



FORESTS, PARKS & RECREATION
VERMONT



AGENCY OF NATURAL RESOURCES

HEAVY CUTTING



WELCOME

VERMONT'S HEAVY CUT LAW

- Became State law on July 1, 1997 in response to public concerns about clear cutting and the potential environmental impacts.



WHAT DEFINES A HEAVY CUT

- **Heavy Cut: a harvest which leaves a residual stocking level of Acceptable Growing Stock, (AGS) below the “C-line.”** (C-line defined the US Forest Service silvicultural stocking guides for applicable timber type).
- **AGS: a stem having a diameter of 4.5 inches, or greater, at breast height, which has the potential to produce a sawlog product of a commercial species of any grade.**

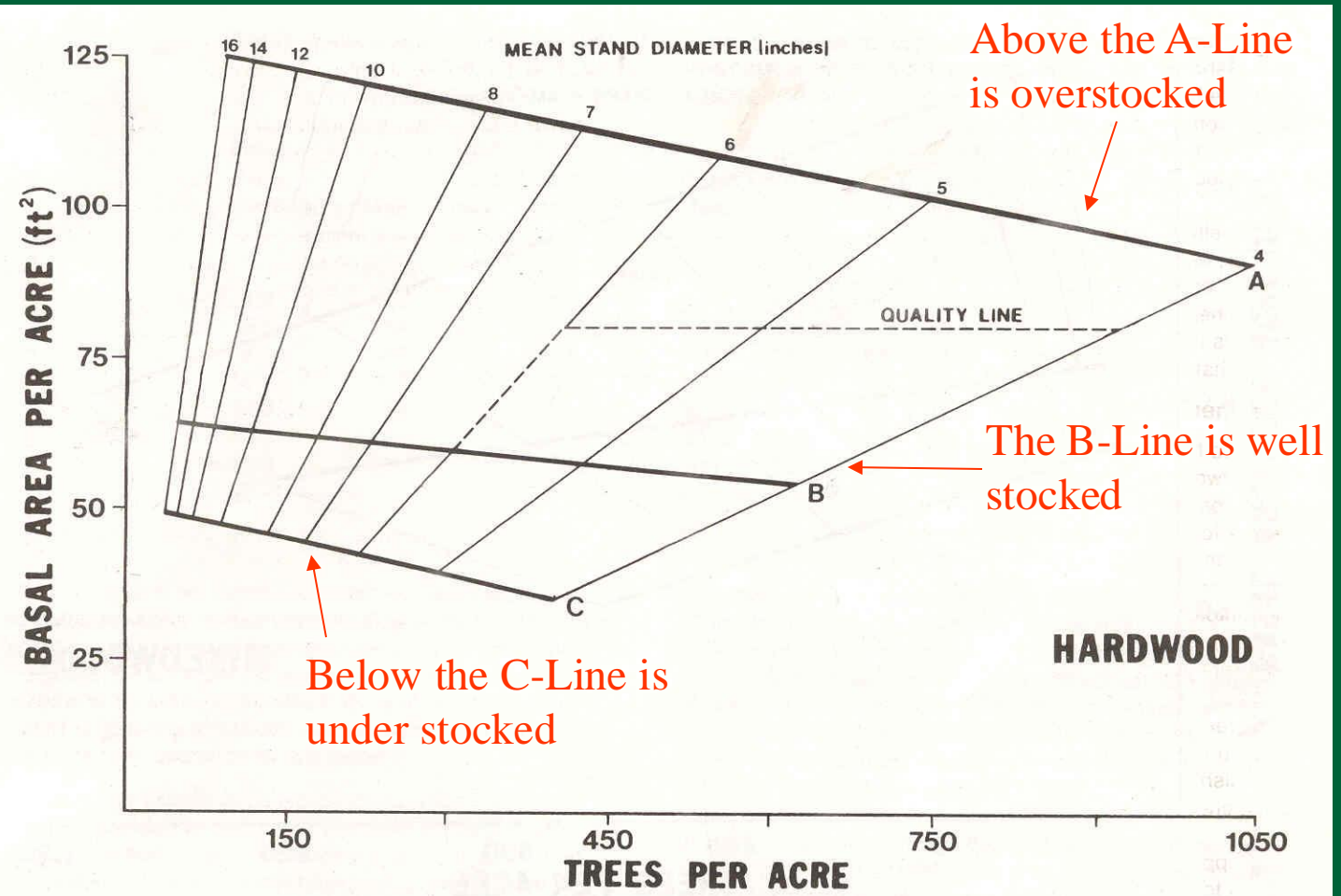


Figure 6.—Stocking guide for main crown canopy of even-aged hardwood stands (beech-red maple, beech-birch-maple) shows basal area and number of trees per acre and quadratic mean stand diameter. The A line is fully stocked, the B line is suggested residual stocking. The C-line is minimum stocking. The quality line is the density required to produce high quality stems of beech, sugar maple, yellow birch, and red maple.

C-LINE? WHAT'S THAT LOOK LIKE?



A-Line Stocking



NORTHERN HARDWOODS



B-Line Stocking



Below C-Line Stocking



WHY WOULD SOMEONE HEAVY CUT?

