



# Mobility and Congestion Performance Data Management and Use

## MPO/State Collaboration Peer Exchange

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# Broader Transportation Data Context

- The transportation industry is experiencing a data sea level change.
- Performance based decision making and transparency are increasingly expected.
- New strategic interests and innovations are adding to data collection and information development efforts.
- There is growing public demand for information in a user-friendly format.
- Agencies must now weigh both internal and external options for meeting data needs.
- The way agencies coordinate with partners on the collection and management of data is changing.
- Funding has not kept pace with the expansion of expectations.

# Sharing Data and Analysis

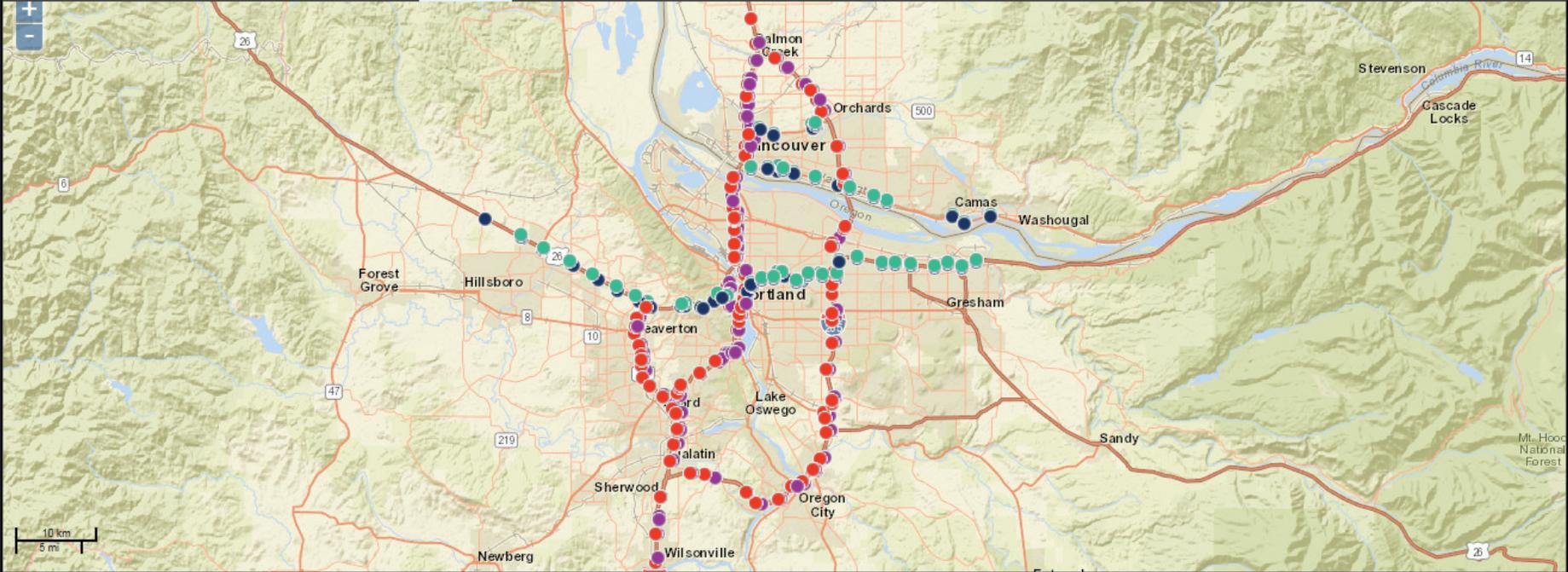
- ODOT Region 1
  - Joint Policy Advisory Committee on Transportation (JPACT)
    - Bi-State Transportation Committee
    - Transportation Policy Alternative Committee (TPAC)
      - TransPort (ITS Planning) – informational exchange, funding decision support, operations, etc...
  - Project Partnering w/ Jurisdictions (i.e., corridors)
  - PORTAL
    - Metro
    - Eugene
  - Data (i.e., counts, flow maps, etc....)
- Transportation Planning Analysis Unit (TPAU)
  - Oregon Modeling Improvement Program
  - MPO and Non-MPO: Modeling and Analysis
  - Other



