



Western States

Rural Transportation

Consortium

Western States Rural Transportation Consortium

Western States Rural Transportation Consortium (WSRTC)

Annual Steering Committee Meeting

June 18, 2024

Yreka, California

Meeting Minutes

This document is the official record of the WSRTC Steering Committee annual meeting held June 18, 2024, in Yreka, California, just prior to the 19th Annual Western States Rural Transportation Technology Implementers Forum.

WSRTC Steering Committee Meeting

June 18, 2024

Meeting/WebEx

**Western States Rural Transportation Technology Implementers Forum
Yreka, California**

Meeting Minutes

Prepared by

Leann Koon

Western Transportation Institute, Montana State University

Leann Koon and Andres Chavez welcomed everyone and called the meeting to order around 1:00 PM Pacific Time. Introductions were made by those at the meeting site in Yreka, California, and by those joining via WebEx. Leann reviewed the purpose of the meeting and the planned agenda.

The meeting agenda, presentation, and minutes will be posted on the Consortium website at:

<http://www.westernstates.org/Documents/Default.html>.

Western States Forum

Leann Koon gave an overview of the 19th annual Western States Forum which starts today and goes through Thursday (June 18, 19, and 20). Speakers representing four of the Consortium member states (CA, NV, UT, WA) will be presenting seven different topics. Speakers and representatives at the meeting shared some background and a quick synopsis of their presentation. We are anticipating a diverse audience – seven states representing six DOTs, including four Consortium member states, two universities, and the Southwest Research Institute. Keeping with a similar Schedule of Events as for past events, registration starts later this afternoon, followed by a reception and dinner. The technical program will be full tomorrow, and the day ends with dinner and networking at a local park. Technical presentations continue Thursday morning, and the event will conclude with final remarks and lunch. Participation will be somewhat lower than has been the average over the last several years. Jeremiah Pearce and others noted that budget constraints are a likely reason.

WSRTC Pooled Fund Updates and Discussions

Jeremiah Pearce spoke about the history of the WSRTC and how it evolved from its beginnings with the COATS project (California Oregon Advanced Transportation Systems) which was active from 1998 until just last year (2023). Through attendance at the Forum, the WSRTC partnership was established in 2010 with California, Oregon, Washington, and Nevada; Utah joined in 2018. Phase 1 of the WSRTC concluded in 2023 and Phase 2 runs through March of 2027.

Doug Galarus and Andres Chavez expressed appreciation to Washington for being the lead state for the WSRTC pooled fund and the efficiency with which WSRTC business is conducted. Tony Leingang commented it has been a great experience for WSDOT. He added that Matt Neeley is back at WSDOT so there could be potential for Forum presentations there. He also noted that Ted Bailey is now working for a consulting firm that is executing the TSMO contract for WSDOT. (Matt and Ted were Forum attendees/speakers involved in the early planning for the WSRTC.)

Doug Spencer added to the history noting that Oregon and California worked on a number of projects together in the early COATS phases and some more engineering focused training classes were conducted. He commented that Sean Campbell and Ian Turnbull were at some conferences and recognized a need for more in-depth information sharing with an engineering focus and more details. The concept for the Forum arose from these early experiences and conversations.

Phase 2 of the WSRTC, TPF-5(494), is open with four active task orders:

- Evaluation of the Fotokite Tethered Unmanned Aerial System for DOT Operations in Network-Deprived Areas (AHMCT, UC Davis)
- Chain-Up Delay Tracking and Estimation (Montana Tech)
- WSRTC Meeting Coordination, Western States Forum, Website Maintenance (WTI) – WTI Task Order 15
- WSRTC Meeting Coordination, Western States Forum, Website Maintenance (WTI) – WTI Task Order 16

Andre Chavez reviewed the status of the pooled fund. There is approximately \$17,000 total remaining in WSRTC Phase 1 that needs to be moved out for the project to close. There are two options for this: 1) Return the funds to the member states prorated based on contributions, or 2) Roll the funds into Phase 2 of the WSRTC Pooled Fund. Andre strongly recommended rolling the funds into Phase 2. After discussion, all member states approved rolling the funds into Phase 2 of the pooled fund.

