

NWX-DOC-NTIA-OTIA

Moderator: Katherine Bates
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1:00 pm CT

Coordinator: Welcome and thank you for standing by. At this time all participants will be on listen-only for the duration of today's conference. Today's conference is also being recorded. If you have any objections, please disconnect at this time. I'd now like to turn the meeting over to your host Ms. Katherine Bates. Thank you.

Katherine Bates: Thank you. Good afternoon and thank you everyone for joining us today for BroadbandUSA's monthly webinar. I'm Katherine Bates, Manager of State and Local Partnerships with NTIA BroadbandUSA Program. Our webinar today is in conjunction with infrastructure week and focuses on leveraging public access assets broadband deployment. The session will provide an overview of how federal, state and local governments are developing new policies that provide access to rights of way and leverage assets in order to incentivize broadband deployment while considering cost, aesthetics, digital equity and environmental mandates.

Our presenters today are Antonia Graham, Assistant City Manager and Energy Sustainability Manager at the City of Huntington Beach, California. Lynne Yocom, Fiber Optics Manager at the Utah Department of

Transportation and Jennifer Duane, Broadband Program Specialist at NTIA BroadbandUSA's program.

Before we begin, I would like to review the logistics for today's webinar. First, we will open up the webinar for questions after the completion of the presentations. As you hear from each presenter, please use the question box on the right-hand side of your screen to submit questions or comments. Second, the presentation, along with the transcript and audio recording of today's session, will be available on the BroadbandUSA website within seven days of this webinar under events, past events tab.

Finally, please visit our BroadbandUSA website for information about our technical assistance program including useful guides and products, publications, and other tools with planning, funding and implementing your broadband project. The newest additions to our BroadbandUSA website are the permitting sections that will be highlighted in today's webinar as well as the American Broadband Initiative Milestones Report under the federal tab.

As we begin, I would like to introduce our first speaker, Antonia Graham. Excuse me. Antonia has 18 years of experience working for local government. Currently she is Assistant to the City Manager for the City of Huntington Beach, California where she oversees a variety of administrative programs including leading the City Citizen Academy, intergovernmental relations, and all environmental and sustainability-related programs.

Ms. Graham also leads regional efforts in the award-winning Orange County recycling market development zone which is an economic development program aimed at creating an innovative circular economy. Additionally, Ms. Graham oversees the smart - the City's Smart City Program, one of the only programs of its kind in Orange County. Ms. Graham has successfully secured

millions of dollars in grant funds for the City of Huntington Beach and recently partnered with the University of California Irvine and the National Renewable Energy Lab to create an advanced energy community in a disadvantaged part of the city. She holds a BA in Political Science and American Studies, MPA with a concentration in Public Finance and a Master's degree in Sustainability from Arizona State University.

Antonia, please begin.

Antonia Graham: Thank you so much for that introduction. I'm excited to be here and share with you what our city has done to really accelerate small cell and broadband deployment within Orange County. For those of you that don't much about Huntington Beach, we are known as Surf City, USA. And we have ten miles of beautiful beach and our home to millions of visitors every year that come to see the Van's USA Open of Surfing, our great Pacific Air Show and hopefully when the Olympics come to Los Angeles, that hopefully we'll also be home to the Surfing Competition.

And so really all of these things, these economic development drivers and tours and drivers are really what drives the city to really be at the forefront of deploying these technologies to make us smart. And there's a lot of talk about what a smart city is. And a smart city really to us is something that works for everyone whether it's businesses, helps the city run more efficiently, but it's a city that works for everyone.

So if you go to the next slide, I'll begin to talk about, you know, our planning efforts, what we've done, our - how we use GIS to really help us map our assets and so that staff in multiple departments can be on the same page, some key deliverables that we've come up with and how we license our facilities to

really keep us moving ahead with the siting of small cells and accelerating of broadband deployment.

Next slide. So this really started for us back in 2014, 2015, when we were acquiring about 11,000 streetlights from our investor-owned utility, Southern California Edison. And I started to hear from telecom carriers saying hey, I hear you're going to own these streetlights. In addition, we already owned about 4,000 parking lot lights, park lights and some other city-owned streetlights.

So this would bring us to about 15,000 vertical assets in the city. So this telecom company stated coming to us saying hey, we want to put small cells on your streetlight infrastructure. And this is very new to me. It was nothing I had really known about, you know, worked in public works. And sort of had familiarity with macro towers, but not these small cell technologies and DAS and whatnot.

And so we decided to hire a firm, CTC Technology and Energy and worked with JoAnn Hovis and really opened the doors and really started educating myself about broadband and small cell deployment and where the city was in terms of technology. What CTC found in our broadband strategic plan was that our biggest asset were these new vertical assets that we acquired from Southern California Edison. You know, basically vertical real estate from in the form of streetlights.

And so we decided to really utilize this as an economic development tool. We included stakeholders in the community to find out about their connectivity. And we realized there was a lot of opportunity for public/private partnership. This broadband strategic plan looked at existing fiber in the city, fiber that we owned, fiber that was owned by, at the time, you know, multiple

(unintelligible), Crown Castle, Zayo, Southern California Edison, you name it. There was a lot of fiber in the city.

