



NORTHERN VIRGINIA SNOW REMOVAL Winter 2015-2016

HIGHLIGHTS

Budget: Last winter's budget: \$52 million (\$128.5 million was spent). This year's budget: \$70.7 million.

Equipment: 4,000 trucks and plows are available and all are equipped with **automatic vehicle locators (AVL)**. AVL allows VDOT to track where and when roads have been plowed. VDOT reimburses contractors for the \$600 unit. Special equipment:

- A **jet-powered snow melter** for park-n-ride lots where snow piles can block spaces.
- Seven **high-pressure flush trucks** clear snow and ice around the bollards along the I-495 Express lanes.
- A **truck-mounted weather station** provides mobile data on road conditions such as surface, dew point, air temperature, humidity and thickness of ice. This information helps ensure crews do not over- or under-apply chemicals.
- **Two super-sized front loaders** plow interstates with 20-foot wide blades during severe storms.
- **Speed-activated anti-icing equipment** puts the right amount of material on the road.
- Crews continue to test six **all-weather cameras** mounted on truck cabs, that snap photos en route to capture road conditions, when and how well a road was plowed.

Pre-treating: Crews pre-treat 850 lane miles of trouble spots:

- 350 lane miles on interstates—including bridges and ramps prone to freezing such as the Springfield interchange and the Beltway at Route 1—with liquid magnesium chloride.
- 500 lane miles on major roads, such as Fairfax County Parkway, routes 1, 7, 28, 29, and 50 with salt brine. Brine (77 percent water, 23 percent salt) prevents ice from bonding to the road surface, reduces the need for salt to melt ice, is kinder to the environment and can lower snow removal time and costs.

Staging in subdivisions: Trucks are pre-positioned in subdivisions when two or more inches of snow is forecasted. Each subdivision has at least one dedicated truck, with the intent of assigning the same driver to that subdivision throughout the winter. In difficult subdivisions there will be more than one truck.

Dedicated fleet for Virginia State Police: During major snow and ice storms, VDOT provides a dozen contracted trucks to Virginia State Police, to quickly assist with specific

emergencies and keep drivers focused on assigned routes.

Chantilly brine pilot continues: For the second year, crews will pre-treat several roads with brine, plow when snow has fallen and then re-treat with brine. VDOT is testing the effectiveness of this method, which has seen success in some Western states and could further reduce the need for salt.

VDOT ROADS AND RESOURCES

VDOT is responsible for almost 18,000 lane miles in Fairfax, Loudoun, Prince William and Arlington counties (Arlington County maintains its own secondary roads). About half of those miles are highways, and half are local or neighborhood streets.

VDOT has 18 local maintenance headquarters throughout northern Virginia: one in Arlington, nine in Fairfax, four in Prince William and four in Loudoun.

Equipment: Northern Virginia has 4,000 pieces of equipment available to clear a typical six-inch storm. Many are pick-up trucks typically used for side streets, and can clear up to 18 inches of snow, depending on the type of storm.

Materials: 340,000 tons of salt, 95,000 tons of sand, and 576,000 gallons of liquid treatment are on hand.

A super-sized salt dome at the Beltway and Van Dorn Street holds 22,000 tons—about three times the capacity of a typical dome—to help ensure crews don't run low during severe storms.

Crews: About 95 percent of VDOT drivers and equipment are contracted. VDOT trains its own employees and contractors with classroom sessions and route visits. Contractors also receive company training, and many have long relationships with VDOT and are very familiar with state snow removal.

Road priorities: In northern Virginia, VDOT crews work on interstates, high-volume roads, and in subdivisions concurrently. Within these programs, roads with highest traffic volumes are cleared first.

HOW NEIGHBORHOODS ARE ASSIGNED AND PLOWED

In Northern Virginia, VDOT clears 16,000 subdivision streets. Typically, crews begin plowing when two inches has fallen.

Main thoroughfares in subdivisions are repeatedly plowed during

a storm. Once the storm has stopped and those roads are clear, crews work to make residential streets and cul-de-sacs passable.

A neighborhood street is considered passable when a path is drivable (with caution) for an average passenger vehicle. The road will not be cleared curb-to-curb or to bare pavement, and may remain snow-packed, uneven and rutted, especially with refreeze. For most storms, one snowplow pass, about eight to ten feet wide, is made. Chemicals are not typically used in subdivisions, but crews will sand hills, curves and intersections as needed to provide traction.

