

# FORESTS, PARKS & RECREATION



### **ACCEPTABLE MANAGEMENT PRACTICES** for Maintaining Water Quality on Logging Jobs

David Wilcox, Watershed Forester



WELCOME

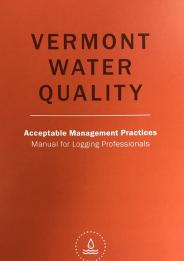
# PURPOSE



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

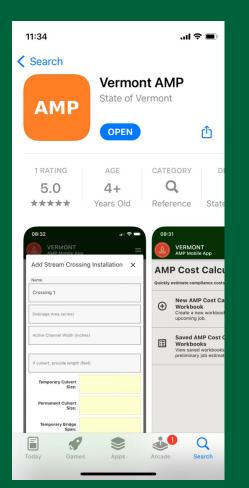
# **PROGRESSION** of the AMPs

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

#### VERMONT WATER QUALITY

Acceptable Management Practices Manual for Logging Professionals









# **HIGHLIGHTS OF THE 2016-2018 REVISIONS**



- **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

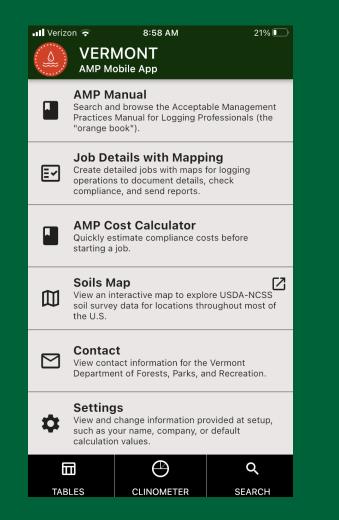
TABLE 1           Distance (Feet) Between Drainage Structures on           Truck Roads and Skid Trails							
	Skid Trails		Truck Roads Permanent Truck Roads During & After Logging. Temporary Truck Roads During Logging.		Temporary Truck Roads After Logging		
Road Grade (% Slope)	During Logging	After 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



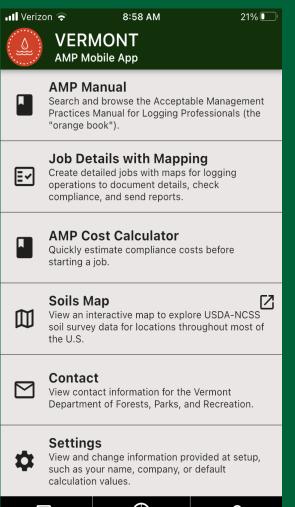


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AMP Manual				
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pg. 22 <b>Pla</b> i	nning		~	
pg. 36 <mark>Pra</mark>	eptable M ctices	anagement	~	
pg. 87 <b>Log</b>	ging Activ	ities & Wetla	nds	
pg. 97 <b>App</b>	endix		~	
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BACK	TABLES	CLINOMETER	SEARCH	

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	IP Mobile App Manual		•	
Forest	Buffers			
Forest buffers, protective strips, buffer strips, filter strips or riparian management zones are interchangeable terms for areas of forested land adjacent to streams and other bodies of water. These areas require special management considerations to protect water quality. Forest buffers have three major components that function to protect water quality and maintain stream health:				
<ul> <li>The banks of streams (or other waterbodies) protect and contain the water channel.</li> <li>The forest floor—especially the leaf litter, woody debris, and organic soil layer—absorbs and filters water as it moves over and through the soil.</li> <li>Trees and other vegetation shade the water (minimizing changes in water temperature), stabilize the banks, and add woody debris and organic matter to the water and forest floor.</li> </ul>				
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BACK	TABLES	CLINOMETER		



### FIELD TOOLS: CLINOMETER



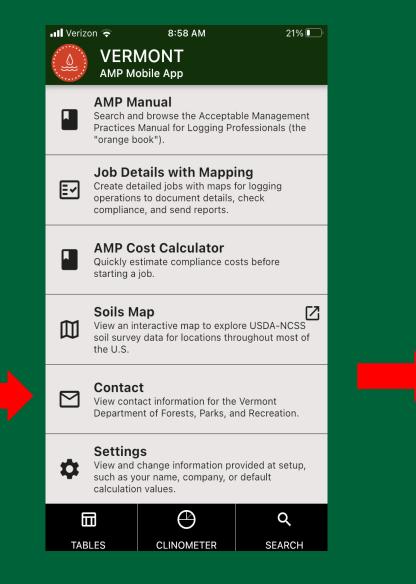




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Structures on True	etween Drainage ck Roads and Skid ails	
Skid	Trails	
During Logging 130 ft	After Logging <b>60 ft</b>	
Log	oads During & After ging aads During Logging	
Broad-Based Dips <b> ft</b>	Ditch Relief Culverts 130 ft	
Temporary Truck R	oads After Logging	
	rbars ) ft	
Minimum Fores	t Buffer Widths	
Surface of Gro	f Bank (Feet Along Jund Measured he Stream or Other ers)	
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### ACCESS TO ASSISTANCE: A CLICK AWAY





#### **FPR CONTACTS**

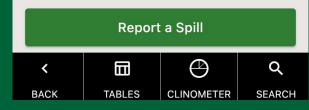


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Click here for FPR Districts and AMP Foresters

**Click here for County Foresters** 







### **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



### **BRIDGE RENTAL PROGRAM**





Three 25-foot steel skidder bridges • One 40-foot steel truck bridge • One 30-foot steel truck bridge