# PORTAL



Home Systems Highways **Stations** Arterial Travel Time Transit Downloads FHWA Data



● North ● South ● East ● West



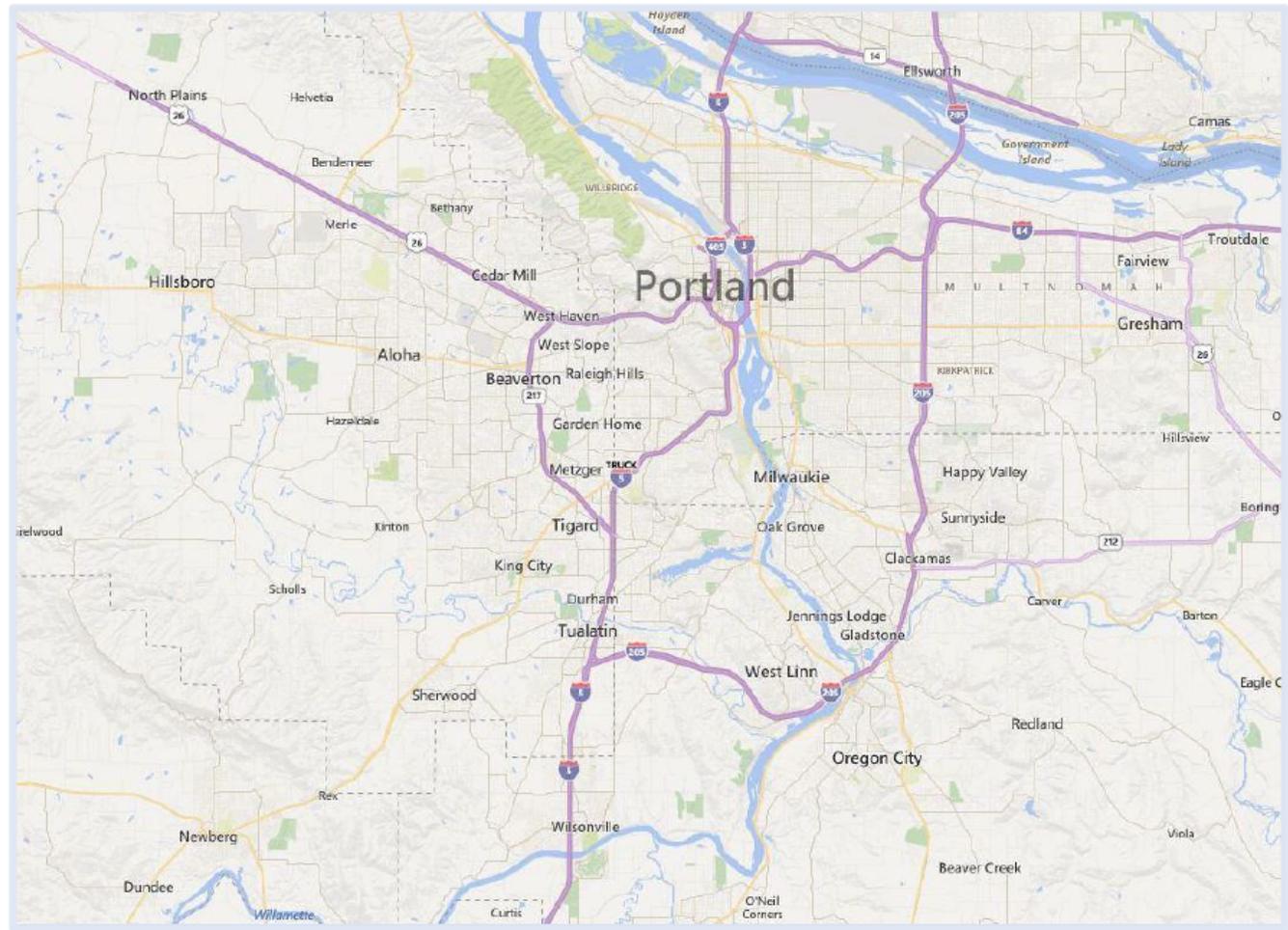
[ [Portland State University](#) | [Maseeh CECS](#) | [ITS Lab](#) | [Oregon DOT](#) | [Federal Highway Administration](#) | [National Science Foundation](#) ]