And it really helped us create an action plan for implementing broadband and innovation really in the city. And helped us come up with some sort of best practice guidelines. After that, we went a little bit further and created an internal telecommunications team that to this day meets monthly and it's comprised of planning, public works, information services, real estate, the city attorney's office. And sometimes we bring in other departments that might benefit from the deployment of small cell widgets or small cell technology or smart city initiatives on our streetlights, so police or fire have been interested.

And then we hired Magellan Advisors and that was led by Jory Wolf, the former CIO of the City of Santa Monica, who really was a mentor to me and to the city, and really taught us everything that we know. And he helped us craft our zoning code amendments, our joint trench, and really helped us sort of pave the way on how we were going to move forward.

Next slide. One of the first things we did is we're very lucky to have a really great GIS analyst and a robust GIS department within the city, is that we mapped every single asset in the city. Streetlights, we mapped, fiber and we mapped everything that was sort of available for rent. And so any department can go on and log onto this internal tool so if public works, planning or real estate, and see what poles are available. And we're hoping to make this public and put it on our website for the carriers so they can see that poles are available for them to lease.

But this also helped us with the creation of our wireless master plan and our fiber sort of strategic plan that shows where we have fiber, where we want to deploy fiber, where we want to put in extra dark fiber that we can possibly

lease out and really, you know, we all know this, because we're listening to this webinar. We're interested in fiber and 5G and small cell deployment, but you cannot have 5G without fiber. You cannot really deploy a lot of these smart city initiatives without fiber. So fiber is really the backbone. We all need fiber.

And so we really felt that this is a great asset for us to have. And this wireless mapping tool really helps all be on the same page and see where everything is. Because you can definitely not manage what you don't know what you have.

Next slide. So we started cracking some deliverables from managing small cells and in California, we've been lucky so far in that as Senate Bill 649 which is about two legislative sessions now, introduced by Senator Hueso would have allowed - would have taken away local control over time, place and manner of deciding of small cells. And so we vehemently opposed that. Unfortunately now we're under the FCC rule, but we haven't had any carriers cite that rule yet. Our city is also party to a lawsuit against trying to stop that FCC rule.

But we knew what we didn't want. And so we created deliverables for managing these small cells. And we really did it in a collaborative process. We did not want an acrimonious relationship with the carriers. We wanted to work with them because we really felt it would be of benefit to the city, benefit to our residents, a benefit to our visitors and businesses if we had increased connectivity and for them. Because who doesn't want to be at the beach and be on Snapchat?

Next slide. So our committee, our internal telecom communications committee really focused on three key issues that really got us started and laid the groundwork for where we are today. We amended our zoning code. We

crafted a dig once. We are actually calling it now a joint trench policy. And we worked on a master license agreement which in the end got thrown out because we decided to just negotiate individually with carriers. So for the most part, we have the same lease rates, but we might have different nuances in some of the agreements and our Council really didn't feel comfortable having a boilerplate agreement. They wanted to really see everything come before them.

Next slide. So first and foremost were our design guidelines. Aesthetics are extremely important in the City of Huntington Beach and we wanted to make sure that we didn't have these Frankenpoles out there or a lot of furniture so to speak in the right-of-way. We wanted things sleek and svelte.

Next slide. So what we ended up doing is coming up with four public works design standards that if you fit into this box of four cubic feet or less, you could do an over-the-counter, streamlined permitting process if it was in the public right-of-way through the public works department. So that you did not have to do a long onerous six to nine month conditional use permit process through community development. We worked collaboratively with the carriers and had multiple meetings where we went over design standards. We actually incorporated comments from one of the carriers and used one of their design standards that we thought would be - fit into our needs. We also created a pole standard because we have the first in the nation deal with Phillips American Tower to deploy 200 smart poles.

Next slide. So really what our zoning code did is created the definition of small cells located in the public right-of-way. Prior, we only really dealt with telecommunications equipment on private property. We defined routine maintenance, power supply, and we really created these public work design standards for attachments and poles that are public work standards can be

modified at any time. They don't have to go to Council. So it's very streamlined because we know technology changes and we didn't want to be hamstrung by an old design.

Next slide. We're in the process of taking our joint trench back to Council. We had taken it last year but got a lot of pushback from the industry-owned utilities and from the carriers in general. And really the pushback was that they wanted us to lease fiber from them. They didn't want us to have our own fiber. And we're not planning on getting into the business of being an internet service provider. Our goal was really to have fiber to connect our own city facilities to be able to have our own back haul to our streetlight poles for whatever technologies we might decide to deploy. And to potentially have available dark fiber to lease out to any other carrier that might need it and make money for the city. And really it helped us minimize the impact on cutting open the street.

Next slide. So we've been pretty successful, I would say, the most successful in the county. We have people constantly wanting to R&D. I like to use that term because it's rip off and duplicate a lot of our licensing agreements. You know, they vary from city to city. Inland city is not going to get what we get here on the coast. We currently received about \$2,000 per pole per year with an escalator. And that's even after the FCC ruling. We continue to have we call them camping reservations. We continue to have a lot of carriers wanting to site on our poles in our downtown area which is next to the beach. And so they're willing to pay that \$2,000 per pole per year.

