



## VDOT EQUIPMENT AND SUPPLIES 2019-2020 WINTER SEASON

The following information details the Virginia Department of Transportation's equipment, materials, budget and other data that support its preparedness and readiness for the 2019-2020 winter season and all related snow- and ice-removal activities.

### EQUIPMENT

The Virginia Department of Transportation (VDOT) has more than 12,100 VDOT and contract vehicles available for snow- and ice-control activities statewide.

### MATERIALS

VDOT has nearly 700,000 tons of salt, sand and treated abrasives, and more than 2.4 million gallons brine and liquid calcium chloride in stock for snow and ice removal.

Additionally, VDOT produces salt brine at some facilities. Salt brine prevents snow and ice from bonding to the pavement when used to pretreat the roads before a storm.

In 2018-2019, VDOT started the season with more than 700,000 tons of salt, sand and treated abrasives, and 2.1 million gallons of liquid calcium chloride and salt brine.

### TECHNOLOGY

A statewide network of 77 weather sensors in roadways and bridges allows VDOT maintenance crews to quickly identify when and where road surfaces might be freezing.

VDOT remains in constant coordination with state and local law enforcement authorities and has access to the National Weather Service.

### PRETREATING ROADS AND SNOW/ICE REMOVAL

VDOT uses several methods to prevent snow and ice from sticking to the roads before a storm and to remove snow and ice after a storm. These include using various chemicals (salts) in solution (brine) to prevent a bond from forming between the pavement and the snow or ice before a storm.

In addition to plowing after a storm ends, VDOT also will spread abrasives on areas prone to icing, such as bridge decks.

### CONTRACTORS AND STAFFING LEVELS

VDOT has more than 2,500 crewmembers for snow-removal operations statewide.

In addition, VDOT uses contractors to maintain the interstates throughout the commonwealth. Snow removal is one of the main functions of these contractors. While the contractors are required to report road conditions while removing snow, VDOT remains accountable for their performance.

VDOT includes the interstate maintenance contractors in pre-event planning sessions in advance of snowstorms. This practice enables contractors to have the necessary equipment and manpower for effective and efficient snow removal operations. VDOT monitors their operations and immediately reports any problems it observes back to the contractor. VDOT also conducts after-action reviews with contractors, during which the agency addresses any issues or concerns.

### COST

The average cost for a major statewide snow or ice storm affecting all nine VDOT districts and requiring a full mobilization is approximately \$11 million per day.

VDOT has about \$205 million budgeted for snow-removal activities for the winter of 2019-2020.



## AVAILABLE EQUIPMENT\* BY DISTRICT 2019-2020 WINTER SEASON

DISTRICT	STATE EQUIPMENT	HIRED** EQUIPMENT	TOTAL	ADDITIONAL PIECES OF INTERSTATE EQUIPMENT
BRISTOL	332	308	640	136
CULPEPER	210	571	781	88
FREDERICKSBURG	171	950	1,121	92
HAMPTON ROADS	157	113	270	202
LYNCHBURG	320	215	535	0
NORTHERN VIRGINIA	183	3,700	3,883	735
RICHMOND	381	666	1,047	453
SALEM	580	530	1,110	135
STAUNTON	199	516	715	226
<b>Statewide Totals</b>	<b>2,533</b>	<b>7,569</b>	<b>10,102</b>	<b>2,067</b>

\* Snow equipment includes trucks, loaders, motor graders and any other motorized equipment used for winter activities. A truck with a spreader counts as one unit.

\*\* Generally, hired equipment is an ongoing process, especially during winter. These numbers could vary month to month.



## SNOW-REMOVAL BUDGET 2019-2020 WINTER SEASON

DISTRICT	SNOW-REMOVAL BUDGET
BRISTOL	\$15 million
CULPEPER	\$13 million
FREDERICKSBURG	\$9 million
HAMPTON ROADS	\$10 million
LYNCHBURG	\$6 million
NORTHERN VIRGINIA	\$53 million
RICHMOND	\$19 million
SALEM	\$16 million
STAUNTON	\$14 million
STATEWIDE RESERVES	\$50 million
<b>Statewide Total</b>	<b>\$205 million</b>

NOTE: The snow-removal budget totals are estimated as of Sept. 13, 2019, and are subject to change throughout the winter season.