

HPMS Data Submittal Review Process

FHWA Highway Information Seminar

Arlington, VA

November 20, 2013

Data Review Process

- FHWA HQ Review
 - Level I Review
 - Level II Review
- *FHWA HQ / Division Office Coordination*
- Division Office Program Review
 - Annual Certification Review
 - Program Activity Areas Review

FHWA HQ Review

Level I Review Objectives

- Complete review within 2 weeks of data submission date
- Determine if there are data submittal issues that require immediate attention
 - Work with the DOT to resolve issues
 - Request resubmittal, if warranted
- Ensure that data submittal is acceptable for Level II and Traffic Data Reviews

Level I Review - Checks

- Previous year's data submittal comments and FHWA memo
- Current year's data submittal comments
- 'Consistency Report'
 - System extent/mileage totals for the following datasets:
 - Annual Average Daily Traffic (AADT)
 - Ownership
 - Through Lanes

HPMS 8.0.1

Consistency Report

Stage: Review

Year: 2011

State:

Date: 08/08/2012

F System	Length	Length	Length	Length
	AADT	Through Lanes	Ownership	Control
	(Miles)	(Miles)	(Miles)	(Miles)
1 - Interstate	873.904	873.904	873.904	873.904
2 - PA - Other Freeways and Expressways	186.717	186.717	186.717	186.717
3 - PA - Other	3,876.581	3,876.581	3,876.581	3,876.581
4 - Minor Arterial	5,643.299	5,643.299	5,643.299	5,643.299
5 - Major Collector	24,361.365	24,361.365	24,361.365	24,361.365
6 - Minor Collector	9.417	9.417	9.417	9.417
7 - Local	5.390	5.390	5.390	5.390

Level I Review – Checks (cont'd)

- 'Extent and Travel (Changes) Report'
 - Significant year to year changes in Interstate mileage
 - Abnormal mileage and/or travel trends
 - Inconsistency between system mileage and travel trends
 - Abnormal travel trends by functional system and/or urban area

Extent and Travel Report Urbanized Area Summary

Stage: Submit
Year: 2011
State:
Date: 07/18/2012

	Miles			Lane Miles			Vehicle Miles		
	2011	2010	% Change	2011	2010	% Change	2011	2010	% Change
All Areas									
1 - Interstate	729.56	729.81	-0.03%	3,126.08	3,126.50	-0.01%	23,587,329.40	23,983,871.00	-1.65%
2 - PA - Other Freeways and Expressways	57.22	58.87	-2.80%	246.68	249.37	-1.08%	3,616,946.60	3,658,044.60	-1.12%
3 - PA - Other	3,554.94	3,583.47	-0.80%	8,651.16	8,693.80	-0.49%	25,045,048.29	25,354,512.77	-1.22%
4 - Minor Arterial	3,497.97	3,498.48	-0.01%	7,495.25	7,478.21	0.23%	15,815,011.99	15,828,103.38	-0.08%
5 - Major Collector	10,284.65	10,278.17	0.06%	20,634.43	20,617.05	0.08%	11,751,572.86	11,854,264.31	-0.87%
6 - Minor Collector	7,414.13	7,413.25	0.01%	14,828.26	14,826.50	0.01%	1,631,000.00	1,631,000.00	0.00%
7 - Local	33,609.98	33,588.83	0.06%	67,219.96	67,177.66	0.06%	9,987,057.00	10,222,000.00	-2.30%
Total	59,148.5	59,150.9	0.00%	122,201.8	122,169.1	0.03%	91,433,966.1	92,531,796.1	-1.19%
6868 - Bend, OR									
1 - Interstate	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
2 - PA - Other Freeways and Expressways	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
3 - PA - Other	27.62	27.62	0.00%	92.69	92.69	0.00%	546,844.00	556,958.80	-1.82%
4 - Minor Arterial	57.49	57.49	0.00%	118.71	118.71	0.00%	450,990.42	456,889.32	-1.29%
5 - Major Collector	52.39	52.46	-0.13%	104.58	104.72	-0.13%	170,008.56	172,587.46	-1.49%
6 - Minor Collector	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
7 - Local	308.09	303.35	1.56%	616.18	606.70	1.56%	199,642.00	209,000.00	-4.48%
Total	445.6	440.9	1.06%	932.2	922.8	1.01%	1,367,485.0	1,395,435.6	-2.00%
20422 - Corvallis, OR									
1 - Interstate	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
2 - PA - Other Freeways and Expressways	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
3 - PA - Other	25.09	25.25	-0.63%	52.10	52.42	-0.61%	297,059.00	298,716.20	-0.55%
4 - Minor Arterial	35.92	36.01	-0.25%	88.91	89.09	-0.20%	280,773.33	284,306.53	-1.24%
5 - Major Collector	47.21	46.95	0.55%	94.85	94.33	0.55%	114,049.74	114,360.56	-0.27%
6 - Minor Collector	0.00	0.00	0.00%	0.00	0.00	0.00%	0.00	0.00	0.00%
7 - Local	206.28	204.83	0.71%	412.56	409.66	0.71%	95,301.00	98,000.00	-2.75%
Total	314.5	313.0	0.47%	648.4	645.5	0.45%	787,183.1	795,383.3	-1.03%

Level I & Review – Checks (cont'd)

