



FORESTS, PARKS & RECREATION  
**VERMONT**



AGENCY OF NATURAL RESOURCES

# ACCEPTABLE MANAGEMENT PRACTICES for Maintaining Water Quality on Logging Jobs

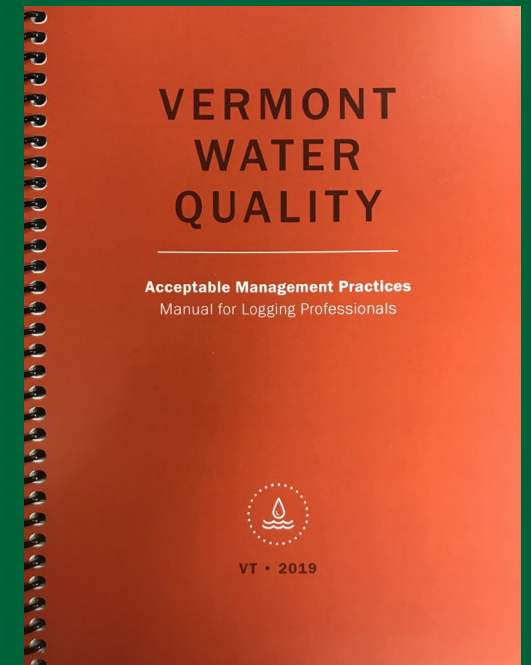
David Wilcox, Watershed Forester



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**

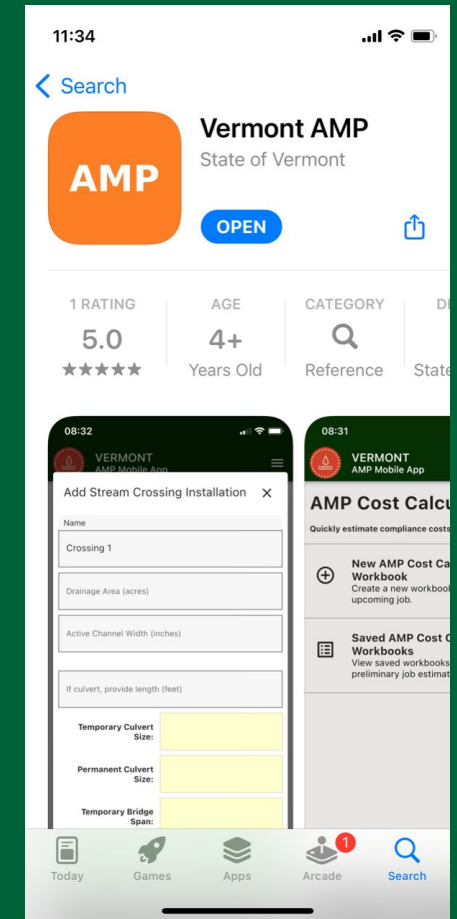
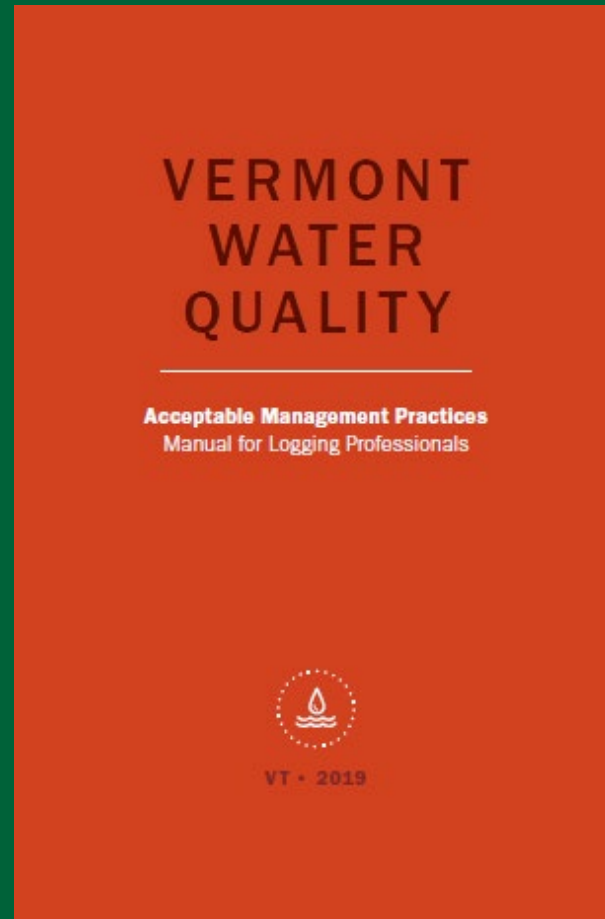
# CLEAN WATER PRINCIPLES