### MONITORING AND ENFORCEMENT PROGRAM: 2022



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

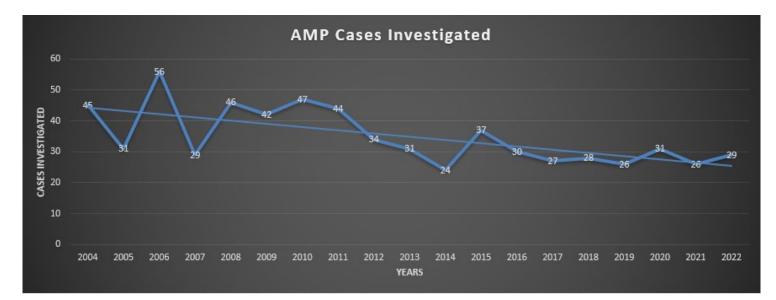


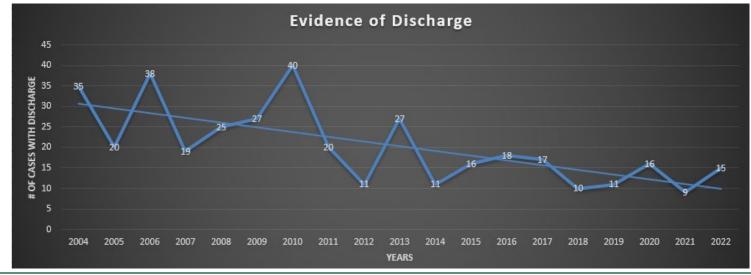
Complaints investigated:	29
Evidence of Discharge:	15
<b>Cases Referred for Enforcement:</b>	0
Technical Assistance Visits:	27
Total number of AMP activities:	56



# TRENDS: CASES

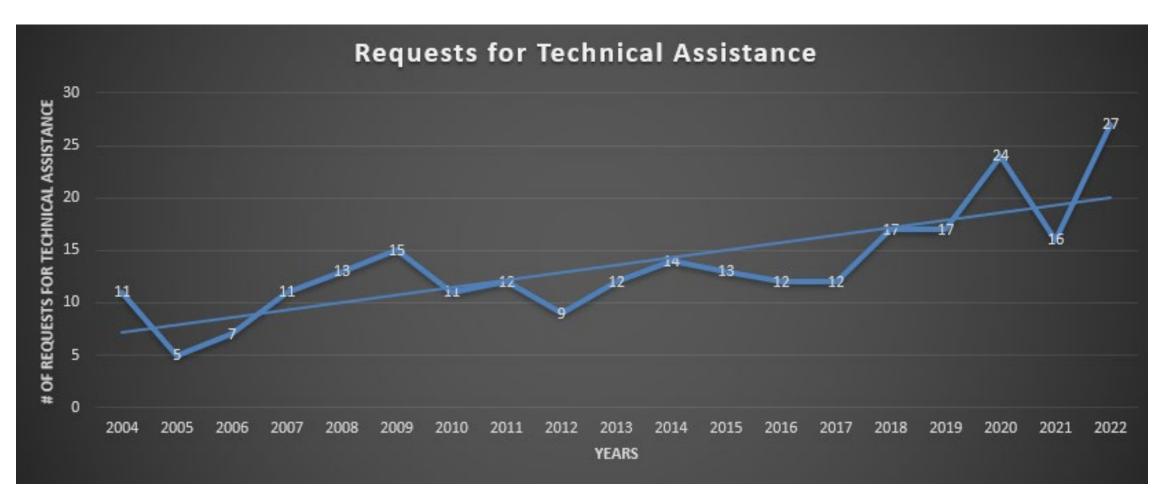








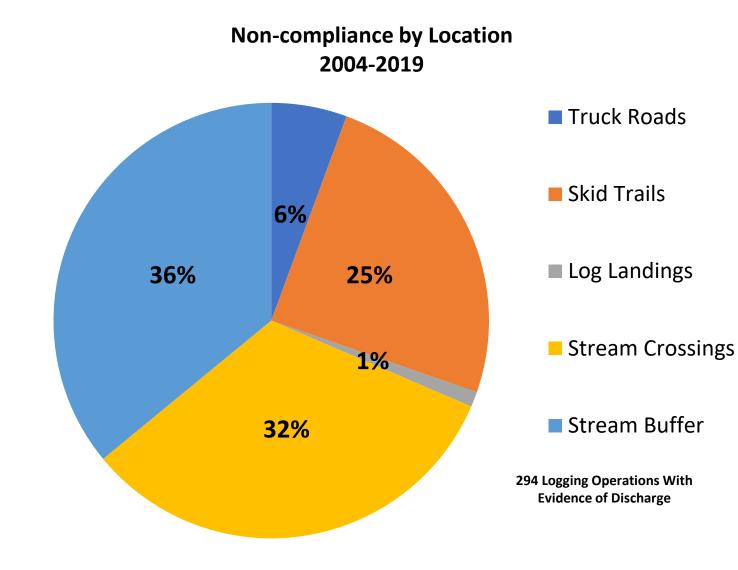
# **TRENDS:** *TECHNICAL ASSISTANCE*





# **TRENDS:** COMPLIANCE









### PROTECTING WATER QUALITY ON LOGGING JOBS



#### **Education and Outreach · Technical Assistance · Financial Assistance**





# FORESTS, PARKS & RECREATION VERMONT



AGENCY OF NATURAL RESOURCES