- Forest health & sustainability to ensure future productivity
 - Even-aged management
 - Applying the science & implementing silvicultural prescriptions based on:
 - Age
 - Structure
 - Species composition
 - Regeneration
 - Past Harvesting

Shelterwood-
Creating conditions
For Regeneration



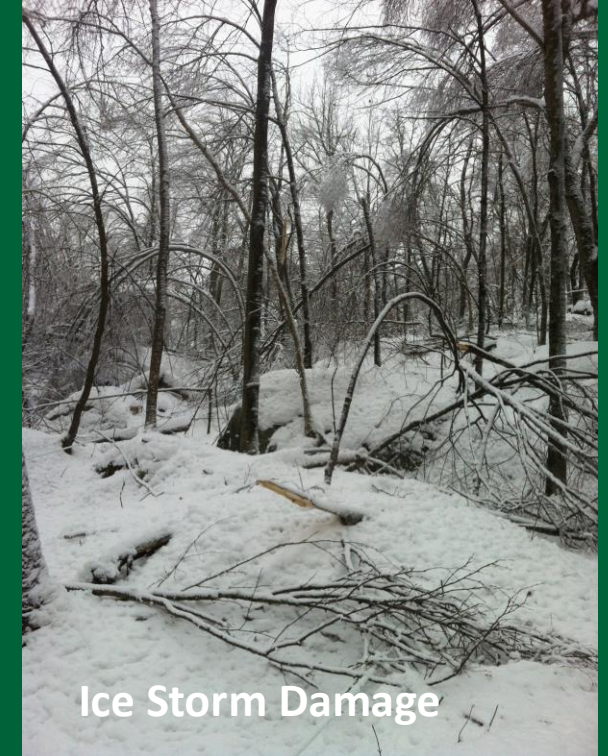
Patch cuts for
Wildlife Habitat



Overstory Removal-
Releasing Existing
Regeneration



OTHER REASONS FOR HEAVY CUT



- Salvage
- Forest pests

- Agricultural Conversion
- Development



Keeping forests as forests is the goal. Having all the tools in the toolbox, including even-age management, is needed to accomplish that goal.

While even-age management may not always look like a healthy thriving forest, it may be exactly what the forest needs to remain healthy.

WHEN IS A PERMIT NEEDED?



- A Notice of Intent to Cut (NIC) is needed when a landowner proposes to heavy cut more than 40 acres within a 1,000-foot radius; OR more than 80 acres within a two-mile radius, within five years
- The NIC is filed with FPR.
 - Heavy Cut Forester reviews the NIC and determines if it is complete.
 - Exemptions apply in certain circumstances.
 - If no exemptions apply, the harvest prescription is reviewed. If silviculture is determined to be appropriate, approval is given. In most cases a site visit is done.
 - Data is maintained in a database and managed by heavy cut foresters and district admin assistants

HEAVY CUT - EXEMPTIONS



A heavy cut is exempt from review if the landowner certifies one of the following:

- The proposed heavy cut is consistent with and approved management plan
- Agricultural conversion
- Land use conversion that is under jurisdiction of Act 250 or the Public Utility Commission
- The notice is provided for informational purposes only
 - Large area next to the road less than 40 acres that could generate concern.
 - Provides notification to town.

WHO IS LIABLE FOR HEAVY CUT VIOLATIONS?



Landowner



UNLESS the logging contractor holds an ownership interest in the land or standing timber, or is affiliated with others holding an ownership interest in the land or standing timber



Logger not responsible if “acting purely as landowner’s agent and receiving compensation comparable to that of the industry.”



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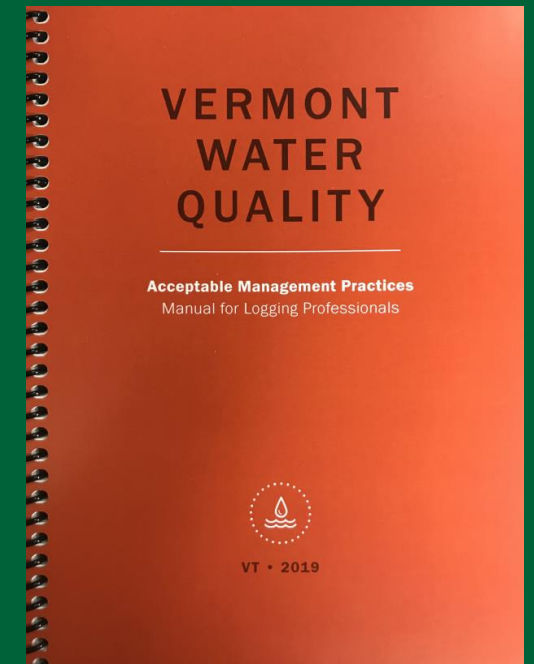
ACCEPTABLE MANAGEMENT PRACTICES (AMPS)



WELCOME

PURPOSE

The purpose of the **Acceptable Management Practices for Maintaining Water Quality on Logging Jobs (AMPs)** is to provide sound practices for loggers, foresters, and landowners to utilize, before, during, and after logging operations to comply with Vermont's Water Quality Standards.



