# **Austin Water Oversight Committee Meeting Transcript –** 08/20/2020

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[10:05:09 AM]

>> Ellis: It is Thursday, August 20th. This is the Austin water oversight committee and we are meeting remotely because we are still dealing with covid. We've got a few things on our agenda. Item 1 is approval of minutes from the last meeting. We also will very briefings on the director's reports, discussion of on-site water treatment for the Tesla sites and aquifer storage and recovery items. So those are the few things we have on our agenda today. Should be a great discussion. Do I have a motion to approve the meeting minutes from last time? Councilmember alter makes the motion. Seconded by councilmember pool. All in favor say aye? It looks like that's unanimous on the virtual dais.

[10:06:09 AM]

Councilmember pool, did you say they were moving some people over from the attendees list. Next we have up our director's office so I wanted to know it's okay to merge over. Director mezarus.

>> Alter: Chair Ellis, did we receive any of these presentations by email because they are not posted on the --

>> Ellis: I believe I saw Heather had sent those out. Let me double-check the time stamp on it. Let me do a quick search.

>> Pool: While the chair is looking at that, we can just [inaudible] The director and the staff liaison, we normally get

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these -- well, Austin energy sends us the backup a week in advance and that was a particular request a couple years ago because of the density of some of the documents. And so let's make sure that we get our backup at least the Friday before our meetings going forward. And make sure they are attached also to whatever the agenda is that's posted online. Thanks.

>> Ellis: That would certainly be helpful. I know in our meeting yesterday as well we were having issues with the feed tug R cutting in and out with the presentation so that would help us know we've got the documents to review in case anything creates a glitch. It was being picked up on atxn but it was not showing on our screen. That was something I hadn't seen before, but it was helpful to have that as backup. 5:51 last night the attachments were sent out. If you would like to look at

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them on your own screen. Good morning, director Meszaros.

>> Good morning, councilmembers. I want to run down a few items, so nice to see everyone. In terms of council rca items, the most noteworthy one coming up is actually next week. It's our start of our engineering for our aquifer storage and recovery and so we've selected a briefing today to give you an overview of that project and what's coming up for your council agenda next week. I do want to note a couple key operational projects, some progress we're making. As council will recall, our raw water has been infested with zebra mussels. We've had construction projects at all three of our plants to control zebra mussels in our raw water piping system and we expect

[10:09:12 AM]

construction to be completed next month and go into operation. We'll start adding a small dose of a chemical in our raw water piping to rid that system of zebra mussels. We would expect by the end of the calendar year that our raw water piping will be free of all zebra mussels. So that's an important milestone for us. Of course, they will still be in the lake itself and we'll still have to manage the impacts on our intakes, but in terms of the raw water piping we're well underway with ridding our system of zebra mussels. Also I want to note progress on our polymer system. The council may recall after the 2018 Colorado river flooding and boil water notice that we did an engineering after-action analysis and the core recommendation of that was to adapt our three primary drinking water plants with polymer systems. That's a chemical that would give us additional tools to manage high turbidity events

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that occur during Colorado flooding, for example. And we targeted our Ulrich plant, which is our largest plant, as our first polymer project, and that project is well under construction and we expect that to go into service this fall and will give us a new tool at Ulrich to manage high turbidity upset river events, and we'll be following up in 2021 with polymer systems at our Davis and Hancock plants. I really want to thank staff for accelerating this project at Ulrich and in about 15 months we designed, permitted and constructed that projects. If you know city processes, that's moving at warp speed so we're pleased putting that into service this fall. Lastly I want to note good progress on Texas water development board loans. I know councilmember alter has been a big advocate and met with me a few years ago about improving the work with the Texas water development board on loans and we're making excellent

[10:11:13 AM]

progress there. The council may recall last week they approved on loan for our Ami project, one of several, and we have additional loans coming to council in the fall, probably October. In total we would expect over the next five years that we'll take loans out for approximately \$400 million of construction work in the years ahead. Probably about \$100 million a year. Primarily they are srf loans and particularly on the wastewater side we have a lot of activity there so wee pleased we're making excellent progress there and those loans save us substantial financing dollars. I just wanted to report the progress on that. And with that, I would be happy to answer any questions on what I covered on that this morning.

>> Ellis: Councilmember pool, I see your hand up.