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# ODOT Region 1

## REGION 1 TRAFFIC FLOW MAPS (2014)

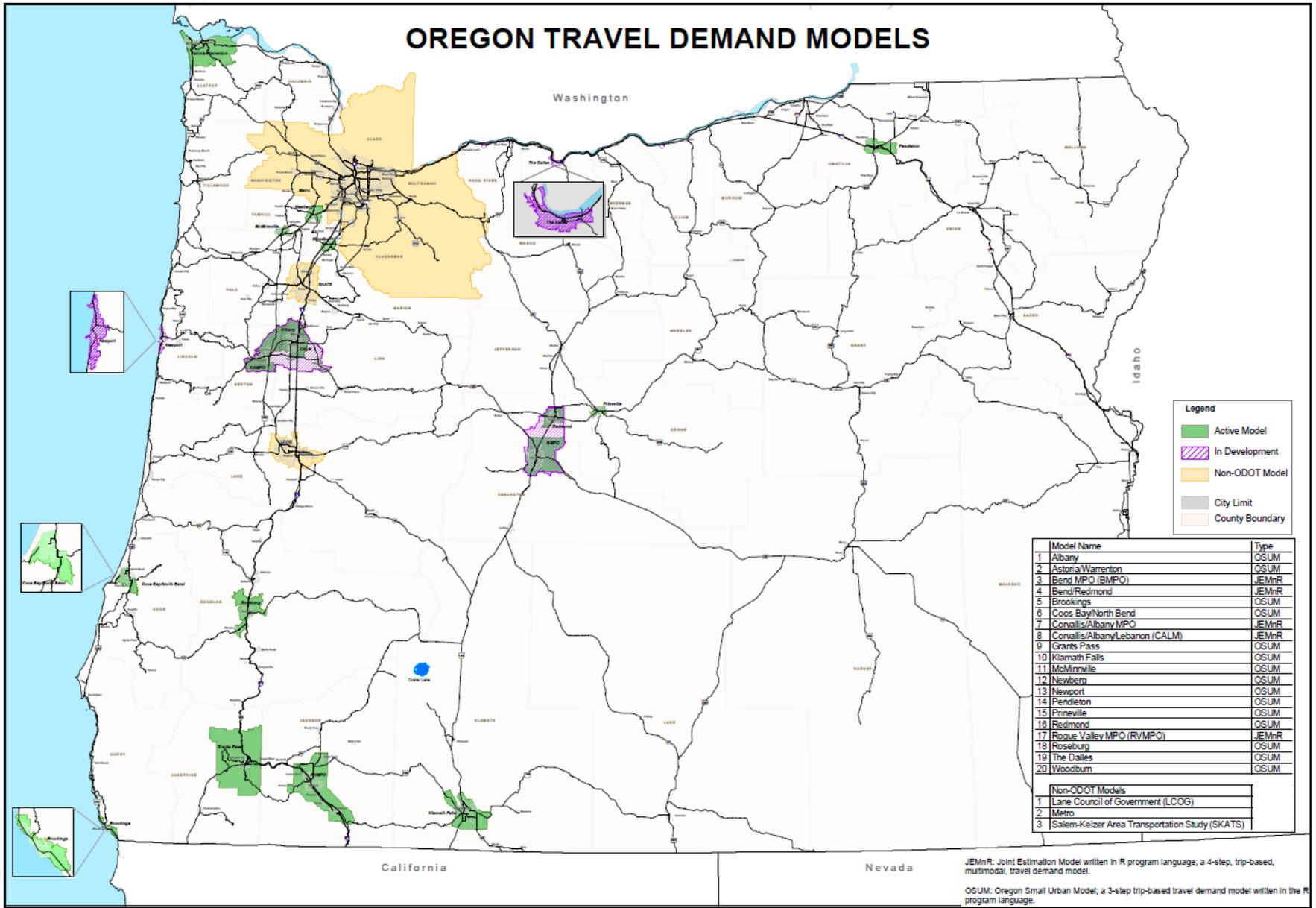


## Transportation Planning Analysis Unit (TPAU)

- Oregon Modeling Improvement Program
- Travel Demand Models
  - 5 MPO, 15 Non-MPO
  - <http://www.oregon.gov/ODOT/TD/TP/Pages/Tools.aspx>
- HERS-ST
  - [http://www.oregon.gov/ODOT/TD/TP/Pages/CM\\_HERS.aspx](http://www.oregon.gov/ODOT/TD/TP/Pages/CM_HERS.aspx)
- Sketch Planning Tools
  - Strategic Analysis – RSPM