Next slide. So I mentioned before we did a lot of outreach. We continue to do outreach. We had multiple carrier meetings to discuss the aesthetics, the zoning code amendments, the joint trench. And we have ongoing dialogue because what we're hearing now is that it's not the city that's holding up these

carriers that they move pretty quickly through our approval process. But it's mostly the power design that is getting stymied from Southern California Edison that's taking up time. And so we're trying to work with Edison to expedite that process.

We've had multiple meetings where we invite all my friends at other cities, all the carriers and Southern California Edison for them to come in and really educate the carriers about what they need, how the process works, and how we can make the power design process go much quickly. Because in our city, we have an underground ordinance. We don't want any unnecessary furniture in the right-of-way. And then Edison requires that the carriers have wireless technology rate.

Next slide. So again we have our license agreement. We actually hired an appraisal firm to look at our poles. They actually thought that we could charge about \$2,700 per pole per year. And we have entered into agreements with AT&T, Phillips Mobilitie, and Verizon.

Next slide. So if you have questions on our process, that website that is there on the slide is really helpful. It even shows the workflow. So if you're a carrier and you're interested in siting on something in the right-of-way, you can easily click and see how the process would flow. Because we do have - we are a coastal city and in California the coastal commission does have a keen interest in areas that are within a coastal development zone.

So we outline that whole entire process to really make it seamless. All of our design guidelines are found there. And then if you have any questions, you can contact me and I'd be happy to share our agreements, our joint trench and anything and everything. And you can also find a lot of our information on Next Century City website. Thank you.

Katherine Bates: Thank you, Antonia. That was a lot of great information. We have questions for you coming in. So if you have any questions, please just type them in. And we'll address those at the end.

We have had a couple questions about a beeping noise over and over or one about a beeping noise. So I hope that's gotten taken care of. I don't hear anything. And also as a reminder, the recording and of this webinar as well as the slides are going to be posted to the BroadbandUSA website within a week, seven days.

So our next speaker is Lynne Yocom and she serves as a fiber optics Manager for the Utah Department of Transportation., UDOT, and has worked with fiber optics and telecommunications companies for the past 18 years. Lynne has created successful public/private partnerships to expand and build UDOT's fiber-optic networks. She currently serves as a Utah Education Telehealth Network Advisory Board, Utah Communication with Authority Advisory Council, Utah Broadband Advisory Council, and she chairs the Utah Valley University Information System Board.

In addition, she teaches a Linux and cybersecurity part-time at the American Fork High School. Please welcome Lynne Yocom.

Lynne Yocom: Thank you. This is a great webinar to be part of. I'm going to be discussing how UDOT has been able to take our fiber optics and conduit systems that we've been putting in with our roadways and leveraging those systems out with telecommunication companies to expand our network for traffic and to be able to help those telecommunication companies get communications within the urban areas.

When you're doing communications, you've got an issue for the urban carriers coming into a place like Salt Lake where a lot of it's already built and it's difficult and it's expensive. So what we do, next slide, is we take our urban areas. This looks very much like one of our freeway sections. We call it the spaghetti bowl. And to be able to take this to leverage, next slide, for our rural areas.

We've been able to get direct communications dark fiber across our state. We'll be able to put all our traffic signals, our cameras, variable message signs and we're looking at our vehicle to infrastructure settings, what equipment we're wanting to put out right now that's going to be able to communicate back across this dark fiber that we've been able to leverage.

Next slide. This all started in Utah with the 2002 Winter Olympics when they came to Salt Lake City. It started because we went to our carriers and asked our - the main ILEC incumbent and said we would like to put our traffic signals on fiber optics, and we'd like these cameras connected on fiber optics. Can we get this service through you? And they, kind of, laughed and said, "No, we're not going to connect. We're not going to waste fiber or anything like that to connect traffic signals."

We, kind of, had our answer. And everyone, kind of, gathered around and said well then we'll put in the fiber options with all the road improvements that we're doing before the Olympics and that's what they did.

Next slide. Our first trade or we should say purchase came for five blocks during the Olympics. They paid us \$800,000 to get a 2-inch conduit that went five blocks. They were trying to connect into a main meet point back and I think it was for one of the television companies. And it was, we were like

whoa. So during the Olympics they will pay top dollar for that type of connectivity.

Next slide. The first company that we worked with, I was working with the city and we worked with the telecommunications company called Centrocom. And Centrocom had an attorney called Spencer Cox. Spencer Cox is now gone on to be the Attorney General, I mean the Lieutenant Governor for Utah right now. And it's been great to be able to have that type of support from our state level back down the office that understands the importance of the telecommunications and leveraging what we're doing.

The first connectivity that we did with Centrocom, I was with America Fork City. We broke the monopoly on the incumbent ILEC that was there. They would have to go to all the meet points and courier places to be able to get their signal from the rural areas back into main Salt Lake and to the main meet points out. The fiber line that we built with them broke that need to be able to do that, and so it started a lot of other companies within Utah.