>> Alter: Good morning. Thank you for that overview, director Meszaros. So with these Texas water development board loans, we

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get the loans at a much lower rate which saves our ratepayers over time. I wanted to clarify when you said we would be taking out the \$400 million of loans over the next several years, will those all be able to be at this reduced rate or was that just generally how much we're taking?

- >> No, that would all be through their srf programs which would come at reduced interest rate.
- >> Alter: Wonderful.
- >> Now, we have to apply and be accepted, but we would anticipate these would be high worthy projects and we would be awarded the loan dollars.
- >> Alter: Wonderful. That's great. That's a very fiscally responsible way to be.
- >> Thank you, councilmember.

>> Ellis: Any other questions from committee members? I certainly appreciate your diligent work. I know zebra mussels is such a huge issue when they do present themselves that we really appreciate you taking

[10:13:14 AM]

steps to make sure that is mitigated. Certainly an important part of our water quality. And there was a mention briefly in our energy oversight committee meeting yesterday about customer assistance program. I seem to have not written down the numbers, but seems like there was 2.1 million of customer assistance that was for Austin water customers. And I believe that website, and someone correct me if I am wrong, if people are interested in assistance of that nature, that it is atx fill help.com. So I know Austin water and Austin energy have been working very closely together to make sure that people in need in this time to make sure their bills are getting paid and assistance they need. So we certainly appreciate that. Councilmember alter.

>> Alter: I just wanted to follow up on by budget rider. I had a budget rider asking Austin water to come back

[10:14:15 AM]

when the program was ready to extend the cap program to additional households that are currently getting the ae assistance, but not able to get water because of the different ways that the two types of meters work. I appreciate Austin water staff working hard on this and just wanted to flag that perhaps that can come back to our committee before that goes to council if the timing works on that. I think it's an exciting opportunity. My understanding is that you have some good options for moving forward that will allow us to make sure that those folks who are in need of further assistance are able to access water as easily as they are able to access the Austin energy resources.

>> Ellis: Yes, director Meszaros, go ahead.

>> Yes, our next committee meeting is I believe October 28th, and I think that would time out well for us to come back to this

[10:15:15 AM]

committee and report on our recommendations for expanding our cap program to include multi-family and, you know, if the council wants, we'll certainly plan to do that.

>> Ellis: I think that sounds like a really interesting topic. If that time line works well, I think we'll just move that on to the next agenda and spend a little more time talking about that and give you some time to be able to spell it out for us so we can assist those customers as well.

>> You bet.

>> Ellis: Any more questions on this particular item? All right. Let's move on to the next item, discuss potential on-site water treatment methods for the Tesla site. This is something councilmember pool requested. Do you want to say a few words?

>> Pool: I will. We'll be bringing in two folks in to join us, David

[10:16:23 AM]

and Richard suttle, David foster leads Texas campaign for the environment and he along with other environmental advocacy groups in Austin have been following along on the discussion and the advent of Tesla coming to Austin. David, are we able to see you? I want to make sure that -- I can see Richard and I can see that his mic is turned on. Okay, I can see David is no longer muted.

>> Here I am.

>> Pool: Good morning. Good morning, gentlemen, and thank you both for being here. What I thought this -- I'm sorry, I gave the wrong entity for [inaudible] Clean water action and I'm so sorry, so sorry. There is a consortium of environmental groups working with clean water action on this issue. So this is a really good opportunity for us to get a

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little bit of advanced insights into what's going on and the extraterrestrial jurisdiction of the city of Austin. It is the etj, the city does not have as much oversight authority but there are things we will be working with Mr. Suttle and Tesla on. So there are careerly some concerns that all of us who have environmental issues top of mind would like to hear about. Chair, did you have any particular way you wanted to move forward? Would you want Richard to talk about his client and planning and maybe have

[10:18:25 AM]

David respond on behalf of clean water action as other environmental groups?

>> Ellis: That sounds great. A lot of conversations have been happening. This is a gray way -- great way to daylight what these issues are in realtime.

