

Rural TSMO Planning in Western States

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION



2021 Annual Meeting

Existing Implementation of TSMO Strategies

- Discretionary funds for low-cost enhancements
- Participate in national informational sharing
- Performance management
- Incident response program
- Joint operations groups
- Transportation demand management/commute trip reduction
- Traffic management centers in all regions
- Work zone management

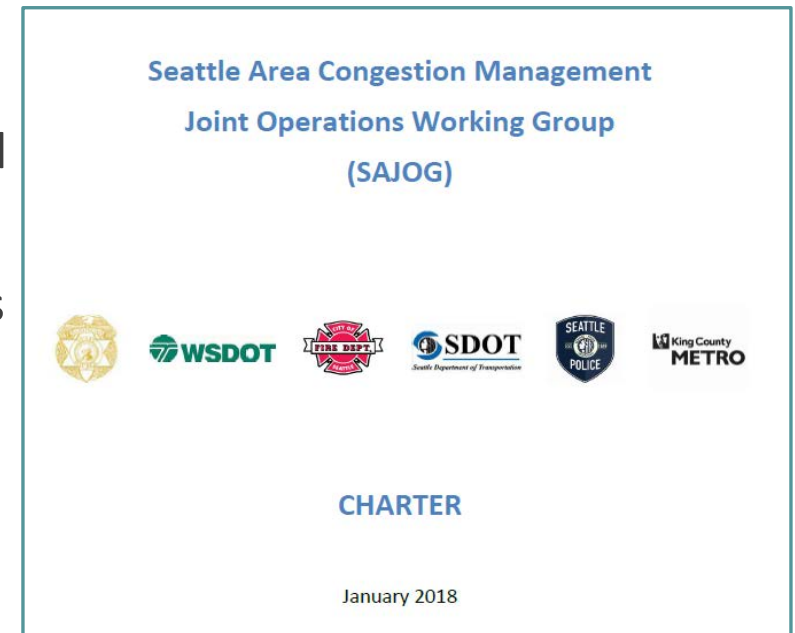
Traffic Management Centers

- 6 WSDOT Regions with a TMC in each
 - Context-specific, 24/7 statewide coverage
 - Situational awareness
 - Local relationships/partners



Joint Operations Groups

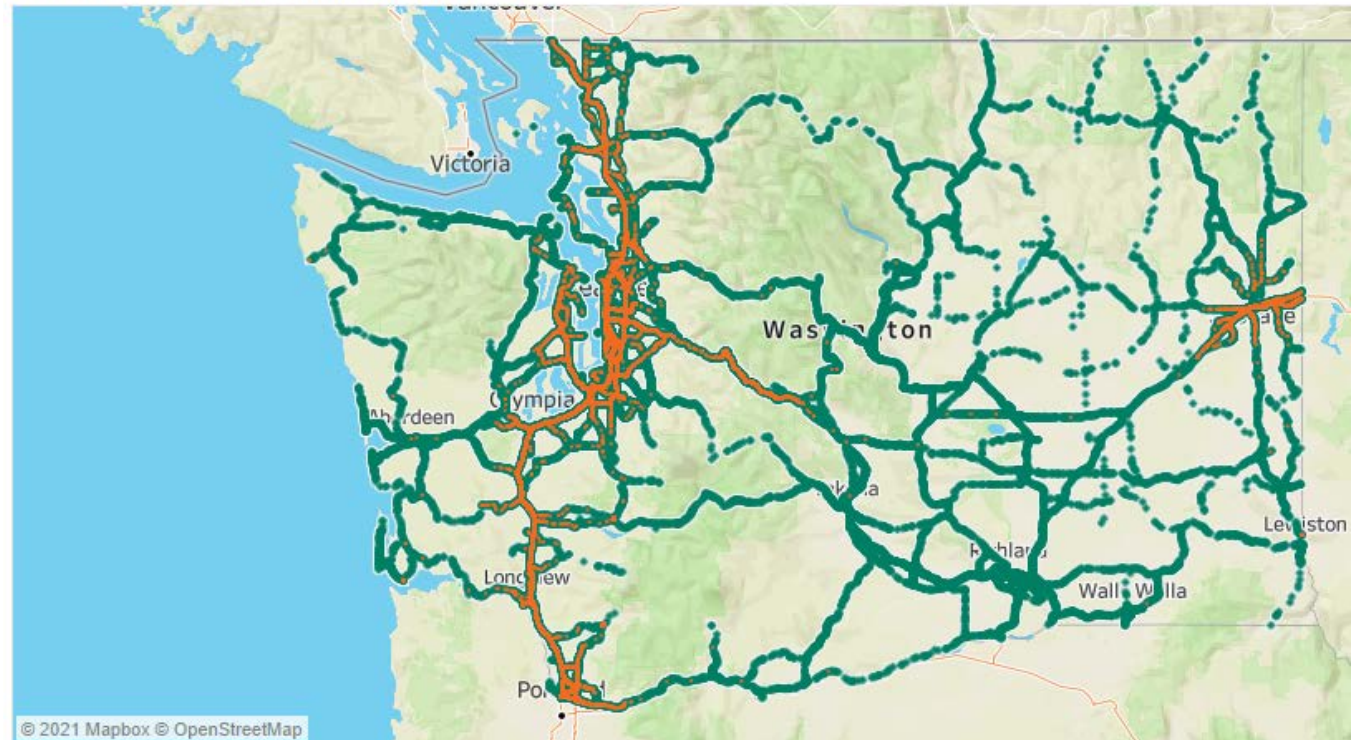
- Engaged interagency coordination, cooperation, and collaboration
- Corridor-wide pre-planned detour plans
- Regional interagency communication interoperability
- Interagency resource listing and typing
- Exercise planning that improves response and recovery times
- Grant funding opportunities as recognized joint operations



