntary Remediation Program (VRP) Overview

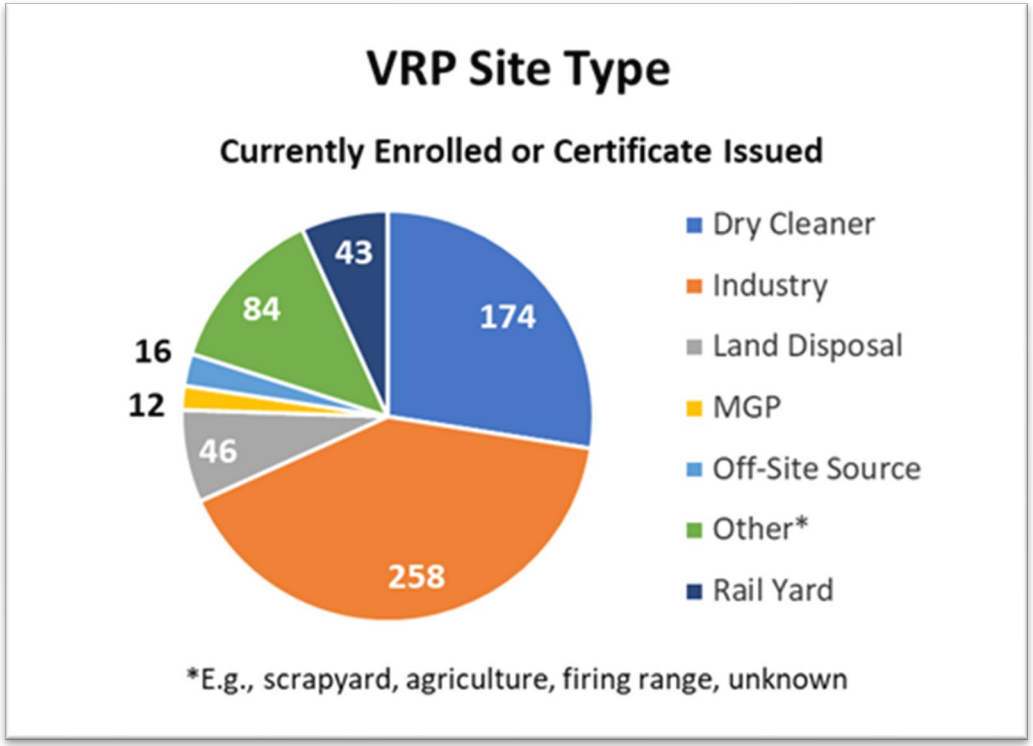
- Code of Virginia § 10.1-1232
- Work captures the 5 components of a “Voluntary Remediation Report” (9VAC20-160-70)
  - Risk-based screening and remediation levels
- DEQ Memorandums of Agreement w/ EPA
  - VRP (2002, 2017): federal acceptance of VRP
  - RCRA: CA site closure by VRP (w/ RCRA endpoints)
- Fee based program that supports staff effort and program maintenance
- Partially funded through Federal 128(a) money available to state and tribal response programs
- Encourages hazardous substance cleanups that might not otherwise take place
- Certification of Satisfactory Completion of Remediation (Certificate) provides immunity to enforcement under VA environmental laws