- >> Sure. Do you want me to kick off with an overview and then answer questions?
- >> Pool: Sure.
- >> Ellis: That would be great.
- >> I'm Richard and represent Tesla. Tesla has purchased what you all knew as councilmembers as the Austin green pud which consisted of about 2100 acres. It's the former martin Marietta mining site basically along the river. If you've ever seen what sand and gravel mining does to a piece of property, it basically makes it look like the moon scape. The way it's mined, big you

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dig a big hole and what happens is the property essentially look like 2,000 acres of craters, essentially, that some have grown up with vegetation, some of them are still open. But anyway, it's in the etj of these -- this mining was done undermining permits and reclamation permits and Tesla purchased the entire site and has been in the process of reclaiming the mine site under the reclamation permits. There's dual review in the etj for site plans the city reviews for environmental water quality basically, and if it gets subdivided, which right now it's not anticipated to be subdivided, but subdivision. And also the county gives a general development permit as well, and they are looking more at drainage and

[10:20:27 AM]

flood plain regulations. So that's the development side of it. On the water and wastewater side of it, the tract straddles 130. If you were to look west of 130, I believe a lot of that is in Austin's water and wastewater service area. And on the east side of 130, it's currently in the service area of Hornsby bend, also known as southwest water. So southwest water has indicated in the past with some substantial infrastructure improvements and new discharge permits and facilities they could possibly serve the Tesla site, and we've also had conversations with the city of Austin and they think that they would also be able to serve the site. We have filed a ccn release,

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expedited release with the PUC, the public utilities commission, to start the process of getting out of southwest ccn which would then I think put us into Austin's -- if everything worked out. So that's the status of the water and wastewater utility situation. There is a reclaimed waterline that comes across the river on to this property and then heads west that is in play and is a very interesting and resource that Tesla would like to use as part of their process. And in fact, there is a plan, Greg is probably aware that there's an up grade to those lines as they come across. The city needs some more land and some

more easements to do the upgrade, and we'll be working with them on getting those easements so they can continue the upgrades.

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So that deals with the water and wastewater current situation. And then from a water quality standpoint and runoff, the current plan for phase 1 that has been under review and phase 1 has been approved, the water quality strategy right now is to have a dual pond system on phase 1. 1 is a biofiltration pond on a smaller portion of the drainage area and then a larger wet pond treatment on the certain end of the property which would capture the runoff from this phase in a big wet pond and have it treated as wet ponds do with the vegetation plantings and all that kind of stuff. So that's where it is right now. The site is under construction. You can actually go -- there's a YouTube video that

[10:23:37 AM]

an enthusiast is out there flying drone footage every day, it's actually high quality drone footage and you can look to see what's going on. So that's the status of the regulatory issues right now. Tesla has phase 1 of the factory in play. As everything progresses, there's a possibility future phases will also be built on the site. So that's the overview. What questions can I try to answer, and if I can't answer them, I'll surely get them written down and get answers for you.

>> Ellis: Sure, we will appreciate that. I know that councilmember pool had a question earlier, and pardon me if I misphrased, but was it about manufacturing practices and ensuring that not only the drainage standards are being followed but if there's any potential byproducts from the manufacturing process, is that something that you all are mitigating for and looking at?

>> So part -- part of the

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process of the wastewater side, not the rain water runoff, but the wastewater side, as part of the manufacturing process, there is a pre-treatment site that will be part of the plant where industrial wastewater is pre-treated on our site before it enters the city of Austin's wastewater systems. So I -- that's about the extent of my knowledge other than it's pre-cleaned before it gets put into the city's wastewater system.

>> Ellis: And then the typical wastewater treatment processes that the city already has in place.

>> Yes.

>> Ellis: Okay. Interesting. Councilmember pool, did you have more questions? I know we also have Mr. Foster here to talk about some of the other water quality issues.

[10:25:39 AM]

>> Pool: Unless councilmember alter has anything to ask, why don't we move over to David water from clean water action's perspective.

>> Alter: Good morning. I wanted to just ask and you covered a lot there so I apologize if I missed it, I'm not as familiar with this site as either of you at this point since we've just had a brief overview. I'm concerned about sort of understanding the setbacks from the river and what the plans are in terms of placement of, you know, whatever you would be building. I know there's been talk of a trail along the river and other amenities that the community would be able to enjoy, but we keep other sections of the river by having a setback, what is the plan and vision with that at this point?