**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



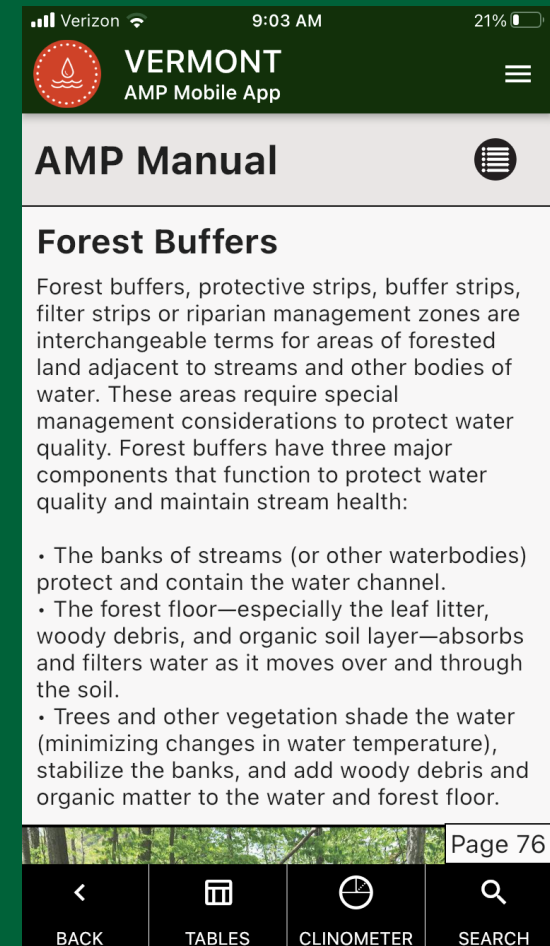
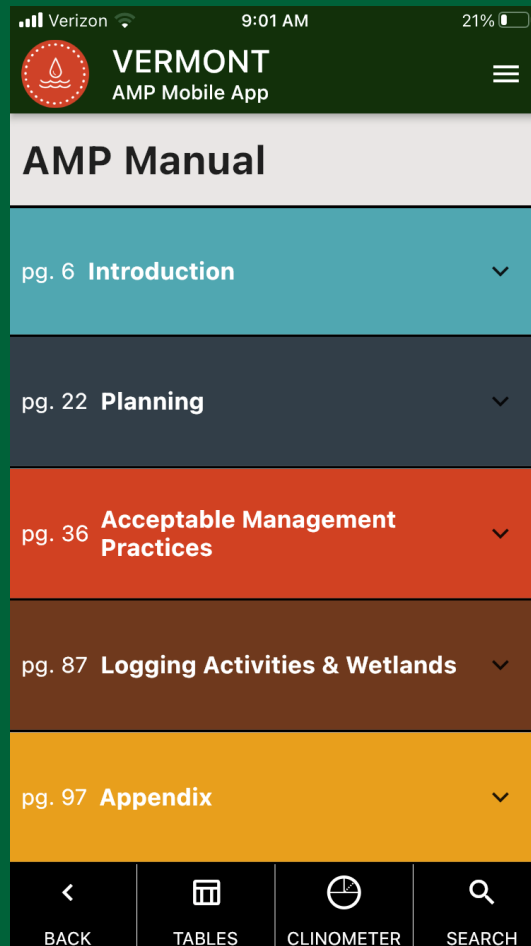
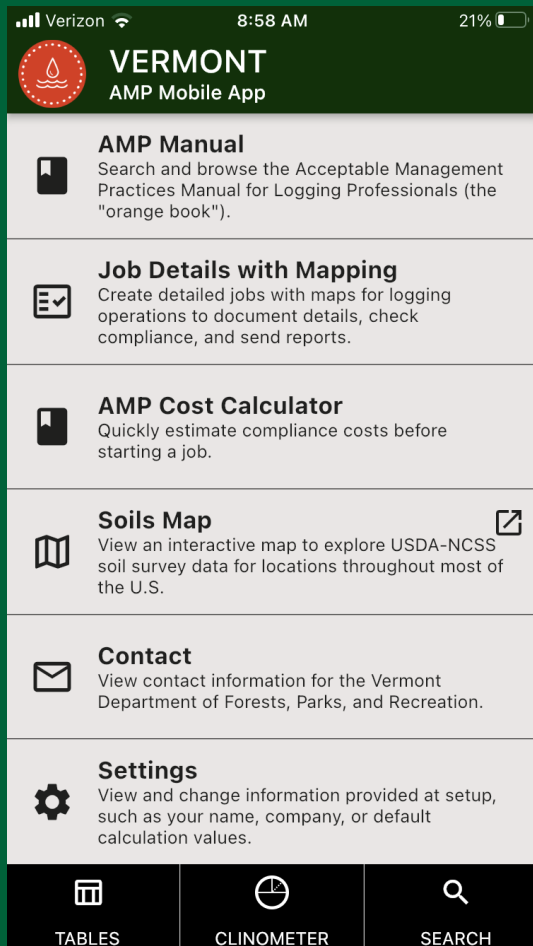
# HIGHLIGHTS OF THE 2016-2018 REVISIONS