Next slide. We also assisted University of Utah with what's called the dark fiber research ring that goes from Logan, which is the top of the state clear down to University of Utah into Brigham Young University, and also connects with the NSA Data Center that is also built here. And that's been a big bonus for us here at Utah. And that's leverage through most of the fiber optics that we have with transportation and with our private telco companies.

Next slide. There are several federal laws that are out there, and I didn't want to spend a lot of time on them because FHWA with us is very encouraging to be able to do public/private partnerships. This is a snippet of the Code 23 which shows that we want to promote the innovative use of private resources and the support of intelligent transportation systems. And the intelligent

transportation systems are ARwiz which is weather, our cameras, our signs, anything that helps us manage traffic.

If you want to have more information, if you're another state or another DOT and you're looking for that, he did a really great webinar. And there's a rural interstate communications study report that was done in 2009. Has a link there. But Ken Leuderalbert and his FHWA webinar. I believe it's still online if you just Google that section.

Next slide. We don't do Dig Once within the state of Utah. We figure that we didn't want to have that restriction placed on us, and so we encourage best practices. We also get together with our telecommunication company. So it's not like a mandated Dig Once, but we coordinate with everyone. We meet with them. I speak with all the rural telephone companies at least once a year on what projects are coming up. We show them how to look at up and coming future projects in case they need to be in it. And then we also educate back with any of our cities and local governments the same way on what's coming up and how they can dig their roads once. But it's not a direct policy that's out there. So we don't have a direct policy.

Next slide. This is the extent of our network. This is a lot of numbers and this is broken down by roads. The main gist of it is we're about, it says 2,517 and I need to update the slide. We're a bit higher than that now. We're at about 2,800 total miles of fiber optics and conduits. And UDOT is about 1,000 miles and we're technically got about 2,000 with our partners through that.

Next slide. When you look at the state, we do mapping. And it - I was really glad for Antonia. She went through and got all the 5G stuff so I'm not concentrating on any of the 5G, but we also do 5G, almost the exact same way that she does with her city. We also have a great mapping crew and they go

through and do a lot of mapping and our map is public. If you Google UDOT fiber map, it'll be your first hit. It'll come up on Google. A lot of people do it. You can go through and look at our map.

This state we pulled this information from that map. This is 2006. We had approximately 631 miles of fiber and conduit that was with us and about 100 miles of trade that had happened. I joined UDOT in 2006 of August. If you hit the next slide, this was in 2019 where you can see how much the UDOT fiber conduit has traded. This slide has a typo I just noticed. The traded fiber conduit should read 2,000 not 1,000 on that.

But you can see that we've got a circuit over there where on the line where you see, kind of, next to Cove Fort down to St. George. That is actually a wavelength off of a pipeline. But you can see I-15 going up that hits through Cedar, Beaver, Richfield. That will be completed on border to border in less than two years. We've got the two projects already funded and out and we'll have our first interstate that will have fiber optics from border to border. You can also see that we go down through that main area, down through Moab but we go clear down into Blanding. We're trying to reach our Indian nation area down there with Navajo and Ute tribes to be able to bring them fiber optic communications. Been working that with the telecommunication companies and our Utah education telehealth networks.

Next. This is our fiber optic network that you can see from 2001 to 2017, and it shows you exactly how the growth happened and how we did the dollar valuations. Our dollar valuations are only on the UDOT side. I did not include anything on the carrier side on what their savings were by any of the partnerships.

Next slide. These are some of our trade partners that we've been, have with. Provo in Salt Lake and a whole bunch of other cities.

Next slide. There are our telecom providers that we're currently working with.

Next slide. Here's our state agencies that we work with. We're kind of like the key agency for the state. We have an agency called Division of Technology Services and we work and have meetings with them every two weeks to make sure that we're doing coordinated efforts. And we also do that with UEN, the Utah Education Network to make sure that we can - wherever we can pair up our networks and it makes sense, we can do that.

Next slide. Trade agreements, public versus private within our private agreements, we're able to with our private telecoms, we're able to do a lot of creativity. We do more of a lease agreement. And I do have a copy if you ever want a copy of the agreement, you can just email me. I got a package that I kind of send you with the agreements and templates. We're all about sharing and letting every - anybody else copy off anything that they want to that we've done. Our public other - other public entities that we work with we're able to do interlocal cooperatives which gives us a lot more protection between our agencies. But we do individual agreements with each agency and with each public entity, county, cities and communities.

Next slide. This next section, I'm going to walk you through is Big and Little Cottonwood Canyon. And this section is one of my favorite projects that we did. So instead of beaches here in Utah, we've got skiing and I like to ski. I did not like to have to get up to the resorts sometimes. You can see the traffic that happens on our powder days. And I wanted to be up there and still be able to get some of the phone calls if I could sneak away for a couple hours. But we

have a lot of situations that happen that we needed to be aware of within our canyons and we had no communications within the canyons.

