

Smugglers Notch Stuck Vehicle Mitigation

a briefing for

Vermont Senate Committee on Transportation



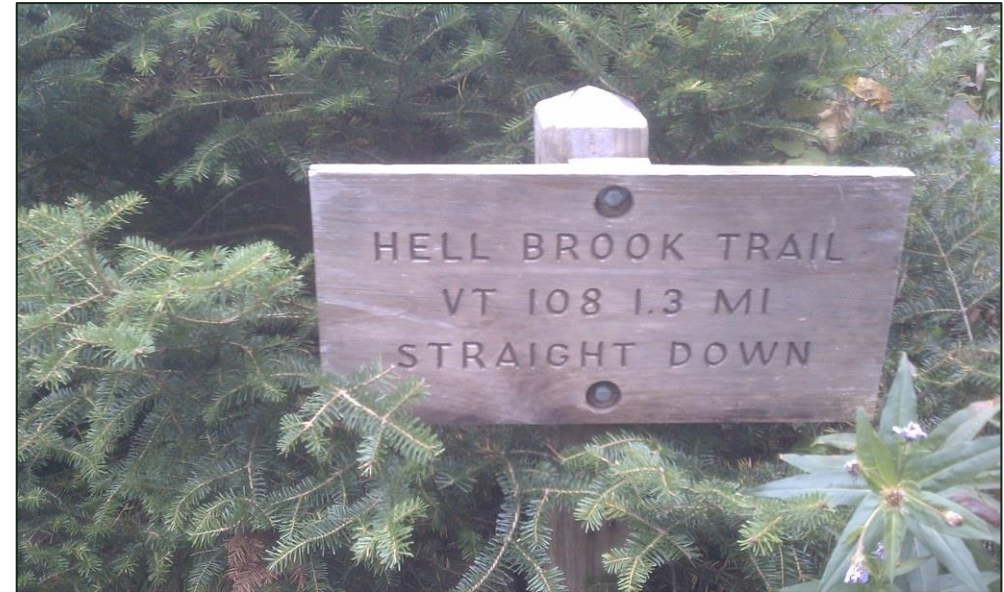
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Agenda

- **Background**
- **Notch Stakeholder Group**
- **Incident Data Analysis**
- **Road Safety Audit Review (RSAR)
Courses of Action (COA)**
- **Statutory Language Change**



Background

- Smuggler's Notch has risk of significant mobility issues when Rt 108 is open and a truck gets stuck
- OSB tasked to develop and assess various near-term Courses of Action (COA)
- Directed by Chief Engineer to follow through with a Roadside Safety Audit Review (RSAR) to address solution options for Near, Mid, Long Terms.



