

## WINTER MAINTENANCE PREPARATION

By Sam Gregory, LTAP Technical Expert

Winter maintenance is vital to the safety of motorists and thus is one of the most important public works activities agencies perform. The key is having a plan and being prepared as there are so many uncontrollable factors in maintaining roadways during winter storm events. Preparing for winter is a year-round process and incorporating winter preparedness into your operational plans by the season helps achieve an effective and efficient winter operation.

### PREPARING BY THE SEASON

#### SPRING

One of the first functions that should be done at the conclusion of winter is to conduct an After-Action Review (AAR). A review of the past winter maintenance operations while it is fresh in everyone's mind will help prepare for the next winter operations. Spring is also the time to conduct road condition inspections to identify areas that may have been damaged by the winter activities, along with collecting anti-skid. This is also the time to clean up stock piles and repair damage to storage buildings. The information gathered from the road surveys and the AAR can be used to identify repairs that need immediate attention and items to be included in your summer work plans. The unused winter material needs to be inventoried to prepare for the next bidding. Prepare estimates for road salt for next winter. Salt to be purchased through COSTARS needs to be submitted by March 15 for the next season.

#### SUMMER

This is the season to complete work activities that have been identified in the spring review of the roadway system, including items that impact winter operations. This work may involve drainage improvements to eliminate ice conditions on the roadway, adjusting manholes to proper elevation, and to daylight or trim trees. Repairs should be made to the plows and spreaders. Specifications and bids should be prepared for equipment and materials and any outside contracts necessary for winter operations. It is also time to enter into Winter Traffic Services Agreements with PennDOT.

#### FALL

Fall winter preparation activities center around the Winter Operations Plan. Communicate with PennDOT, emergency services, or other entities, as necessary. Finalize any cooperative agreements. Order winter materials and schedule deliveries. Fall is the time of year to train staff and communicate the plan with them. Review personnel activities such as callout procedures, accident reporting, and equipment and routing plans. Dry runs should be conducted to familiarize the operators with the equipment and their route assignments. Identify any problem areas, especially those that could be corrected before winter. Prepare and calibrate the equipment. Remember too, that the first storm can come in the fall. Have a process to quickly attach plows and spreaders if necessary.

#### WINTER

Winter storm events require continuous monitoring. Changes to the weather will require altering your strategies. Monitor the effectiveness of the material and adjust based on the pavement temperatures. After the storm, operations again need to be reviewed. The amount of materials used should be documented and the on-hand inventory checked and reordered as needed. Drainage facilities need to be cleared so the melting snow has a place to go. The equipment needs to be cleaned and checked for necessary repairs.

And don't forget to keep records of all operations for each storm! Written records are essential to measure efficiency and support continuous improvement.

## **WINTER PREPARATION BY THE SEASON**

### **SPRING**

- ✓ Conduct AAR
- ✓ Inventory winter materials
- ✓ Clean up stockpiles & repair storage buildings
- ✓ Sweep up excess anti-skid
- ✓ Conduct road conditions inspection

### **SUMMER**

- ✓ Complete drainage work
- ✓ Daylight shaded areas
- ✓ Lower manholes
- ✓ Repair plows & spreaders
- ✓ Prepare specifications & bids for equipment
- ✓ Enter into Winter Services Agreement

### **FALL**

- ✓ Review the Winter Operations Plan & communicate with stakeholders
- ✓ Place orders for materials
- ✓ Review equipment & routing plans
- ✓ Provide winter training
- ✓ Conduct dry runs
- ✓ Calibrate material spreaders

### **WINTER**

- ✓ Be prepared for the first storm
- ✓ Conduct storm event AAR
- ✓ Review material usage / check on hand quantities
- ✓ Clean & inspect equipment
- ✓ Prepare for the next storm...& the next...& the next

## **DATES TO REMEMBER**

**MARCH 15 - SALT ESTIMATES DUE TO COSTARS**

**MARCH 6 - BUILD A BETTER MOUSE TRAP SUBMISSIONS DUE**

**JULY 31 - PennDOT WINTER SERVICE AGREEMENT RENEWALS DUE**