

## **WisDOT Highway Maintenance 2017 Target Service Levels**

*Issued by Rose Phetteplace, Director, Bureau of Highway Maintenance  
August 17, 2016*

Attached are the 2017 target service levels for highway maintenance and operations. Highway maintenance managers set these targets to provide guidance to central office and regional highway maintenance staff in prioritizing activities and expending resources. The 2017 maintenance targets are critical for structuring the 2017 Routine Maintenance Agreements (RMA). The targets are consistent with the 2017 RMA guidance that Tom Goodwyn sent to regions on August 5, 2016.

Targets are the conditions expected on state highways at the end of the summer maintenance season. They were selected by highway maintenance managers in the regions and BHM to set priorities within the budget and to increase consistency across region and county lines. The condition measure used is the percent of inventory with backlogged maintenance work. A measure greater than 0% backlogged reflects work left undone at the end of the summer season. Under full funding of maintenance needs, we would expect to see features at or close to 0%. The following chart provides historical service levels statewide and by region for 2015. Targets aren't set for a portion of highway maintenance expenditures including winter operations, certain traffic control devices, and electrical operations.

Targets do not reflect an optimal maintenance condition for the highways, but instead reflect a continued commitment to fully fund winter operations, other organizational priorities, existing highway conditions, and most importantly, dollars available. Given constrained resources, priorities include:

- ❑ Focusing our resources on keeping the system safe and operating from day to day. Highway maintenance priorities will:
  - Decrease drop-off on unpaved shoulders.
  - Decrease the amount of hazardous debris on shoulders.
  - Repair damaged safety appurtenances and signs.
  - Repair damaged regulatory and warning signs, and continue to routinely replace old regulatory and warning signs.
- ❑ Expending far fewer resources, directing more funding to asset preservation activities:
  - Mowing is limited to one shoulder cut per season. The exception is for spot locations where vision is a safety issue for that specific area.
  - No maintenance of lane-line raised pavement markers and other wet reflective markings. Special pavement markings will only be addressed for the most critical safety needs.
  - Litter control is limited to once in the spring and Adopt-A-Highway efforts continue to be encouraged.
- ❑ Leveraging improvement funding and better coordinating improvement work to decrease maintenance workload and funding demands.
  - Now and going forward, maintenance supervisors and engineers will put greater emphasis on working with the improvement program to reduce the amount of drop-off/build-up on unpaved shoulders, decrease pavement rutting, reduce cracking on paved shoulders, and improve the condition of culverts.

Thank you to the Compass program for coordinating this effort and preparing this report.

## Regions 2015: Compass Report on Highway Maintenance Conditions

Element	Feature	How much of the system needs work at the end of the season? What did it cost to achieve this condition?					
		Region Percent of System Backlogged					
		NC	NE	NW	SE	SW	Statewide
Shoulders	Hazardous Debris	4%	6%	2%	16%	9%	6%
	Drop-off/Build-up (paved)	2%	3%	1%	4%	2%	2%
	Cracking (paved)	69%	74%	62%	51%	74%	67%
	Potholes/Raveling (paved)	2%	1%	7%	8%	11%	6%
	Drop-off/Build-up (unpaved)	30%	49%	33%	40%	58%	42%
	Cross-Slope (unpaved)	27%	22%	17%	31%	31%	25%
	Erosion (unpaved)	1%	0%	2%	1%	4%	2%
	Dollars spent on shoulders (millions)	2.95	1.29	0.83	1.88	1.96	8.91
Drainage	Ditches	0.2%	1%	2%	3%	1%	1%
	Culverts	14%	24%	24%	12%	19%	20%
	Under-drains/Edge-drains	13%	41%	29%	24%	35%	23%
	Flumes	32%	2%	46%	8%	35%	23%
	Curb & Gutter	5%	2%	12%	1%	10%	6%
	Storm Sewer System	10%	16%	0%	7%	24%	11%
	Dollars spent on drainage (millions)	1.55	2.90	0.66	0.88	1.59	7.58
Roadsides	Litter	44%	80%	61%	78%	67%	63%
	Mowing	34%	46%	29%	39%	35%	35%
	Mowing for Vision	4%	4%	2%	5%	1%	3%
	Woody Vegetation	2%	1%	5%	1%	2%	2%
	Woody Veg. Control for Vision	0%	0%	0.3%	1%	1%	1%
	Fences	2%	1%	6%	0%	1%	2%
	Dollars spent on roadsides (millions)	5.01	4.99	2.74	2.39	4.14	19.27
Traffic and safety (selected devices)	Centerline Markings	4%	2%	6%	1%	10%	6%
	Edgeline Markings	5%	2%	5%	1%	10%	6%
	Special Pavement Markings	2%	3%	18%	5%	15%	8%
	Reg./Warning Signs (emerg.)	1%	1%	2%	1%	1%	1%
	Reg./Warning Signs (routine)	9%	11%	8%	11%	10%	10%
	Other Signs (emerg. repair)	1%	1%	4%	2%	0.3%	1%
	Other Signs (routine replacement)	17%	20%	30%	31%	25%	26%
	Delineators	8%	13%	22%	12%	25%	18%
	Protective Barriers	0.2%	0.01%	10%	2%	6%	5%
	Dollars spent on traffic and safety (selected devices) (millions)	5.51	5.43	3.11	3.70	3.69	21.45