VT WATER QUALITY RULES AND THE AMPS

- Discharges of wastes into the waters of the State without a permit are violations of the **State Water Pollution Control Act**.
- AMP rules are promulgated under the authority of 10 V.S.A. §1259, and when implemented properly, **relieve a person from the obligation of obtaining a permit** for discharges associated with logging operations
- Applies to **all logging operations** on public and private lands



WHAT ARE THE AMPs: 26 PRACTICES

To be applied prior to, during, and immediately after harvesting



Protect Water Quality



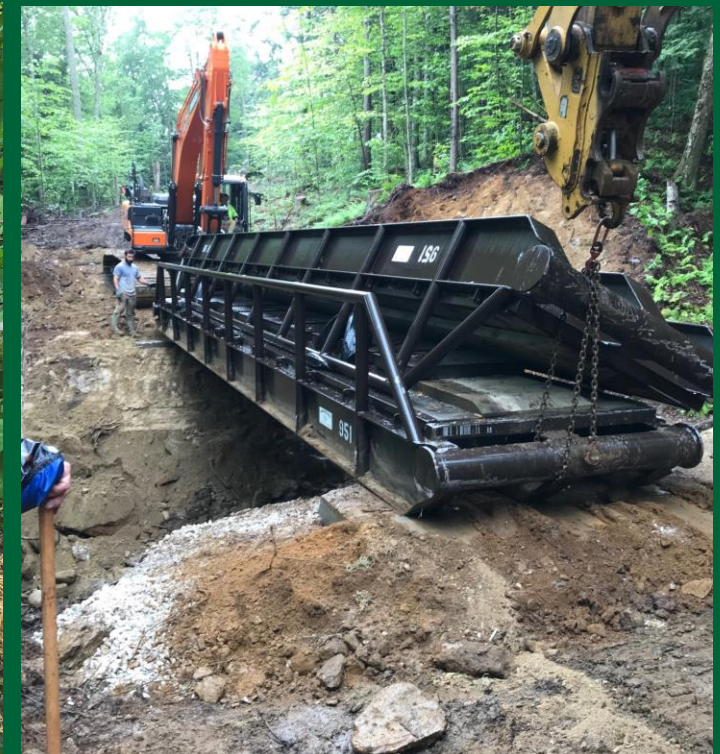
Prevent Soil Erosion



Minimize Stream Impacts

**To be applied to: Truck Roads • Skid Trails • Stream Crossing •
Riparian Areas • Log Landings**

CLEAN WATER PRINCIPLES



**Disconnect Truck Roads and Skid Trails from Streams • Infiltrate Stormwater •
Stabilize Conveyances • Utilize Temporary Stream Crossings •
Properly Size Permanent Stream Crossings**

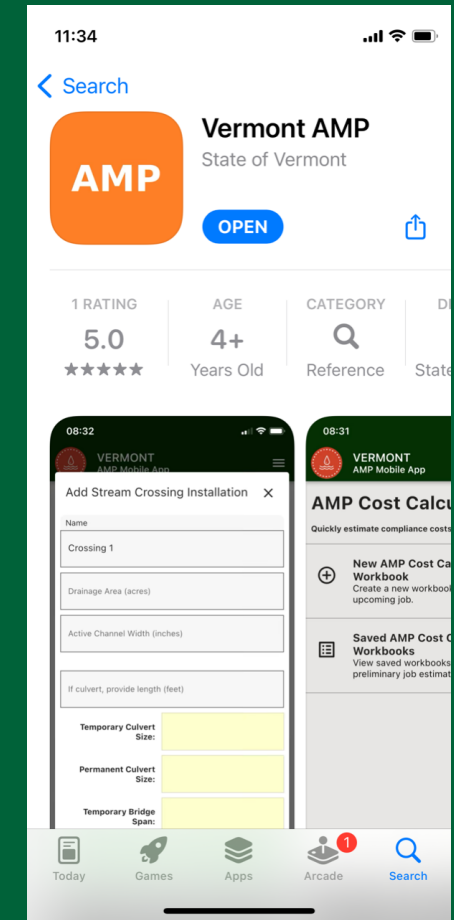
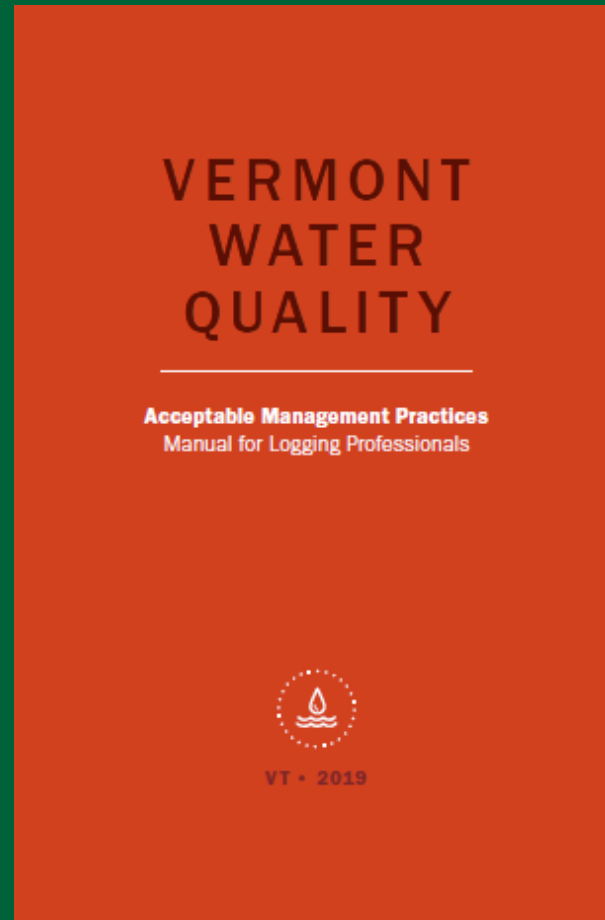