RSAR Stakeholder Group

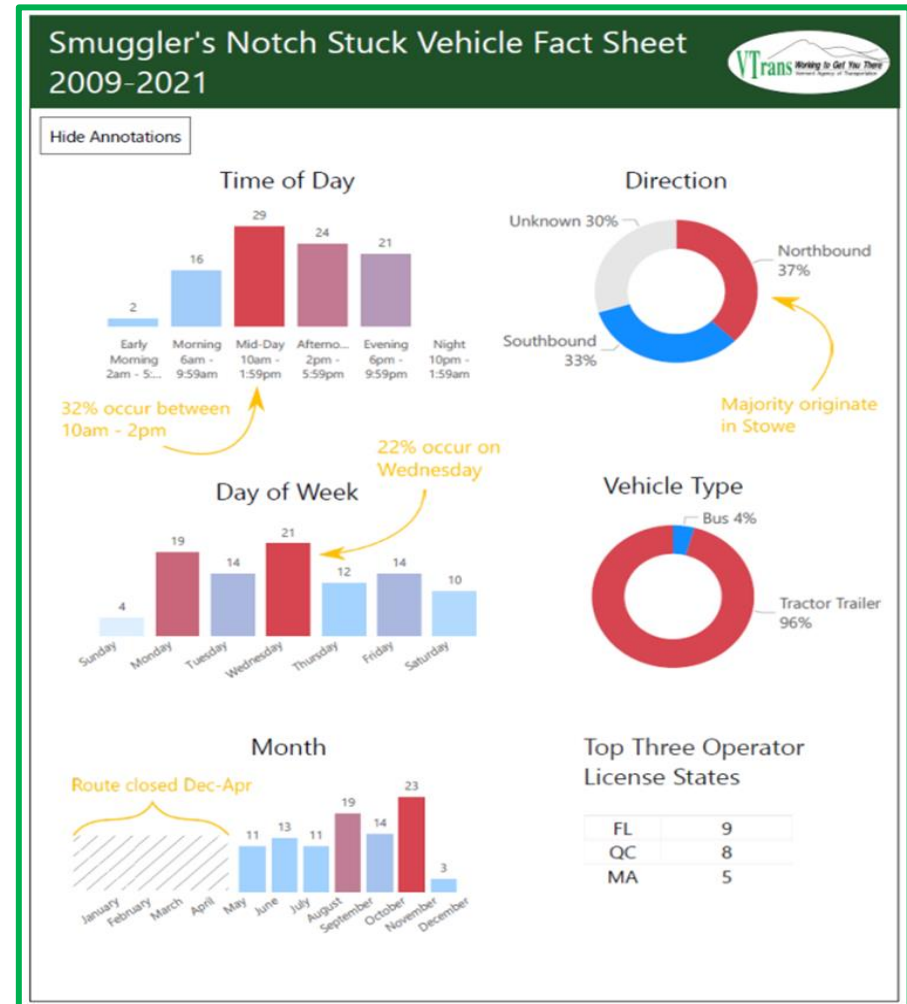
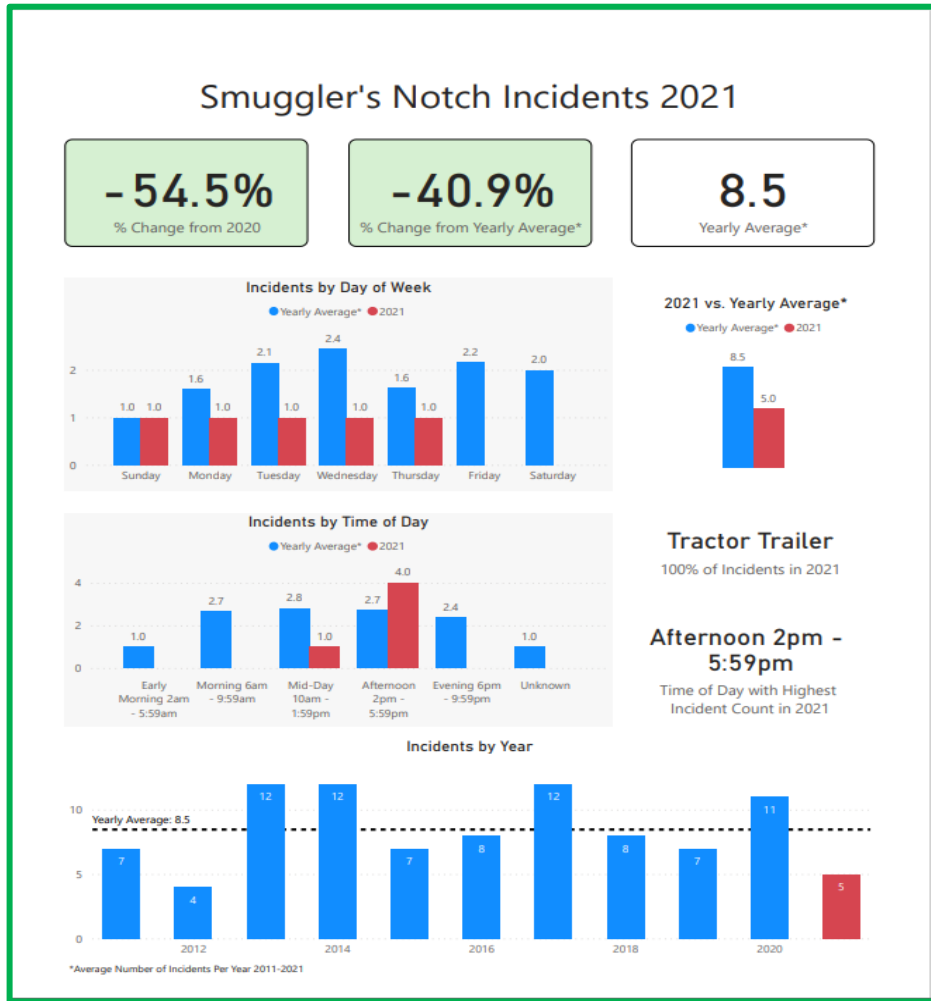
• AOT Representation