## Compass Thresholds - Traffic, shoulder, drainage and roadside features

Thresholds include both sides of the road for one mile and denote the point at which features become part of the potential maintenance workload for the next 12 months. At this point, the one mile of road is backlogged for this feature. These are not safety measures.

Element	Feature	Thresholds for BACKLOGGED or not current (1 mile)
<b>Shoulders</b>	Cracking	200 linear feet or more of unsealed cracks > ¼ inch (per mile)
	Cross-slope	200 linear feet or more of cross-slope at least 2x planned slope with the maximum cross slope of 8% (per mile)
	Hazardous Debris	Any items large enough to cause a safety hazard (per mile)
	Drop-off/ buildup (paved and unpaved)	200 linear feet or more with drop-off or build-up > 1.5 inches (per mile)
	Erosion	200 linear feet or more with erosion >2 inches deep (per mile)
	Potholes/ raveling	Any potholes OR raveling > 1 square foot by 1 inch deep (per mile)
<b>Drainage</b>	Culvert	Culverts that are >25% obstructed OR where a sharp object-e.g., a shovel-can be pushed through the bottom of the pipe OR pipe is collapsed or separated (per culvert)
	Curb & gutter	Curb & gutter with severe structural distress OR >1 inch structural misalignment OR >1 inch of debris build-up in the curb line (per linear foot of curb & gutter)
	Ditches	Ditch with greater than minimal erosion of ditch line OR obstructions to flow of water requiring action (per linear feet of ditch)
	Flumes	Not functioning as intended OR deteriorated to the point that they are causing erosion (per flume)
	Storm sewer system	Inlets, catch basins, and outlet pipes with >=50% capacity obstructed OR <80% structurally sound OR >1 inch vertical displacement or heaving OR not functioning as intended (per inlet, catch basin and outlet pipe)
	Drains	Under- and edge-drains with outlets, endwalls or end protection closed or crushed OR water flow or end protection is obstructed (per drain)
<b>Roadsides</b>	Fences	Fence missing OR not functioning as intended (per linear foot of fence)
	Litter	Any pieces of litter on shoulders and roadside visible at posted speed, but not causing a safety threat (per mile)
	Mowing	Roadside has mowed grass that is too short, too wide or is mowed in a no-mow zone (per mile)
	Mowing for vision	Any instances in which grass is too high or blocks a vision triangle (per mile)
	Woody vegetation control	Any instances in which woody vegetation blocks a vision triangle.
	Woody vegetation control for vision	Instances in which a tree is present in the clear zone OR trees and/or branches overhang the roadway or shoulder creating a clearance problem (per mile)
<b>Traffic Control &amp; Safety</b>	Centerline/ Edgeline markings	Line with > 20% paint missing (per mile)
	Special pavement markings	Missing OR not functioning as intended (per marking)
	Delineators	Missing OR not visible at posted speed OR damaged (per delineator)
	Protective Barriers	Not functioning as intended (per linear feet of barrier)
	Other signs (emergency)	Missing OR not visible at posted speed (per sign)
	Other signs (routine)	Beyond recommended service life (per sign)
	Reg/warning signs (emergency)	Missing OR not visible at posted speed (per sign)
	Reg/warning signs (routine)	Beyond recommended service life (per sign)