Performance Management – Incident Response

- Reporting performance measures
- Taking new data to make the case for targeted investment

CrashData vs WITS 2018 Q2 to 2020 Q4



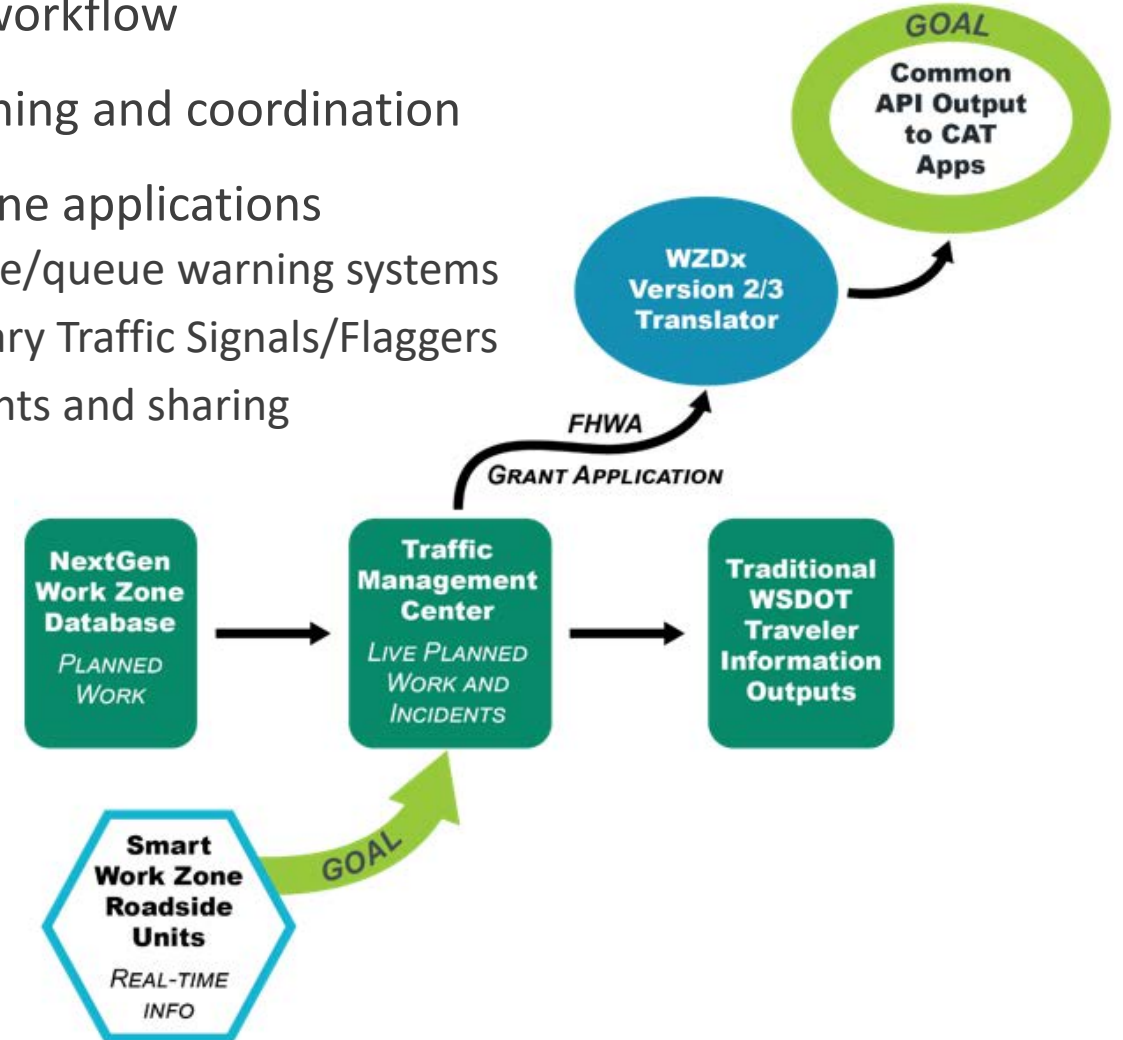
Transportation Demand Management

- Education and awareness of TSMO internally to WSDOT and to our agency partners
- Shift from commute trip reduction to all trips
- Expand “Safe and Healthy Streets” programs
- Increase transit-oriented development
- Expand broadband access to unserved areas
- Develop curb usage policy or plan for conflicts around shared mobility services



Work Zone Management – National Information Sharing

- Engage nationwide with federal and state DOT partners
- Integrating new work zone practices with existing agency processes and workflow
- Statewide training and coordination
- Smart work zone applications
 - o Dynamic merge/queue warning systems
 - o RSDS/Temporary Traffic Signals/Flaggers
 - o Data agreements and sharing



Program Plan: Phase 1



Definition

Cost-effective strategies that prioritize the safety, operations, and reliability of the transportation system to meet existing and future multimodal needs through:

- Planning and policy development
- Multimodal transportation management
- Safety
- Smart mobility options
- Performance management
- Mode shift

Business Case

- Invest in preservation and maintenance
- Get the most from existing and new investments
- Flexible project funding for low-cost improvements
- Workforce development
- Evolving culture towards TSMO

Strategic Direction

VISION

People and goods in Washington get where they need to go safely and efficiently.

MISSION

The TSMO Program Plan optimizes how WSDOT and its partners use resources to realize our multimodal transportation system's greatest potential.

VALUES¹

EQUITY

The TSMO Program Plan creates access to reliable and affordable transportation in support of economic vitality, health, and social justice.

SUSTAINABILITY

The TSMO Program Plan results in strategies and decisions that improve energy efficiency, reduce pollution and enhance resiliency.²

SAFETY

The TSMO Program Plan includes a coordinated effort to keep people safe and help reach Target Zero.³

PERFORMANCE

The TSMO Program Plan advances strategies that prioritize efficiency, safety, and capacity for all modes.