- 'Extent and Travel (Changes) Report'
 - Statewide travel trends vs. Traffic Volume Trends (TVT)-based Growth Factor Report (10%-30%)
 - Annual Vehicle Miles Traveled (VMT) trend within +/-2%
 - Annual VMT trend does not exceed +/-5%

**Growth Factor Report
(2009-2011)**

State	Functional Class	% Change Rate			SD	Stations Count		
		2008 To 2009	2009 To 2010	2010 To 2011		2009	2010	2011
	Rural - Interstate	0.99	1.38	-1.59	0.43	17	19	22
	Rural - OPA	1.60	-0.04	-2.41	0.19	50	53	64
	Rural - Minor Art.	0.99	0.83	-0.86	0.29	34	24	27
	Rural - Major Coll.	2.17	0.61	-1.73	0.45	7	7	8
	Rural - Minor Coll.	0.00	0.00	0.00	0.00	0	0	0
	Urban - Interstate	-0.60	0.25	-0.77	0.40	19	13	16
	Urban - OFE	-3.97	0.27	-0.86	0.41	1	3	8
	Urban - OPA	-0.19	0.23	-1.23	0.28	9	12	21
	Urban - Minor Art.	0.00	0.00	0.00	0.00	0	0	0
	State wide	0.04	0.44	-1.26	0.20	137	131	166

Level I Review – Checks (cont'd)

- Sample Panel
 - Samples are loaded
 - Samples are valid w/ respect to the TOPS
 - Sample Data Coverage

Samples

Year: 2011 State: 39 - Ohio

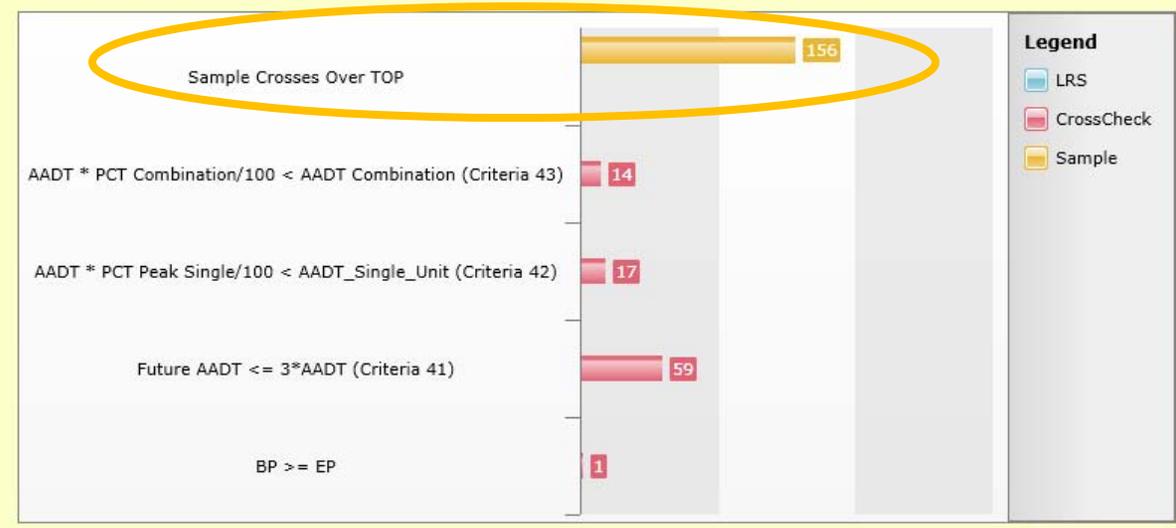


Sample ID	Route ID	Begin Point	End Point	Volume Group	F System	Urban Code	Facility Type	Through Lanes	AADT	Section Length	Exp
000006003010	CALLCR00006**C	2.992	3.456							0.464	
000011002090	CALLCR00011**C	2.082	3.867	2,000 - 4,999	5 - Major Collector	Lima, OH		2	2	4680	1.785
000011003880	CALLCR00011**C	3.867	4.524	5,000 - 9,999	4 - Minor Arterial	Lima, OH		2	2	7170	0.657
000011006130	CALLCR00011**C	6.099	6.561	5,000 - 9,999	4 - Minor Arterial	Lima, OH		2	2	6280	0.462
000011006820	CALLCR00011**C	6.778	7.229	5,000 - 9,999	5 - Major Collector	Lima, OH		2	2	5580	0.451
000013003950	CALLCR00013**C	3.904	4.078	2,000 - 4,999	5 - Major Collector	Lima, OH		2	2	2260	0.174
00088A000000	CALLCR00088A*C	0.000	0.088	5,000 - 9,999	3 - PA - Other	Small Urban		2	4	9759	0.088
00088A000110	CALLCR00088A*C	0.088	0.371	5,000 - 9,999	3 - PA - Other	Small Urban		2	4	5160	0.283