- Kevin Andrews, DMV Enforcement Safety Chief
- Dave Blackmore, NM DTA*
- Matt Bogaczyk, PDB Project Manager
- Ian Degutis, OSB Traffic Ops Chief
- Mario Dupigny-Giroux, OSB Safety Analyst
- Ben Howe, OSB Data Analysis
- Brandon Kipp, PDB Project Manager
- Ryan Knapp, OSB TMC Chief
- Derek Lyman, OSB Signals and ITS Chief
- Marcos Miller, OSB, Traffic Investigator
- Josh Schultz, OSB Bureau Chief
- Amy Bell, PPAID
- Todd Sears, OSB Deputy

• Other Stakeholders

- Susan Bulmer, ANR, Parks Regional Manager*
- Aaron Jacobs, ANR, Park Ranger
- John Medose, ANR, Parks Regional Facilities Manager
- Johnathan Delabruere, Town of Cambridge
- Donald Hull, Chief, Stowe PD
- Seth Jensen, Lamoille County Planning Commission
- Robert Lucas, Lieutenant, VSP, Williston
- Ken Robie, Dubois & King
- Heidi Scheuermann, Representative for Stowe
- John Schnee, Stowe Mountain Resort
- Roger Thompson, FHWA
- Rich Westman, Senator for Lamoille
- Mark Delaney, Smuggler's Notch Resort

* - retired



Stowe Average Annual Daily Traffic (AADT)

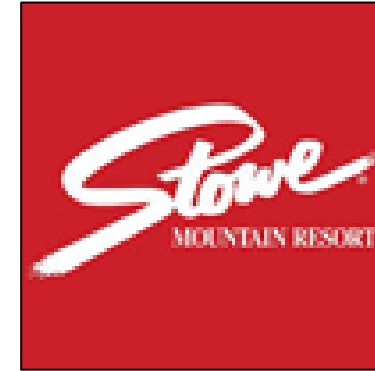
YEAR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Avg	Jun-Oct Avg
2019	5989	6041	5785	2721	1838	3558	4927	4736	3695	4645	2696	5279	4326	4312
2020	6017	6492	3216	647	1249	2087	3190	3645	3696	3764	2262	5036	3442	3276
2021	6309	6785	5816	2953	2403	3534	4613	4855	4387	4868	2930	NA	4496	4451

RSAR Overview

- Conducted 12-13 July 2021 incl site visit (Barnes Camp)

No single easy solution

- AOT and Notch Partners reviewed ideas
- Themes: GPS, language, effective signage, turnarounds
- Short-term, Mid-term, and Long-term actions discussed
- Roundabout idea offered, discussed, gained traction
- Draft report disseminated and comments received
- Both resorts enthusiastic partners
- Routine updates to stakeholder group
- Perceived positive momentum