And so we did a partnership with a telecommunication company Crown Castle to be able to build these canyons. We took some funding at the time that was, they called it (unintelligible) funds and we made sure that we got to the mouth of the canyon. And by that time, the economy had started to pick up. And then we were able to build. Now looking at this canyon, and the great recreational facilities that it has here, you can understand the problems and as many stakeholders that we would have here. And people said that I was crazy to try to take this on, just even from the environmental standpoint.

Next slide. These are our stakeholders that we had, that we needed to all work with it together to bring this about. It took us about one year to clear our NEPA and everything that we were working with. And then it took us about another two years to build these canyons.

Next slide. Why did we want to build it? No communication, ski resorts and lodges needed to have better connectivity, everyday use, and emergency response times. I had seven, eight miles where I couldn't even see our snowplows and nobody could get, if you got in a wreck, something happened, you had to drive down the canyon. No road conditions, we couldn't put that back out.

Next slide. Crown Castle is who we partnered with and we did distribute antenna systems in the canyons.

Next. And Crown Castle received right-of-way. They received some of our backbone transport in. They got hub buildings within our right-of-way.

Next. UDOT received 24 strands. We got spare conduit. We've got access to every single pole in the canyon. And that's about 20 or 30 in each canyon. (unintelligible) installation power for every single device and hub space for our equipment. So it turned out really nice for us. This is some maps of the canyons.

Next. You can kind of, see the extent. You see all those multicolors. Those are all the avalanches that come down that we try to watch within that canyon.

Next. This was some of the traded fiber that we put in with the (unintelligible) funding to be able to build the canyon to bring it off of our interstate.

Next. That was our NEPA. It took one year, and we got a lot of public support. This is what our towers look like, very minimalistic. I do like that new word Frankenpole. I'm going to keep that one, Antonia. This shows our trenching system that we use solid granite canyon, solid granite. We had to do a depth. We went down to a depth just under 20 inches as we put this in under the road. You can see the type of saw we had to take to put into it. Fill it up.

And that, these are just the main pictures. I wanted you to have those. That's my main project we wanted to put in. We won national awards on this project. And that's the cost of everything we got through with it.

Next. We also had several challenges within the state that we're looking at that may come up within the questions which is BLM, Forest, school land, Indian, environmental, Hogs Back, wow, that's another big environmental area that we put in through. Those are the challenges and I think anybody else who has put in fiber, installing it knows exactly what I'm talking about here.

Next. Here are the links to any of our Utah code and our rules that helps us do what we're doing. And next. Here is my name and my email and if you have any questions. Remember we've got that fiber map that's out there. I do have a state kit that if you're looking for a kit on how to do this, I just put together and share that file out with you. And it's been a pleasure talking with you.

Katherine Bates: Thank you, Lynne. I will note that both Antonia and Lynne said they'd be happy to share. So anybody who would like information, please contact them. So we appreciate that a lot.

Our final speaker today is Jennifer Duane. Jennifer is a Senior Advisor and Broadband Program Specialist for the National Telecommunications Information Administration, NTIA's BroadbandUSA program, where she works on broadband policy and products, grants management and federal permitting issues. She also serves as NTIA's representative on the streamlining federal permitting workstream as part of the administration's American Broadband Initiative. Please welcome Jennifer.

Jennifer Duane: Thank you, Katherine. So we've just heard the state and local perspective on using public assets to accelerate broadband deployment. I'm going to provide an update on what the federal government has been doing in this area.

Next slide please. So over the past year, the White House, NTIA, U.S. Department of Agriculture have led the American Broadband Initiative. It's a multiagency effort focused on removing barriers to broadband deployment and making it easier for broadband providers to buildout networks across the country. More than 20 different federal agencies have committed to take action to increase private investment in broadband infrastructure and services to fill broadband connectivity gaps across the country.

In February of this year, we released a milestones report that details the achievements of the federal agency so far in the Trump administration as well as commitments to future changes. The report also includes timelines for completing these commitments.

Next slide please. So NTIA presented a webinar in March of this year that covered the ABI in some more detail. For purposes of this presentation, I'm going to focus on some ABI updates relevant to this discussion. As you can see from the slide, the ABI is led by representatives from the White House, Department of Agriculture and Department of Commerce and consists of three major workstreams: the federal funding and broadband, streamlining federal permitting, and leveraging federal assets. Each of these workstreams is chaired by agencies with particular equities and expertise in that area and consist of other agencies that are also connected to the activities of each of those workstreams.

Next slide please. So the streamlining federal permitting workstream is striving to make government processes clearer, transparent and more responsive to stakeholders. By reducing permitting delays, minimizing paperwork and making clear who the right federal point of contact is, federal agencies will enable broadband providers to focus on building broadband networks more quickly and minimize red tape.

The Department of Interior and the Department of Homeland Security co-chair this workstream. It also includes the major landholding agencies as well as agencies that deal with environmental issues like CEQ and the Advisory Council on Historic Preservation as those are often some of the key reasons that it can take some time to secure a permit to authorize access to federal lands.

Next slide please. So this slide shows a few of the key actions that the streamlining federal workstream currently has underway. In January of 2018, President Trump issued Executive Order 13821 which is streamlining and expediting request to locate broadband facilities in rural America. This executive order directed GSA to revise the common application form for a permit request so that it could be more responsive to stakeholder needs.