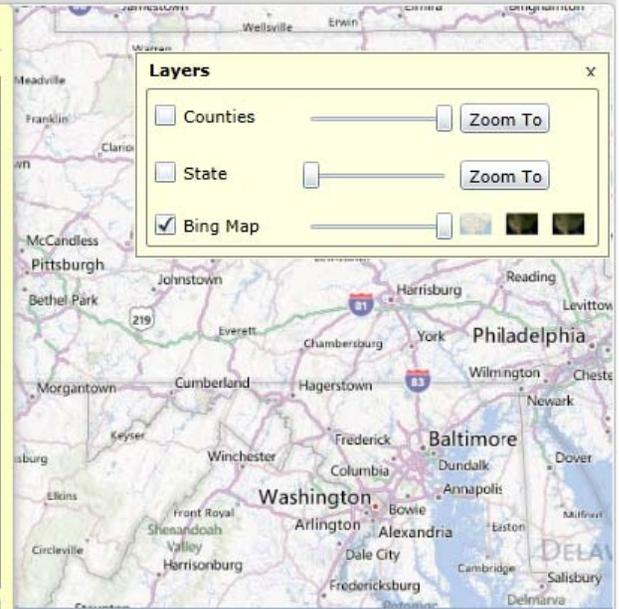
Total Samples: 4153

Validation Year: 2011 State: 39 - Ohio

Validation Error Summary Graph



- Legend
- LRS
 - CrossCheck
 - Sample



	Error Description	Last Modified By	Le
>	Warning Cross Check CATHCR00033A*C 8.210 8.510 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=4467.000, AADT=1489.000 Hankus, Victoria L 8,		
	Warning Cross Check CATHCR00033A*C 8.510 8.700 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=4467.000, AADT=1489.000 Hankus, Victoria L 8,		
	Warning Cross Check CBELCR00509**C 0 0.080 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=906.000, AADT=302.000 Hankus, Victoria L 8,		
	Warning Cross Check CBUTCR00031**C 6.830 6.930 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=20073.000, AADT=6691.000 Hankus, Victoria L 8,		
	Warning Cross Check CBUTCR00615**C 0 0.120 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=1650.000, AADT=550.000 Hankus, Victoria L 8,		
	Warning Cross Check CBUTCR00701**C 0 0.770 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=16587.000, AADT=5529.000 Hankus, Victoria L 8,		
	Warning Cross Check CCLACR00360**C 1.493 2.373 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=9645.000, AADT=3215.000 Hankus, Victoria L 8,		
	Warning Cross Check CCLACR00360**C 2.373 2.563 FUTURE_AADT Future AADT <= 3*AADT (Criteria 41) Future AADT=9645.000, AADT=3215.000 Hankus, Victoria L 8,		

Sample Data Items

Year: 2011 State: 39 - Ohio

Missing Data Items Breakdown Summary

Missing Data Item	# of Samples
Alternative_Route_Name	872
At_Grade_Other	1548
Climate_Zone	3997
Counter_Peak_Lanes	487
Cracking_Length	2462
Cracking_Percent	2344
Curves_A	1785
Curves_B	3863
Curves_C	3910
Curves_D	3954
Curves_E	3971
Curves_F	3994
Faulting	3027
Grades_A	1948
Grades_B	3644
Grades_C	3708
Grades_D	3860
Grades_E	3988
Grades_F	3973
HOV_Lanes	3997

Close

Samples Data Items

Samples with Missing Data Item: Clear

End Point	F System	Urban Code	Volume Group	Missing Data Items
3.867	5	49852	3	36
4.524	4	49852	4	34
6.561	4	49852	4	34
7.229	5	49852	4	38
4.078	5	49852	3	35
0.088	3	99998	4	29
0.371	3	99998	4	29
0.926	4	49852	5	34
1.357	5	49852	2	34
0.644	4	49852	4	33
1.352	4	49852	5	34
1.847	4	49852	4	34
0.829	5	49852	4	36
1.488	5	49852	4	36
1.852	5	49852	4	36
2.268	4	49852	3	34
0.844	5	49852	3	36
1.258	5	49852	3	34
2.261	5	49852	3	35
1.089	5	49852	3	33

Total: 3997

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Level I Review – Checks (cont'd)

- 'Validation Summary Report'
 - All data items have been submitted
 - Key data items have submitted in their entirety
 - Full Extent: AADT, Functional System, Facility Type, Through Lanes, Urban Code, County Code, NHS, Ownership,
 - NHS / Interstate / PAS: IRI, Truck AADT

Validation Category: Coverage Validation

Error Message	Records
Pct_Peak_Combination Must Exist on Sample (Coverage Criteria 25)	13
Rutting Must Exist on Sample Where Surface_Type in (2,6,7,8) (Coverage Criteria 50)	2138
Cracking_Percent Must Exist on Sample Where Surface_Type in (2,3,4,5,6,7,8,9,10) (Coverage Criteria 52)	408
Counter_Peak_Lanes Must Exist on Sample Where Facility_Type = 2 AND (Urban_Code < 99999 OR Through_Lanes>=4) (Coverage Criteria 11)	30
IRI Must Exist Where (F_System in (1,2,3) or NHS) and Facility_Type (1,2,3) or (Sample and F_System = 4 and Urban_Code = 99999) (Coverage Criteria 47)	1908
PSR Must Exist on Sample Where IRI is NULL and (F_System in (4,5,6) and Urban_Code < 99999 and Facility_Type in (1,2,3) or F_System in (5) and Facility_Type in (1,2,3) and Urban_Code = 99999) (Coverage Criteria 48)	141
F_System Must Exist Where Facility_Type in (1,2,3,4) (Coverage Criteria 1)	53
AADT_Combination Must Exist Where (F_System in (1) or NHS) and Facility_Type in (1,2,3) or Sample (Coverage Criteria 24)	931
Thickness_Flexible Must Exist on Sample Where Surface_Type in (2,6,7,8) (Coverage Criteria 58)	1
Access_Control Must Exist Where Facility_Type in (1,2,3) and (F_System in (1,2,3) or Sample or NHS) (Coverage Criteria 5)	151
AADT_Single_Unit Must Exist Where (F_System in (1) or NHS) and Facility_Type in (1,2,3) or Sample (Coverage Criteria 22)	926
Pct_Peak_Single Must Exist on Sample (Coverage Criteria 23)	13
Cracking_Length Must Exist on Sample Where Surface_Type in (2,6,7,8) (Coverage Criteria 53)	305
Last_Overlay_Thickness Must Exist on Sample Where Year_Last_Improv Exists (Coverage Criteria 56)	857
Grades BP/EP Must Align with Samples BP/EP (Coverage Criteria 71)	3
Sum of Curves Length Must Equal to the Sample Length Where Sample and F_System in (1,2,3) or Sample and F_System in (4) and Urban_Code=99999 (Coverage Criteria 72)	72
Sum of Grades Length Must Equal to the Sample Length Where Sample and F_System in (1,2,3) or Sample and F_System in (4) and Urban_Code=99999 (Coverage Criteria 73)	1