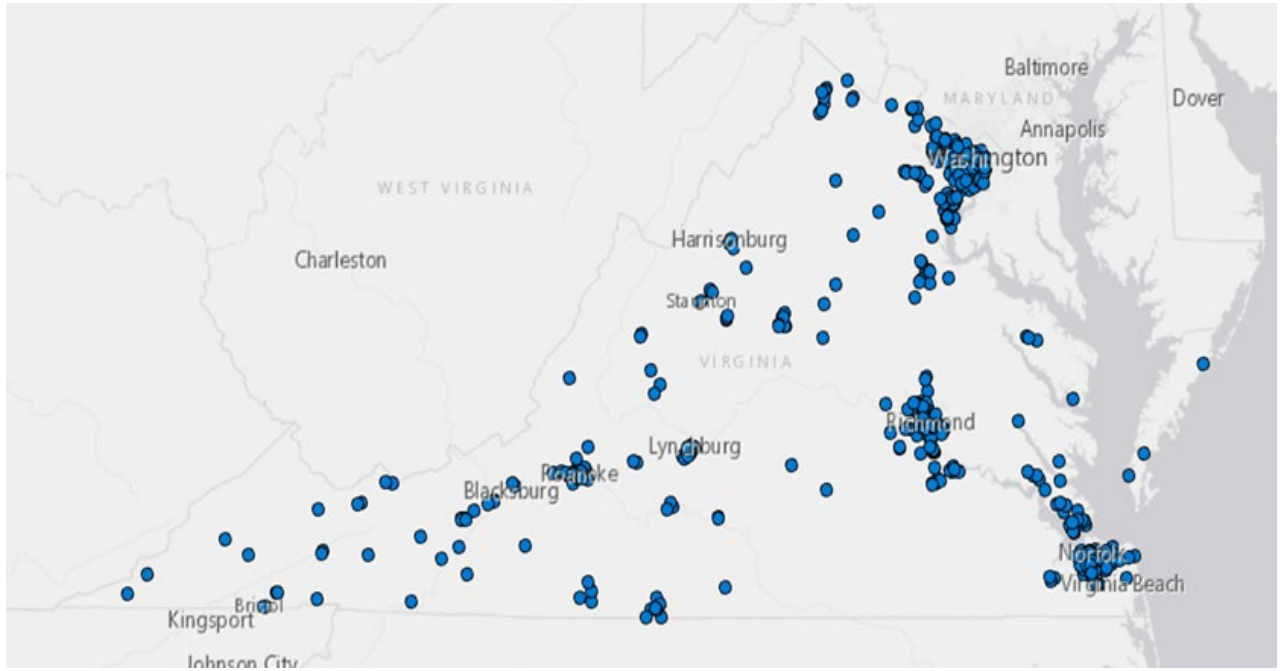
VRP Process


DEQ
Virginia Department of Environmental Quality
VOLUNTARY REMEDIATION PROGRAM (VRP)
APPLICATION
VRP REPORT COMPONENTS
CERTIFICATION
Begin
VRP Application w/ Phase 1 Fee
Eligibility Review & Determination
Phase 2 Fee
Site Enrollment
Kickoff Meeting & Workplan
Demonstration of Public Notice
Demonstration of Completion
NO
Remedial Action Necessary?
YES
RAP Implementation
Remedial Action Plan (RAP)
Risk Assessment
Site Characterization
Draft Certification/ Revision
Issuance of Certificate
Use Restrictions?
YES
NO
Recordation of Certificate & Deed Restrictions
Recorded Copies to DEQ
VRP Complete
LEGEND
Participant Action/Submittal
DEQ Action
Shared Action

Virginia VRP Metrics

- Currently enrolled sites: 120
- Certificates issued to date: 520, totaling 7,635 acres
  - Approximately 350 sites with VOC contamination





VRP Site locations across VA

VRP Program Approach for Indoor Air

Late 1990s - Institutional Controls restricting groundwater and/or residential implemented through a property- recorded Declaration of Restrictive Covenant

2000's - Remedial actions to address vapor intrusion and/or Engineering Controls (VIMS) with a required Operation and Maintenance Plan recorded in Covenant

However, no site inspections, no compliance verification, no annual reports or any type of follow up had ever been completed...

2024 Longterm Stewardship Project funded by BIL $$

1

Step 1 - Start with desktop review of 100 completed VRP sites

RESULT - 37 sites needing clerical revisions, 1 Certificate never recorded in land records

2

Step 2 - Select 20 random sites for in-person inspections for compliance of IC/EC

RESULT - 6 sites with VMS needed additional follow-up

Changes have been made

3

Step 3 - **NEW** program manager follow up with 6 sites for EC compliance in 2025

RESULT - 1 site compliant, 5 not compliant- owners *'didn't see a Covenant on the property when purchased'*

NOW implementing Longterm Stewardship Inspections (site specific) at all completed sites performed by Remediation Project Managers



Picture sent of system verification

Where are we NOW in 2026?

- Add Solid Waste statute in Certificate for future access to sites

> *In addition, according to § 10.1-1456 and regarding said previously mentioned obligations, the Director or his designee shall have the right to enter at any reasonable time onto any property to inspect, investigate, evaluate, conduct tests or take samples for testing as he reasonably deems necessary in order to determine whether the provisions of any regulations of the Board or certificate issued by the Board or Director are being complied with*

- *NEW* restriction language

sites specifically with VMS are now required to report annually (or as agreed upon by owner and/or situation) to DEQ as a *continued obligation* of Longterm Stewardship. VRP project managers will follow-up with these sites.



DEQ is moving in the right direction



Questions?

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