>> Well, currently the site

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would be subject to the watershed ordinance which includes a critical zone along the river which I believe in this area is -- could be up to -- up to 400 feet depending on flood plain and all. While we have not submitted any plans for the area along the river, the initial set of plans has stayed out of the flood plain and out of the critical zone. The next phase will probably including the plans for the river setback and the potential for public access and water quality measures, if any, within that critical -- usually what you try to do is stay out of the critical zone altogether. There's always a running conversation between the parks and trails people, what they would like to do within the setback and the environmental folks and what they would like to see in the setback, and it's always a lively conversation there.

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But right now there's nothing before the city and right now all the permits and phases have stayed out of those setbacks so it's a clean slate.

>> Alter: Thank you. I think that's something I'm going to be watching and trying to understand, you know, some of the rules that we have regarding that elsewhere on the river have been helpful and useful for helping us maintain quality and that's just something I'll be watching to better understand as we move through the process.

>> Elon Musk, the head of Tesla, has actually said publicly his vision includes some sort of public use and making -- bringing back that area along the river. Of course, it's been mined and it's pretty rough right now, but hopefully bringing it back.

>> Alter: And I

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appreciated thatten a that's what I've heard and that's what I hope we will do forward, but as we go through these other processes, I just wanted to flag that is something I'm going to be watching and looking at and I think there are opportunities for us to be thinking more broadly about how we -- how we extend some of those protections further down the river that we have elsewhere.

>> Ellis: It's certainly been on my radar too since the Austin green pud had that activated, you know, waterfront space accessible for people to walk or bike or stroll and I really like that too so I'm hoping as we move along through this process that that part of this transition is maintained through -- through the steps moving forward. Did you have other questions, councilmember

[10:29:42 AM]

pool?

>> Pool: I think we can move on to clean water action and Mr. Foster.

>> Ellis: Thanks for joining us, Mr. Foster.

>> It's great to be here. Thank you, vice chair pool, for setting this up and I want to thank the city staff too for enabling me to give input through the pandemic. I have a couple of quick thoughts on water quality, but mainly I want to talk about water quantity and water supply and how I think Tesla can help meet our future need. On water quality, I think Tesla should look at green walls, green roofs, coarse pavement for parking, that sort of thing that has been much talked about in recent years and there are elements of that incorporated into the early drafts on that -- not early, but drafts of the land development code that have been stalled because of the lawsuit. Mainly what I want to talk about is water supply. And Tesla's decision to come to Austin lets us a know

[10:30:43 AM]

once again this region is not going to slow down, we're going to continue to add population, and we need to be very mindful of future water supply because of that. Just a few short weeks ago, a new report came out from Texas A&M university, Austin water utilities that warns of likely mega droughts in

the future which could mean we could be looking to back to back to back years every bit as hot and dry as 2011 was. So he with need to take every step we can now and think long term to make sure we have enough water to meet future demand. An important way we can do that is -- and I think you've heard this before, it's kind of built into our long-range water supply plan known as water forward is design and build new buildings in a way they become water supply sources, sources of new water, not just consumers of new water.

[10:31:44 AM]

There are portions of the Waterford plant incorporated into the first two drafts of the land development code and they are on hold

[indiscernible] Part of the lawsuit is about. But they are on hold. And what I would challenge Tesla to do is to design and build its facility is if those features had already been incorporated into our ordinances and rules and applied to them. So what I'm talking about specifically and Greg Meszaros is here and maybe other folks from Austin water can speak about this in great detail, but I think Tesla should draft a water budget. So how much -- how many gallons per month or per year are you expected to use for flushing toilets and industrial processes, in cooling towers for irrigation, that's part of it, and the city staff very much to its credit is developing ways to work with developers like Tesla to do just that. And the other side of the water budget is how much water could Tesla's site

[10:32:46 AM]

potentially generate. Through ac condensate capture, through capturing rain water, rain water harvesting. How much potential water is there from treating gray water and black water on site and using it on site. That's number one. And a big one is [inaudible] Plumbing. Mr. Suttle mentioned a reclaimed waterline runs through a portion of this parcel, that's great. So the water forward plant envisions large developments like this being dual plumbed and use that for non-potable needs. You would have a separate system of plumbing for potable purse and you would have to take steps so there is no cross contamination. And rain water harvesting, et cetera, around the campus to off set potable demand. You would use that for non-potable needs. This is not something that's new. City hall does it, captures

