

Highway Performance Monitoring System (HPMS)

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What is HPMS?

A database of roadway **inventory, **traffic** and **pavement** data representing Washington's roads**

Required annually by FHWA

Used in various models to assess pavement quality and travel performance on the federal aid system

Two important HPMS uses:

- Advise Congress of national roadway needs in order to establish Highway Trust Fund dollar amounts**
- Apportion Trust Fund dollars to each state (\$300 million annually for Washington)**

Where is HPMS data collected?

HPMS data is collected on statistically-selected sample segments, chosen to represent rural and urban functional class systems (i.e. rural minor arterials)

HPMS data is collected for 2,000 samples (1,400 miles) of local agency-owned roads

In addition some data (Pavement Roughness/IRI) is collected for all Principal Arterials and NHS routes

What pavement data is collected (and how)?

Present Serviceability Rating (PSR) –
subjective 0-5 rating of pavement quality

International Roughness Index (IRI) –
measured value in inches/mile

PSR is supplied/updated annually by local agencies
by logging into the HPMS Web Application page
for their agency

IRI is collected by the WSDOT Materials Lab using a
Pathways data collection van

New pavement data requirements

additional reporting beginning in June, 2011

Rutting –

- reported for all asphalt pavement
 - IRI inventory direction
 - average depth to nearest 0.1 inch (both wheel paths)
-

Faulting –

- reported for all concrete pavement
 - IRI inventory direction
- average elevation difference between adjacent panels to nearest 0.1 inch

New pavement data requirements

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Cracking Percent –

- asphalt pavement – percent of fatigue cracking area
 - concrete pavement – percent of cracked slabs
 - nearest 5%
-

Cracking Length –

- asphalt pavement – ft./mi. of transverse cracking
- concrete pavement – ft./mi. of reflective cracking
 - nearest 5%

New pavement data collection

Rutting, Faulting and Cracking

- **Data is being collected by the WSDOT Materials Lab using their Pathways data collection van**

- **Currently collecting 1/3 of the state each year**

- **Crack rating is done by viewing pavement pictures taken by the Pathways van**

Reporting HPMS data “spatially”

changed reporting beginning in June, 2011

all data including pavement data will be reported on an LRS so the data can be brought into a GIS of roads also required for HPMS reporting

This GIS with LRS capability of HPMS data will allow us to more easily share data with others using the same LRS

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Questions?

WSDOT HPMS web site:

<http://www.wsdot.wa.gov/mapsdata/tdo/hpms.htm>

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