

**Clear Roads Budget Overview  
September 2016**

**Overall Budget for #TPF-5(218)**

Description	Amount
Total anticipated income through 2016 under MnDOT TPF-5(218)	\$4,570,000.00
Transfer of funds from TPF-5(092)	\$200,748.86
One-time FHWA Contribution and MnDOT 20% Match	\$62,500.00
Expenses under TFP-5(218)	<b>\$4,799,178.02</b>

**Remaining Available Funds      \$34,070.84**

**Breakdown of Designated Synthesis Funding (Subset of Expenses Above)**

Description	Amount
Total funding approved by TAC and added to CTC's contract in 2015	\$49,979.00
Winter data survey project for 2014-2015 season	<b>\$12,546.00</b>
Winter data survey project for 2015-2016 season	<b>\$7,216.00</b>
Winter data survey project Roads & Bridges article	<b>\$2,050.00</b>
Wash bays synthesis	<b>\$7,216.00</b>
Salt stockpiles synthesis	<b>\$11,562.00</b>

**Available funds for new synthesis projects      \$9,389.00**

**Commitments Status for #TPF-5(353)**

Description	Amount
Total funds committed for 2017	\$425,000.00
Total funds committed to date	\$1,060,000.00

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**Income**

<b>State</b>	<b>Years funds committed</b>	<b>Total amt. committed</b>	<b>Total expected to be paid thru 2016</b>	<b>Total paid as of today</b>
*AK	<b>2015, 2016, 2017</b>	\$60,000	\$50,000	\$60,000
AZ	<b>2016</b>	\$25,000	\$25,000	\$25,000
CA	<b>2013, 2014, 2015</b>	\$75,000	\$100,000	\$75,000
CO	<b>2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$200,000	\$200,000	\$200,000
**CT	<b>2014, 2015, 2016</b>	\$65,000	\$65,000	\$50,000
DE	<b>2015</b>	\$25,000	\$50,000	\$25,000
IA	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
ID	<b>2012, 2013, 2014, 2015, 2016</b>	\$125,000	\$125,000	\$125,000
IL	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
IN	<b>2010, 2016</b>	\$50,000	\$50,000	\$50,000
KS	<b>2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018</b>	\$200,000	\$150,000	\$150,000
MA	<b>2010, 2011, 2012, 2013, 2014, 2015</b>	\$150,000	\$175,000	\$150,000
ME	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
MI	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
*** MN	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$180,000	\$180,000	\$180,000
MO	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
MT	<b>2012, 2013, 2014, 2015, 2016</b>	\$125,000	\$125,000	\$125,000
ND	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
NE	<b>2011, 2012, 2013, 2014, 2015, 2016</b>	\$150,000	\$150,000	\$150,000
NH	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
NY	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
OH	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
OR	<b>2013, 2014, 2015, 2016</b>	\$100,000	\$100,000	\$100,000
PA	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
RI	<b>2012, 2013, 2014, 2015</b>	\$100,000	\$100,000	\$100,000
SD	<b>2014, 2015, 2016</b>	\$75,000	\$75,000	\$75,000
UT	<b>2011, 2012, 2013, 2014, 2015, 2016</b>	\$150,000	\$150,000	\$150,000
VA	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
VT	<b>2012, 2014, 2015, 2016</b>	\$100,000	\$100,000	\$100,000
WA	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$150,000
WI	<b>2010, 2011, 2012, 2013, 2014, 2015, 2016</b>	\$175,000	\$175,000	\$175,000
WV	<b>2011, 2012, 2013, 2014, 2015, 2016</b>	\$150,000	\$150,000	\$125,000
WY	<b>2010, 2011, 2012, 2013, 2014, 2015</b>	\$150,000	\$175,000	\$150,000
<b>Bold years indicate that Clear Roads has received the funds.</b>		<b>\$4,530,000</b>	<b>\$4,570,000</b>	<b>\$4,415,000</b>

**Notes**

\* **Alaska** transferred \$60k to cover 2015, 2016, and \$10K in 2017.

\*\* **Connecticut** transferred \$15K in 2016 and will transfer \$35K in 2017 to the new TPF#.

\*\*\* **Minnesota** transferred an extra \$5,000 to cover an additional \$5,000 transferred to PNS in error.