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ac condensate and rain water and flushes toilets and irrigates with it. The W hotel is doing some of it. The new Travis county courthouse is going to be designed with dual plumbing to do the same. And yes, there is an upfront added cost to this, but in the case of the courthouse the estimate is within 11 years

they will off set that up don't cost by I voided water -- [indiscernible]. I think Tesla should be looking at doing dual plumbing, building into their plans, reused onsite of ac con December state. At the old highland mall site is treating sewage on site and using it on site. There's an elementary school in Wimberley that's going to do the same. This is not anything new, but what we have is a unique opportunity for Tesla which prides itself on being

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cutting edge, sort of setting a pace and being a model for others, to be a pioneer here as well. I don't know it's being done anywhere on this scale. There is a Microsoft campus on the west coast that reuses its sewage, but I think this is a unique opportunity for Tesla just to show the world what the potentials are if you design and build buildings that capture and use water on site. Buildings themselves become a water up is ply option or a source of new

[indiscernible]. It will also save us money in the long run as a community because this will reduce the amount of water we have to withdraw from the Colorado river to meet demand, and as I think you all know, our contract with the lower Colorado river authority requires us to pay current market rate of all the water above our run of the river rights that we take out of that river. Once as a community we would take -- once we take 200,000-acre feet of water. The more creative we are

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with using other sources of water, the longer we postpone that trigger. If that happened now

[indiscernible]. So those are my thoughts and I'm hopeful as this moves forward that Tesla can go ahead and design and build its campus as if those water forward provisions were already in effect and applied to them. Thank you.

>> Ellis: Thank you, Mr. Foster. That's all very interesting. Just off the top of my head, Mr. Suttle, and this may not be something that's available to us today, but are there other facilities in other places in the country that might be doing something like this? I know that given there's different geographic locations and different environmental needs, it would be interesting to know if Tesla has done this anywhere else and has some sort of blueprint that might be helpful.

>> I don't know the answer to that, but I've got the guys working on it. They've got a new site in

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China, a new site in Berlin and those are the three being built in the world today. Kind of hard to believe that we're being compared to Berlin and China, but it's fascinating. But I'll find out what they are doing in other areas as well.

>> Ellis: It's something I'm curious about. I'm happy if you can either send me that information, I'll share it with the rest of the team or maybe our staff at Austin water can help get that information out to us. I would be very curious about that. Councilmember kitchen.

>> Still on mute.

>> Ellis: Yes. There you go.

>> Kitchen: Got it. And thank you for -- thank you, chair, for following up on that. I think we would all like to understand that, Richard. At this point is there a level of commitment from

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Tesla to work with the city O dual plumbing and to be

[indiscernible] Of that?

>> I think everything is on the table right now. I talked to the chief engineer this morning to give him a briefing on what I anticipate today. Tesla is a very different -- I've never represented something like this before where they are designing, they are permitting and they are building all at the same time because everything is based on speed and how to get their stuff done really quick. So if you can imagine, we're out there doing site work now, but the building has not been completely designed. So now is the time to have these conversations. And then what will be done is these soldiers -- these engineers go back and look at the logistics of dual

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plumbing, rain water capture literally as we speak. It's always a balancing act and David has mentioned it does cost more up front and then they have a very elaborate cost analysis, and for instance at the courthouse while it may have made sense, it may not make sense on every phase of Tesla or it might make per suspect sense, but they have engineers that can figure out that.

>> Kitchen: So given how fast it's moving, can you give us an idea when you could get back to us on whether there's a commitment?

>> Sure. I think -- do you all meet monthly? Or do you just meet when you need to?

>> Ellis: It's quarterly, and our next one is on October 28th.

>> Pool: Open 24/7.

>> Kitchen: I didn't mean to say it had to be in a

[10:39:53 AM]

meeting. Since you are moving so fast, I would want to understand that before we -- before the window is closed in terms of the ability to -- to include that in the -- include the dual plumbing in the design.

>> Well, David and I had a conversation this week and it's already on their radar because I've expressed to them what the questions that David mentioned and what Leslie mentioned and so it's on their radar. I don't have an answer for you today yet.

>> Pool: I'm going to -- Ann, are you done?

>> Kitchen: Yes.

