

# TMC Pooled Fund Study

## Quarterly Meeting

Wednesday December 2, 2020  
1:00 – 3:00 PM ET

### Attendees

PFS Members Present		FHWA Liaison
1. Jose Camacho (Caltrans)	15. Dominic DelCol (ODOT)	Jon Obenberger
2. Kien Le (Caltrans)	16. David Gaffney (PennDOT)	
3. Fred Heery (FDOT)	17. Ryan McNary (PennDOT)	<b>Noblis Support</b> Cheryl Lowrance Kathy Thompson
4. Elyse Morgan (I-Pass, IL)	18. Ray Hallavant (TDOT)	
5. Shari Hillard (KSDOT)	19. Adam Moncivaez (TDOT)	
6. Jason Dicembre (Maryland DOT)	20. Lee Smith (TDOT)	
7. Suzette Peplinski (MDOT)	21. David McDonald (TXDOT)	
8. John McClellan (MnDOT)	22. Corey Coulam (UDOT)	
9. Garrett Schreiner (MnDOT)	23. John Leonard (UDOT)	
10. Alex Wassman (MoDOT)	24. Lisa Miller (UDOT)	
11. Juan Hernandez (NVDOT)	25. Ali Farhangi (VDOT)	
12. Kevin Hall (NJDOT)	26. Vinh Dang (WSDOT)	
13. Pete McCloskey (NJDOT)	27. Stacey Pierce (WisDOT)	
14. Dominic Ciaramitaro (NCDOT)		

### Update on Current TMC-PFS Projects (Alex Wassman)

1. **Use of Color Changeable Message Signs (COMPLETED)**
  - State of Practice and Human Factors Study Reports both in publication process.
  - Adam Moncivaez asked about the release date for the Color CMS report. Jon indicated the use of “guidelines” in title and throughout report has required substantial edits in support of the document obtaining the necessary approvals.
2. **Use of TMC Performance Dashboards (COMPLETED)**
  - Webinar held 7/21/20; Final report in publication process
3. **Performance Measure and Health Index of ITS Assets**
  - Webinar held 9/10/20; Final report in publication process
4. **Analysis of TMC staffing and Contracts**
  - Completed annotated outline for report; draft in progress
5. **Applying Predictive Analytics Into Real-time TMS Operation**
  - Literature review underway- summary report planned for December 2020
6. **TMS Asset Management Planning and Life Cycle Cost Analysis**
  - Literature review underway- summary report planned for December 2020
7. **Inventory, Document & Configure TMS Assets (FHWA Joint Funded)**
  - Literature review underway- summary report planned for January 2021

Members asked to refer to the November Progress report (attached) for more details about current projects.

## Update on Current TMC-PFS Activities (Jon Obenberger)

Part I of the Annual Meeting occurred on 11/16 - Members identified 10 projects to consider further. Part II of the Annual Meeting is scheduled for 12/11. Two-page project proposals for the 10 projects to be considered to advance will be sent out to the members for review prior to the meeting. During the meeting, the proposals will be presented, and members will select the projects to advance in 2021.

- Members were asked to send any feedback on any of the proposals for the 10 projects and any thoughts with improving the collaboration for the next part of the annual meeting.

### Funding for 2021:

Jon discussed the schedule for obtaining funding for 2021. The PFS is formally approved until April of 2022, however FHWA plans on initiating the process to extend the PFS from 2022 to 2027, next summer. For 2021 funding, a request will be sent to current members & others interested in January.

### Next Steps

- Any current members that know of potential new PFS members should contact Jon and he will reach out to them to try to get them to consider joining the PFS.
- A two-page document that summarizes the TMC PFS and its accomplishments will be developed that agencies can use to solicit new members.
- After the selection of new projects to advance on Dec 11, the TMC PFS website will be updated to include the most recent information pertaining to the PFS.

## Member Updates

### North Carolina (Dominic Ciaramitaro)

NC was a battleground state in the election – worked to coordinate 22 high-profile visits from July – Nov 2020 and manage traffic. Developed a solid SOP for this – have a good, streamlined process now.

