Western States Rural Transportation Consortium (WSRTC)

Steering Committee Meeting
June 16, 2015
Yreka, California

Meeting Minutes

This document is the official record of the WSRTC Steering Committee meeting held June 16, 2015, in Yreka, California, just prior to the 10th annual Western States Rural Transportation Technology Implementers Forum.

WSRTC Steering Committee Meeting
June 16, 2015
Meeting/Teleconference
Yreka, California

Meeting Minutes

Prepared by

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Doug Galarus called the meeting to order at 1:00 pm Pacific Time. Introductions were made by everyone at the meeting site in Yreka, California, and by those calling in. Doug reviewed the purpose of the meeting and the planned agenda.

A special thank you was given to David Veneziano for his work with the Consortium and the COATS project over the years. He recently left WTI to take another position at Iowa State University.

Ed Lamkin was also given a special thank you and recognized for his involvement and crucial support of the Consortium's activities. He will be retiring this fall.

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

Western States Forum
Leann Koon provided an overview of the upcoming Western States Forum. A total of ten speakers were scheduled covering a variety of topics. A preview of the eight presentations was made available to those registered for the Forum. Thirty-nine participants represented eight states, seven state DOTs, and three universities. This was the 10th annual Forum and Ian Turnbull and Doug Galarus provided some history and background about the event.

WSRTC Pooled Fund Discussions
Sean Campbell and Ron Vessey reviewed how the Consortium works in regards to state contributions and distributions. There is always two sets of eyes reviewing invoices.

Sean Campbell passed around and reviewed a spreadsheet of Pooled Fund contributions to date. Ron Vessey explained the difference between commitments and obligations. The total WSRTC Pooled Fund budget is $380,000, with $150,000 directed toward the One Stop Shop and $230,000 for the meeting coordination task orders. (Meeting coordination task orders include travel support, website development and maintenance, meetings, and Western States Forum operations.) Sean and Ron reviewed the funds available for Task Order #5. Approximately $6,800 had been spent as of June 1st. Individual state commitments and obligations were reviewed.

The current phase of the WSRTC pooled fund expires next year. Discussion moved to whether there was interest in a second phase and what contributions might be made by the member states. Representatives from the member states that were present (California, Nevada, and Washington) all expressed support and interest in continuing the Consortium. Sean Campbell indicated that California will contribute $60,000 per year for 4 years if a second phase is conducted. Ron Vessey said that Washington has also obligated funding for a second phase. Minimum buy-in from other states would be $5,000 per year. A formal decision on whether to proceed with Phase 2 must be made this year. Ron mentioned that if a state conceptually agrees with a second phase of the project, but it is too late for budget considerations, then the state could double up on the contribution in the following year.

All participants discussed the mission of the Consortium and its potential. Conducting a regional project involving all 4 states was discussed. Sean Campbell stated that if the group is interested, the Consortium could leverage resources to do a "moon shot" type project for rural transportation that all states can participate in, be proud of, and be an example to the rest of the nation. The WSRTC has demonstrated that it can be done and the potential exists to do so again. Ian Turnbull, Sean Campbell, Ron Vessey, Ed Lamkin, Monica Harwood, and Tom Moore all added comments and questions about Consortium involvement and initiation of incubator projects.

Sean Campbell suggested that the group start investigating potential topics for the larger project now and submit ideas to the group in September or October of this year. Another teleconference meeting could be held in January or February to select a project from the proposals. The associated universities could then prepare and submit technical proposals. Ron Vessey agreed with the suggested timeline and asked whether the group wanted to solicit project ideas as states deem appropriate or apply some strategy to that part of the process. Sean Campbell reminded the group that emphasis should be placed on rural applications of ITS related to technology, operations, and safety. Monica Harwood asked about capitalizing on the energy generated by the Forum. Ian Turnbull added that the Forum is highly technical and it was up to those here to "ask" and initiate discussions. He also stated that it was important to get the non-technical people engaged as well and indicated that the Consortium representatives would need to be persistent in dialoguing with key individuals.