In 2012, GSA had developed a common form that by its worry only apply to wireless antenna installation and in practice very few federal property managing agencies were actually using this form. They were using a form called the SFT99. GSA worked with the other federal agencies that are a part of the federal permitting workstream to revise the SFT99 form to make it clearer that it applied to both wired and wireless antenna installations on federal property.

All the major land managing agencies have committed to using this form going forward except for DOD, the Department of Defense which doesn't use an application form. The US Forest Service which technically owns this form issued a federal register notice in April of this year for PRA compliance, the Paperwork Reduction Act compliance which discusses the proposed changes to the SFT99 and there is an opportunity for interested stakeholders to file comments. But the deadline is June 24, 2019 and it gives an opportunity to comment on some of the proposed revisions.

And also as part of that executive order I mentioned, GSA has begun collecting information from all the property managing agencies on the use of the common form and the SFT99 for permitting communication installation. And this information is used to create quarterly reports on the number of applications received, the number approved, the number rejected, and the

basis for that rejection and the number of working days each application was pending before being approved or rejected.

GSA will be conducting an analysis of that permitting information to identify trends, challenges, and opportunities related to those approvals or denials. Their first quarter report was issued to OMB in December of 2018 and they're preparing to issue their second quarterly report sometime this month, I believe.

Next slide please. So one of NTIA's key action items from the ABI Milestones Report was to create a one stop shop for federal permitting - for federal broadband permitting information. NTIA consolidated permitting information and created this one stop location for information about federal permitting on the BroadbandUSA website.

Next slide please. So this slide shows the screenshot of the federal permitting resource section on the BroadbandUSA website. It contains a general overview of the federal permitting. Why it's important. It puts into context the, you know, the amount of federal land that, I mean, that the government owns is almost 28%. And it tries to give some context to, you know, what the Department of Interior owns, the U.S. Forest Service, Department of Agriculture.

And then by scrolling down there's a - each - there's a description of each of the major landholding agencies: Department of Interior, Department of Defense, Department of Transportation, Federal Highway Administration. And then some of the other ancillary agencies that are involved such as the Council on Environmental Quality, Advisory Council of the Historic Preservation.

And so for those who are looking for a - who may not know much about the federal permitting process, they can, you know, check out this site and it provides links to the different agencies, links to their forms, links to their permitting process flowcharts and also provides points of contact to each of those agencies.

And it's also part of our ABI milestone commitment, we publish flowcharts that reflect the current permitting workflows for the most common asset types. And this includes land managed by DOI's Bureau of Land Management, and USDA's Forest Service, buildings managed by GSA, and towers owned by - owned or managed by DOI. And as processes are further streamlined, we will be updating the BroadbandUSA website to reflect the latest process improvements.

Next slide please. So the leveraging federal assets workstream recognizes that federal assets should provide the greatest possible benefits to stakeholders and the public. The federal government owns, manages or operates a great deal of land and infrastructure across the country including towers and other structures, and allowing the private sector providers to access these assets easily and at a reasonable cost will encourage additional deployment of network infrastructure.

The Department of the Interior and the General Services Administration co-chair this workstream. GSA owns releases over 8,300 rural property assets which include building, land and structures in more than 8,000 cities nationwide and DOI manages approximately 15 million acres of land in over - and several thousand towers. So they were well positioned to lead this workstream.

And as noted on this slide, there are 11 other agencies that are actively involved in the workstream and that includes the seven major landholding agencies in the government. And there's also multiple participation from departments and bureaus within those 11 agencies.

Next slide please. So consistent with the Presidential Memorandum that was issued in January, that's entitled Supporting Broadband Tower Facilities in Rural American on Federal Properties Managed by the Department of Interior, the DOI inventoried and mapped thousands of tower locations. That information is now publicly available via their geographical information system mapping tool. It's called the Joint Overview Established Locations or JOEL Map for short. And it's an interactive map that allows the user to see existing telecom sites and shows where there is an existing infrastructure that private sector providers might be able to utilize to deploy broadband. You know, these towers that are primarily located in rural areas will be available to service providers looking to locate equipment on federal property as they expand wireless and wireline broadband networks.

And the JOEL map lets users identify particular wilderness areas, national monument areas, and you can see by zooming in what, you know, what particular agency is responsible for that asset and it provides points of contact. So it's a very useful site to see what infrastructure is out there that could be used to for broadband deployment.

And then similarly, GSA has - keeps a federal real property profile that it has introduced new data elements in that including like the height of the asset, the longitude/latitude of structures, and some additional new guidance that will hopefully make it easier for the private sector to more readily identify the suitability of federal assets for broadband infrastructure deployment.

And then also we, the Department of Energy is also looking into the feasibility of allowing its western area power administration and southwestern area power administration to lease excess fiber that they have to broadband service providers for broadband deployment.

So a lot of stuff is going on at the federal level. Next side please. So as I mentioned, those are a kind of recent highlights from the federal side and with that I'll turn it back to you Katherine.

