



National STIC Network Meeting

Recording of April 23, 2020 meeting

Recording: <https://connectdot.connectsolutions.com/pshl3pfgtl4w/>

Please find all presentations available for download in the webinar recording.

Questions & Answers:

Washington State DOT

Does Washington have an internal Project Bundling Guide?

Yes, please contact Kim Mueller, P.E., Fish Passage Delivery Manager at (360) 705-7404 or Kim.Mueller@wsdot.wa.gov

How do you see possible funding challenges coming up due to revenue impacts impacting the Fish Passage program going forward?

We are a \$3 billion a year agency in regard to our construction program. About 85 % of our budget are federal participations and our state revenue numbers are just getting hammered. It is a little early to know the depth and length of the downturn but in March and April we are probably not collecting \$100 million a month that we would otherwise have collected. We and AASHTO have made a request to the administration and Congress for some revenue relief. But going forward into our next budget cycle a question – a big question that we don't have the answer to right now – is how long this will last? When is the economy going to come back? There are people with various crystal balls out there that we think it will be the summer or fall or next winter, next year. We shall see but what we do know in Washington state is that the fish passage program is a priority of the government, legislative leadership and we have made a commitment to it. Salmon are a part of what makes Washington, Washington and obviously we have the court junction but there is an intrinsic value to the salmon, an economic value and a huge environment value to having the salmon. But when you think about Washington state you think about the ferryboat and a space needle and fish. It is right up the top of the list and I expect it will be funded going forward.

Have you been incorporating work into your contracts with reimbursement agreements for your innovative partnerships?

The example I gave in the presentation, Killisut Harbor, is an example of pulling together funding sources to accomplish everyone's different goals for the project. WSDOT is administering the construction contract and we are being reimbursed for a portion of the work that is above and beyond what we need to do for the injunction. In addition, we have included nearby local agency barriers within our projects and they reimburse us for their barrier corrections. We are looking for all types of tools, so if you have a suggestion send it to us.

Has WSDOT created a roadmap for their waterways and wildlife connections process that could be shared with the group?

Yes, please contact Kim Mueller, P.E., Fish Passage Delivery Manager at (360) 705-7404 or Kim.Mueller@wsdot.wa.gov

In your opinion, what would it take for other states to take the lead on addressing stream restrictions under their highways?

That is a great question. We were working on this until the federal government and our tribal partners took us all the way to the U.S. Supreme Court and said you shall accelerate this. I think states to the south of us and a lot of states on the West Coast have anadromous fish runs. There are states on the East Coast that have anadromous fish runs. All of us in between have barriers to the migration of freshwater fish that move up and down streams to spawn. Also, we're looking at the huge economic benefit to having salmon in Washington state. There is a huge cultural benefit to having salmon in Washington state and a huge environmental benefit as they are an indicator species. I think what is going to get other states to take the lead on this, are their concerns that the situation we are in is precedent setting. They might want to get in front of a court requirement to do it.

There is a realization that what we do as transportation professionals, impacts the environment and there are things that we should be doing as we preserve our transportation system and as we work with others. At the end of the day, it comes down to having a prosperous economy and equitable society or having a thriving environment in which to live.

Have you considered Public-Private-Partnerships to advance a larger portion of your projects considering the demand that you're faced with?

We are currently not considering PPP.

Utah DOT

RIDOT has just begun its UAS Program. Can you provide me with a contact that RIDOT may use to learn from your experiences? Has Utah DOT developed a lesson learned manual on its UAS Program?

My contact info is pwheeler@utah.gov, I would be happy to answer your questions. Here is a link to a report that may be helpful too

http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-68A_17-01.pdf

Have you identified any safety problems with UASs, ie UAS caused any accidents?

Luckily, we haven't had any accidents caused by UAS. Oregon did a great report on driver distractions and UAS. Here is a link to the report

https://www.oregon.gov/ODOT/Programs/ResearchDocuments/Driving_Distraction_due_to_Drones.pdf

In the areas where you have traffic, etc., how are you ensuring compliance with the Section 107 requirement to not fly over people without their permission? (107.39) Are you obtaining a waiver each time?

At this time we aren't able to fly over traffic or people. We are flying in areas where we can accomplish this safely and staying within FAA Part 107 rules. For the sign inspections we fly on the sides of the right-of-way in order to not fly over traffic.

Have you had any pushback from the traditional bridge inspection crews?

Our bridge inspection team was excited to try our UAS. They weren't sure how well they would work but have been impressed by the results so far. Since that time almost all of our bridge inspection team has taken the steps to receive their remote pilot license.

Is there an opportunity to receive a copy of the UAS Peer Exchange Report, would be great to learn from their UAS applications and lessons learned?

I would be happy to send you our report from the exchange. Send me an email at pwheeler@utah.gov and I will send it to you.

What type of UAS are you using for LiDAR work and what type of LiDAR unit are you using?

What is the maximum duration of the UAS batteries that you use?

Right now, we're using a YellowScan VX 15. We only the LiDAR attached to the airframe we get 30 minutes of flight time, if you also mount a camera on we typically get 20 minutes of flight time. It has been a very useful tool for us and has been giving us a good return on our investment since last year.

Any protocol that you have developed for incident management with the service patrols? for daytime operations, nighttime operations, adverse weather conditions?