Ed Lamkin asked whether the group wanted to consider adding one or more states to the Consortium. He indicated that he had spoken with individuals from Utah about the Forum and the WSRTC. Arizona and New Mexico were also mentioned. Up to this point, the WSRTC has not actively pursued other states for membership in the Consortium. Tom Moore stated that he would not be against reaching out to other states, but wanted to ensure that the Consortium would be moving in a direction that was attractive to other states. Ron Vessey indicated that states may question whether they can be a member of more than one pooled fund and Tom added that the One-Stop-Shop project brought that issue out. Sean Campbell also added that being part of the WSRTC means you have access to technology and projects. Resources are shared equally among the member states.

Monica Harwood asked whether the WSRTC is tied together by a specific route. The Consortium is not bound by a route, but instead by the transportation challenges presented by *rural* areas.

Sean Campbell stated that Caltrans would like to bring three different projects into the Consortium. Once the projects are in the Consortium, the member states have access to the technologies and can benefit from the projects. He clarified that general state contributions to the WSRTC go towards Consortium activities such as incubator projects, travel support, and the Western States Forum. States

can make individual contributions for projects they are interested in. Caltrans would be open to other states contributing to the proposed projects.

Last year, the Consortium approved a third phase of the Automated Safety Warning System Controller (ASWSC) project by Caltrans. Caltrans has transferred the funds for the project, WTI will be the contractor, and WSDOT will issue Task Order #6. Parts 1 and 2 will be $100,000 each and part 3 will be $49,995 for a total budget of $249,995. Nevada would definitely like more information about the ASWSC.

Sean Campbell asked to bring One-Stop-Shop Phase III into the Consortium. OSS Phase 3 aims to incorporate more field elements, expand coverage of existing ones (i.e., CMS), and begin investigation of a western states mobile app. During discussion, Sean, Ian Turnbull, and Doug Galarus mentioned that the technology needed to support such a large data set in a mobile environment is not quite there and beyond the general Phase II Consortium membership. Parts 1 and 2 would each be $150,000 for a total budget of $300,000. Washington, Nevada, and California expressed support for the project being part of the Consortium.

Sean Campbell asked to bring WeatherShare Phase IV into the Consortium. This project will be the current WeatherShare plus the information relay to deliver a complete replacement for ScanWeb. The system will also be an archive of historical data and allow algorithm testing. Two parts will be $50,000 each for a total budget of $100,000. Washington, Nevada, and California expressed support for the request and WeatherShare Phase IV will be part of the Consortium. Nevada indicated significant interest in the WeatherShare system, in particular the historical data archive.

With California's and Washington's potential contributions to a WSRTC TPF Phase II and the three projects discussed above, future work totals $909,995.00 at this time.

Task Order 5 WSRTC Meeting Coordination, Western States Forum Support, Website Maintenance
Task Order 5 includes WSRTC meeting coordination, support for the Western States Forum, and website development and maintenance. Doug Galarus reviewed the status of the task order and the activities being conducted. An estimated $74,000 will remain after May 2015 and the task order ends on June 30, 2016. This task order will cover travel support to NRITS 2015. (See Other Discussions below.)

With recent changes, the group requested a review and update of the WSRTC Steering Committee contact list.

Task Order 2 One-Stop-Shop
Task Order 2 is the current phase of the One-Stop-Shop (OSS) project. Doug Galarus reviewed the status and progress of the project. OSS earned ITS America's Best of ITS Award for Best New Innovative Practice – Research Design and Innovation. The award was announced at the 2014 ITS World Congress in Detroit, Michigan, September 7-11, 2014. Through Sean Campbell, the project team implemented some additional camera links in time for the bad weather season. Coverage was expanded to 11 western states and the site has experienced an increase in usage that has generally been sustained with the caveat that it is currently the non-winter season. The links from the Caltrans camera pages have facilitated this and the number of users in Nevada has increased significantly. When there is a weather event, Nevada rivals California for usage. Doug commented that although many states have already

aligned themselves with various coalitions and it is challenging to get them directly involved, OSS has still demonstrated that going at it alone is doable given access to data from the states.

Incubator Project Updates

Doug Galarus and Leann Koon reviewed the objectives and status of the *Data Quality for Aggregation and Dissemination of DOT Traveler Information* project. Phone interviews have been conducted with California, Idaho, Montana, Nevada, Oregon, Utah, and Washington state DOTs. Contact was made with Colorado and Wyoming, and introductory emails sent to individuals in Arizona and New Mexico. All discussions have been positive and those interviewed have expressed great interest in the project and its results. A presentation will be given at NRITS 2015 in August.