- **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

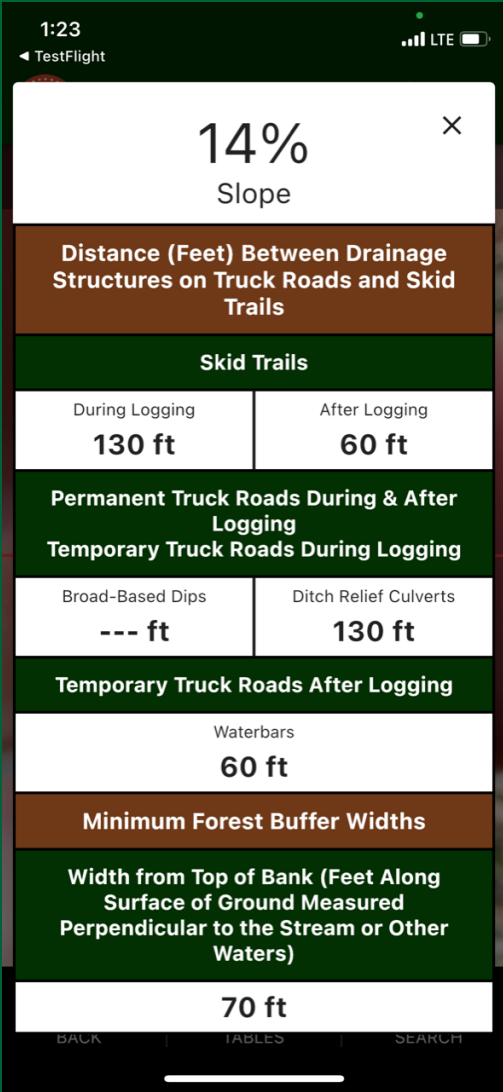
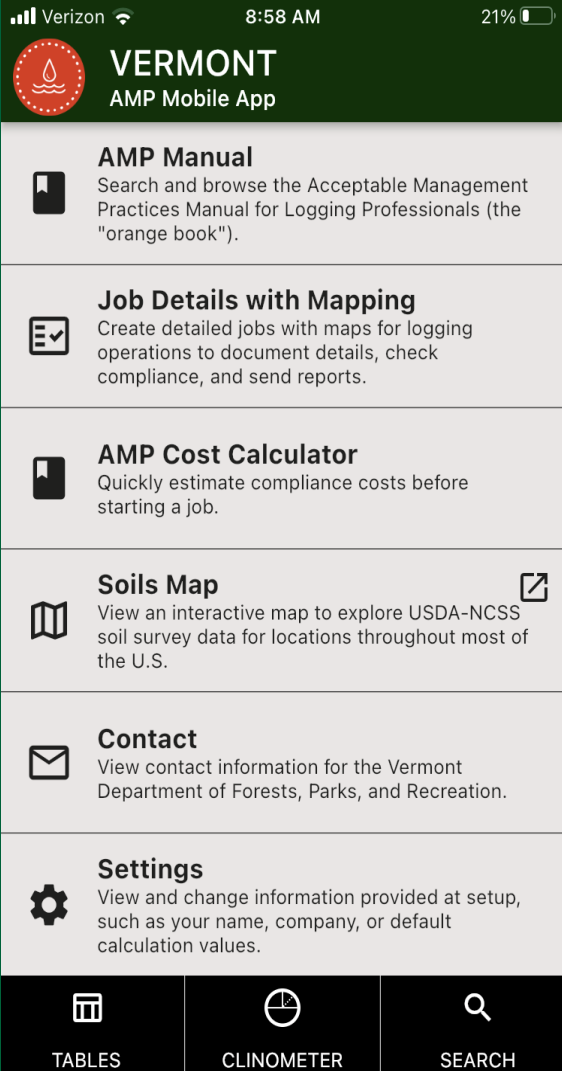
Road Grade (% Slope)	Skid Trails		Truck Roads Permanent Truck Roads During & After Logging, Temporary Truck Roads During Logging.		Temporary Truck Roads After Logging
	During Logging	After Logging	Broad-Based Dips	Ditch Relief Culverts	Waterbars
1	500	400	500	450	400
2	300	250	300	300	250
5	200	135	180	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