# Modeling Map



**Legend**

- Active Model
- In Development
- Non-ODOT Model
- City Limit
- County Boundary

Model Name	Type
1 Albany	OSUM
2 Astoria/Warrenton	OSUM
3 Bend MPO (BMPO)	JEMnR
4 Bend/Redmond	JEMnR
5 Brookings	OSUM
6 Coos Bay/North Bend	OSUM
7 Conallis/Albany MPO	JEMnR
8 Conallis/Albany/Lebanon (CALM)	JEMnR
9 Grants Pass	OSUM
10 Klamath Falls	OSUM
11 McMinnville	OSUM
12 Newberg	OSUM
13 Newport	OSUM
14 Pendleton	OSUM
15 Prineville	OSUM
16 Redmond	OSUM
17 Rogue Valley MPO (RVMP)	JEMnR
18 Roseburg	OSUM
19 The Dalles	OSUM
20 Woodburn	OSUM

Non-ODOT Models	
1 Lane Council of Government (LCOG)	
2 Metro	
3 Salem-Keizer Area Transportation Study (SKATS)	

JEMnR: Joint Estimation Model written in R program language; a 4-step, trip-based, multimodal, travel demand model.

OSUM: Oregon Small Urban Model; a 3-step trip-based travel demand model written in the R program language.



# New Developments

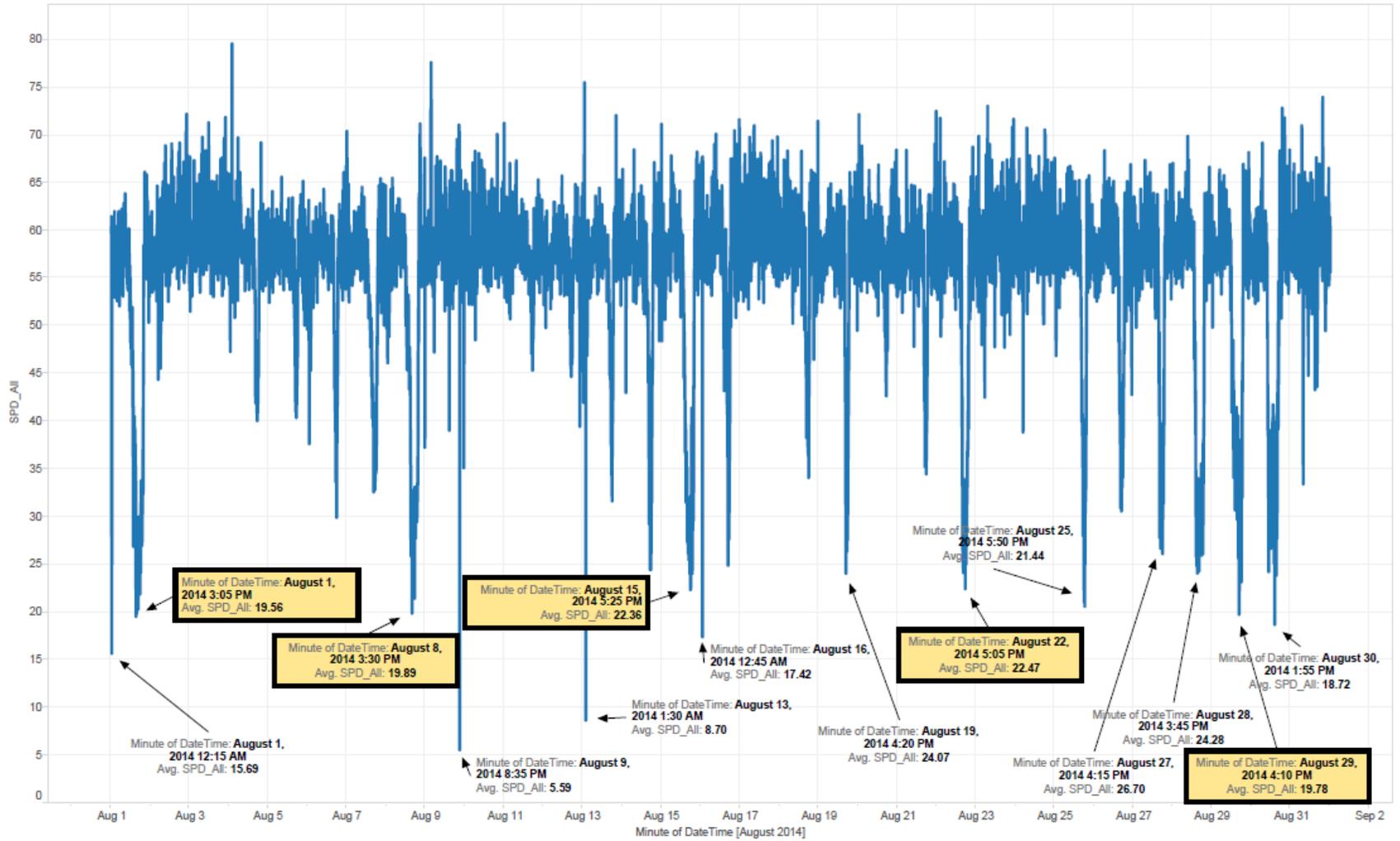
- FAST (formally MAP-21)
- Data Sources
  - National Performance Management Research Data Set (NPMRDS)
  - HERE/Iteris (enhancement of NPMRDS)
  - WAZE
  - Strava (Bike)
  - Bike/Ped Counters
  - Connected Vehicles