Doug Galarus gave an overview of the *Chain-up Delay Tracking with Bluetooth* project including an introduction, objectives, and recommendations made thus far. The project is looking at winter travel times through a corridor. Prospective deployment recommendations and sources of Bluetooth readers were documented. This work was conducted last year and pending deployment of the Bluetooth readers, has been put on hold.

Ian Turnbull provided some background on the *Fredonyer Pass Icy Curve Warning System* project. The project is being completed by David Veneziano. All data has been collected, although some interviews are still pending. Preliminary results indicate that the system appears to have maintained the speed trends observed earlier and that the number and severity of crashes appears to be lower after the deployment of the ICWS. Slides submitted by David were reviewed by the group.

General Project Discussion

Doug Galarus reviewed the status and activities of a number of spin-off projects of interest to the WSRTC.

- Professional Capacity Building (PCB) for Communications Systems
  - Phase 3 is in progress.
  - A course in Telecom Wireless Fundamentals was delivered to 12 Caltrans ITS engineers March 9-13, 2015, in Woodland, California. Sean Campbell, Ian Turnbull, Doug Galarus, and Leann Koon attended all or parts of the course as observers.
  - While the content of the project is good, sharing the process employed in developing and delivering the courses is valuable as well.
  - Ed Lamkin mentioned that it would be a loss if the quality classes developed during the PCB project "go away" and indicated that it would be good if an entity such as Headquarters Operations picked them up. It may be a possibility to have other states participate to keep the classes fresh (i.e., have the instructor go from state to state.).
  - Monica Harwood asked about eLearning as WSDOT has been facilitating more online training. The courses delivered during this project have purposely avoided online training, instead focusing on providing highly technical, hands on training.
- Integration of Aviation AWOS with RWIS
  - Phase 3 has been initiated and is set to end 12/31/2015.
  - Ian Turnbull indicated that there is interest from other groups within Caltrans for future phases and potential deployment.

- WeatherShare
    - Phase 3 is in progress and is slated to end at the end of this year.
- WeatherShare Integration with QuickMap
    - This project is intended to make the best use of an in-state tool. There is some overlap with OSS.
    - The project will continue through June of 2017.

Website, LinkedIn Group, Listserv, Emeritus Status

Leann Koon and Doug Galarus reviewed some of the recent changes to the Consortium's website (www.westernstates.org). Changes included making project updates more visible upon initial landing on the site and the addition of a page that lists all of the project and WSRTC updates made since the site's launch in 2010. Sean Campbell suggested that the project team create a comprehensive Documents page organized by project.

The next item for discussion was the creation, management, and use of a network of people for posting, discussing, and answering technical ITS questions. The idea is to coordinate an informal group of like-minded people to whom questions can be posed and discussed. The procedure should be simple and easily accessible. It was generally agreed that using the email Inbox by way of a listserv versus something like LinkedIn groups would be preferable and a controlled list serv may be the best option. Doug Galarus/WTI will look into this option and report back.

Ian Turnbull suggested that the WSRTC provide some form of recognition of those who have been instrumental in supporting/facilitating the creation and ongoing activities of the Consortium, including those who have since moved on to other responsibilities, positions, or retirement. This could be in the form of establishing "Emeritus Status" and related requirements and guidelines, and/or other similar recognition. Recognition could be formally given during Steering Committee meetings and on the Consortium's website.   A small group will discuss this and present a proposal for review by the Steering Committee at the next regular meeting.

Roundtable Discussion of Projects

Sean Campbell – Caltrans DRISI
- Scripts to retrieve camera images and put them on OSS through the CWWP2 were written.
- The Information Relay is close to deployment in other districts.
- Steps are being taken to secure funding for additional projects.

John Carson – Caltrans District 1
- A FHWA workshop was held regarding the District's adaptive traffic signal project. Systems/engineering documents were drafted. The City expressed some concerns for the project and resources for signals were cut. Ultimately, it was decided to delay implementation and instead deploy alternative improvements.
- No new ITS equipment has been installed. The District is working to maintain those systems already in place.
- District 1 is working on the microwave backbone in Lake County.

- District 1 recently relocated the TMC and the TMC server room. They are currently working to get the RWIS back on line.
- Brad Mettam is working on a grant application to update the ITS architecture for District 1. John referenced WTI's ITS regional architecture project. Jim Sanford is retiring – he is currently the person responsible for the District 1 architecture.