>> Pool: Let me expand a little bit on some of the points that Ann was raising, and the water budget that was brought up. I'm sure that Tesla is -- the engineers, everybody is kind of talking in terms of square footage and the complexity of the internal systems and the piping, and

[10:40:54 AM]

it's my understanding that the gigafactory will use a whole lot of water. And there is good reason for us to want to understand and certainly Tesla to understand how much water will be used either through the purchase from the city of Austin or as reclaimed on the site because of the historic droughts we've had in the past, because we have limits on our water resources, because we know that we can't make it rain, we can't create water. What we can do is try to harvest it from structures even in a drought. So is Tesla willing to sit down with Austin water utility staff to craft water budget --

>> Absolutely.

>> Pool: That's great.

>> And I talked to the engineer this morning and used that exact terminology. Because sometimes you use a term of art and don't understand it, but he understand what that meant.

[10:41:55 AM]

We've got a meeting -- we're getting ready to start the meetings now to talk about the service extension requests about the city both from a water, wastewater and reclaimed water standpoint.

>> Pool: All right. The element in the water forward plan that would be operational now if it had not been pushed aside, it's not really part of the land development code, but it has been affected by the lawsuit on the ldc. We could move it forward if we chose and that may be something that this committee would like to kick around a little bit because here's a -- this is a prime concrete example of how we need water forward to be pushed forward and approved and implemented [inaudible]. Tesla will be using a whole lot of water. Dual plumbing is critical to resilience for our community and for the success of Tesla's operations. Can we assume that Tesla will be willing to commit to

[10:42:59 AM]

dual plumbing in its buildings? Sounds like there will be more than one system. And we would like to see dual plumbing.

>> Sure. There were a lot of words there and I got to make sure I don't overcommit and underperform. There hasn't been a commitment to dual plumb yet, but it's on the table for conversation. I want to make sure in the event parts of the building -- remember, these buildings are kind of hard to imagine, but imagine a building that is 60 or 70 acres big, one building. All one level. That's the magnitude we're talking about. So I just want to tell you that it's definitely on the table and it's being discussed, but at this meeting today I don't want somebody playing back the tape saying he committed to dual plumbing because I can't flat commit to it today.

>> Pool: And we all heard that but I did want to press that point to make sure that

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was really clear. And I also wanted to emphasize the success of this factory for Tesla will rest in large part on how the water systems are developed and put into place, which means that the dual plumbing while it may be more expensive, some say, maybe it is more expensive at the front end, but the back end I think that Mr. Musk will be delighted he was F.A.R. Sighted enough to do that in advance because it will pay massive dividends at the back end. We don't know when the next drought will be and the lcra has limits on the feet of ground water and surface water the city of Austin can take out of our highland Lakes and lake Travis. And then the downstream folks, you have fishermen and shrimpers and the various industries down

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river to the gulf that also rely on the Colorado river, and this massive factory will be right there on the banks of the Colorado river. So Tesla is joining a fairly substantial intact industrial, commercial, farming, ranching, residential, business center community from the highland Lakes to the gulf of Mexico. And we

will need to -- it will need to be a partnership with everybody all along the river. I think that is a really important message and I'm sure that you all have communicated that and Mr. Musk, I'm sure, is completely aware of all of the competing various interests.

>> Ellis: Councilmember alter.

>> Alter: Thank you. I think this is a really important conversation to have early in the proes is. I did want to piggyback on what Mr. Foster said about

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really thinking about, you know, adopting the rules that we have laid out in the draft code as what you follow moving forward. And I think that chair Ellis, I think it would be really good for this committee to take leadership and say we need to move forward with those pieces of the land development code. They are not subject to the lawsuit in and of themselves, they don't have anything to do with zoning, they don't have anything to do with the protest rights and there's nothing to stop us from moving forward with those. I think there's unanimous agreement on council those are good rules and I think that would be a really strong thing for this committee to move forward with. I think they were ready, I think there was broad agreement. And I think we should be really thinking about what that looks like to move that forward quickly.

[10:47:06 AM]

>> Ellis: Certainly twig think about that. We may have an executive session coming next week about where we might

[inaudible] Topic. I know on the dais there's been some discussion around whether we pull out certain parts of it or not. I certainly agree with trying to push with environmental protection where at all possible, but I know there is a larger conversation on council about which portions of that rewrite make sense to pull out, if it makes sense to keep it all together, but I'm willing to have that discussion and especially through next week seeing exactly what our city staff and legal staff may have as advice for us. But I certainly agree water forward issues are very important for the health of our environment and community and our budget, quite honestly. Did I see your hand up, councilmember kitchen?

