



Western States

Rural Transportation

Consortium

[Western States Rural Transportation Consortium](#)

Western States Rural Transportation Consortium (WSRTC)

**Steering Committee Meeting
March 9th, 2021
Online**

Meeting Minutes

This document is the official record of the online WSRTC Steering Committee meeting held March 9th, 2021.

WSRTC Steering Committee Meeting

March 9, 2021

Online Meeting

Meeting Minutes

Prepared by

Leann Koon

Western Transportation Institute, Montana State University

Leann Koon called the meeting to order at 9:00 AM Pacific Time / 10:00 AM Mountain Time on Tuesday, March 9th, 2021. Participants introduced themselves and greeted everyone. Leann reviewed the meeting's agenda and welcomed all to the meeting.

The meeting agenda, presentation, and minutes are posted on the Consortium website at:
<http://www.westernstates.org/Documents/Default.html>.

Western States Forum

Leann Koon provided an update on plans for the 16th Annual Western States Rural Transportation Technology Implementers Forum. The event is scheduled for June 15-17, 2021, in Yreka, California, at the Best Western Miner's Inn. Speakers selected for the 2020 event which was subsequently canceled, were contacted about presenting at the 2021 Forum. The agenda will have seven speakers from six states and Washington, D.C., including four of the five WSRTC member states. Meeting participants gave an overview of each presentation as appropriate. The group discussed current and potential travel and participation restrictions including options if the Forum can't proceed as planned in June. All states indicated that travel as of now is very limited. Agencies have expressed that by August or September restrictions are expected to have been lifted to some degree. There was support for postponing the Forum until late September or early October, but concern was also expressed about "stringing people along" if the event is ultimately canceled.

WSRTC Pooled Fund Updates and Discussions

Sean Campbell and Ron Vessey updated the group on the status of the Pooled Fund and the associated task orders. WSRTC Phase II TPF-5(241) was granted a time extension with a new end date of March 31, 2023. Approximately \$253,970 is remaining in Phase II. A master agreement has been executed with Montana Technological University (Montana Tech) to facilitate a task order for maintenance of the One-Stop-Shop system and the Automated Safety Warning System Controller project. The balance of the remaining Phase II funds will go towards a two-year task order supporting the 2021, 2022, and 2023 Western States Forums, and member travel to several WSRTC meetings and host conferences. See Table 1.

Table 1: WSRTC Meetings and Conferences

<u>Meeting, Conference</u>	<u>Date</u>
WSRTC Annual Meeting, Yreka, CA	June 15-17, 2021 (pending)
ITE & NRITS, Portland, OR , virtual	Tu - Th, July 20-29, 2021
ITS America, Charlotte, NC (potential)	Dec. 7-10, 2021
NWTC, Corvallis, OR	March 2022
WSRTC Annual Meeting, Yreka, CA	June 2022
ITE, New Orleans, LA (potential)	July 31 - August 3, 2022
ITS World Congress, Los Angeles, CA	Sept. 18-22, 2022
NRITS, North Carolina	Fall 2022

Ron noted that the time extension to 2023 is the last; if the project needed to go beyond March 2023 then it would have to start over and be open to others. Sean continued that any outstanding contributions and new funds will go towards Phase III (April 2023 – March 2027). Sean noted that Caltrans is in the process of securing \$250,000 during this year’s research process and committing it for Phase III (\$62,500/year for four years). The annual contribution to the WSRTC Pooled Fund Phase III will be \$5,000/year which can be paid annually or in advance. WSDOT can send a letter and an invoice for the state contributions.

Ron Vessey and Sean Campbell will meet to outline Phase III of the WSRTC Pooled Fund. With this third phase, the WSRTC will have been ongoing for 18 years!

WSRTC Documents

Sean Campbell will send out the WSRTC documents with potential changes. Please review the documents and return by April 30th, 2021. The updated documents will be used for Phase III of the Pooled Fund.

WSRTC Projects

Automated Safety Warning System Controller (ASWSC)

Doug Galarus reviewed the history of the project and the project’s benefits and intended outcomes. A third phase of the project was completed in August of 2020. During this phase, the software was further enhanced, and an installation process developed for working with the Caltrans Advanced Traffic Controller (ATC) 2070. The final version and documentation were turned over to Caltrans District 2 prior to the end date with approximately \$112,000 remaining in the budget. Staffing over the course of the project impacted the timeline as well as the budget. Doug commended the undergraduate students that worked on the project and noted that no graduate students were hired for the project. Jeremiah Pearce noted that the project is being field tested and has been working well. Maintenance personnel like the system and District 2 is helping facilitate deployment state-wide. Doug explained that having equipment to use for testing (e.g., CMS controllers, RWIS emulator, loops, etc.) has been critical to

success of the project. This summer, a lab will be set up at Montana Tech to facilitate system maintenance.