Ian Turnbull – Caltrans District 2
- System-wide Measured Performance – As reported at our last meeting, we are measuring the actual availability of each of our CCTV and RWIS field elements using our Information Relay data collection and processing appliances. Both of these systems are now being deployed statewide. The RWIS Info Relay is being deployed as part of the WeatherShare III effort and the CCTV Info Relay as part of an internal effort. Both of these systems were featured in presentations at the Western States Rural Transportation Technology Implementers Forum in past years. The results for this past full year of measurement in District 2 are: CCTV = 99.22%; RWIS = 99.34%.
- Out-of-Pavement (OOP) Road Surface Sensing – As the number of RWIS deployed in our district has increased, it has become clear that in-pavement road surface condition detection is not a viable long-term solution. They are too prone to failure, require significant effort to replace due to lane closures and require constant replacement support as paving projects and maintenance grind-outs move through an area. We have deployed an evaluation test bed on I-5 near Sims Road. This consists of Luft in-pavement sensors, a High-Sierra IceSight 2020E OOP sensor and a Vaisala DSC/DST-111 OOP. Of particular interest is the accuracy of roadway ice detection in the presence of chemical treatments. The evaluation this last winter was inconclusive due to the lack of winter conditions. We expect to continue test bed operation until a viable alternative to in-pavement sensing is found.
- Fredonyer ICWS Evaluation – A follow-up review of driver behavior and accident data is being conducted for both ice detection and warning systems at Fredonyer Pass in Lassen County. This is the second evaluation of the system's effectiveness and will include accident data through April of this year.
- I-5 Communications Upgrade – The series of projects to improve field element communications along I-5 from Redding to the Oregon border continues. Deployment of 4.9 GHz public safety band mountaintop to roadside microwave links continues in the Lakehead area. Once connected, each roadside ITS Node maintains an 11 Mbps, "always-on" data path to the Redding TMC. This system has proven to be more reliable and significantly less expensive than comparable Telco services. In the Redding area, a follow-on project to complete the deployment of 18 miles of fiber is in design. This project installs equipment, equipment shelters and terminates the fiber cabling that was installed in 2013. In addition, initial work to develop a Project Initiation Document to construct a new ITS Mountain Radio site at Mount Bradley is finished. The PID will be completed by the end of the month and the project should be constructed within the next 5 years. This will extend the 150 Mbps ITS microwave backbone one hop north and will provide high-speed connectivity along I-5 up through Black Butte Summit.
- Redding TMC-Dispatch-EOC – Initial concept work has started to create a more integrated TMC, Dispatch and Emergency Operations Center in Redding. The goal is to create a facility that can easily scale to meet the needs of operational staff through a wide range of incidents. This will likely require significant remodeling and possible relocation of existing facilities. Construction is expected to start in two years.

- Siskiyou Chain-On Area – The trial system to replace manually operated chain signs with a flasher and light system was installed on I-5 at Yreka. It can be operated from a maintenance vehicle or the TMC. The lack of winter weather this year precluded any evaluation of driver acceptance and operational effectiveness. Hopefully next year we will get snow!

Ron Vessey – Washington State DOT
- WSDOT is continuing to expand ITS field element deployments.
- LED lane markers have been installed on Snoqualmie Pass, along with additional striping and barriers. Anecdotally, the additions have been helpful for drivers. The lane markers on the south side of the pass are not receiving enough sunlight to keep them illuminated all night in the winter.
- Few changes have been made to the organized chain-up system that was presented at last year's Forum. There was very little winter so operators were not able to gather much evaluation data. More CMSs have been installed further out from the chain-up area to provide drivers with more advanced warning.
- Regarding the adaptive lighting and illumination reform project that was also presented at last year's Forum, the agency is seeing a notable power savings from the changes. A project is underway to convert approximately 1500 luminaires in two regions with a grant through the Department of Commerce. The design manual has been updated to reflect the new requirements. Currently, they are focusing on areas with documented problems and seeing a 30 percent reduction in lighting needs. Sean Campbell mentioned that he sent Keith Calais' Forum presentation to the Davis City Engineer.
- The timeline for the Alaskan Way Viaduct Tunnel project has been revised as the tunneling machine is repaired and renovated. Tunneling is expected to resume in August.
- Previously free HOV lanes have been replaced with express toll lanes. Along I-405, a second HOV express toll lane is being added on the northern 17 miles of the route. It will be free for vehicles with 3 or more passengers. Dynamic tolling based on demand is being tested and implemented. Testing is also being conducted for electronic tolling signs. No barricades are deployed.
- There is a new deployment of Bluetooth readers at Joint Base Lewis McChord (JBLM) between Olympia and Tacoma where ramp meters were recently activated. Thirty Traffic Cast BlueToad readers on hand in the region will collect data for a JBLM traffic flow map so that drivers can make travel decisions accordingly.