- Lisa Miller expressed interest in this SOP for motorcades to better coordinate with Georgia’s law-enforcement partners. **ACTION:** Dominic to share the SOP to distribute to the group. **DONE**

Other key accomplishments included responding to COVID, civil unrest, active hurricane season while dealing with funding issues. Were also able to implement the state’s first integrated corridor response to support a work zone and a Secretary Dashboard for Severe Weather Events.

Upcoming: Will start Waycare Pilot in early 2021; preparing for state’s first ATMS.

### Minnesota (John McClellan)

During COVID - did not move to remote operations, but did implement new precautions (e.g. put clear barriers in between operators).

Big challenge of the year was the civil disturbances from George Floyd protests that led to unprecedented crowd sizes. There was no law enforcement to assist with freeway closures and ramp closures. Fortunately, there were not any fatalities.

Video requests have been increasing over the years, with a major spike occurring around 2018, when the switch to HD cameras occurred. Of 2600 requests, only 5% are reasonable (e.g. business needs).

- Question: How did you justify to leadership that having such video recordings was important?  
Response: We made the case that having such recordings was important for responder training.

Implemented traffic cameras for 511 site (in house development) for a cost of about \$250,000. Noted it is very possible to do it in house but be cognizant of some caveats with figuring out firewalls. New 511 website is out – includes national weather service alerts.

### Missouri (Alex Wassman)

MoDOT put together a plan to mainstream TSMO in 2017 and continuing progress with planned implementation. Created teams for Advancing TSMO, Work Zone Management and Traffic Incident Management, established goals and enlisted consultant support. Key accomplishments include:

- Partnered with Makeway Safety and HAAS to enable real-time alerts – whenever MoDOT emergency response trucks flip on their lights, it will send an alert to these companies. Findings have been promising, despite decrease in travel from COVID.
- Have converted monochromatic DMS to color boards.
- Put out regional Integrated Data Sharing Initiative (RIDS) in St. Louis that targets data sharing from regional partners (police, fire department, etc.)
- Will be able to announce probe data RFP recipients soon.

### Ohio (Dominic Delcol)

SmartLane introduced hard shoulder running in October 2019 along I-670 and I-270 near downtown Columbus- haven't had to reopen it since March because of COVID and the lack of travel. Provides more predictability and travel time savings with travel times of between 10-20 minutes down to 5-6 minutes.

- Question: For SmartLane hard shoulder- can the thresholds be modified? Response: Ohio system is not automated. TMC specialists monitor this and manually activate response plans.

Key Accomplishments:

- Opened new TMC last June and also hired a new TMC specialist
- TMC transitioned to remote operations due to COVID
- Replaced in-house developed Traffic ATMS with customizable off-the-shelf ATMS from IBI Group.
  - Comment: NDOT trying to go to an inhouse ATMS and was surprised to see Ohio had inhouse system and then outsourced it. Response: By outsourcing, we were able to get to 24/7 support.

### Pennsylvania (Ryan McNary)

- COVID-19 had major impacts on travel volumes in PA. Saw a 12% decrease in traffic volumes in 2020 from 2019. Did not see nearly any recurrent congestion.

- Went to all-virtual TMC operations in April – have a lot of success stories and lessons learned to share (, e.g. setting up VPN specific to TMC operations, resource acquisition for laptops to support remote work, recurring skype and teams check-in meetings).
  - Question: will you keep the laptops once we go back to the office? Response: Yes, while PennDOT will likely push TMC staff to come back into the office ASAP, we will keep the laptops in house in case something like this ever happens again.
- Discovered that RCRS incident management system only capturing a small percentage of the crashes that were identified in Waze, due to TMC operators not being able to proactively manage incidents that are being called in during rush hour or during construction. PennDOT is adjusting policies for reporting incidents and designed a mobile app for in-field entry and activation of roadwork to support proactive traffic management.
- Developed a virtual Highway Advisory radio that took advantage of their pre-existing IVR by adding geofenced areas to provide Voice Alerts and push notifications.
- Working on piloting a smart work zone in Allentown next week that will use probe data and VMS.

### Tennessee (Ray Hallavant)

- TDOT integrated a statewide ATMS this year. Old ATMS software was 10 years old. New SwRI product provides a lot of opportunities to streamline operations.