Ron Vessey inquired about the student talent pool at Montana Tech. Doug indicated that so far he has been teaching mostly seniors. Students in computer science are required to take an embedded systems class which is a positive, especially related to the ASWSC project.

One-Stop-Shop for Rural Traveler Information – OSS

Doug Galarus reviewed the history of the OSS project noting that at the start over 10 years ago it was a novel idea. The OSS is a web application that provides 11 mainland western states with real-time weather and road information. Phase 4 of the project was completed in August of 2020 with approximately \$62,800 remaining in the budget. During the fourth phase of the project, a unified desktop and mobile-friendly version of the application were developed. The project team continued testing and development and researched long-term maintenance and support of the application.

Sean Campbell added multiple links to OSS on the new Caltrans website. Doug noted that the system sees strong usage levels especially during incidents. OSS maintenance will be part of the maintenance task order with Montana Tech.

ASWSC and One-Stop-Shop Support

This will be an approximately \$60,000 two-year task order starting in summer of 2021. On-going support will be provided for the Automated Safety Warning System Controller (ASWSC) and One-Stop-Shop (OSS) projects. Project lab development environments will be established at Montana Tech in Butte so that support can be provided for the ASWSC and OSS projects/systems.

Thank you to Fheejay Painter and Ron Vessey at WSDOT for facilitating set-up of the Master Research Agreement with Montana Tech.

How-To Handbook / Manual for the Western States Forum

This is a practical, how-to 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 easily be continued even as staffing and other inevitable changes occur. The manual is updated annually. It was first drafted after the 2018 Western States Forum and updated significantly after the 2019 Forum. To keep the document current, information was also added in 2020 even though the actual event did not proceed as planned.

Professional Capacity Building (PCB) for Communication Systems Phase 5

Leann Koon briefly reviewed work completed on Phase 5 of the PCB project. A needs assessment working meeting was conducted in the fall of 2020 and a draft report submitted to the project manager Sean Campbell. The COVID pandemic has severely restricted in-person training opportunities. Given that, Sean Campbell announced that 7 IP Fundamentals courses (2 basic level classes plus 5 advanced classes) will be offered across California in the coming year. These courses will be delivered virtually with the instructor commenting that students “learn more in virtual class than in person” for these topics. Jeremiah Pearce noted that the PCB Curriculum has been developed with an eye towards hands-on learning. Some courses, like the IP Fundamentals classes, can be effectively delivered virtually. Others, like optical fiber or structured cabling, would be very difficult to deliver online.

California Oregon Advanced Transportation Systems (COATS) Phase 8

This is a two-year project that is providing support to the Western States Forum and other technology transfer activities.

Emeritus Membership

At the last meeting, three individuals were nominated for Emeritus Membership if they chose to accept the nomination. Those individuals are David Veneziano, Chris Strong, and Ted Bailey. The group discussed the purpose of recognizing individuals with Emeritus membership and questioned whether different wording (i.e., “acknowledgements”) might be more appropriate in some cases (e.g., retirement, moving to a different agency, job and/or role changes, etc.). After discussion, Sean Campbell nominated Matt Neeley from WSDOT. The agenda item was then tabled to be discussed after nominated individuals were contacted and alternative wording debated and clarified.

Upcoming Meetings

The Consortium was scheduled to meet for its annual meeting in Yreka, California, on June 15th, 2021, just prior to the 16th Annual Western States Rural Transportation Technology Implementers Forum. (Note: On March 19th, 2021, the Forum Steering Committee evaluated the current situation concerning holding the Forum in June and decided that the event could not be held on that date as planned. A decision is pending on whether to postpone the Forum or cancel it for 2021.) All states currently still have travel restrictions in place. Member states also indicated that situations are fluid, and several indicated that agencies are considering loosening restrictions by late summer. All expressed support for postponing the Western States Forum and WSRTC meeting until late September or early October noting that doing so would not impact participation in 2022. Western States Forum presenters should be updated as soon as possible.

Member states have spots allocated for the following meetings/conferences. If some can't attend, then those spots can go to other states. At the conclusion of TPF-5(241) any remaining funds will be divided equally and revert to the states.