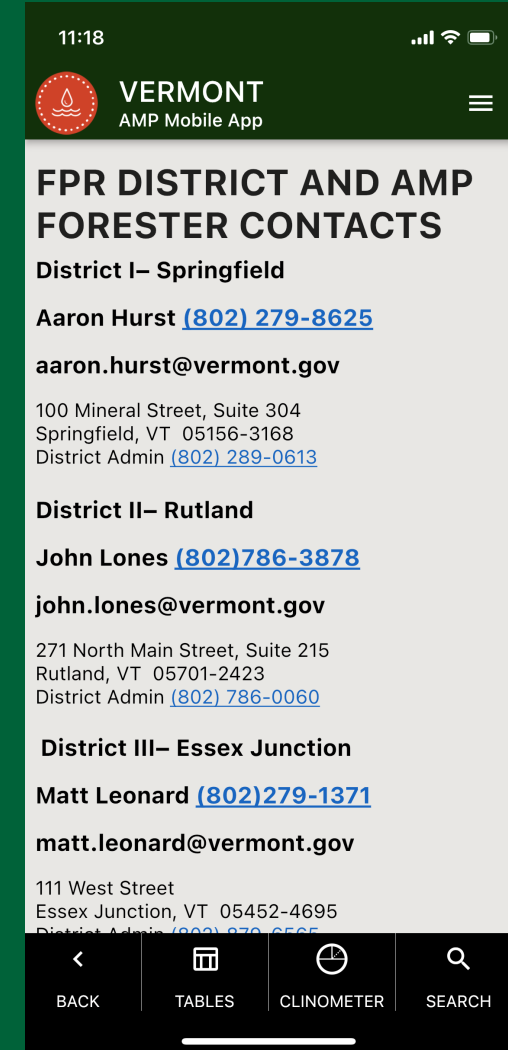
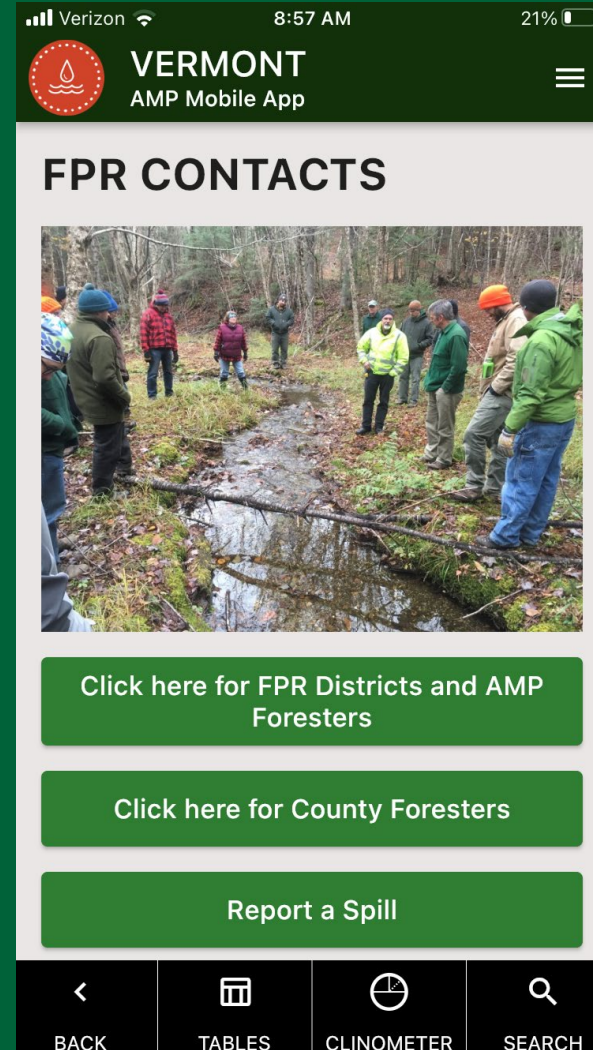