# HERE GPS+ Data

WilsonvilleNB\_Aug



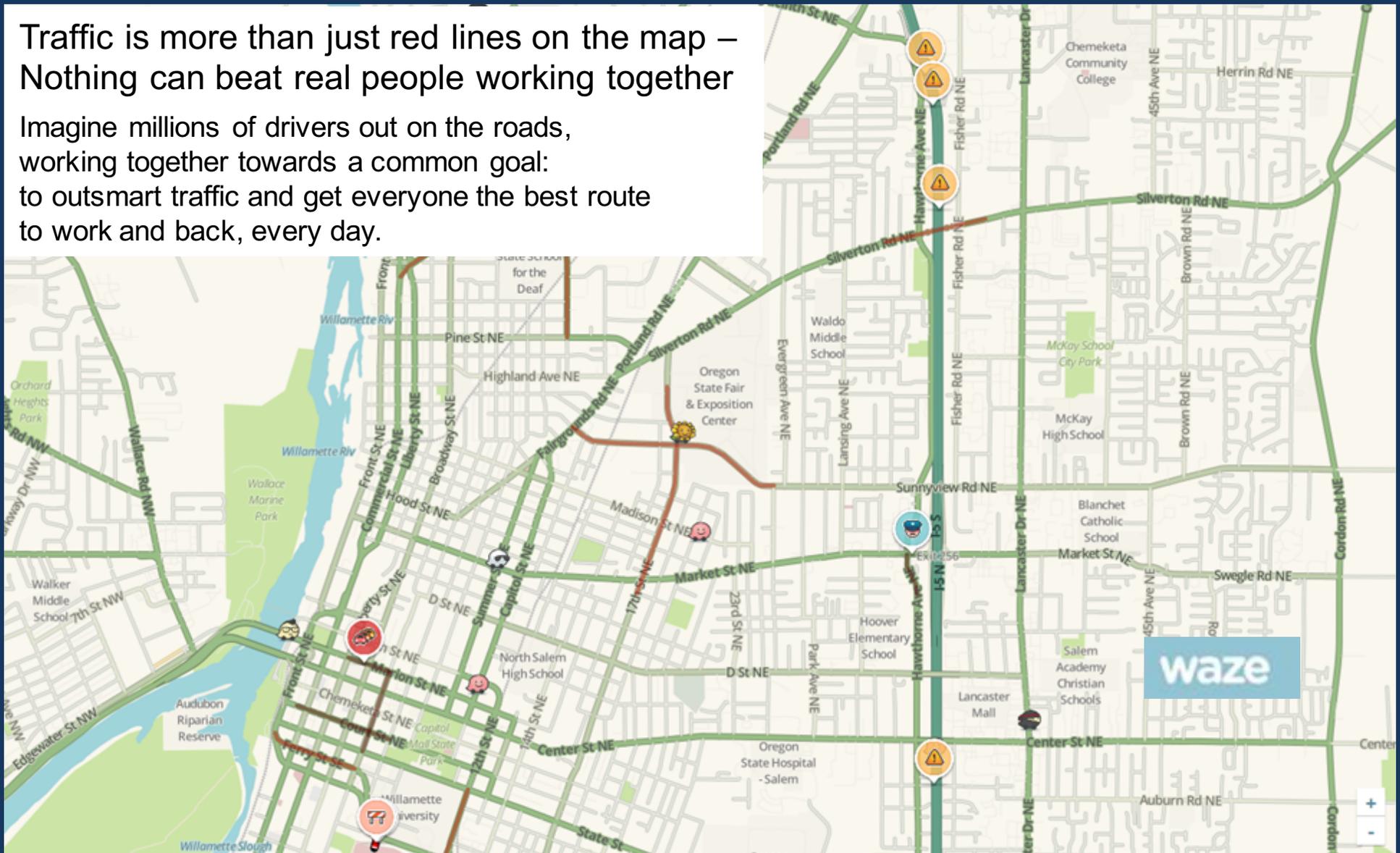
The trend of average of SPD\_All for DateTime Minute. The data is filtered on WilsonvilleNB, which keeps WilsonvilleNB.