- WSRTC Annual Meeting, Yreka, CA, ~~June 15-17, 2021~~ (pending)
- ITE & NRITS, virtual, July 20-29, 2021 (originally scheduled for July 18-21 in Portland, OR)
- *ITS America, Charlotte, NC, Dec. 7-10, 2021 (potential)*
- NWTC, Corvallis, OR, March 2022
- WSRTC Annual Meeting, Yreka, CA, June 2022
- *ITE, New Orleans, LA, July 31-August 3, 2022 (potential)*
- ITS World Congress, Los Angeles, CA, Sept. 18-22, 2022
- NRITS, North Carolina, fall 2022

Roundtable of Recent ITS Activities

Sean Campbell – Caltrans DRISI

- Caltrans Headquarters just released its annual accomplishment report for 2020 (posted online). One research project is included in the report – solar power in the right-of-way.
- Caltrans also just released their 2024 Strategic Plan (posted online). Safety is a focus of the plan. A recent reorganization split the Safety Division from the traffic operations unit. There is also a focus on equity within Caltrans.

- For this research funding cycle, 96 proposals asking for more than \$20 million were submitted. Approximately \$3 - \$4 million in funding is available.

Jeremiah Pearce – Caltrans District 2

- The maintenance reorganization is complete, and all preventative and maintenance responsibilities related to TMS are now integrated into the Office of ITS Engineering and Support. The change increased staffing by 50% and was accompanied by an increase in space, tools, vehicles, etc. This has been a good change, and already it has made a positive contribution to TMS health in the district.
- The District has experienced three significant snowstorms (over 1 foot of snow in the valley) in the last three years. These events usually occur once every 10 years. District 2 is drafting a director's order contract to address the operational improvement needs identified as a result of these winter storm events. The contract will include additional TMS elements such as signage and development of an off main line chain-on system in the Sacramento River Canyon.
- CCTV research and integration – investigating CCTVs that can operate over POTS and their slow speed connections. This continues to be a challenge and they are evaluating different products.
- Microwave expansion – a microwave hub at Mount Bradley is being constructed in the Antelope area near Yreka, and this summer they will be building the Tuscan Butte link near Red Bluff. These will establish point-to-point microwave from Corning in the south almost to the Oregon border in the north. 4.9 GHz public safety band radios are used for the last mile from the hubs to the roadsides.
 - The FCC is pulling back somewhat on the use of the 4.9 GHz band for public safety and not issuing new licenses. The FCC has been receiving complaints from private entities indicating that the band is being underutilized by public safety agencies. Caltrans Office of Radio Telecommunications sent a letter to the FCC. Jeremiah asked if other DOTs had done any outreach to the FCC on this subject. No one has done outreach.
 - NDOT has migrated away from using any unlicensed spread-spectrum technologies and gone strictly with point-to-point licensed connections. NDOT has had challenges with interference in rural areas.
 - Jeremiah noted that 4.9 is “licensed” for public safety use but unlicensed enough that regional coordinators can define what band you are operating on.
 - NDOT started using 4.9 band from 2010 to 2016 but were having issues with interference – everyone was calling themselves “public safety” and it was getting used more and more in their area.
 - WSDOT still uses 4.9 Ghz and suggested connecting with Tim McDowell from WSDOT to see whether any outreach had been done. Tim presented *Wireless Communications for Rural ITS* at the [2011 Western States Forum](#).
 - ODOT has approximately 400 licenses with 4.9 GHz and will be working on the licensing process. Doug Spencer noted that the FCC is asking states to come up with their own licensing scheme.

Andreas Krause – Caltrans District 1

- District 1 is working on communications for remote ITS elements. Andreas asked if there had been any discussions within the group about using the new Starlink satellite system for such communications, and the potential for pooling a subscription across DOTs in an attempt to get reduced costs.