WHO IS RESPONSIBLE FOR AMPs?

- Loggers are responsible for implementing the AMPs when they are operating
- Landowners are ultimately responsible for any discharge that occurs on their land

PROGRESSION of the AMPs

- 1987 – Established
- 2016 – Rules Updated
- 2018 – Rules Updated
- 2019 – Manual Updated
- 2022 – New App Created



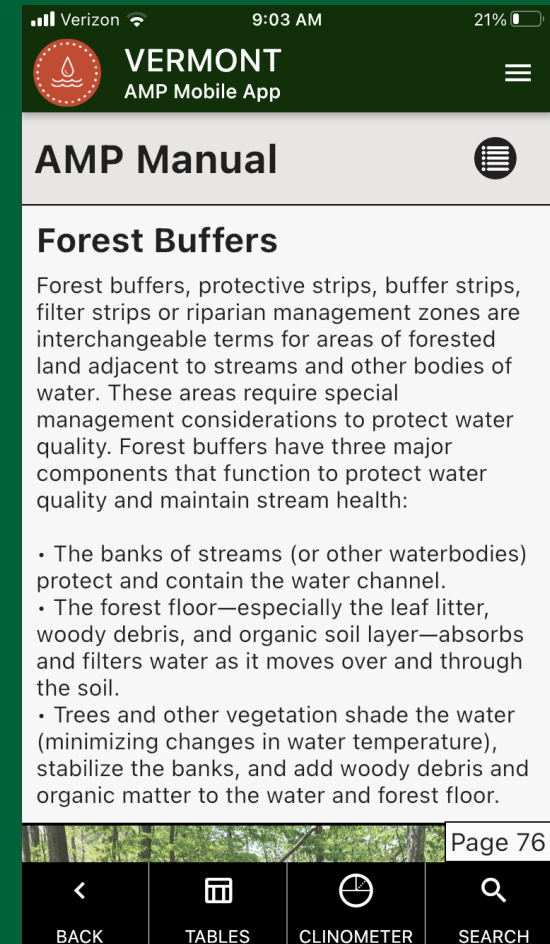
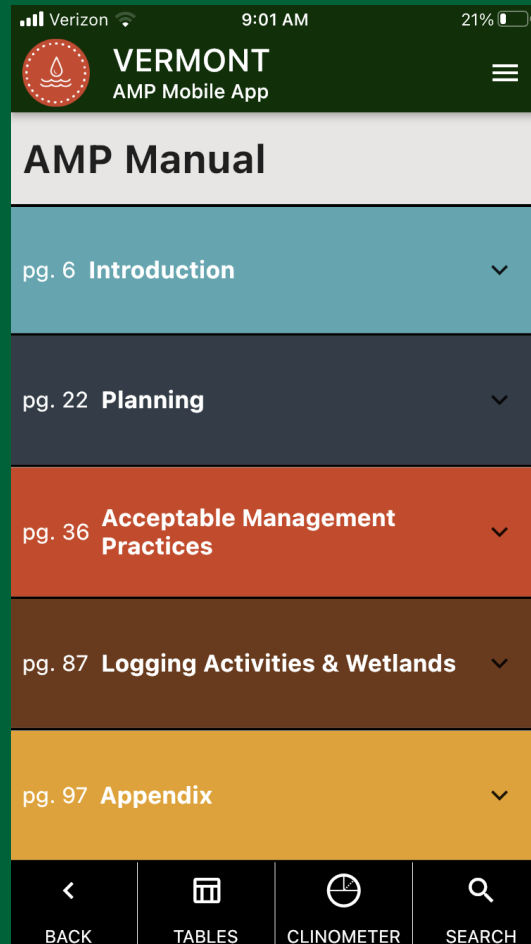
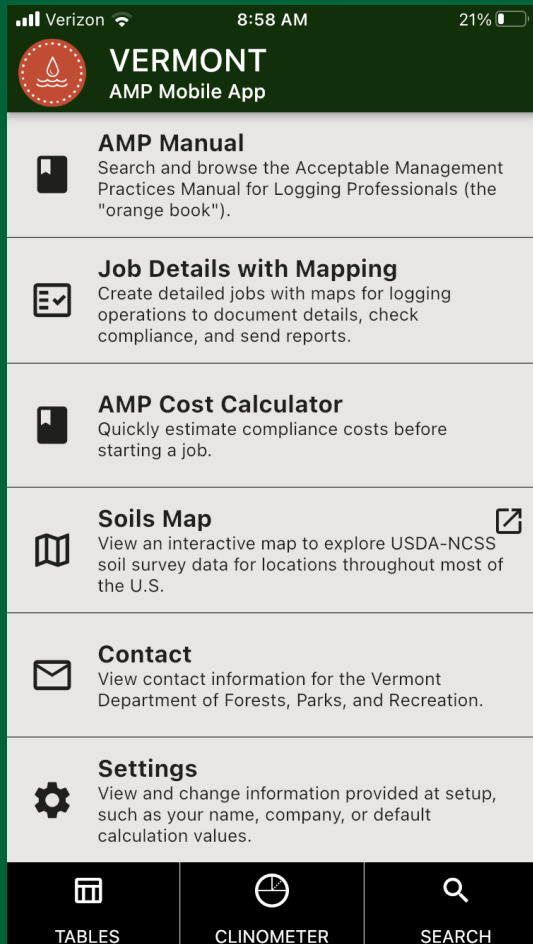
HIGHLIGHTS OF THE 2016-2018 REVISIONS