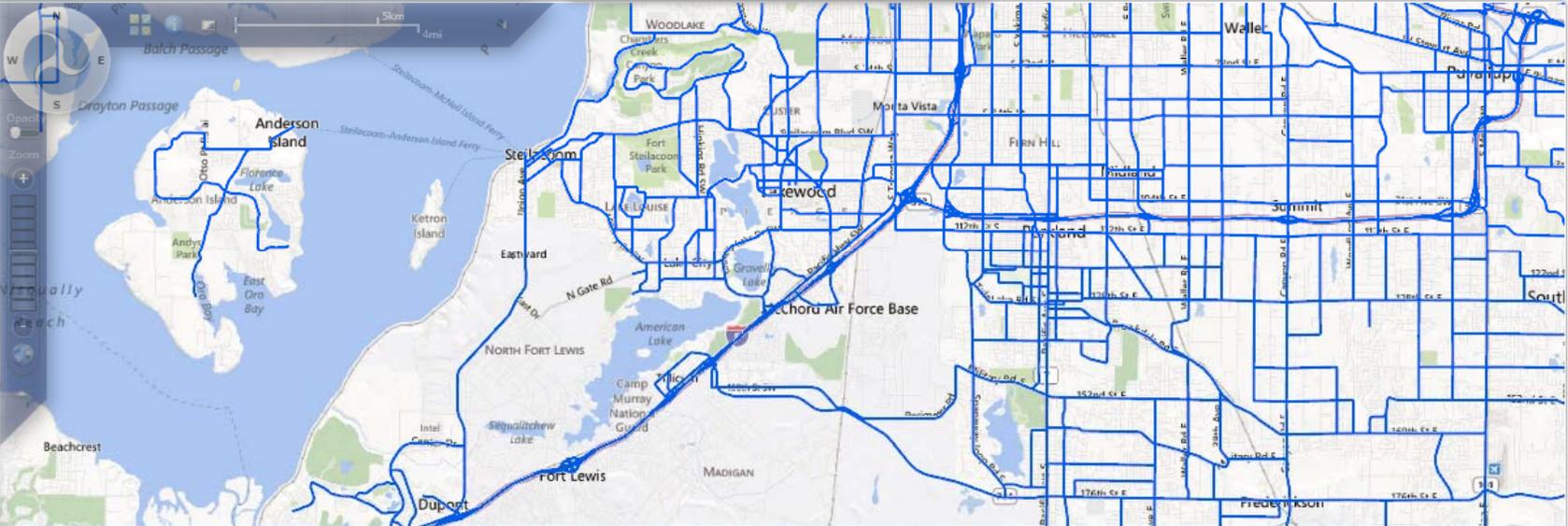


Level I Review – Checks (cont'd)

- Routes Data
 - Routes have been loaded
 - Interstate routes have been loaded in their entirety

Routes

Year: 2012 State: 53 - Washington



Route ID	Comments	Last Modified By	Last Modified On
> 002		Wickett, Stacey J	5/15/2013 1:52:09 PM
002COBROWNE		Wickett, Stacey J	5/15/2013 1:52:09 PM
002CODIVISN		Wickett, Stacey J	5/15/2013 1:52:09 PM
002CONEWPRT		Wickett, Stacey J	5/15/2013 1:52:09 PM
002P100097		Wickett, Stacey J	5/15/2013 1:52:09 PM
002P100209		Wickett, Stacey J	5/15/2013 1:52:09 PM
002P100354		Wickett, Stacey J	5/15/2013 1:52:09 PM
002P100480		Wickett, Stacey J	5/15/2013 1:52:09 PM

Level II Review

Level II Review Objectives

- Complete review within 4 weeks of completing Level I Review
- Perform Traffic Data Review (in parallel)
- Assemble (Draft) Review Comments
 - Determine if the DOT will be asked or required to address any high priority data issues
- Assemble (Final) Review Comments

Level II Review – Checks

- Sample Panel

- Expansion Factors have been calculated
- Sample data values have been calculated
- 'Sample Adequacy Report'
 - Un-sampled / Under-sampled Volume Groups
 - Sampling deficiencies across urban areas and/or functional systems

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HPMS v8 - Samples

U.S. Department of Transportation Federal Highway Administration Highway Performance Monitoring System v8.0