Local roads are divided among about 600 "snow maps" assigned to plow drivers. These maps are reviewed each year for hotspots, schools, police stations, hospitals and bus stops.

Once drivers complete a minimum of one pass on the roads in a map, they report that the route is complete.

VDOT judges subdivisions complete through processed snow maps, AVL and VDOT staff monitors. This year, 200 VDOT employees will be assigned on-road duty to monitor conditions, snowplow progress and for quality control of plowing contractors. This works out to about one monitor for every three snow assignment maps in northern Virginia.

To give crews a chance to finish their assigned snow maps, VDOT asks that residents wait 48 hours after the storm is over before reporting "missed" roads. Once crews have finished routes, resident complaints are mapped to a database that feeds lists of locations to the area headquarters to check and address.

While VDOT does not remove snow from sidewalks or trails, crews are asked to be mindful of pushing large piles onto these and driveways. In significant storms, it is often an unintended consequence of making roads passable.

When shoveling driveways, residents should shovel to the right facing the road. Leave the last few feet at the curb until the street is plowed, as the truck will push some snow back. Park in driveways or on the odd-numbered side

of the street to allow plows room to pass.

INFORMATION FOR DRIVERS AND RESIDENTS

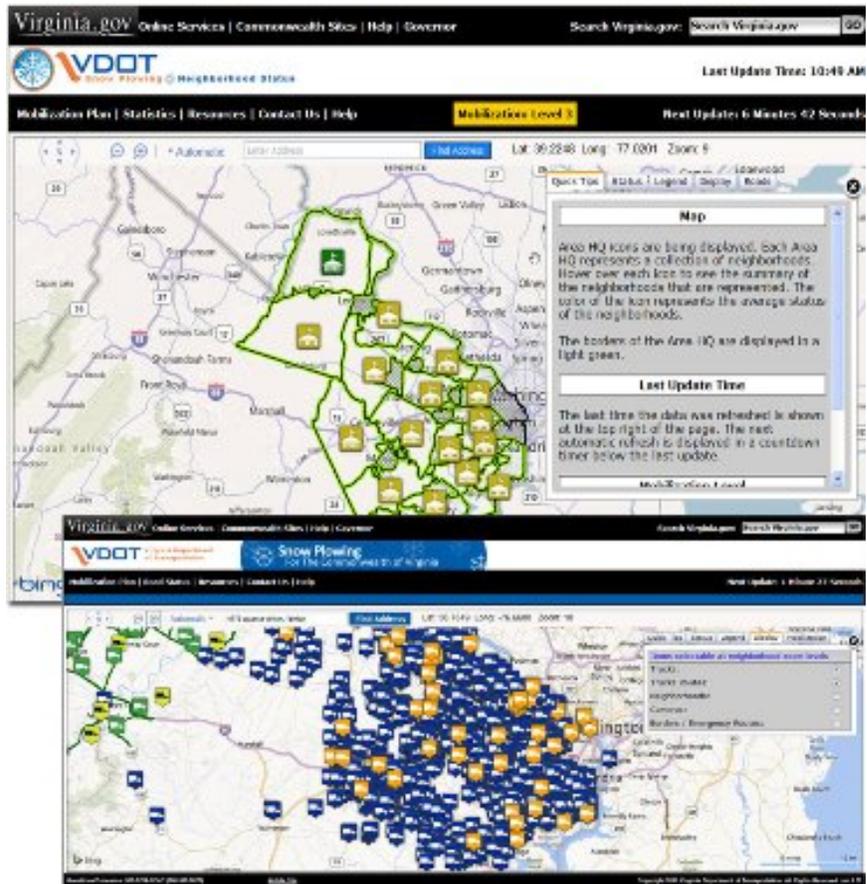
- See status of plowing in northern Virginia neighborhoods: www.vdotplows.org.

Once it snows more than two inches, Fairfax, Loudoun and Prince William residents can enter their address to see whether plowing is underway, completed or not yet started in their neighborhood.

- Follow @VaDOTNOVA on Twitter

- Report safety concerns to 800-367-7623

- More snow information at www.virginiadot.org/snow



VDOTplows.org shows status of plowing in northern Virginia neighborhoods, truck locations and other information.