- **NEW** standards for sizing stream crossing structures
- **NEW** AMP to address hazardous materials
- **Updated** spacing of water diversions
- **Enhanced** stream buffer guidance
- **Strengthen** standards for stream crossings
- **Compliance** with ANR Stream Alteration Rule and General Permit

TABLE 1
Distance (Feet) Between Drainage Structures on Truck Roads and Skid Trails

Road Grade (% Slope)	Skid Trails		Truck Roads Permanent Truck Roads During & After Logging, Temporary Truck Roads During Logging.		Temporary Truck Roads After Logging
	During Logging	After Logging	Broad-Based Dips	Ditch Relief Culverts	Waterbars
1	500	400	500	450	400
2	300	250	300	300	250
5	200	135	180	200	135
10	140	80	140	140	80
15	130	60	---	130	60
20	120	45	---	120	45
25	110	40	---	65	40
30	100	35	---	60	35
40	90	30	---	50	30

FIRST STATE IN REGION TO DEVELOP APP



ONGOING EDUCATION AND OUTREACH



**ANR Staff Training · LEAP Training · Master Logger Workshops · Bridge Workshops ·
Webinars with Partners Accessible Online**

TEMPORARY BRIDGE COST-SHARE PROGRAM



Getting More Temporary Bridges in Use in Vermont



Grant Program – 5 years: • 59 Wooden Bridges • 10 Steel Bridges
Currently working on a Cost-Share program to have 10 steel bridges available in spring 2025

BRIDGE RENTAL PROGRAM



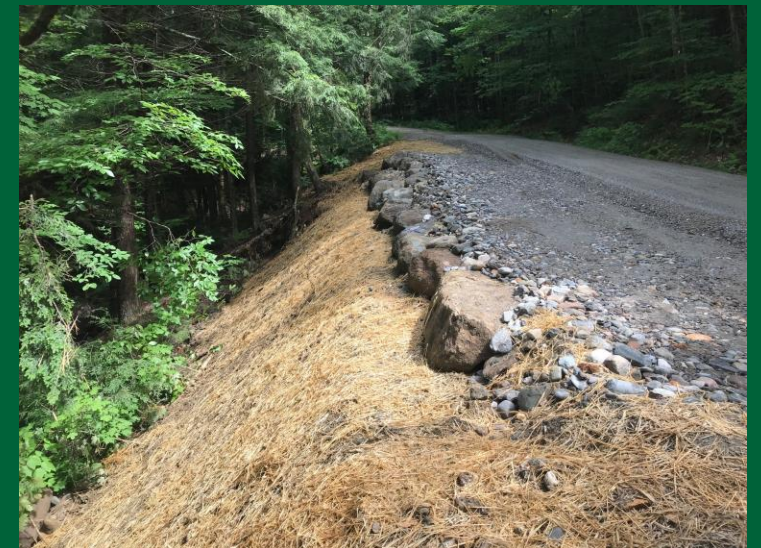
(3) 25-foot steel skidder bridges · (2) 40-foot steel truck bridge · (2) 30-foot steel truck bridge

WATER QUALITY ASSISTANCE PILOT PROGRAM

SLOCAMP (SUPPORTING LOGGERS COMPLIANCE WITH AMPS)



- For logging contractors to implement pro-active practices to prepare site for harvesting.
- FPR will oversee the program, but day to day administration of the program will be by a third party through a grant with TCNEF (Trust to Conserve Northeast Forests).
- Practices in will include hardening truck roads, improving drainage on skid trails and improving stream crossings to be flood resilient.
- Anticipated start date of the program will be early summer 2025.