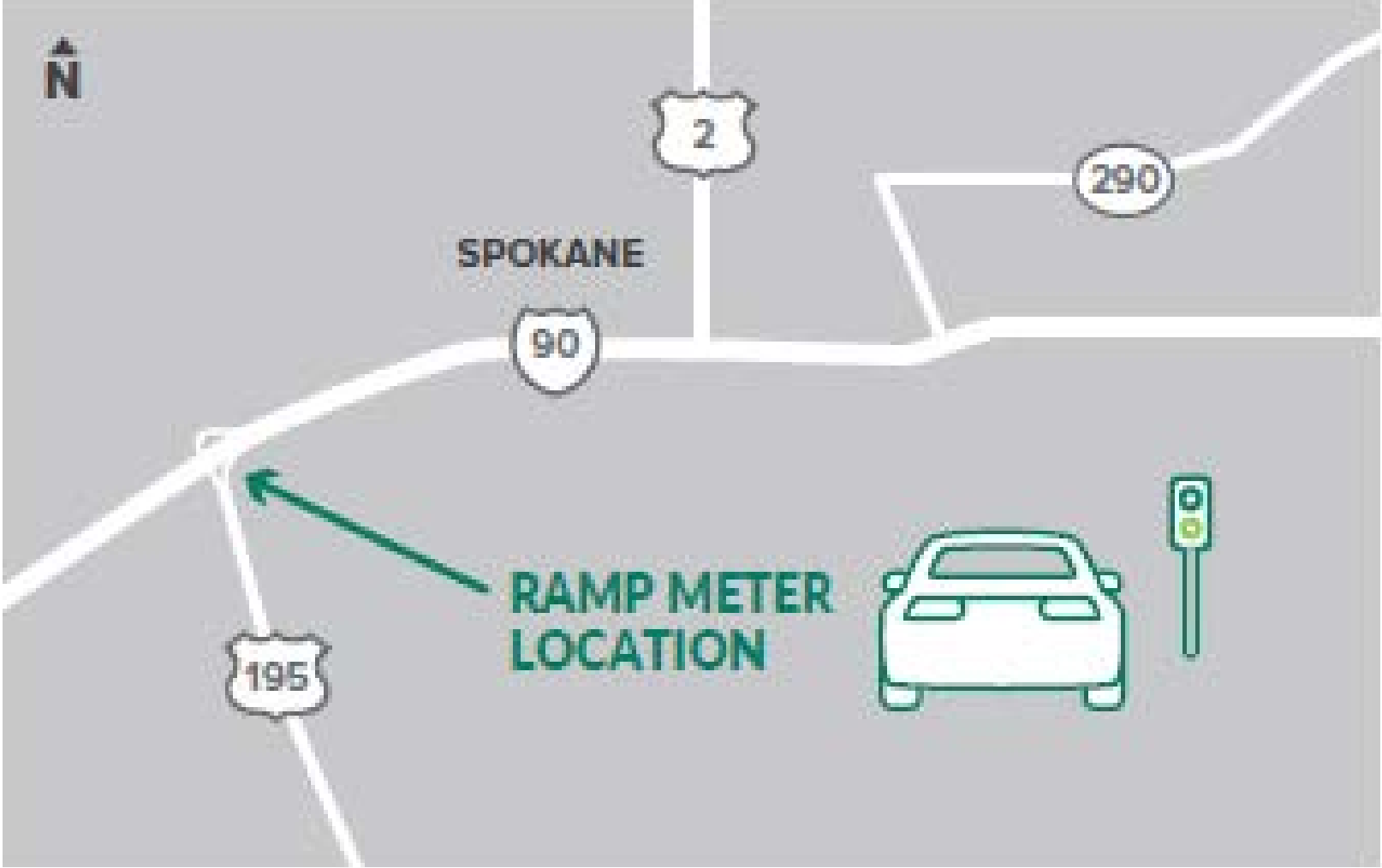
Early Wins

- Updated design manual
- Formed a subcommittee on smart work zones
- Conducted regional capability maturity models (CMM)
- Developed land use and transportation capability maturity framework (CMF)
- Drafted TSMO Executive Order
- Conducted benefit cost savings summaries

Eastern Washington Benefit and Cost Savings



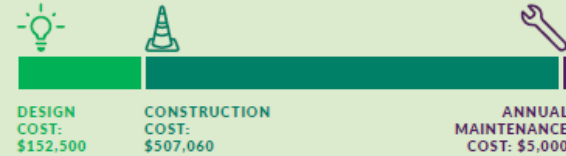
US 195 and I-90
On Ramp



Ramp meter to address high crashes

What are the associated benefit-costs?

COST TO DESIGN, CONSTRUCT, AND MAINTAIN
IN THE FIRST YEAR = \$664,560



\$1.46M+

TOTAL ANNUAL BENEFIT IN
SOCIAL COST FOR CRASHES
DURING THE FIRST YEAR
OF OPERATION

SAFETY BENEFITS:

- Reduces crashes during congestion
- Reduces secondary crashes when an incident is present on I-90
- Increases safety by reducing the likelihood of merging traffic collisions

OPERATIONAL BENEFITS:

- Reduces congestion
- Delays the onset of congestion by allowing traffic to flow smoothly and efficiently