Katherine Bates: Thank you, Jennifer. We appreciate that update. So we're going to start the questions now and I was looking through all the questions because there's many of them. But if you haven't submitted them, please remember to type them into the - or any comments you have in the question box. We'll try get through as many as we can. And some of them we might, actually we will send to the speakers with your contact information so they can directly answer them. Because some of them are pretty specific.

But one of - I'm going to start with Huntington Beach. So Antonia, in the Dig Once policy you have, does any one fiber provider or does any fiber provider have to also include placing conduit in the street for the City's use?

Antonia Graham: The way it is written now is that it is totally voluntary and I'm actually, I really like what Utah is doing because we still have to take this back to Council and so I'm sort of rethinking this now. But the way it's written now and the way our plan is, is that if it is in a - if a carrier is planning to cut open the street or anyone is planning to cut open the street in any location of the city that is in our priority area, so more likely collector and arterial streets, not residential, we would ask that we follow them after their work. We would drop in our own conduit.

Katherine Bates: Okay. And then I've got a couple questions on fees because we know those are always of interest. What is Huntington Beach's per pole annual fee for the small cell attachments you're doing?

Antonia Graham: So, it's not a fee. We don't really call it a fee. We call it a site license agreement. It's part of our site license or lease and that's \$2,000 per pole per year. And that's with an escalator. We do require that they fill out a wireless application permit and that's \$1,286 and it's based on a cost recovery study that we did. And then obviously they have to - their contractor applies for an encroachment permit to install the small cell, but the lease itself is \$2,000 per pole per year. And I'm happy to share our agreements.

Katherine Bates: So another question is, how did you negotiate above with the FCC is allowing for pole leases?

Antonia Graham: People wanted - the carriers wanted to be in Huntington Beach, and they know that our downtown area is a very popular area and they've been willing to pay that. I mean we've been very lucky. I will tell you there is a carrier that is unwilling to pay it. So they haven't pulled any, we call them camping reservations so to speak on our poles. And they have not reserved any locations. They tend to go on, there's wood poles that exist in the city that belong to a joint power authority that is mostly everyone, you know, Edison, Gas Company, AT&T. It's like a telecom joint power and so they'll go on there where our design aesthetics are less - we don't really have any design aesthetics because we don't own the pole.

And so we've just been lucky in that carriers want to be in our downtown area so they're willing to pay and claim that pole.

Katherine Bates: Okay. So now I'm going to move onto Lynne in UDOT. So I'm going to try to get through questions for everybody and then maybe have some time to go back. Was, Lynne, was Crown Castle the only company allowed right away permissions to build the fiber?

Lynne Yocom: No. When we were going out, I approached a lot of different companies to help do that canyon. And we've done, if you saw our partners page, you saw that we've partnered with a lot of partners for like example, right now Strata. We're on US 40 going up another canyon. We're partnering there. So we partner with a lot of the telecommunication companies. We think that's what makes us successful is we're not exclusive to them with it.

Katherine Bates: Okay. How did you fund the fiber project? How did UDOT fund the fiber project throughout the state?

Lynne Yocom: It comes with funding with the projects. We also have some of our own funding. We've had some (unintelligible) funding that has come in with that. So when you have a big road project, fiber optics and conduits is just a little drop in the bucket to be able to put that onto the road projects. And so we evaluate the road projects and see if it makes sense for us to be into that project as well with the fiber optics and conduit.

Katherine Bates: Okay, so funding might not be the biggest obstacle, so what would you say is the biggest obstacle to fiber optic deployment in your state or in general?

Lynne Yocom: Environmental clearances.

Katherine Bates: Okay.

Lynne Yocom: With all the different agencies, Forest Service, BLM, our state school lands trust, Park Recreation. We're a big - we're a state with a lot that is owned mostly federally, you know. Seven percent of ours state and that makes it difficult when you need to take a telecommunication line because of all of the rulings, the federal rulings that you have to take into consideration even though it's on a road or an interstate when you run into it. Having would be great if we were operating the road and we would maintain it. If we were lead agency, but it doesn't go that way. If I cross a BLM piece and the road is on it, then BLM is lead agency. If I cross Forest Service and Forest Service is on there, then Forest Service is lead agency. And so it gets really confusing and it gets confusing for the telecoms too.

Katherine Bates: Okay. So that kind of leads to the question for Jennifer, one of the questions we got. And actually it's more than one just said differently. Is there a single point of contact NTIA, Jennifer, or other such agency within the federal government that state governments or local governments may contact when carriers and providers have questions about permitting delays for broadband deployment on federal lands? So is there a single point of contact yet?

Jennifer Duane: No, not at the moment. I mean we get at NTIA we can certainly direct questions to a particular agency but NTIA we're compiling the information, the content information, but we don't have any role in permitting itself. And it's still at this point largely driven by the particular agency that own or manage the particular land or asset that a carrier seeking to get access to. So we - there are some point of contacts within the particular agencies that we can identify and refer, but there's no single point of contact at the moment that might be something that comes out of our work on the streamlining federal permit workstream if that is seen to be a useful and feasible option.