# Waze data sharing agreement

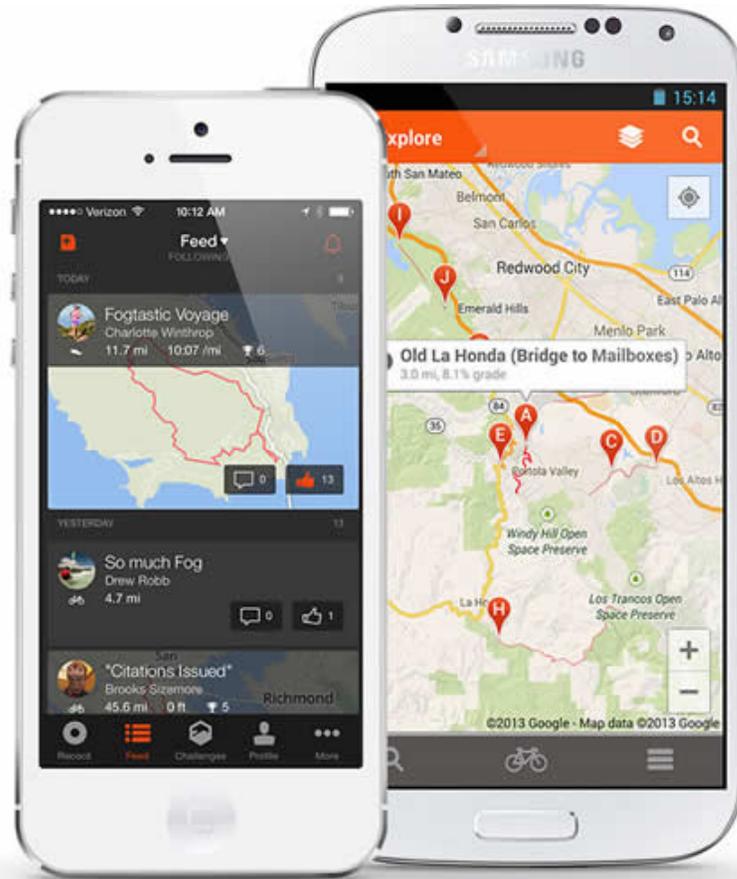
Traffic is more than just red lines on the map –  
Nothing can beat real people working together

Imagine millions of drivers out on the roads,  
working together towards a common goal:  
to outsmart traffic and get everyone the best route  
to work and back, every day.