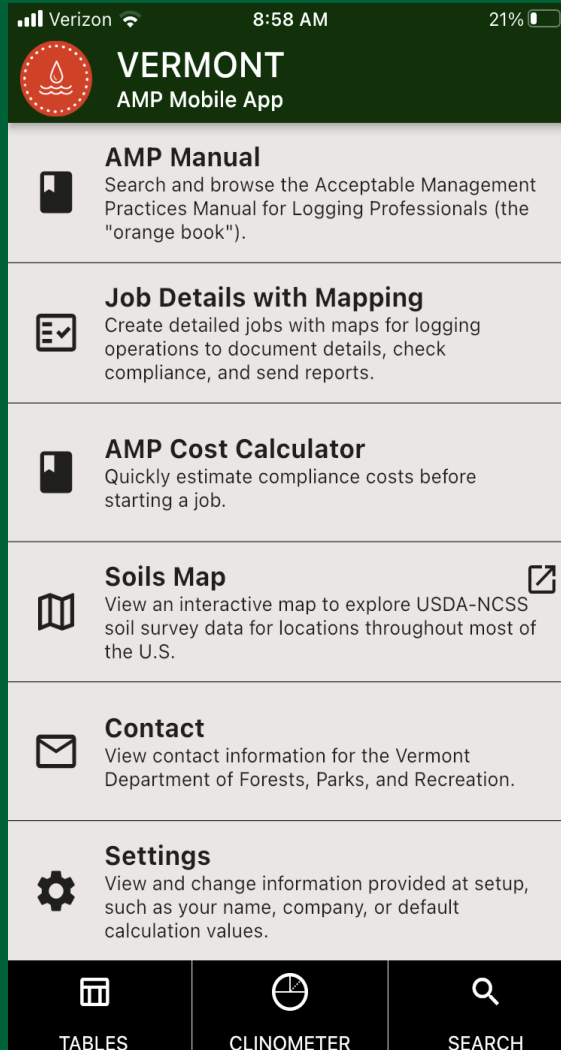