MONITORING AND ENFORCEMENT PROGRAM: 2024



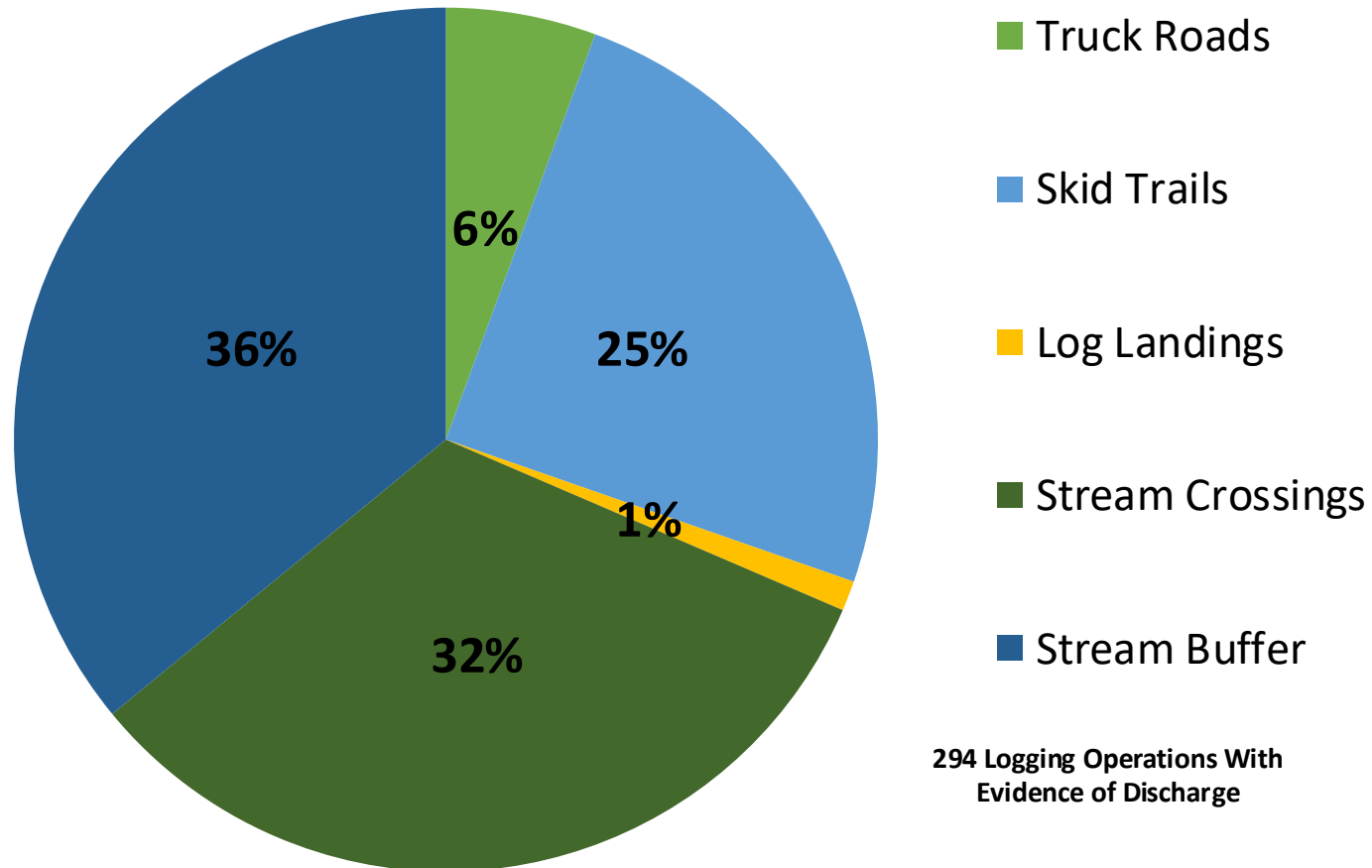
A complaint-driven process. Our technical assistance program is a free program and offers technical water quality assistance to loggers, foresters, and landowners.



Complaints investigated:	34
Evidence of Discharge:	20
Cases resolved:	30
Cases referred for enforcement:	1
Technical Assistance Visits:	22
Total number of AMP activities:	56