Submission Review National

DATA EDITORS DATA VALIDATION SAMPLE MANAGEMENT REPORTS & ANALYSIS ARCHIVE ADMIN HELP EXIT

Samples Year: 2011 State: 23 - Maine

Check Adequacy

Legend

- Samples
- TOPS

Layers

- Counties
- State
- Bing Map

Sample ID	Route ID	Begin Point	End Point	Expansion Factor	Invalid	Peak_Lanes	Counter_Peak_Lanes	Turn_Lanes_R	Turn_Lanes_L	Speed_Limit
000000000001	0001A	0.000	0.210	1.000	Valid	1	1	1	1	35
000000000002	0001A	0.210	0.270	1.000	Valid	2	2	5	5	35
000000000003	0001A	0.270	0.570	1.000	Valid	2	2	5	5	35
000000000004	0001A	0.570	1.160	1.000	Valid	2	2	5	3	35
000000000005	0001A	1.160	1.200	1.000	Valid	2	2	5	5	35
000000000006	0001A	1.200	1.500	1.000	Valid	2	2	5	5	35
000000000007	0001A	1.500	1.540	1.000	Valid	1	1			25
000000000008	0001A	1.540	8.480	1.000	Valid	1	1			25

Total Samples: 3434 Page 1 of 138

Level II Review – Checks (cont'd)

- 'NHS Extent and Travel Report'
 - Mileage Trends (vs. previous year's data)
 - Total Mileage
 - Interstate Mileage
 - Non-Interstate Mileage

HPMS 8.0.1

Extent and Travel on the NHS

Stage: Review

Year: 2011

State:

Date: 06/25/2012

NHS: 1 - Non Connector NHS			
F System	Miles	Lane Miles	Vehicle Miles
1 - Interstate	1,495.30	7,879.10	95,038,877.20
2 - PA - Other Freeways and Expressways	599.69	2,893.11	33,037,059.30
3 - PA - Other	2,044.95	7,347.18	33,918,061.33
4 - Minor Arterial	59.21	217.36	829,034.72
5 - Major Collector	6.44	12.87	12,509.60
6 - Minor Collector	0.00	0.00	0.00
7 - Local	0.98	4.62	5,302.80
Sub-Totals	4,206.56	18,354.24	162,840,844.95

NHS: 2 - Airport			
F System	Miles	Lane Miles	Vehicle Miles
1 - Interstate	0.00	0.00	0.00
2 - PA - Other Freeways and Expressways	0.00	0.00	0.00
3 - PA - Other	44.58	208.76	1,340,788.81
4 - Minor Arterial	21.89	102.85	647,300.40
5 - Major Collector	5.79	17.93	40,467.80
6 - Minor Collector	0.00	0.00	0.00
7 - Local	0.52	1.03	695.25
Sub-Totals	72.78	330.56	2,029,252.26

Level II Review – Checks (cont'd)

- 'IRI on Federal-aid Highways Report'
 - Extent of Principal Arterial System (PAS) reporting
 - Distribution/trends of PAS mileage across FHWA IRI class ranges (i.e., Good/Fair/Poor)
- 'IRI on NHS Report'
 - Distribution/trends of NHS mileage across FHWA IRI class ranges (i.e., Good/Fair/Poor)

HPMS 8.0.1

IRI on Federal Aid Highways

Stage: Review

Year: 2011

State:

Date: 09/17/2012

Length- In Miles				
F System	< 95	95 - 170	> 170	Total
1 - Interstate	409.8	454.8	33.0	897.6
2 - PA - Other Freeways and Expressways	3.2	35.5	13.0	51.6
3 - PA - Other	777.0	841.6	398.2	2,016.9
Sub-Totals	1,190.0 (40.1%)	1,331.8 (44.9%)	444.3 (15.0%)	2,966.1

Travel - In Vehicle Miles				
F System	< 95	95 - 170	> 170	Total
1 - Interstate	14,529,128.7	17,873,491.4	2,261,716.0	34,664,336.1
2 - PA - Other Freeways and Expressways	143,922.0	1,153,141.0	935,958.0	2,233,021.0
3 - PA - Other	7,727,194.9	12,744,238.6	7,671,097.4	28,142,530.8
Sub-Totals	22,400,245.5 (34.4%)	31,770,871.0 (48.8%)	10,868,771.4 (16.7%)	65,039,887.9

HPMS 8.0.1

IRI on NHS

Stage: Review
 Year: 2011
 State:
 Date: 09/17/2012

Length - In Miles				
F System	< 95	95 - 170	> 170	Total
1 - Interstate	409.8	454.8	33.0	897.6
2 - PA - Other Freeways and Expressways	3.2	35.5	13.0	51.6
3 - PA - Other	693.4	589.7	195.4	1,478.5
4 - Minor Arterial	53.1	54.7	30.3	138.1
5 - Major Collector	9.1	12.7	5.2	26.9
6 - Minor Collector	0.0	0.0	0.0	0.0
7 - Local	0.0	0.0	6.2	6.2
Sub-Totals	1,168.5 (45.0%)	1,147.3 (44.1%)	283.1 (10.9%)	2,599.0