- Reduces travel times for all vehicles

CRASH DIFFERENCE (BY SEVERITY LEVEL):

JULY 15, 2017 - APRIL 8, 2019 APRIL 9, 2019 - DEC. 31, 2020



CRASH REDUCTION (APRIL - DECEMBER 2020):

63%
REDUCTION IN
OVERALL CRASHES



89%
REDUCTION IN
INJURY CRASHES

TRAVEL TIMES
ON I-90 STAYED
CONSISTENT
(CHANGING BY LESS
THAN 20 SECONDS)



TRAVEL TIMES
THROUGH THE
INTERCHANGE ARE
MORE RELIABLE
AS THERE
WERE FEWER
UNPREDICTABLE
CRASH EVENTS



QUESTIONS? CONTACT:

Glenn Wagemann, P.E., WSDOT Eastern Region Traffic Engineering Manager
wagemag@wsdot.wa.gov • (509) 324-6550

TO LEARN MORE ABOUT TSMO
VISIT: <https://tsmowa.org>

Next Steps

Phase 2: Integrating TSMO at WSDOT

- TSMO Communication Materials and Education
- Evaluate Best Practices for Implementing TSMO
- Develop TSMO Benefit Summaries

Contacts

Justin Belk,

WSDOT Integrated Corridor Operations Engineer

justin.belk@wsdot.wa.gov

Pam Vasudeva,

WSDOT Acting Statewide TSMO Development Engineer

VasudeP@wsdot.wa.gov