Monica Harwood - Washington State DOT
- A new TMC in Seattle will come online this fall.
- Currently, WSDOT is trying to determine how their traveler information tool (GovDelivery) is being used and whether it is being used in the most effective way. Twitter and Facebook sign-ups are increasing and approaching usage levels for 511, etc.
- Her position is new to WSDOT and she is tasked with developing more awareness about Operations. A resource staff survey is being conducted to evaluate knowledge levels on traffic and operations which would be interesting to do in other states as well. Ron would be interested in knowing what training needs are present and what approach(es) to take to address those needs.

Don Anderson – Caltrans District 2
- He is new to his position and the WSRTC, and is learning a lot. He is looking forward to working with the Consortium.

Tom Moore – Nevada DOT
- NDOT is moving forward with retrofitting their existing HPS luminaire with LED technology. The decision for replacement was due to the cost savings. Public support has been favorable.
- The Washoe Valley wind warning project consists of 13 signs with flashing beacons that notify motorists of high wind conditions. Currently these signs communicate through a cellular platform. They are in the process of converting this cellular network into a point to multi-point network. This will provide them with more reliable communications and higher bandwidth capabilities.
- The Reno and Elko TMCs have been modernized.
- Fiber is now in place on I-80 from border to border.
- Fiber is being installed on US 50 from Carson City to Ely.
- An RFP is being released for a contract for new DMS.
- An Active Traffic Management project is underway in Las Vegas.
- The University of Nevada Reno is conducting research involving DSRC. NDOT is considering deploying the radios in 7 or 8 vehicles, and building 3 sites on I-80.

Other Discussions
The National Rural ITS conference will be August 9-12, 2015, in Snowbird, Utah. An informal WSRTC meeting will be held. Through the WSRTC, travel support is available to three people from each Consortium member state. California attendees will be Sean Campbell, Ian Turnbull, and one other. Washington will be represented by Ron Vessey. Nevada will send Tom Moore and one other. Two attendees from Oregon will likely participate as well. Leann Koon will send out more information regarding registration and lodging payments. Please confirm attendance with Leann as soon as possible.

Next year, ITS America is June 12-15, 2016, in San Jose, California. As these dates overlap with the traditional time for the Western States Forum, there was some discussion on how to coordinate participation in this event with the Forum and the Consortium's annual meeting.

The group would like to have a teleconference meeting in October or November. The goal would be to have two meetings per year about six months apart.

Participation in the 2016 Northwest Transportation Conference is a possibility.

Sean Campbell thanked the group for the discussion and participation, and the meeting was adjourned.

Action Items

Item	Deadline
1. Make formal decision on whether to proceed with a Phase 2 of the WSRTC.	Fall 2015
2. Investigate potential topics for a larger, "moon shot" type project.	Fall 2015
3. Review and update the WSRTC Steering Committee list.	As soon as possible
4. Investigate establishing a controlled listserv for technical ITS questions.	Summer 2015
5. Create a comprehensive Documents page on the Consortium website. Recognize those instrumental in supporting and facilitating the creation and ongoing activities of the Forum.	Summer 2015
6. Provide more information about NRITS 2015 registration and lodging payments, and travel support.	As soon as possible
7. Look into attendance/participation and a WSRTC meeting at the 2016 Northwest Transportation Conference.	Summer 2015
8. Discuss and decide on dates for the 2016 Western States Forum considering the dates of the 2016 ITS America Conference in San Jose, California.	As soon as possible
9. Discuss and develop a proposal for creating "Emeritus Status" and the associated qualifications and requirements.	Proposal to be presented at the next meeting.

Meeting Participants

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