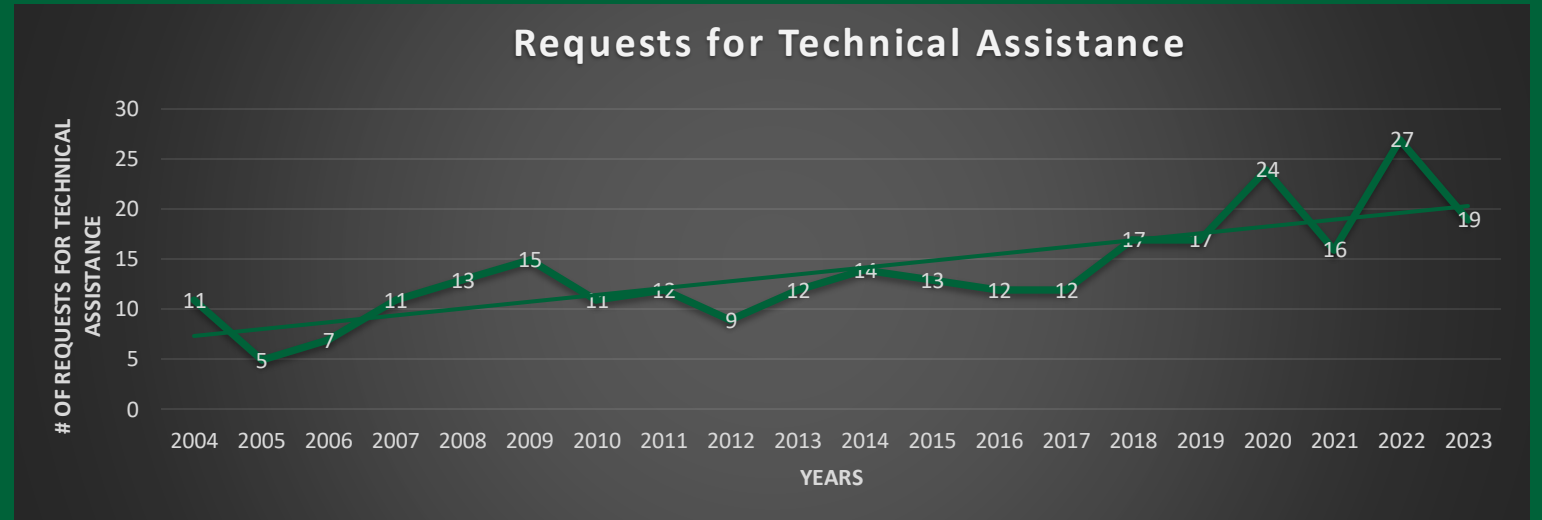
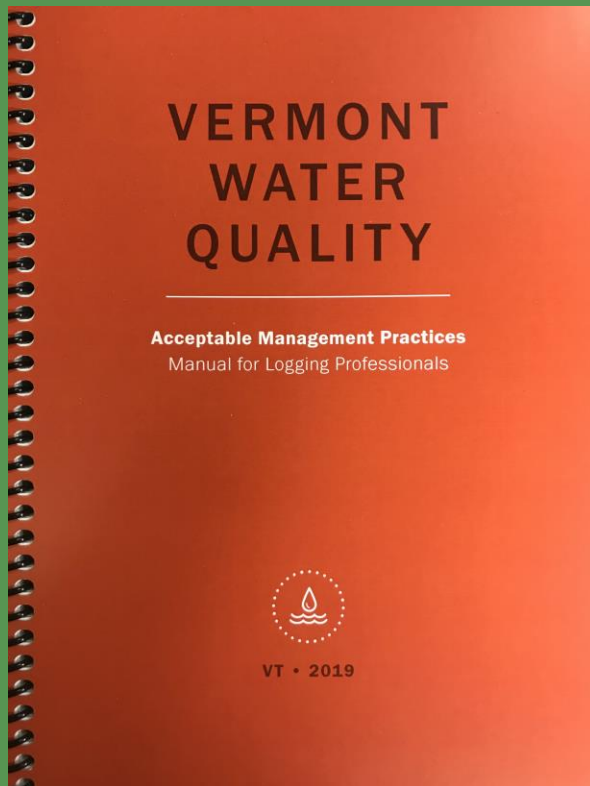
TRENDS: COMPLIANCE