CY 2017 Non-Winter Highway Maintenance Targets

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H	Column I	Column J	Column K	Column L	Column M	Column N	Column O	Column P	Column Q	Column R
Contribution Category and Element	Feature	2012 Target Percent Backlogged and Feature Grade - Statewide	2013 Target Percent Backlogged and Feature Grade - Statewide	2014 Target Percent Backlogged and Feature Grade - Statewide	2015 Target Percent Backlogged and Feature Grade - Statewide	2016 Target Percent Backlogged and Feature Grade - Statewide	2017 Target Percent Backlogged and Feature Grade - Statewide	2012 Actual Percent Backlogged and Feature Grade - Statewide	2013 Actual Percent Backlogged and Feature Grade - Statewide	2014 Actual Percent Backlogged and Feature Grade - Statewide	2015 Actual Percent Backlogged and Feature Grade - Statewide	2015 Actual Percent Backlogged and Feature Grade - NC Region	2015 Actual Percent Backlogged and Feature Grade - NE Region	2015 Actual Percent Backlogged and Feature Grade - NW Region	2015 Actual Percent Backlogged and Feature Grade - SE Region	2015 Actual Percent Backlogged and Feature Grade - SW Region	Notes
<b>Critical Safety:</b>																	2017 Target GPA for Critical Safety Features = 2.57 (Actual 2015 GPA = 2.43)
Traffic and Safety	Reg./Warning Signs - Emergency Repair	0=A	0=A	0=A	0=A	0=A	0=A	1=A	2=A	1=A	1=A	1=A	1=A	2=A	1=A	1=A	
Shoulders	Hazardous Debris	6=C	5=B	5=B	5=B	5=B	5=B	7=C	7=C	7=C	6=C	4=B	6=C	2=A	16=F	9=C	
Traffic and Safety	Protective Barriers	3=B	1=A	3=B	5=B	0.2=A	0.01=A	10=C	2=A	6=C							
Traffic and Safety	Centerline Markings	5=B	5=B	5=B	5=B	5=B	5=B	4=B	6=C	8=C	6=C	4=B	2=A	6=C	1=A	10=D	
Traffic and Safety	Edge Line Markings	8=C	8=C	8=C	8=C	8=C	8=C	3=B	7=C	9=C	6=C	5=B	2=A	5=B	1=A	10=D	
Shoulders (unpaved)	Drop-off/Build-up	30=F	30=F	30=F	28=F	28=F	28=F	36=F	36=F	41=F	42=F	30=F	49=F	33=F	40=F	58=F	
Shoulders (paved)	Drop-off/Build-up	4=B	4=B	4=B	4=B	4=B	4=B	1=A	4=B	4=B	2=A	2=A	3=B	1=A	4=B	2=A	
<b>Safety/Mobility:</b>																	2017 Target GPA for Safety/Mobility Features = 2.30 (Actual 2015 GPA = 2.70)
Roadside	Woody Veg. Control for Vision	2=A	2=A	2=A	2=A	2=A	2=A	1=A	1=A	1=A	1=A	0=A	0=A	0.3=A	1=A	1=A	
Roadside	Mowing for Vision	5=B	5=B	5=B	5=B	5=B	5=B	1=A	0.3=A	2=A	3=A	4=A	4=A	2=A	5=B	1=A	
Traffic and Safety	Special Pavement Markings	23=D	10=C	10=C	10=C	10=C	10=C	6=B	9=B	6=B	8=B	2=A	3=A	18=C	5=B	15=C	