- Sean Campbell indicated he was not aware of any such discussions within Caltrans and DRISI, but noted it was an interesting concept.
- Andreas added that the system was still considered Beta and that they were targeting northern latitudes to start. As the system continues to grow, it may become a viable option for communications with all remote ITS elements that don't have other communications options.
- Sean noted potential considerations for Caltrans– competitive bidding, IT project, approval by general services, etc.
- NDOT asked if they had looked at the First Net deployment in their area. Recurring costs with First Net could be cut in half.
- Sean replied that First Net in California is mostly in the urban areas.
- Jeremiah Pearce replied that he had met with AT&T regarding First Net and found that it was a misconception that First Net covers everywhere. AT&T is mandated to cover 99% of the population. There are several areas/communities with small populations that have next to zero cell coverage now; AT&T is not going to cover some of those rural areas because they are covering 99% of the population as is.
- Jim Whalen concurred and added that First Net has coverage along most major roadways. That coverage, along with coverage by regular cellular providers (i.e., Verizon), covers the majority of Nevada.
- Andreas added that there are several locations in Caltrans Districts 1 and 2 that do not have any alternative means for communications and that satellite provides the first viable option for those locations.

Ron Vessey – Washington State Department of Transportation

- WSDOT continues to deploy and replace ITS assets as needed.
- Like other states, as an agency, they are revisiting fiber accommodation. Ron noted they are participating in several ongoing national policy discussions.
- WSDOT is in the middle of a statewide land mobile radio replacement project. Tim McDowell has been very busy with the project but it is progressing smoothly.
- WSDOT is focusing on their TSMO Program Plan and TSMO strategies – viewing operations improvements as the first option versus capital projects.

Doug Spencer – Oregon DOT

- ODOT just finished construction on an ATM system on I-84 at Cabbage Hill in eastern Oregon. It is unique because they had to install 8 miles of medium voltage, 7.2kv in the right-of-way because the utility would not serve ODOT. This is the first medium voltage line in the right of way that will be owned, operated, and maintained by ODOT.
- As part of a change order for a paving project, an ATM system is being constructed over Siskiyou Pass on I-5 from the California border into Ashland. ODOT is deploying signs and structures to do variable speed limits and curve warning systems based on weather and road surface conditions.
- After three years, the network and radio price agreement contracts that Doug has been working on have been or are close to being completed. ODOT awarded a contract for radios about 6 months ago and hopes to have a contract signed for the network equipment at the end of this month. These agreements will lock ODOT into what radios and network equipment they will use for the next 10 years.

- Serial cabinets – Doug and Traffic Headquarters are developing a price agreement contract for the ITE serial cabinet; moving away from Caltrans 332 style cabinets and going to the ITE serial cabinet. The contract will also include the ATC since that contract is expiring soon. The contract will be with one vendor so they will no longer have a qualified products list.
- One of the outcomes/strategies identified through their TSMO plan was the need to hire and retain Electrical and Control System Engineers working in Operations. As part of the bargaining unit for engineering, Doug was able to get a 5% differential for ODOT Electrical and Control System Engineers.
- ODOT is planning a truck parking management system on I-5 south of Portland. The system will monitor some 60 stalls at each of the two rest areas and includes a cell phone app which will show the percentage of parking stalls available.
- ODOT is transitioning from using Bluetooth data to RITIS data for travel times. The support needed for Bluetooth data is too problematic.
- They are migrating from using ScanWeb for RWIS data to using SWRI's RWIS applications.
- ODOT is updating their central traffic signal software and the connected vehicle module that goes with it so they can provide SPAT and MAP data to the internet through their portal. They are looking at hosting their traffic signal software in the Cloud with their traffic signal software vendor as ODOT IT cannot support.
- ODOT is investing approximately \$2 million to work on their connected vehicle ecosystem.
- FHWA has a requirement that DOTs have broadband coordinators. Several state senate and house bills are requiring broadband services to rural communities. ODOT will be kicking off a year-long project to flesh out what this means for ODOT and their relationships with other agencies that have networking in them such as their state CIO office and Department of Administrative Services.
- Doug has been working with Traffic Headquarters to unify the agency's operations of electrical projects, including designs, elements, construction, inspection and inspection records, etc.
- Doug is the manager for ODOT's ATCMTD grant, a large effort which includes 9 different projects (ATCMTD = Advanced Transportation and Congestion Management Technologies Deployment). See previous meeting minutes for details.
- The Oregon Transportation Commission strategy to upgrade all traffic signals to operate on the ATC is ongoing.
- Their office has inherited ODOT's motor carrier support both for maintenance and engineering. It has been a large undertaking to address bringing structures up to code, etc.