#### Key Accomplishments:

- Partnering with Vanderbilt University about using predictive analytics to have an active prediction about where/when crashes will occur to have service patrol nearby.
- To improve communication between service patrol and TMC, installed cisco 829 routers into all HELP vehicles.
- Deploying an ICM corridor along I-24 and SR 1 equipped with emergency pull offs and roadside DMS, overhead lane management, ramp metering and signal optimization.

### Utah (Lisa Miller)

- UDOT had a busy year, added a lot of new data types that have been difficult to integrate into the control room. Had some ad-hoc integration of new data types, however they are in the process of getting new ATMS software, so they do not want to continue integrating these data types until new software is in place.
- Corey Colum led preliminary needs assessment effort to procure new control room software. Plan to procure this software over the next few years. Lesson learned: invite subject matter experts to make sure the entire division's needs are represented and not just the needs of operations group.
- Switched from iPeMS to Clear Guide at the TMC. Have a lot of new fields devices (Bluetooth detectors, etc.) that are feeding iPeMS
- Partnering with Panasonic on Data Ecosystem project that is installing OBUs in vehicles and RSUs along the roadside to provide crash notification data back to the control room in real-time. Getting ready to start Phase 2
- Like MoDOT, will be partnering with HAAS to enable real-time alerts for emergency vehicle and incident locations with incident management trucks.

Question: Did UDOT perform an assessment for determining what to do with the 511 system? Response: UDOT looked at the various platforms as well as the option of turning off the 511 system and did a needs assessment. **ACTION:** Lisa to share this needs assessment document with Lee Smith of TDOT, as they are in process of evaluating future options for their 511 system. **DONE**

### Wisconsin (Stacey Pierce)

- Big accomplishment was returning oversight of the TMC control room back to the WisDOT Bureau of Traffic Operations (it had been managed by the Wisconsin State Patrol the last two years). This was necessary since day-to-day management cannot always be subject to SOPs.
- Made improvements to the traveler information website, mobile app, and phone system courtesy of IBI Group (previously had 3 different vendors for these systems).
- Deploying dynamic part time shoulder along 9-mile long segment of US 12.
- Finished up Phase 1 (Proof of Concept) of CV Pilot project – have a corridor selected for Phase 2.

Question: is WisDOT doing any reporting on changes made to the ramp metering to track the impact and benefits of it? Response: Yes, we are providing monthly reports to upper management.

### Indiana (Ed Cox)

- In process of replacing aging ATMS software (from the late 90s). After talking with MNDOT, decided to go with open source software package from IRIS - but will be making some changes to move it toward a mobile platform. Camera control has been rolled out already; expect to have full ATMS deployment by late 2021.
- Continuing INDOT's plan to deploy ITS devices to every interchange in the state between 2018 and 2023. This includes cameras, detectors and VMS at 75% of all interchanges across the state.
  - Question: Did INDOT use a single traffic controller manufacturer statewide? Response: INDOT is using two manufacturers: Intelight and Econolite.
- Working with Purdue to integrate new web tools developed in research programs into daily TMC operations (majority based on probe data).

## Upcoming Meetings

1. **Annual Meeting (Part II). Date/Time:** December 11, 2020; 10 AM -12:30 PM ET

#### Agenda:

- Introductions and Review of Agenda (Bassett)
- Review Process to Identify, Prioritize and Select New Projects to Initiate in 2021 (Wassman)
- Review project proposals
- Members Vote on Project Priorities
- Select Projects to Initiate in 2021

2. **Next Quarterly Meeting. Date/Time:** March 3, 2021; 1:00 – 3:30 PM ET

#### Agenda:

- Introductions and Review of Agenda
- Update on Current TMC PFS Projects
- Update on Current TMC PFS Activities

- Member Updates
- Review Agendas for Upcoming TMC PFS Meetings
- Members Identified to Provide Updates:
  - Arizona
  - California
  - Delaware
  - Florida
  - Georgia
  - Illinois
  - Iowa
  - Kansas
  - Maryland
  - Michigan
  - Nevada
  - New Jersey
  - New York
  - Texas
  - Virginia
  - Washington