Katherine Bates: Okay. And I do know that in the past particularly my work with the state broadband leaders. If there have been issues they - some of them have contacted me and then I work with my colleagues here at NTIA to put them in touch with the correct agency that's causing the delay and to get some information. So just know that we're here to help.

Jennifer, I have this question. How much of the enhanced elevation data made available by LIDAR detection via the USGS is NTIA utilizing to help broadband - wait. I don't think that's the right question. I'm sorry. I don't think that's a question that you can answer.

So I'm going to go back real quick to a question that I hear about a lot when I'm out working in the field about small cell technology. And so this is a question for Antonia. Small cell technology is often used for 5G service. We know that, but has there been any pushback from the community concerning the environmental issues with small cell deployment particularly you hear that there are some communities that are pushing back because of health concerns? So did that come up at all in Huntington Beach?

Antonia Graham: You know what? It never came up. It's really interesting that you bring this up. I don't where the community was. They were sort of asleep, I guess when we brought all of this forth to City Council. But only recently I have had a handful and I mean like three or four people come to our environmental board which the City has an environmental board and to writing letters to Council about their concerns about 5G and millimeter wave and the sort of health effects because I have one woman that believes the City has a master plan to give everyone cancer. But these - the people that do come, they don't make a great case for themselves because they come in with documents and reports that come from websites that are not necessarily the most accurate or

scientific. And they bring in hieroglyphics and they say they don't have email addresses. So we're getting some kooky people coming in.

And what the City's stance is, first of all we have no 5G here at all. The small cells that we have here are 4G and we do have AT&T's stake 5G, but it's mostly 4G gentrification. There's no 5G here yet. But there is millimeter wave. And for the most part I don't hear from residents. I hear from a handful of residents that are afraid but, you know, as the City, you know, we basically say look, it's the FCC and the California Public Utilities Commission. We don't study the health effects of these small cell attachments. We just have not done that. And, you know, as we move into this sort of smart city, Internet of things, you know, these devices are everywhere. And for the City to really be a smart city and to provide economic opportunities, we have to incorporate technology.

And so to these residents we basically, you know, our Council has not really paid much attention to them. Because like I said it's been two or three and they practically come in wearing tinfoil hats.

Katherine Bates: It is Huntington Beach, California. So on the, Lynne, I have a question for you on the UDOT avalanche build. How long has that been operational?

Lynne Yocom: We've been operational now for over two years.

Katherine Bates: Okay, have you had any weather, traffic accidents, et cetera issues with broadband access since that buildout? Like have you noticed a difference?

Lynne Yocom: We've noticed a difference like we have car wrecks, et cetera. They can do immediate access now into 911.

Katherine Bates: So that's something you've noticed.

Lynne Yocom: Yes.

Katherine Bates: Okay, that's good.

Lynne Yocom: And we've got cameras. The other big thing we've noticed with the cameras is a skier, you can check your favorite cameras and see if it's time to drive or not time. And it gives us better clear air because instead of idling in that great big long line, you can kind of wait until you start to see it break up before you start up.

Katherine Bates: Okay. Jennifer, this is a question that I had that I got a little confused on. The FCC is, it says where does BDAC fall into the federal siting decisions and then how does - how do NTIA and FCC work together on these issues?

Jennifer Duane: Sure, so the FCC is a member of the, each of our workstreams in the American Broadband Initiative. So they are on the streamlining federal permitting workstream, the federal funding as well as leveraging federal assets. And we - and I think there are some representatives, FCC representatives that also participate and have knowledge of what the Broadband Deployment Advisory Committee, the BDAC is doing. So we are aware of what the BDAC has issued especially their final report on siting on federal land as well as their fee, work that they've done on fees.

So we've taken that into consideration and as we kind of move forward with some of our action items, we'll be drawing on some of the information and conclusions that they developed.

Katherine Bates: Okay. And then there has been a question about the 3DEP on the USGS.

That's the one I was confused on. Sorry, I was reading two different ones on a small screen. But I'm going to have (John), I'm going to have Jennifer answer that question to you directly. Because we're going to have to finish up right now.

So thank you to all the presenters. I believe it was a very informative, I know I learned a lot. So I appreciate you taking the time and the contact information because we've been asked that quite a few times on here is for the speakers will be sent out also. And it's in the presentation that will be uploaded to our website. So please look for that and within seven days of the webinar. We also tweet out when it's up. It usually doesn't take us seven days to get it up, but we do have to transcribe it.

And I'd like to make everybody aware of these next webinar that is related to smart cities and communities which Antonia mentioned. Our one on June 19th is "Building Smart Cities and Communities at the Regional Level". We've got some exciting things that are happening at the regional level which Antonia probably is aware of working in Orange County.

So thank you again to our speakers and finally I'll do a push for BroadbandUSA. We're available for technical assistance to help expand broadband connectivity and promote digital inclusion in broadband adoption. We can also help you with you some - get you in contact, obviously, with some permitting issues you might have. For more information, please email us at **BroadbandUSA@NTIA.gov** or visit our website for more information and access our toolkits and publications.

Thank you all again and have a wonderful afternoon. Thank you.

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