Travel - In Vehicle Miles				
F System	< 95	95 - 170	> 170	Total
1 - Interstate	14,529,128.7	17,873,491.4	2,261,716.0	34,664,336.1
2 - PA - Other Freeways and Expressways	143,922.0	1,153,141.0	935,958.0	2,233,021.0
3 - PA - Other	6,352,339.1	8,760,741.1	4,051,568.0	19,164,648.3
4 - Minor Arterial	514,722.0	699,885.5	231,580.9	1,446,188.4
5 - Major Collector	79,181.0	27,915.1	49,553.0	156,649.1
6 - Minor Collector	0.0	0.0	0.0	0.0
7 - Local	0.0	0.0	27,419.5	27,419.5
Sub-Totals	21,619,292.8 (37.5%)	28,515,174.2 (49.4%)	7,557,795.4 (13.1%)	57,692,262.3

Level II Review – Checks (cont'd)

- 'Validation Summary Report'
 - Significant amount of validation errors
 - Coverage
 - Cross Check
 - LRS

Validation Category: Cross Check Validation	
Error Message	Records
IRI >= 0 and IRI <= 955 (Criteria 1)	7
Thickness Flexible is not null (Criteria 7)	68
Median_Width must be null if Facility_Type is 1 (Criteria 20)	2
DIR Factor = 100 Where Facility Type = 1 (Criteria 39)	1
AADT Combination < AADT / 2 (Criteria 44)	62
Counter_Peak_Lanes must be null if Facility_Type is 1 (Criteria 16)	35
DIR Factor < 81 Where Facility Type = 2 (Criteria 40)	178
Future AADT <= 3*AADT (Criteria 41)	508
AADT * PCT Peak Single/100 < AADT_Single_Unit (Criteria 42)	8135
AADT * PCT Combination/100 < AADT Combination (Criteria 43)	9102



Level II Review – Checks (cont'd)

- 'Interstate Extent and Travel Report'
 - Inconsistencies when compared to the FHWA Office of Planning's 'Route Log and Finder List'
 - Significant year to year changes in Interstate route mileage

FHWA HQ / Division Office Coordination

HPMS Software – Review Module Components

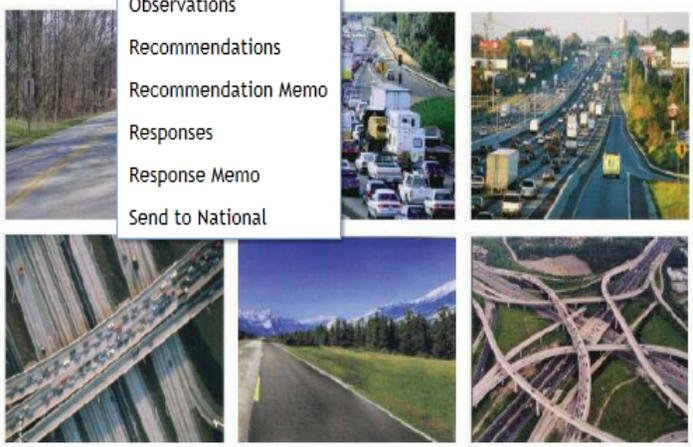
■ Documentation

- National Review Status
- Dashboard
- Observations
- Recommendations
- Recommendation Memo
- Responses
- Response Memo

Home

- National Review Status
- Dashboard
- Observations
- Recommendations
- Recommendation Memo
- Responses
- Response Memo
- Send to National

Site: 11 - District of Columbia



National Review Status

Year: 2012 State: 11 - District of Columbia

	State Code	State Name	State Lead	Current Status	Submitted	Review Ready	HPMS Reviewed	Traffic Reviewed	Pavement Reviewed	Conference Call	Memo Forwarded
Save	1	Alabama	JH	Recommendation Memo Created	9/27/2013	9/24/2013	9/24/2013	10/2/2013		9/13/2013	
	2	Alaska	JH	Data Sent to National	8/13/2013	7/2/2013	8/27/2013	9/9/2013		11/5/2013	
	4	Arizona	JC	Submitted for Review	11/14/2013	9/5/2013	9/5/2013	10/3/2013			
Print	5	Arkansas	RV	Collecting Division Responses	9/9/2013	6/26/2013	8/3/2013	8/19/2013		10/22/2013	
	6	California	JH	Collecting Observations	9/28/2013	9/11/2013	10/7/2013	10/10/2013		9/19/2013	
	8	Colorado	JC	Submitted for Review	10/31/2013	7/8/2013	8/2/2013	9/9/2013		10/28/2013	
Refresh	9	Connecticut	RR	Data Sent to National	6/13/2013	6/18/2013	9/30/2013	8/19/2013			
	10	Delaware	RV	Data Sent to National	9/26/2013	6/19/2013	8/3/2013	8/8/2013			
	11	District of Columbia	RV	Collecting Division Responses	9/27/2013	6/26/2013	8/6/2013	7/3/2013			
	12	Florida	RV	Collecting Recommendations	6/14/2013	6/19/2013	8/1/2013	8/19/2013		10/28/2013	
	13	Georgia	JH	Collecting Observations	6/18/2013	6/25/2013	9/17/2013	8/19/2013		10/18/2013	
	15	Hawaii	JH	Data Sent to National	7/9/2013	8/28/2013	8/28/2013	10/3/2013			
	16	Idaho	JC	Data Sent to National	9/13/2013	8/26/2013	9/9/2013	10/2/2013			

