

Travel Monitoring Program: A Washington State Perspective

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Challenges and Opportunities for Travel Monitoring - Overview

- **Changing roles and requirements**
- **Safety, Safety, Safety**
- **Funding constraints**
- **Collecting the data**
- **Keeping up with traffic volumes in urban areas**
- **Old dog new tricks – our mainframe system**
- **Reporting the data**
- **Timelier traffic data reporting**
- **Technology testing and reporting results**
- **Summary**

Changing Roles and Requirements

- **Performance Measurement**

 - Gray Notebook

 - <http://www.wsdot.wa.gov/accountability/graynotebook/>

 - Before and After Mobility Project Studies

- **Pavement** and Mechanistic-Empirical Pavement Design Guide (MEPDG)

- **Freight** (what kind of trucks, empty/loaded, what are they carrying?)

- **Origin & Destination Studies** - Where is everyone coming from and where are they going?

- **Greenhouse Emissions/Climate Control VMT**

- **HPMS Reassessment** (Ramp Volumes, Motorcycles, GIS)

- **Speeds**

- **Tolling**

Safety First , Safety First, Safety First

➤ Labor and Industries

➤ Too many near misses

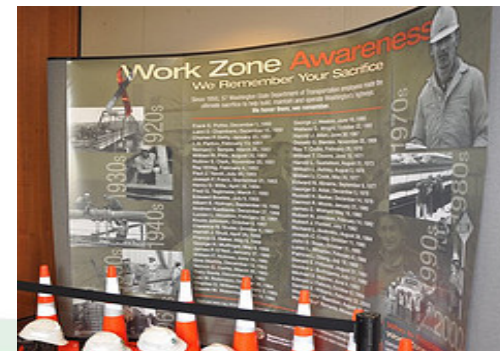
➤ Do not want any worker to cross roadway. So how do we do our job?

➤ Wanted buffer truck for each short duration traffic count field crew worker

➤ Compromise reached – prework area signing required for multilane two direction highways that have posted speeds of 65 and higher

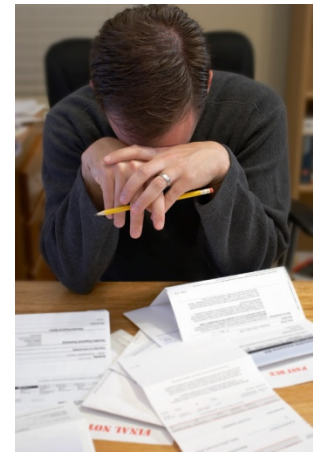
➤ **Pre Activity Safety Plan required for each work location**

➤ **Traveling Public becoming complacent with our workers until too late**



Funding Constraints

- Do I need to say more?
- Gas Tax Revenues Declining
- Furloughs Being Implemented
- No equipment replacement
- Only 10% of axle classification sensors will be replaced
- How to set the priorities?



Collecting the Data



➤ Permanent Sites

- Traditional Land Line
- Fiber great when you can get it
- Wireless
 - Who gets dropped first (hint – not voice lines)
 - Connection times limited (solar – daytime, luminaires – nighttime)
 - Download speeds are slow
- New Concept – Network with and use State Radio (700 MHz) System to download data

➤ Short Duration Traffic Count Sites

- Traffic Getting More and More Dangerous
- Video/CD Manual Counts
- Coverage – Same amount of state highways but less staff
- Union working with us on flexible workdays/week

Keeping Up With Traffic Volumes in Urban Areas

- **Coordinating with Traffic Office Headquarters and Regional (Operational –ITS) Staff**

- Share Sites and Sensors
- Upgrading Sites and Equipment
- Site Priority Agreements

- **Extensive Ramp Balancing Program**

- Validating Anchor Point Sites with Video/CD's

- **Non Intrusive Sensors**

- One shoe does not fit all - need right location

- **Equipment is getting better all the time**



Old Dog and New Tricks – Mainframe

- **Collection equipment capabilities changed over last 25 years**
- **New data elements pose problems** -how to capture, store and report (e.g. speed, weight, travel times)
- **Customers need new and more info**
- **How many side systems can we maintain and still be timely & accurate?**



Reporting the Data

- **Governor is *Challenging* us to “Get out of the Box”**
 - Government Management Accountability and Performance - GMAP
- **Web Presence**
- **Traffic data mart** - developed to provide customers easier access to our data
- **GIS** – not just tabular anymore; need to provide customers data via a visual interactive tool
- **But I want real time data from your system**



Timelier Traffic Data Reporting

- **Reporters** - we need to provide today the actual traffic data for tomorrow

- **FHWA Volume Trends** by 20th of month for preceding month

- **Weather or Economic Impacts**

- Storm closed interstate -what was the traffic impact to that route and where did they go?

- Fuel prices escalating - how many drivers reduced trips and what impact on congestion/travel times?

- **All this means collecting everywhere, processing and then analyzing at warp speed!**



New Technology - Testing and Reporting Results

- **Finding time and money to keep up with the latest and greatest**
- **Within our department and as a travel monitoring community we need to share knowledge/experience with equipment/software**
- **Develop and use accessible websites to share data**



Conclusions

- ❖ **Need to work smarter**
- ❖ **Have to anticipate the next data need**
- ❖ **Seek out data partners**
- ❖ **Plan for the future**
- ❖ **Determine research need**
- ❖ **Might not have all the answers but I might have some educated guesses!**