Seth Daniels – Nevada Department of Transportation

- NDOT was also awarded an ATCMTD grant to expand their ATM system in southern Nevada. The grant is in conjunction with the RTC and the University of Nevada.
- Several wrong way driver projects are underway.
- Nevada is also in the middle of replacing public safety radio equipment statewide which has been very challenging.
- NDOT is expanding their telecommunications infrastructure sharing programs, including partnerships with long-haul fiber providers to get their own strategic areas installed which is a slow build. They do have a partnership with the Governor's Office of Science, Innovation, and Technology to work on rural broadband and pushing it out. NDOT still needs to get more infrastructure in place to make those trades and that additional infrastructure worthwhile. They are concentrating on the highly desirable areas to facilitate trades for services in the more rural areas to help deploy rural broadband services.

- NDOT is experiencing many of the same challenges as other WSRTC member states, i.e., electrical jobs, highway capacity projects and inspection issues, having the technical skills on inspection crews to do fiber and ITS projects, etc.

Jim Whalen – Nevada Department of Transportation

- Infrastructure sharing.
- Extending network from north to south and into rural areas.
- In the past, all their ITS systems were operated by FAST in Las Vegas. Now, they are moving NDOT elements and devices back to their network.

Tyler Laing – Utah Department of Transportation

- UDOT has increased focus on ITS asset management to better understand the age of their ITS systems and develop better plans for device end of life management. Coupled with that, they are working on performance measures to better tell the story and justify funding and personnel needs for continuing to deploy ITS, maintenance, and replacement of devices/systems at end of life.
- There are approximately 1,300 CCTV cameras statewide. They are transitioning all CCTV cameras from analog to digital. UDOT worked with a consultant contractor to develop a universal decoder that decodes both analog and digital camera feeds which allows UDOT to have both types of cameras in the field and still present a seamless user experience.
- They were recently notified that funds have been allocated to replace the 20-year-old statewide ATMS system. They also received funding for ongoing maintenance of the system which hasn't been available in the past.
 - Seth Daniels asked where Utah was in the process for procuring the ATMS.
 - Tyler replied that initial requirements have been developed so that when funding becomes available on July 1st, they will be ready right out of the gate to release a solicitation to procure a new system.
 - Seth would be interested in the requirements and documentation. Once completed, Tyler can share the information with him and anyone who would like to review it.

Announcements

Thank you to everyone for participating in the meeting.

Table 2: Action Items

<u>Item</u>	<u>Deadline</u>
1. A decision will be made on whether the 2021 Western States Forum will proceed in June as planned.	March 19, 2021
2. Ron Vessey / WSDOT can send letters and invoices for pooled fund contributions/dues.	Annually
3. Sean Campbell will share the edited Consortium documents with the group.	As soon as possible
4. The group will review the Consortium documents and submit any changes.	April 30, 2021
5. Consortium documents will be updated and finalized.	June 1, 2021
6. Ron Vessey and Sean Campbell will outline Phase III of the WSRTC Pooled Fund and work towards establishing a new pooled fund number.	Summer 2021
7. Ron Vessey can connect Jeremiah Pearce with Tim McDowell concerning the 4.9 Ghz public safety band and outreach to the FCC.	After the meeting
8. Tyler Laing will share with those who are interested the initial requirements and related documentation for replacing UDOT's statewide ATMS.	When documents are available

Table 3: Meeting Participants

<u>Name</u>	<u>Organization</u>	<u>Contact</u>
Sean Campbell	Caltrans DRISI	Sean.Campbell "at" dot.ca.gov (916) 227-6259
Seth Daniels	Nevada DOT	sdaniels "at" dot.nv.gov (775) 888-7565
Doug Galarus	Montana Tech	dgalarus "at" mtech.edu (406) 496-4858
Leann Koon	WTI/MSU	leann.koon "at" montana.edu (406) 994-7643
Andreas Krause	Caltrans District 1	Andreas.Krause "at" dot.ca.gov (707) 441-5636
Tyler Laing	Utah DOT	tlaing "at" utah.gov (801) 887-3792
Kian Leiner	FHWA, Oregon Division	kian.leiner "at" dot.gov
Jeremiah Pearce	Caltrans District 2	jeremiah_pearce "at" dot.ca.gov (530) 225-3320
Nathaniel Price	FHWA, Oregon Division	nathaniel.price "at" dot.gov (503) 316-2566
Doug Spencer	Oregon DOT, ITS	doug.l.spencer "at" odot.state.or.us (503) 856-6528
Ian Turnbull	Emeritus	ian_turnbull "at" ruralits.com
Ron Vessey	Washington State DOT	vesseyr "at" wsdot.wa.gov (360) 705-7948
Jim Whalen	Nevada DOT	jwhalen "at" dot.nv.gov (775) 888-7887