Non-compliance by Location
2004-2019

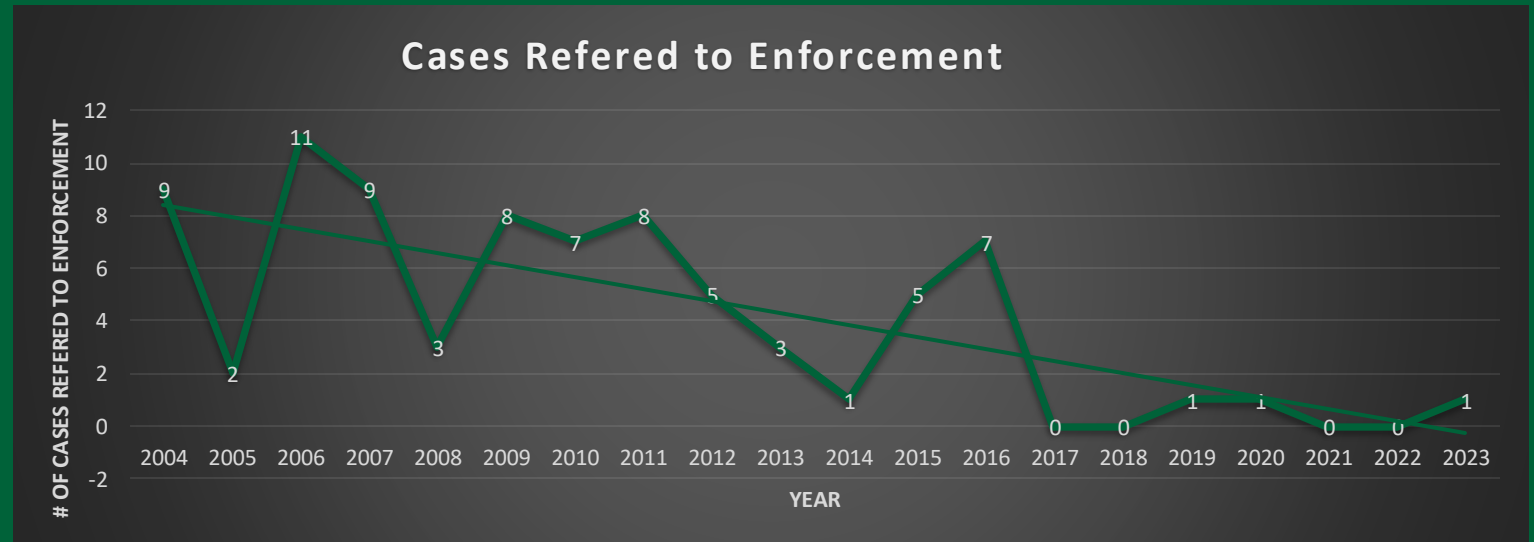
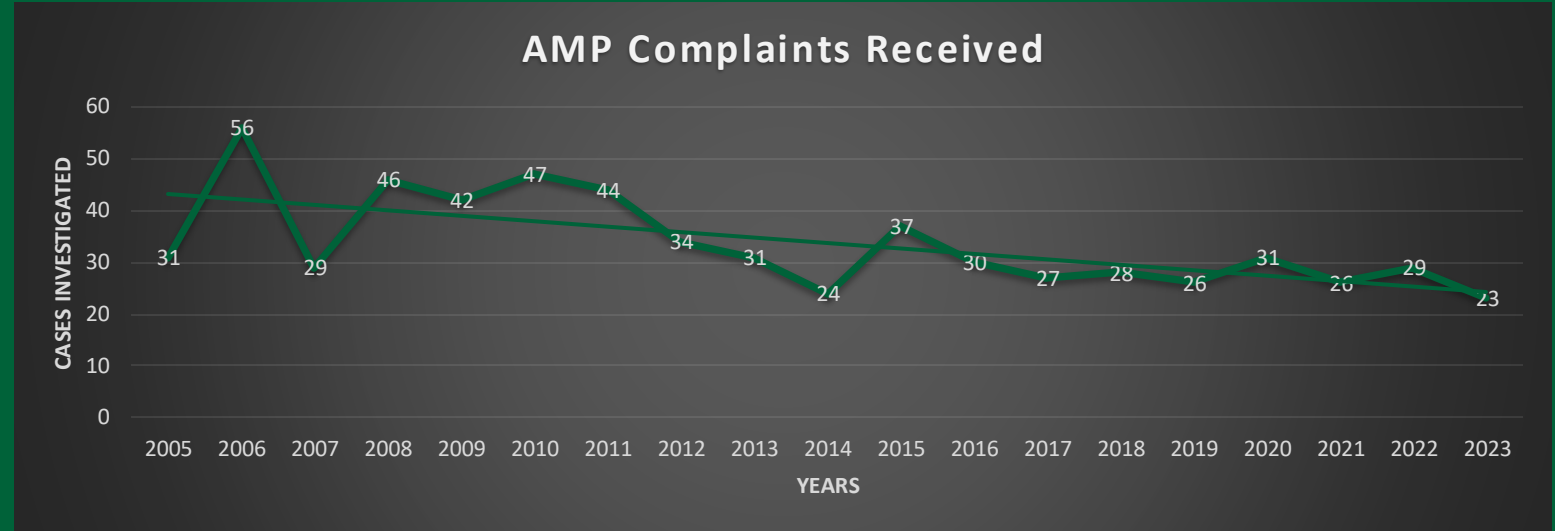
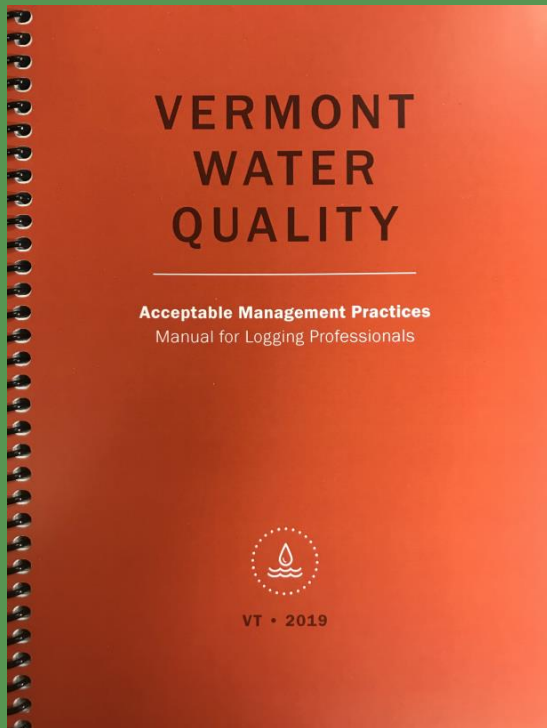


294 Logging Operations With
Evidence of Discharge

VERMONT AMP PROGRAM: 20-YEAR TRENDS



VERMONT AMP PROGRAM: 20-YEAR TRENDS





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