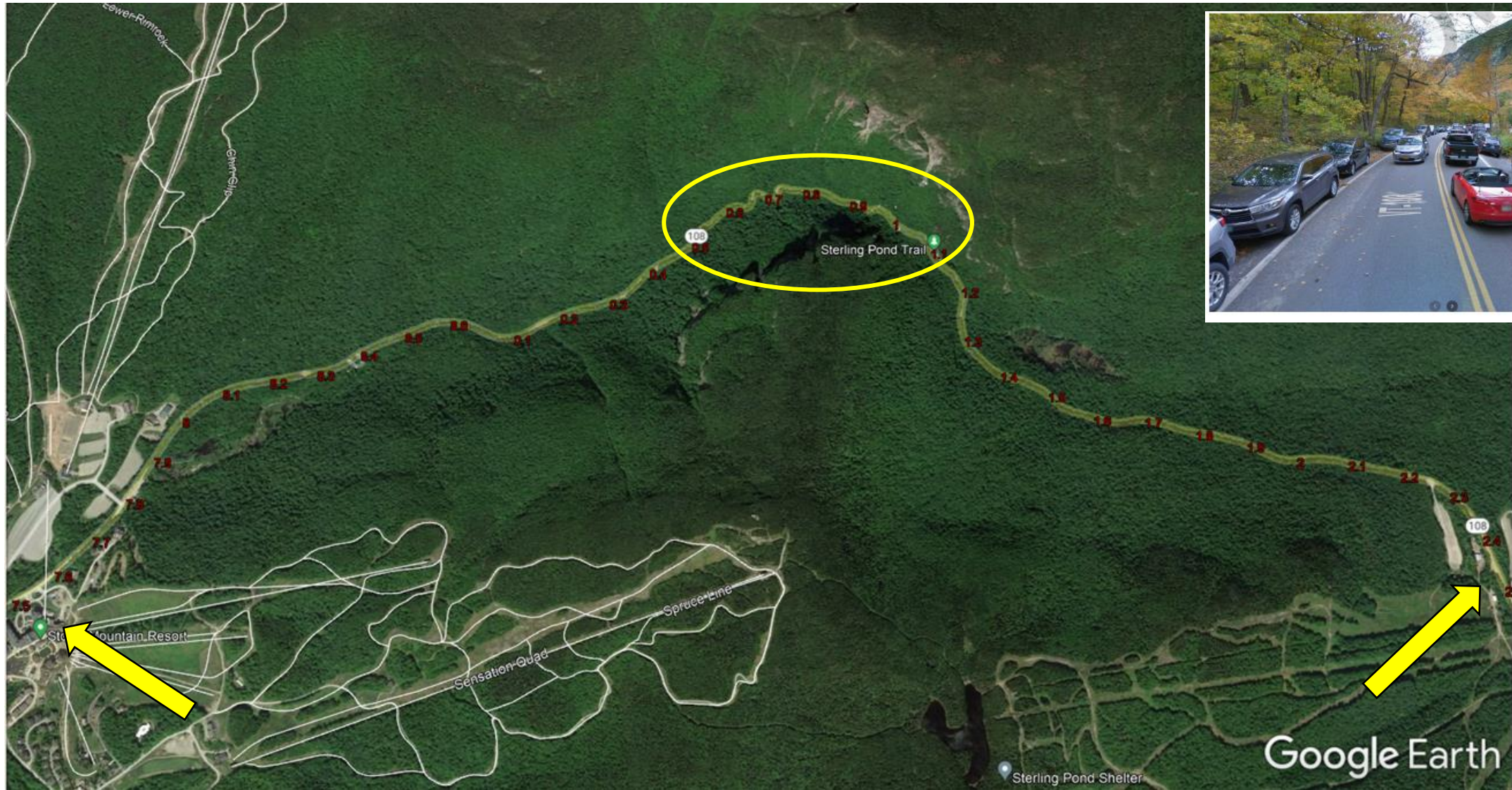
Phase I Short Term



1. **Develop recommended statutory change to 23 V.S.A. § 1006**
2. Continue GPS blackout work
3. Coordinate with Smuggler's and Stowe resorts to allow turn around in northernmost lots.
4. Add "Distance to Turnaround" to static signs
5. Add static signs on VT100 and VT15 advising CVs that VT100 ->VT15 and VT15->VT100
6. Reassess existing sign footprint for messaging and saturation
7. Explore use of local Law Enforcement to patrol



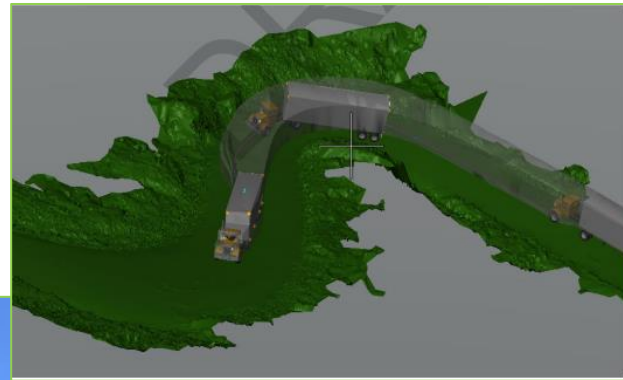
Stowe-Cambridge VT108 Vehicle Turning Analysis



Turn Analysis (cont.)