Of the remaining funds, approximately \$5,000 that came from Oregon is also remaining in Phase 1. After clarification that the funds go towards Consortium participation (vs. specific projects), Doug Spencer from ODOT approved moving the funds to Phase 2.

Andre Chavez reviewed the contributions and obligations, and funds received. There was some discussion regarding invoices, using federal vs. state funds as contributions, legislative ceilings, when state funds are spent, etc. Nevada will need an invoice (please include Seth Daniels, Jacob Grivette); Washington is working on how to get correct invoices sent to Nevada DOT. Andre will initiate a meeting with Nevada DOT and Washington DOT next week to work through the situation.

WSRTC Documents

Andre Chavez reviewed the status of the WSRTC Charter Document. Leann noted that the most recent draft contained changes that have already been discussed and approved and suggested cleaning it up, sending it for final review, and then sending for signatures. The group agreed; Andre will send the document for review in the next several weeks.

WSRTC Projects

Leann Koon briefly reviewed the two WTI Task Orders (WTI 15, WTI 16). These task orders support the Western States Forum, travel to rural ITS events like NRITS and ITE, and maintenance of the WSRTC website. A no cost time extension was approved for WTI Task Order 15 to extend the end date through June 30, 2024, to encompass the 2024 Forum and the 2024 WSRTC annual meeting. WTI Task Order 16 started in April of 2024 and runs through June 2025.

Doug Galarus from Montana Tech reviewed several projects he is working on through the Consortium. While not currently contracted, support for the One-Stop-Shop project continues at Montana Tech as services were paid for ahead of time from the prior contract. Doug discussed the application, its use, and usage statistics and will be presenting "OSS by the Numbers - Analytics and their use on the One-Stop-Shop for Rural Traveler Information, Measuring Use Across Corridors and Between Communities During Winter Weather Events" at the Forum this week. He noted that there are a couple of tasks to be addressed like integrating new NDOT data feeds.

Doug gave an overview of the Chain-Up Delay Tracking and Estimation including some images demonstrating the need for the project. Like what was envisioned with the travel times incubator project, the intent of this project is to use data from Caltrans-deployed Bluetooth loggers that will log time and MAC address, and to use the readings from these loggers in conjunction with chain control status and other data to develop an algorithm to estimate travel time/delay through the affected area. Due to a relatively mild winter in 2023-2024, a request for a no cost time extension may need to be discussed.

The WeatherShare Maintenance project recently started and will run through January of 2027. The project's objective is to maintain WeatherShare as the central repository for Caltrans RWIS data and weather information.

The AHMCT Research Center at UC Davis is working on a project in partnership with WSDOT and Caltrans to evaluate Fotokite tethered UASs for DOT operations in network-deprived areas. The team is testing five kites, three in California and two in Washington, as a tool for incident management. The tether provides power and can allow flight up to 150 feet. Andre Chavez discussed the project's results and challenges thus far, including one crash caused by a faulty motor controller, temperature testing, moisture condensation issues, flight length, etc. This project could be a good topic for a future Forum presentation.

Two pending projects include "Connected Vehicle Highway Grip Factor Reporting for Snowplows" and "Vehicle Detection on Rural Roads Using Optical Fiber Sensing Technology." Both projects anticipate executing contracts in July of 2024. Jeremiah Pearce reviewed both projects.

The grip factor project will be conducted by WTI at Montana State University with a subcontract to former COATS PI David Veneziano who is now at Iowa State University. The project idea came from Caltrans District 2's maintenance staff who have struggled to get accurate and reliable road condition data for winter maintenance operations. The purpose of the project is to deploy and evaluate Advanced Safety Warning System Controllers collecting and sending data to a snowplow or other maintenance vehicle as it passes an RWIS station to provide the driver with real-time surface condition data, ultimately enhancing and improving efficiency of highway winter operations.

The fiber sensing project will be conducted by AHMCT at UC Davis. This project idea came about after a Forum presentation by Nevada DOT on the topic. The goal is to procure, install, operate and evaluate an alternative detection system using existing infrastructure and few construction resources. The detection system could be used for rural travel time messages, queue warning messages, and vehicle count statistics. The system will be deployed along I-5 between Redding and Anderson. Jacob Grivette from NDOT commented on the technology's performance and deployment sites.