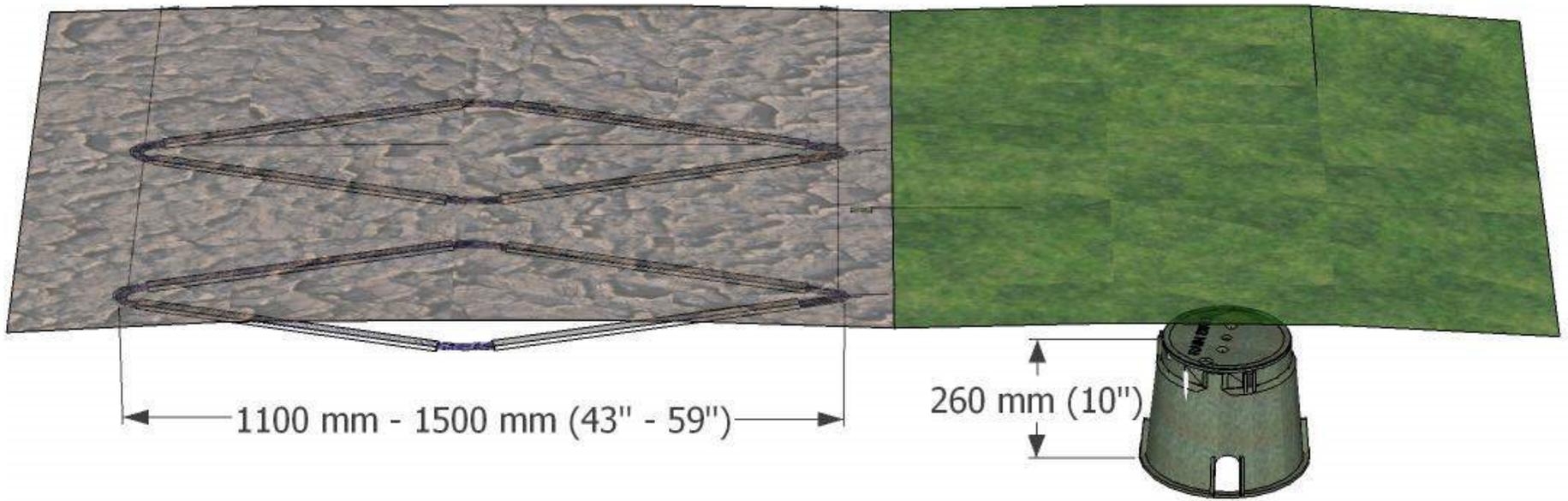




# Strava GPS Cycling and Running App



# Bike Volume Counters





# Oregon Dept. of Transportation Strategic Data Business Plan

Describes the agency's vision, goals, objectives, and actions related to data development and management.



# Strategic Data Business Plan Vision Statement

ODOT makes effective use of data and information to support the department's mission. Our employees, partners and customers have access to the right data and information to enable them to make sound decisions.



# Strategic Data Business Plan Goals



**1. Be Integrated.** ODOT integrates data from different sources in order to provide a unified picture of the multimodal transportation system and internal agency functions.

**2. Be Agile.** ODOT takes advantage of emerging data sources and data analysis tools and technologies to support its business needs.

**3. Be Valuable.** ODOT maximizes the value of data investments for delivering on its mission.

**4. Be Accessible.** ODOT ensures that data can be discovered and efficiently used by employees, partners and customers.

**5. Share.** ODOT actively encourages data to be shared in order to maximize data utilization and avoid unnecessary duplication.



**Goal 5: Share.** ODOT actively encourages data to be shared in order to maximize data utilization and avoid unnecessary duplication.

**Objectives:**

- ODOT business units actively seek opportunities for internal and external collaboration on data collection, management and delivery.
- ODOT employees understand that data is a shared agency asset rather than the property of an individual or a business unit.
- Data repositories and technical support are in place to enable data sharing.
- ODOT identifies and reduces data redundancies.



# Thank you!

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