# FIELD TOOLS: CLINOMETER



# ACCESS TO ASSISTANCE: A *CLICK AWAY*



# 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

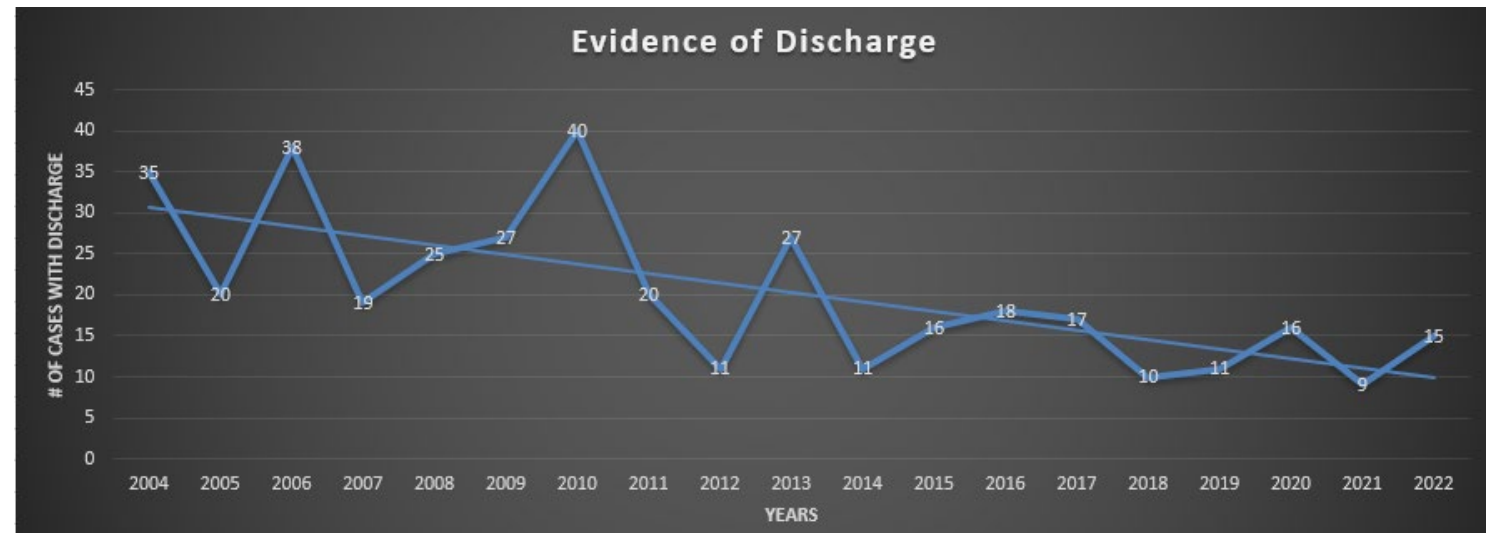
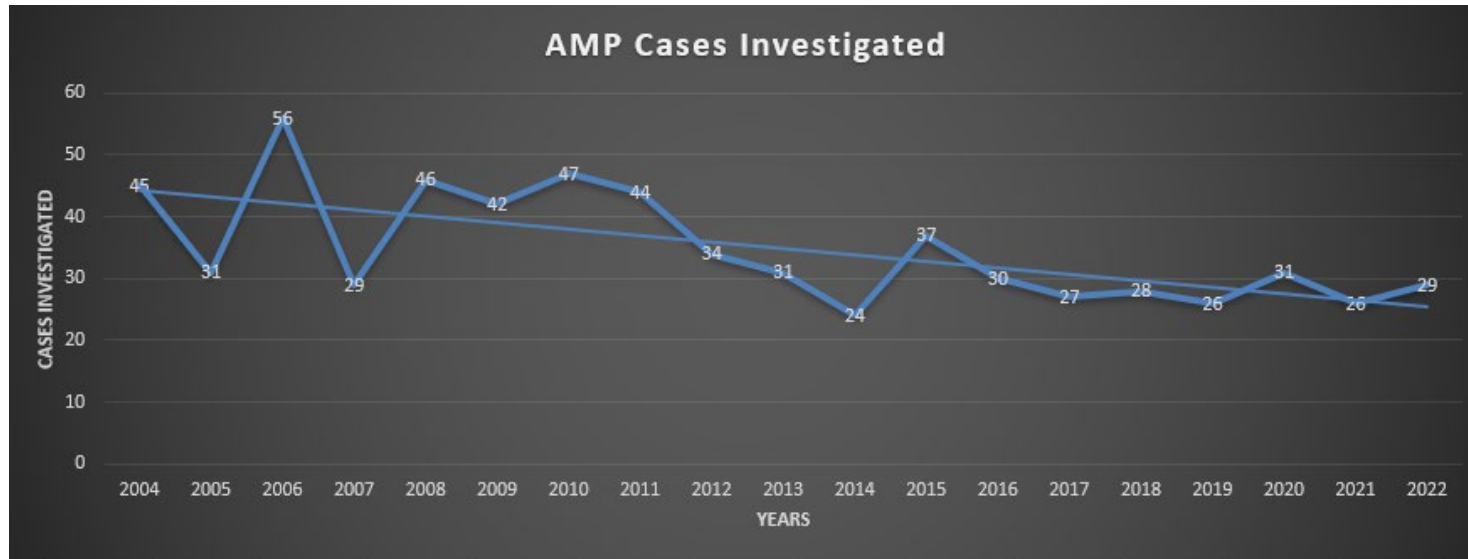