The How-to Handbook/Manual for the Western States Forum was updated after the 2023 Forum and will be updated again after this year's event. The Handbook is a practical, user-friendly guide for planning and executing the Western States Forum. It is intended to document the Forum in such a way that the event and its standard of excellence can be easily continued even as staffing and other inevitable changes occur.

Andre Chavez reviewed a spreadsheet / WSRTC Dashboard with all the different tasks and their project details, including start and end dates, budgets, funds spent and remaining, etc. He hopes to automate the process somewhat and has found the visual representation helpful.

Websites

Leann Koon briefly described the WSRTC Website (<http://www.westernstates.org/>) and the Western States Forum website (<http://www.westernstatesforum.org/>). She indicated that progress has been made and work continues relative to compliance and accessibility for the two sites.

Upcoming Meetings

- ITE Annual Meeting, NRITS Conference, Philadelphia, Pennsylvania, July 21-24, 2024.
 - Travel support information has been provided to attendees – there will be six participants attending with support from the WSRTC.
 - Registration has been completed and lodging reservations made.

Jacob Grivette noted that Juneteenth is a recognized holiday at the federal level (June 19th) and in many states. Matt Luker added that Utah celebrates the holiday on the third Monday in June. This was noted for consideration when planning future Forums and annual meetings.

Roundtable of Recent ITS Activities

Andres Chavez, Caltrans DRISI

- Jeremiah noted that Andre is very busy and learning his new role quickly. Sean Campbell had ten tasks he was managing, and Andre brought several with him.

Jeremiah Pearce, Caltrans District 2

- Recruiting and filling staff vacancies in the wake of three recent retirements has been one of the highest priorities. It has been challenging to find qualified personnel who want to live and work in a more rural area in California. Currently interviewing and filling one position; the other two might not be filled.

- Working on many capital improvements with several projects in the design phase. One of the larger projects is the Cascade Gateway Improvements project.
 - Expanding I-5 from four to six lanes north of Redding to Shasta Lake City to help accommodate growth in the Redding area. Historically, Caltrans has worked to improve efficiency and operations before increasing capacity. This poses challenges to rural areas experiencing high growth and highlights some of the differences in urban versus rural settings.
 - To justify additional capacity, they have proposed adding a third lane in either direction specifically for freight, like a managed truck lane. It will be one of the first such systems in the country.
 - CMS and chain-on system being added. Chain-on system will interface with the current chain-on system at Fawndale.
 - Project currently in design and anticipate construction complete in 1 ½ to two years.
- Starlink pilot project update – System being tested in District 2. Presentation at the Forum on the project and results to date.
- Jeremiah, along with AHMCT’s Dave Torick, and Justin Ellis from Caltrans EQASI, will be presenting on the recent project that explored using a hydrogen fuel cell system to power TMS elements during public safety power shutoff events.
- Another link for the microwave backbone expansion project is being constructed with work on the link from Mount Bradley north to Antelope Summit (just to the southwest of Yreka), getting closer to the Oregon border. The full build out of microwave in District 2 along I-5 is nearly complete.

Jacob Grivette – Nevada DOT

- Kicked off the pilot program for AVLTS, NDOT’s connected vehicle program. Have outfitted the majority of the fleet from sedans up to snowplows with a sensor array system from seatbelts up to plow deployments with cameras on all of the bigger trucks. Incorporate near real-time plow activity into Nevada 511.
- Nevada 511 system has also been updated. Page is now fully online. Information shown includes camera feeds, travel times, planned construction work either NDOT or contractor, etc.
- In the materials purchase phase for a refresh of the wrong way driving system relative to reporting to improve accuracy and timeliness.
- Completely migrating the ATMS platform to a new vendor over the next year and a half.
- Middle mile project is getting underway to link all ITS elements border to border east to west along the I-80 corridor and north to south along US 93. Project will be ongoing over the next four to six years with the Office of Science, Innovation, and Technology as the lead. The entire infrastructure is going into the DOT rights-of-way so NDOT has a major supporting effort with the project.
- On the front edge of a project to develop a connected vehicle corridor along I-80 that would include super charging stations. Also looking to implement smart truck parking systems/applications along the corridor that would include number of spaces, parking times, travel times to next lot, etc., to help enhance driver planning.
- Starlink – have procured five units with two units deployed supporting the public safety radio network and two units under test with standard IT with the intent to deploy at maintenance yards.
- In approximately 30 days will turn on and start stress testing approximately 4,000 radios on the new P25 public radio network in Region 1 in southern Nevada. The system will eventually be