Observations

Year: 2012 State: 11 - District of Columbia

	ID	Source	Observation	Image	Included	Reference
	1	0 - HPMS	General: AADT, Through Lanes, and Ownership mileage totals are consistent w/ the control totals		<input type="checkbox"/>	0
	2	0 - HPMS	General: Statewide VMT percent change is consistent (i.e. w/in +/- 2%) w/ the TVT-based Growth Factor Report (10%)		<input type="checkbox"/>	0
	3	2 - Traffic	AADT - values look good		<input type="checkbox"/>	0
	4	2 - Traffic	Ramp AADT - values reported and look good, nice balancing		<input type="checkbox"/>	0
	5	2 - Traffic	K factor - all sample reported and the distribution of the values reported looks good. Link to link values are also consistent.		<input type="checkbox"/>	0
	6	2 - Traffic	D factor - values reported on all samples, the values look good and also are consistent from link to link.		<input type="checkbox"/>	0
	7	2 - Traffic	% peak for SU and CU - values are all reported. The range of values is really low at nearly all of them being under 1. Some may be low but not all of the samples.		<input type="checkbox"/>	0
	8	2 - Traffic	SU AADT - values on samples all reported and look good. However on the NHS many values are missing, of those reported they look good.		<input type="checkbox"/>	0
	9	2 - Traffic	CU AADT - values on samples all reported and look good. However on the NHS many values are missing, of those reported they look good.		<input type="checkbox"/>	0
	10	2 - Traffic	General - one segment is outside the boundary of DC and there may be a few VA segments too.		<input type="checkbox"/>	0
	11	2 - Traffic	Motorcycle VMT% on urban interstate is high. Please review.		<input type="checkbox"/>	0
	12	2 - Traffic	Single Unit VMT% on urban arterial increased 90% from previous year. Single Unit VMT% on other urban increased 58.7% from previous year. Please review.		<input type="checkbox"/>	0

Contains commands for working with the selected items.

Recommendations

Year: 2012 State: 11 - District of Columbia

	Recommendations
 Add Recom.	 National Highway System (NHS): FHWA staff recommends that the DOT staff re-examine their NHS data to ensure that all newly added principal arterial system (PAS) segments, per MAP-21, are connected to th
 Status	 Validation Warnings: FHWA staff recommends that the DOT staff work with FHWA HQ / Office of Policy staff to further investigate the source of these validation warnings, and to ultimately resolve th
 Dashboard	

Recommendation Memo

Year: 2012 State: 11 - District of Columbia

- Create
- Sign
- Status
- Dashboard



Memorandum

October 01, 2013

ACTION: Review of 2012 District of Columbia Highway Performance Monitoring System (HPMS) Data

David R. Winter, P.E.
Director, Office of Highway Policy Information

Mr. Christopher Lawson
Division Administrator (HDA-DC)

We have completed our review of District of Columbia's 2012 HPMS data package and wish to thank the State and the Division for their efforts in providing the data for the HPMS program. Attached are specific

Memo requires two signature from approvers.

Created By: Vaughn , Ronald
Created On: 10/1/2013 2:16:01 PM

Last Mod. By: Vaughn , Ronald
Last Mod. On: 10/1/2013 2:17:46 PM

1st Approval Signature
Signed By: N/A
Signed On: N/A

2nd Approval Signature
Signed By: N/A

Responses Year: 2012 State: 11 - District of Columbia

Recommendations/Responses	
Status	National Highway System (NHS): Recommendation: FHWA staff recommends that the DOT staff re-examine their NHS data to ensure that all newly added principal arterial system (PAS) segments, per MAP-21, are connected to the NHS. Response:
Dashboard	Validation Warnings: Recommendation: FHWA staff recommends that the DOT staff work with FHWA HQ / Office of Policy staff to further investigate the source of these validation warnings, and to ultimately resolve them (to Response:

Memo is not created. Please click Create Memo to create

Sign

Status

Dashboard

Create Memo

1 Welcome 2 Header / Close 3 Intro 4 Content 5 Finish

Welcome

Welcome to the Memo Wizard. This wizard will aid you in creating your memo to the best of its abilities. You will be prompted to fill in these sections.

- * Header / Point of Contact
- * Introduction
- * E-Mail Notifications

You will be able to save the memo to your computer once it is created.

Cancel Previous Next

FHWA Division Office Program Review

Assuring HPMS Quality

- Accuracy
- Completeness
- Timeliness
- Current year
- Edit reports
- Trends
- Matched samples
- Process improvements

HPMS Data Oversight Responsibilities

- FHWA Division Office
 - 50 States, District of Columbia, and Puerto Rico
- FHWA Headquarters
 - Office of Highway Policy Information
 - Highway System Performance Division

FHWA Division Office

- Annual Review of State's HPMS data
- Continuous Process Improvement (CPI) reviews
 - HPMS and data collection processes
- SPR Work Program support, monitoring, overview

FHWA Division Office (cont'd)

- Technical assistance
- Recommendation on acceptance and use of data for apportioning Federal-aid funds
- Report on review findings, recommendations. Improvements

Report with recommendations due annually on December 15th

Division Office Review Focus

To assure the State's current year HPMS data submittal is:

- Timely - June 15th
- Complete
 - All data fields completed
 - All data collected and reported
- Accurate

Division Office Review Focus (cont'd)

- Quality following current guidelines
 - HPMS Field Manual
 - TMG
 - AASHTO Traffic Monitoring Program
 - ASTM standards for IRI
 - Geospatial Review

HPMS Review Guidelines

- Risk Assessment
 - Evaluation guide for 6 program activities
- Status Report
 - Questions, dates, analysis (7 areas)
- Certification
 - Statement and signature block
- Summary of Attachments, Resources, and References
 - Program Activity Review Guidelines