We have been doing practical classes on flying and mapping for our IMT. We also held a national peer exchange through FHWA that was beneficial to learn from others who are also using UAS for Incidents.

Any special permit from FAA to satisfy FAA 107 requirements?

Yes, we have multiple COAS to supplement in areas where we need them to allow us to fly. We also use the LAANC system a lot to fly in Class B airspace.

Should DOTs pursue Part 107 certification, a Certificate of Authorization (COA), or both?

I would suggest getting a public COA and also Part 107 remote license for your pilots. This will allow you to fly under both situations and provide the most flexibility.

Any specific protocol that you have developed regarding multiple UAS operations on a specific freeway corridor? (high traffic volume, close to military or airport facilities, etc.?)

We have utilized multiple pilots and multiple UAS on larger projects. We are flying under Part 107 rules as to not fly over traffic or people. This does limit some areas where we aren't able to fly at this time but do our best in these situations. At time it may require us to use traffic control for some flights. The majority of our mapping can be completed safely from the sides of the roadways. In our military base areas we have a COA and coordinate our flights with the base prior to each flight.

Have you developed for UAS operation any CHECKLIST?

We do have checklists for our aircraft. We also do training on both software and practical flight for our pilots. We believe it imperative to teach them how to fly in addition to getting their license.

Have you developed any bilingual (English and Spanish) training manual for UAS operations, Do's and don'ts, etc that complement FAA 107 Regulation?

Utah is working on an operation manual now. CalTrans has some great ones created that you may want to look at.

Should DOTs have UAV/drone liability insurance?

Originally, we did have insurance on all of our UAS, the same policy we had on our manned aircraft. Since that time our risk management division has decided to have UAS insurance be under their umbrella.

Could you speak to any challenges that have been identified with involving populations that can be hard to reach virtually? (i.e. low income, minority, English as second language, tribal, etc.)

It is important to note that virtual public involvement should not necessarily replace traditional methods of public involvement. It is safe to say virtual public involvement broadens and expands the ability for many people to participate, but traditional and in-person outreach tools should still be in the mix. Right now, during the pandemic we're asking that question of how we do public involvement while social distancing and the need to find alternatives to Internet access, especially as some of our civic spaces like libraries or city halls are also closed. These have often been outlets or venues people turn to for participation in online activities or to receive information. Based on the national conversation I've been listening to, use of telephone town halls and/or the ability to receive comments and information via telephone is one way to reach populations without internet access. There are online engagement platforms that integrate telephone components for participation. Another technique is pairing traditional methods like mailings to let people know about resources online and giving people a main address or telephone number to contact if they would like hard copies of informational materials. Access to the internet and alternative methods to online engagement definitely need to be considered and again I think the best use is pairing combinations of traditional methods of outreach that aren't digitally based with ones that are.

What virtual platform is being used for a virtual public hearing?

There are many platform providers and associations holding webinars about how to address fully virtual public outreach during our current working environment. For VPI platforms, check out the EDC5 VPI site

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/virtual_public_involvement.cfm

How do you integrate the digital data from your UAS into your asset management plans?

Utah is trying to get the most use out of all our UAS data. To achieve this, we have set up an image server that all our aerial imagery is uploaded to so anyone can use it once there is a flight in the area. Our hopes are to prevent duplication of work if a flight was performed recently enough for their needs. We are also starting to use Machine Learning for asset management, crack detection, and sign conditions.

Just because the data is so large and so detailed there's so much you can get out of it rather than just one particular use case. We have keywords for the data to help pull it up. We are looking at the compatibility with the data to tie into the same database for asset management.

Innovation Update – Center for Accelerating Innovation

Is there any update on AMR submittals?

FHWA is still in the process to get the Accelerated Market Readiness solicitation towards award and look forward to giving some multitiered information in the not-too-distant future.

Any discussion on the status of the summits this fall?

For the EDC Summit in the fall, FHWA will have some form of exchange that is going to occur in the fall. We're currently weighing our options and as we learn more, we will get that out to the STIC Network as soon as possible.

How many innovations suggestions did FHWA receive and when will we get to see the list of innovations submitted?

FHWA received over 100 unique suggestions and evaluated what they look like before we settle on a final round of innovations for EDC-6. You can download from the files share pod the summary of all the suggestions that we received from all of the constituents and stakeholders.

What are some of the innovations that will be discussed with the stakeholder group next week?

We looked at all the suggestions that came in and we had to run those against the capacity to support them with technical assistance and training. We have a short list of about 15 innovations and potentially five carryover innovations from EDC-5. FHWA leadership will be sitting down and discussing these with our stakeholder group next week. It is everything from safety, operations, paving, civil rights and workforce development. There is a broad range of potential innovations in the next round and we look forward to feedback from the stakeholder groups next week.

Why carry over from EDC5?

FHWA had a number of EDC-5 innovations that really hit the mark for the states and the local governments. The innovation teams have had more than 30 states signing up and in some cases along the way they have learned and expanded the innovation.

Can you talk more to what topics Utah is looking to discuss at the STIC Peer Exchange?

FHWA has been working with the Utah DOT to pilot a virtual Peer Exchange format for STICs. One thing that we are planning to discuss is the State innovation programs, how they are set up and how the STIC and their partners work with the innovation program. Utah is also tentatively looking at holding a regional UAS summit this fall.