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**September 2016**

**Expenses**

Description	Amount
<b>Pre-Contract Projects (estimated cost)</b>	
Developing Test Bed Software to Qualify Plug and Play Technology (RFP)	\$108,161.00
GPS/AVL Case Studies	\$125,000.00
Identification of Mobile Technologies for the Assessment of Winter Road Conditions	\$200,000.00
Emergency Ops Methodology for Extreme Winter Storm Events	\$75,000.00
Weather Event Reconstruction and Analysis Tool	\$60,000.00
Training Video for the Implementation of Liquid Only Plow Routes	\$75,000.00
Aurora WSI Update/Enhancement Partnership	\$20,000.00
<b>Projects in Progress (contract amount)</b>	
Synthesis of Material Application Methodologies for Winter Operations	\$117,658.00
Identification and Recommendations for Correction of Equipment Factors Causing Fatigue in Snowplow Operators	\$200,000.00
North American Study on Contracting Snow and Ice Response	\$74,983.00
Snow Plow Route Optimization	\$68,305.00
Snow Removal Performance Metrics	\$74,640.00
Plug and Play Phase II	\$81,690.00
CTC Synthesis Projects (Winter Data Survey, Salt Stockpiles, Wash Bays)	\$49,979.00
Quantifying the Impact that New Capital Projects will have on Roadway Snow and Ice Control (RSIC) Operations	\$145,622.00
Developing a Training Video and Manual for Best Practices and Techniques in Clearing Different Interchange Configurations and Other Geometric Layouts	\$99,994.00
Snowplow Operator and Supervisor Training, plus Winter Driver Education Program	\$124,857.00
Understanding the Performance of Snow and Ice Control Agents on Porous or Permeable Pavements	\$185,000.00
<b>Completed Projects (actual project expenditures, unless stated otherwise)</b>	
Synthesis on GPS/AVL Equipment Used for Winter Maintenance (contract)	\$59,912.05
Understanding the Effectiveness of Non-Chloride Liquid Agricultural By-Products and Solid Complex Chloride/Mineral Products Used in Snow and Ice Control Operations (contract)	\$191,238.00
Roadway Salt Management Best Practices Manual	\$58,171.00
Use Of Equipment Lighting During Snow Plow Operations	\$40,406.00
Cost Benefit Analysis of Various Winter Maintenance Strategies	\$121,730.00
Best Practices for the Prevention of Corrosion to DOT Equipment: A User's Manual	\$49,950.00
Snow and Ice Control Environmental Best Management Practices Manual	\$180,107.00
Winter Severity Mapping Enhancement	\$4,767.50
Establishing Effective Salt and Anti-icing Application Rates	\$82,602.23
Comparison of Material Distribution Systems	\$44,960.00
Environmental Factors Causing Fatigue in Snowplow Operators	\$124,991.00
Development of a Totally Automated Spreading System	\$72,025.00
Cost-Benefit Analysis Toolkit Phase 2	\$109,999.00
Determining the Toxicity of Deicing Materials	\$85,098.26
Understanding the True Costs of Snow and Ice Control Operations	\$150,774.60
Aurora Wiki Site	\$9,000.00
Pacific Northwest Snowfighters (PNS) (\$30K in 2012, \$30K in 2015)	\$60,000.00

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**Expenses**

<b>Completed Projects (continued)</b>	
Snow Removal at Extreme Temperatures	\$32,871.00
Weather Severity Mapping	\$49,307.71
Video for Determining Effectiveness of Deicing Materials and Procedures	\$20,465.00
2011 Peer Exchange	\$19,825.73
2013 Peer Exchange	\$34,733.62
2015 Peer Exchange	\$40,996.20
<b>Meeting Expenses</b>	
AASHTO SCOM and 2012 Fall Meeting Amendment (actual expenditures)	\$12,363.55
FY 2010 Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$7,587.00
2010 PNS Conference (travel for Chairman to attend PNS meeting)	\$496.60
FY 2011 Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$40,686.81
FY 2012 Meeting Expenses (travel, meeting space, meals, etc. - actual expenditures)	\$61,886.57
FY 2013 Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$61,733.35
FY 2014 Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$56,814.72
FY 2015 Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$84,939.36
FY 2016 Spring Meeting expenses (travel, meeting space, meals, etc. - actual expenditures)	\$43,081.22
TRB 2016 International Conference on Winter Maintenance and Surface Transportation	\$1,250.00
FY 2017 Spring Meeting Expenses (travel, meeting space, meals, etc. - budgeted)	\$50,000.00
<b>Administrative and Information Services Expenses</b>	
2010 Admin. and Info. Services, web hosting (actual expenditures Jan. to Dec. '10)	\$76,475.30
2011 Admin. and Info. Services, web hosting (actual expenditures Jan. to Sep. '11)	\$61,836.30
2011-12 Admin. and Info. Services, web hosting (actual expenditures Oct. '11 to Sep. '12)	\$97,160.00
2012-13 Admin. and Info. Services, web hosting (actual expenditures Oct. '12 to Jun. '13)	\$89,466.34
2013-2017 Admin. and Info. Services, web hosting contract	\$523,581.00
<i>Original contract for July 2013 to March 2015: \$224,900.00</i>	
<i>Contract renewal for April 2015 to August 2016: \$173,611.00</i>	
<i>Contract renewal for September 2016 to September 2017: \$125,070.00</i>	
<b>Total</b>	<b>\$4,799,178.02</b>

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September 2016**

**Commitments to Date**

<b>State</b>	<b>Years funds committed</b>	<b>2017 Commitments</b>	<b>Total amt. committed</b>
AK			
AZ	2017	\$25,000	\$25,000
CA			
CO	2017	\$25,000	\$25,000
CT	2017, 2018, 2019, 2020, 2021	\$25,000	\$135,000
DE			
IA			
ID	2017, 2018	\$25,000	\$50,000
IL			
IN			
KS			
MA			
ME	2017, 2018, 2019	\$25,000	\$75,000
MI	2017	\$25,000	\$25,000
MN			
MO	2017, 2018	\$25,000	\$50,000
MT	2017, 2018, 2019	\$25,000	\$75,000
ND	2017	\$25,000	\$25,000
NE	2017	\$25,000	\$25,000
NH	2017	\$25,000	\$25,000
NY	2017, 2018	\$25,000	\$50,000
OH	2017, 2018, 2019, 2020, 2021, 2022	\$25,000	\$150,000
OR			
PA	2017, 2018, 2019, 2020, 2021	\$25,000	\$125,000
RI			
SD			
UT	2017, 2018, 2019, 2020, 2021, 2022	\$25,000	\$150,000
VA	2017	\$25,000	\$25,000
VT			
WA	2017	\$25,000	\$25,000
WI			
WV			
WY			
		<b>\$425,000</b>	<b>\$1,060,000</b>