6 Program Activity Areas

- Data Submittal
- SPR Work Program
- Quality Assurance
- Traffic Data
- Pavement Data
- Sample Adequacy

Activity	Poor 1 point	Good 2 points	Better 3 points	Best 4 points	Score (points)
Data Submittal (Re: Report 10)	Late with complete mileage and VMT data, other major data issues not explained	By June 15 th , complete mileage & VMT data, major issues explained or data resubmittal	By June 15 th , complete data and minor comments	By June 15 th , no comments	
	Submittal letter brief and general comments	Submittal letter explains only recurring comments	Submittal letter explains recurring comments and edits	Submittal letter explains recurring comments, edits, and changes in procedures and processes	
SPR Work Program or State Planning Work Program	Decrease or inadequate funding or no priorities for data collection including staff, training or equipment	Adequate funding, some recognition of needs and new activities, but still no changes in staff, training, or equipment	Adequate or increased funding, more staff and training for selected activities	Adequate or increased funding for process review (or action plan) recommendations included in work program	
Quality Assurance (Re: Report 10)	Minimal quality assurance, off-state system issues, many coding error messages	Basic quality assurance program for short term solutions including off-state system issues, some coding error messages explained in submittal letter	Quality assurance program implemented and coordinated with all data providers, minor isolated problems,	Quality assurance program documented, funded, and no major data coding problems found	
	or No Division Field Inventory review conducted within the last 3 years	or Division Field Inventory Review conducted within the last 3 years & continuing problems	and Division Field Inventory Review completed within the last 3 years, all recommendations implemented	and Division Field Inventory Review completed within the last 3 years, no recommendations or major findings	
Traffic Data (Re: Reports 25 - 27, Summary Table)	Current year data provided with non statistical or non verifiable explanation for anomalies and unusual trends for F.C. or H.V. locations, Primary OHPI comments	Current year data provided for all PAS, acceptable statistical justification for anomalies and unusual trends for F.C. or H.V. locations, Primary OHPI comments	Current year data provided for all F.C., acceptable statistical justification for anomalies and unusual trends for F.C. or H.V. locations, Secondary OHPI comments	Current year data provided for all F.C., no unusual trends by F.C. or H.V. locations, no OHPI comments	
	or No process review conducted within the last 3 years	or Process review started or completed within last 3 years, recommendations not implemented	and Process review completed within the last 3 years, some recommendations implemented	and Process review completed within the last 3 years, all recommendations implemented	
Pavement Data (Re: Report 19, 20, 31)	Complete data provided on-state system updated on an infrequent cycle, off-state system data incomplete, Primary OHPI comments	Complete data provided on-state system updated on a 2 year cycle, plan developed for complete off-state system data, Primary OHPI comments	Complete data provided and collected with supporting explanations that differ from Field Manual, all current 2-3 year data, Secondary OHPI comments	Complete data provided and collected in accordance with Field Manual, all current 2-3 year data, no OHPI comments	
	or No process review conducted within the last 3 years	or Process review started or completed within last 3 years, recommendations not implemented	and Process review completed within the last 3 years, some recommendations implemented	and Process review completed within the last 3 years, all recommendations implemented	
Sample Adequacy (Re: Report 35, 36, 38)	Sample revisions needed, identified, but not made. Primary OHPI comments	Some sample revisions were made, sample adequacy assessed. Primary OHPI comments	Most sample revisions were made, sample adequacy assessed. Secondary OHPI comments	Sample revisions not needed or were made addressing all deficiencies and OHPI comments	
	or No process review conducted within the last 3 years	or Process review started or completed within last 3 years, recommendations not implemented	and Process review completed within the last 3 years, some recommendations implemented	and Process review completed within the last 3 years, all recommendations implemented	
Total Score				(28 max)	
Activity(s) Identified for Review: (Less than 15, more than one activity should be considered)					

Annual Certification

I certify that the State's HPMS data submittal and the information in this review are true and correct to the best of my knowledge and belief and there is no evidence of submission of false data, which would be in violation of U.S.C., Title 18, Section 1020.

Furthermore, I certify that this HPMS data is valid and suitable for use in the apportionment of Federal-aid highway funds, performance measurement, and condition and performance reporting to Congress.

HPMS Review Guidelines
(Underlining added for emphasis)

Significance of Accurate UAB & FC Data

- Impact on HPMS Data
 - Sample adequacy
 - Rural and urban totals and trends
 - Air quality analysis
 - Crash rates
 - Congestion monitoring
 - Urban travel demand models
 - System extent
 - National Systematic Equality

Accurate UAB & FC Data

- Accuracy of Rural vs. Urban VMT
- Sample Adequacy
 - Rural and urban totals and trends
 - Air quality analysis
 - Crash rates
 - Congestion monitoring
 - Urban travel demand models
- Conditions & Performance Report
- Performance Measures
- Reassessment Driven Changes

Timeline of Activities

Date(s)	Activity
June 1 st	Certified Mileage Submission
June 15 th	HPMS Submission
June 30 th	Level I Review Completion
July 15 th -30 th	Level II and Traffic Review Completion
Early-August	Review Notes forwarded to Division Office
Mid-August	Conference Call w/ State/Division Office
Late-August	Memo transmitted to State
Mid-October	National Data Finalized/Analysis and Reporting Commences
October-November	National Report Production
December 15 th	Division Field Review due to FHWA HQ

Questions???

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