Roadside	Woody Vegetation	5=B	5=B	5=B	5=B	5=B	5=B	3=A	3=A	2=A	2=A	2=A	1=A	5=B	1=A	2=A	
Drainage	Culverts	30=D	30=D	30=D	30=D	30=D	25=D	25=D	25=D	21=D	20=D	14=C	24=D	24=D	12=C	19=D	
Drainage	Storm Sewer System	15=C	15=C	15=C	15=C	15=C	15=C	13=C	14=C	15=C	11=C	10=C	16=C	0=A	7=B	24=D	
Shoulders (unpaved)	Cross-Slope	20=D	20=D	20=D	18=C	18=C	18=C	26=D	22=D	27=D	25=D	27=D	22=D	17=C	31=F	31=F	
Traffic and Safety	Delineators	25=D	25=D	25=D	25=D	25=D	20=D	21=D	22=D	22=D	18=C	8=B	13=C	22=D	12=C	25=D	
Traffic and Safety	Reg./Warning Signs - Routine Replacement	25=D	15=C	15=C	9=B	9=B	9=B	12=C	9=B	9=B	10=C	9=B	11=C	8=B	11=C	10=C	
Roadside	Fences	14=C	14=C	14=C	14=C	14=C	14=C	3=A	2=A	1=A	2=A	2=A	1=A	6=B	0=A	1=A	
<b>Stewardship:</b>																	2017 Target GPA for Stewardship Features = 2.17 (Actual 2015 GPA = 2.67)
Drainage	Ditches	5=A	5=A	5=A	5=A	5=A	5=A	1=A	1=A	1=A	1=A	0.2=A	1=A	2=A	3=A	1=A	
Drainage	Curb & Gutter	10=B	10=B	10=B	10=B	10=B	10=B	5=A	4=A	5=A	6=A	5=A	2=A	12=B	1=A	10=B	
Drainage	Flumes	35=D	35=D	35=D	44=D	44=D	44=D	45=D	47=D	42=D	23=C	32=D	2=A	46=D	8=B	35=D	
Shoulders (paved)	Cracking	60=F	60=F	60=F	58=F	58=F	58=F	55=F	54=F	69=F	67=F	69=F	74=F	62=F	51=F	74=F	
Shoulders (unpaved)	Erosion	5=A	5=A	5=A	5=A	5=A	5=A	1=A	1=A	3=A	2=A	1=A	0=A	2=A	1=A	4=A	
Drainage	Under-drains/Edge-drains	30=D	29=C	26=C	23=C	13=B	41=D	29=C	24=C	35=D							
<b>Ride/Comfort:</b>																	2017 Target GPA for Ride/Comfort Features = 3.00 (Actual 2015 GPA = 3.33)
Shoulders (paved)	Potholes/Raveling	10=B	10=B	10=B	10=B	10=B	10=B	6=A	7=A	8=B	6=A	2=A	1=A	7=A	8=B	11=B	
Traffic and Safety	Other Signs - Emergency Repair	1=A	1=A	1=A	1=A	1=A	1=A	3=A	2=A	3=A	1=A	1=A	1=A	4=A	2=A	0.3=A	
Traffic and Safety	Other Signs - Routine Replacement	59=D	39=D	39=D	33=C	33=C	33=C	37=D	33=C	30=C	26=C	17=B	20=C	30=C	31=C	25=C	
<b>Aesthetics:</b>																	2017 Target GPA for Aesthetics Features = 1.50 (Actual 2015 GPA = 1.50)
Roadside	Mowing	40=C	40=C	40=C	40=C	40=C	40=C	39=C	41=C	34=C	35=C	34=C	46=C	29=C	39=C	35=C	
Roadside	Litter	81=F	63=D	63=D	63=D	63=D	63=D	62=D	64=D	61=D	63=D	44=C	80=D	61=D	78=D	67=D	
STATEWIDE 2017 Target GPA for All Features = 2.36 (Actual 2015 GPA = 2.61)																	

Circles identify if targets were not met or exceeded  
 Arrows identify changes to target backlog percentages