A complaint driven process. Our technical assistance program is a free program and offers technical water quality assistance to loggers, foresters, and landowners.

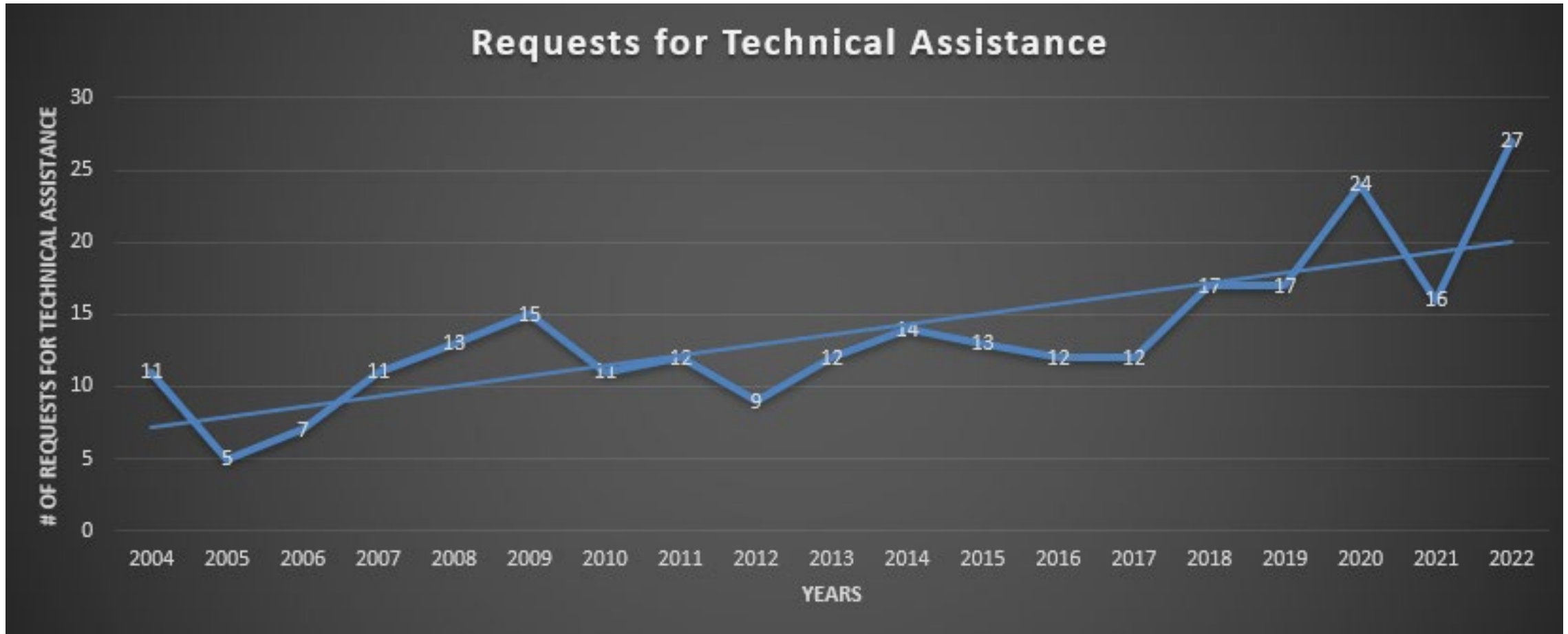


<b>Complaints investigated:</b>	29
<b>Evidence of Discharge:</b>	15
<b>Cases Referred for Enforcement:</b>	0
<b>Technical Assistance Visits:</b>	27
<b>Total number of AMP activities:</b>	56