statewide with over 16,000 radios being migrated to the new system (Region 1 Las Vegas, Region 2 Reno, Region 3 Northeast). The system capacity is 16 million so for the life of the system there will be no issue with capacity. Not just NDOT that uses the system, it is also used by all the EPS organizations, county Sheriffs, city police, EMS providers, etc.

Doug Spencer – Oregon DOT

- Recently completed a contract with FLIR for detection equipment, wrong-way driver, tunnel management, etc. The Rose Quarter project along I-5 in the Portland area will likely put lids on the freeway making it a tunnel which will require fire and life safety protection. Versus having multiple consultants coming up with a solution, their program would rather get the equipment under contract and supply it to the project that way, so it integrates with their dispatch center, etc. Looking at solutions for incident detection, congestion monitoring, etc.
- In 2018, ODOT received an ATC MTD grant from FHWA with 9 different projects that Doug has been managing. All the projects have been through construction and are in the evaluation phase.
- ODOT has done several ATM projects with variable speed limits relative to congestion in metro areas and travel in mountain passes.
- Oregon partnered with Washington and Caltrans on an ATTAIN grant for truck parking management along the I-5 corridor. The ODOT ITS engineering group will be doing the design and also the configuration of the software, etc. There will be nine rest areas in Oregon included with an active system in place from Seattle to San Diego.
- A new RFP has been released for the Advanced Transportation Controller; they are currently working on the new specifications and requirements. The new ATC should be much more advanced than the current controller which is in use around the country.
- Still working to get the Broadband program off the ground. It is currently in legal review relative to utility permitting processes.

Tony Leingang – Washington State DOT

- Like Caltrans District 2, staffing has been a priority. Five new people have been added since February to work on the Virtual Coordination Center and the Automated Speed Enforcement in Work Zones project which will ramp up mid-winter.
- Proviso Projects – awarded \$1 million to detect and remove graffiti using ITS technology and a paint system attached to a drone. This is a joint project with the State Patrol.
- Proviso Pilot Project investigating Automated Speed Enforcement not in work zones using average speed (measuring and averaging before and after speeds). The system is based on similar systems used in Europe with an interest in more European-like safety improvements with speed enforcement, etc.. There are pilot projects along I-5 and I-90. At this point, this is just a test, and no violations will be issued.

Matt Luker – Utah DOT

- Just recently started in this position and has been on the job for three weeks. Learning!
- UDOT is ready to replace their TransSuite ATMS with a new ActiveITS system. Anticipate bringing some of the rural ITS elements onto the system first.
- Adding fiber optic along US 191 and US 40 from Salt Lake City to the Colorado border which will allow the addition of ITS devices.
- A UDOT team will be presenting at the Forum with an update about their Wrong Way Driving Detection System.
- The Signal Operations group is investigating better methods for battery backup involving super capacitors.

- Currently deploying equipment to power cycle ITS elements remotely.
 - Jake Grivette will send information on their system which they developed in house.

Announcements

There is a good program for the Forum over the next few days. Forum presentations will be posted after the event.

With thanks all around, the meeting was adjourned.

Action Items

<u>Item</u>	<u>Deadline</u>
1. Andre Chavez will initiate a meeting with Nevada DOT and Washington DOT next week to discuss and work through funding contributions.	June 28, 2024
2. Andre Chavez will revise the WSRTC Charter and send for review, comment, and finalization, and then facilitate signatures when ready.	September 2024
3. Jake Grivette (Nevada DOT) will send Matt Luker (Utah DOT) information on their remote power cycle system which they developed.	After the meeting
4. Leann Koon will provide more frequent, timely, and relevant WSRTC correspondence.	N/A

Meeting Participants

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