- Process

- LIDAR Survey Station captures surface and adjacent terrain
- Engineers conduct turn radius analysis using Autoturn



- Result

- Initial analysis indicated 45' max single unit and 50' max for combination vehicles
- Base conditions don't account for decreased lane width due to parked cars, so,
- Prudent recommendation was to err toward a lower # by 10%, so,
 - 40' single unit
 - 45' combination vehicles

Notch Statute Proposed Final

(Transportation Bill-Sec 21)

- § 1006b. SMUGGLERS' NOTCH; WINTER CLOSURE OF VERMONT 17 ROUTE 108; Vehicle Operation Prohibited
- (a) Winter Closure. The Agency of Transportation may close the Smugglers' Notch segment of Vermont Route 108 during periods of winter weather.
- (b) Vehicle operation prohibition.
 - (1) Single-unit motor vehicles over 40 feet in length and combination vehicles over 45 feet in total length are prohibited from operating on the Smugglers' Notch segment of Vermont Route 108.
 - (2) The operator of a vehicle who violates this subsection, and the operator's employer, unless they are the same person, shall each be subject to a civil penalty of \$1,500.00, or if the violation results in substantially impeding the flow of traffic on Vermont Route 108, a civil penalty of \$3,000.00. For a second or subsequent conviction within a three-year period, the applicable penalty or penalties shall be doubled.
 - (3) This prohibition in subdivision (1) of this subsection (b) shall not apply to law enforcement, fire, emergency medical services, and search and rescue vehicles involved in training or responding to real world incidents.
- (c) Required signage. The Agency shall erect signs conforming to the standards established by section 1025 of this title to indicate the closures and restrictions authorized under this section.

Vehicles Affected



Tractor-Trailers (Typically 50'-80')



Some Intercity and Charter Buses (Typically 35'-47')



Larger Class A RVs (Typically 29'-45')

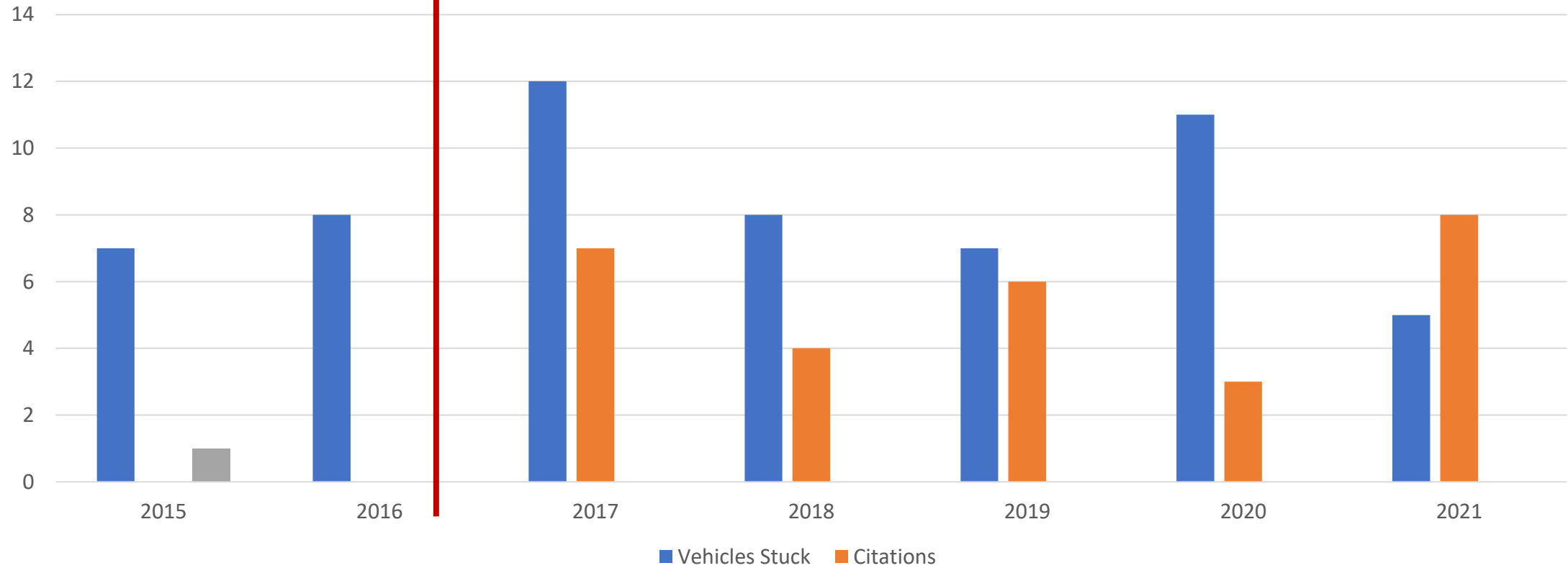


Heavy Equipment Trailers (Typically 70'+)

Citation Data

Civil Penalty Language in 23 V.S.A. §1006b, 2016

Stuck Vehicles vs Citations



Discussion