# TRENDS: *CASES*



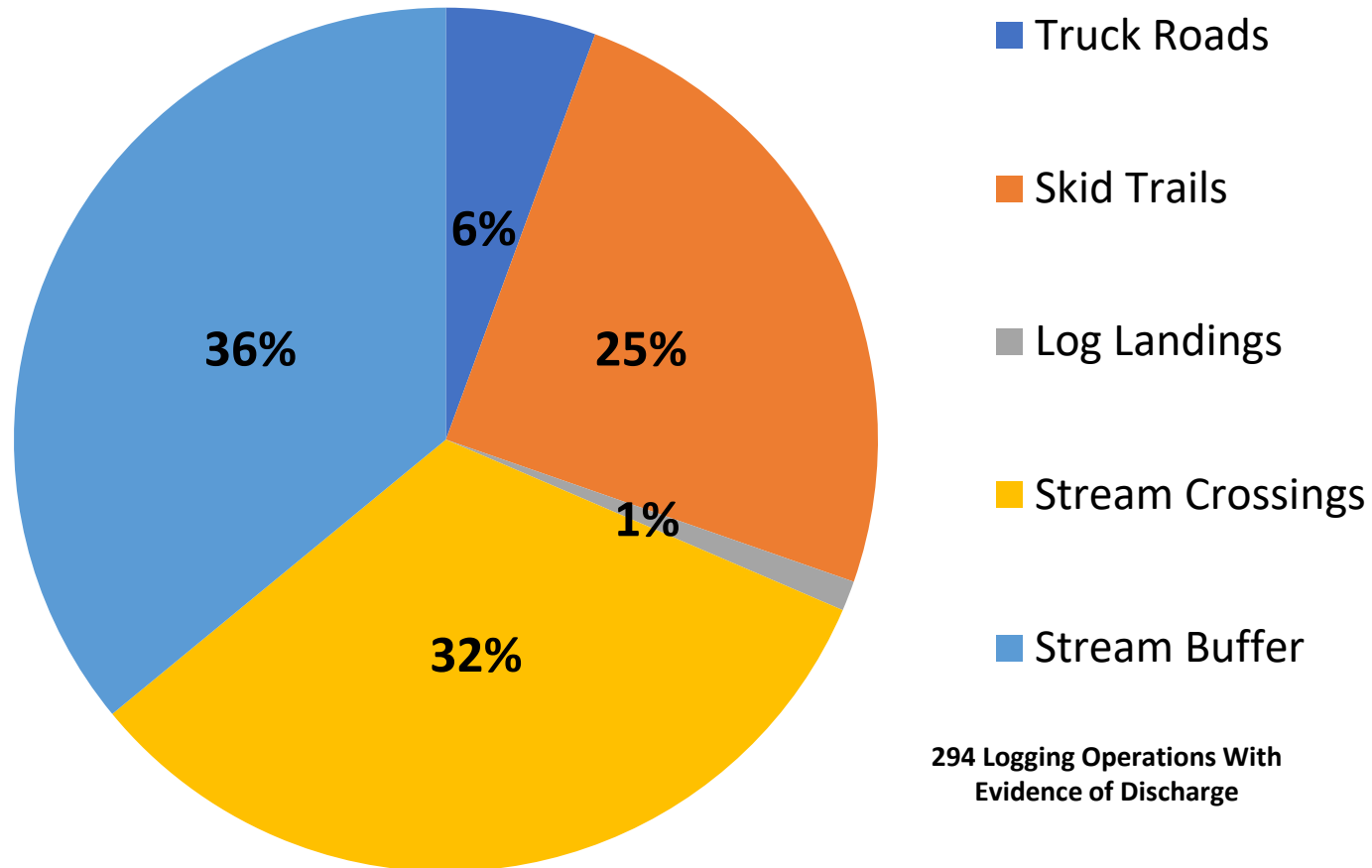
# TRENDS: *TECHNICAL ASSISTANCE*





# TRENDS: COMPLIANCE

Non-compliance by Location  
2004-2019



294 Logging Operations With  
Evidence of Discharge

# PROTECTING WATER QUALITY ON LOGGING JOBS



Education and Outreach • Technical Assistance • Financial Assistance



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