>> Kitchen: Yes. I just wanted to second -- we can have more conversation, but I would like to put it on our next agenda for this committee

[10:48:06 AM]

that we consider making a recommendation out of the committee to move forward with the water forward aspects and changes to the code. I think it's something we need to move on and I think it's something that this committee could make a recommendation on. I hear what you are saying, chair, about the larger conversation and I think that that will be good to have because there may be other aspects of the ldc to bring forward, but regardless, I don't think we should wait on water quality. And I don't think it's dependent on what we do with the broader picture. We can talk about it again, but at this point in time I'm thinking it might be useful for this committee to take it up in October, I think is when you said our next committee is, to move forward and, you know, and move forward with a recommendation. By the committee. That would be my suggestion.

>> Ellis: I'll certainly make a note of it.

[10:49:07 AM]

Seems like a really good conversation to have and I look forward to what we may talk about in executive session next week, but it's certainly a good thing for us to be thinking about. So I'll absolutely make a note of bringing that in October. If our conversations over the next week lend themselves well to that conversation playing out here.

>> Pool: I think we can -- I think we can in fact put that on the agenda. I will be joining both councilmembers alter and kitchen and placing it on this committee's agenda. And I'm actually thinking that maybe we need to talk about it a little sooner. We can do a special called meeting and we can have our own executive session as well in order to push this forward, but I think we've already waited too long. We were supposed to have activated and implemented water forward I think earlier this year and I think it was even delayed from last year. David, can you remember, was it last June or this June? Time has taken on bizarre qualities of late.

>> Some of it was going to

[10:50:08 AM]

go in effect in June and other parts later, but no later than 2021. And I know that -- Mr. Meszaros could speak to this too, that awu is thinking the whole of it will slide like this the longer this takes. So to act now will accelerate implementation in some of those other aspects as well. Maybe not right away, but sooner rather than later. So I'm a big fan of moving forward with this now. Thank you.

>> Pool: And looking at what the weather has been doing to us this summer, I worry we're on the leading edge of yet another drought so we really do need to be acting with speed. So thanks for adding that charge into our next agenda, chair, and if we need to talk about it beforehand, we can certainly do that as well.

>> Ellis: Appreciate the input. Are there any more questions about this particular item?

## [10:51:11 AM]

Councilmember alter.

- >> Alter: Mr. Suttle, can you just help us, remind us of the timetable of what will be coming before council?
- >> Councilmember, there is a good chance that nothing will be coming

[indiscernible]. The methodology of this one is in the etj and at this point it's not anticipated that there are any asks yet of the council. I'm actually anticipating if we get into the conversations of things that are discretionary, there will be a back and forth and there's a potential that we could actually amend the Austin green pud to convert it to an E.T.J. Pud and convert it to a manufacturing facility with the environmental protections instead of what was proposed in the Austin

[10:52:11 AM]

green pud. But the next phases will be -- as we explore the options, the options are water and wastewater from southwest, water and wastewater from Austin, and we're going to proceed as if we're going to go with Austin because reclaimed water is an important resource, and we're probably going to file Sers, service extensions requests with the city, but those are not council action items either because it's desired development zone and would be in the service area if we're successful in getting out of the southwest service area. But as far as time frame goes, I want to extend the invitation, if you choose, you can actually have a very safe and outdoor and socially distanced observation of this site and it is fascinating to see because it is so large. If anybody wants to go out there, please let me know and we'll get you out there to see it because it's

[10:53:13 AM]

something none of us have ever seen before in this town or in Austin and maybe not ever. A lot of words, but that's to say you may not see anything, but if we get into conversations where there's a give and take then you might and it could be as early as within a month or two.

- >> Alter: So the Austin green pud allows for the industrial building? Again, I don't have the familiarity of the details, but --
- >> The Austin green pud went through the boards and commissions process and it actually got to you and the city council passed the Austin green pud on first reading. The Austin green pud anticipated

being annexed into the city for limited purposes, and that is all still a possibility. It's on hold. But this site really doesn't fit into regulations that

[10:54:13 AM]

Austin has, so if it came back to you, it would come back to you as an E.T.J. Pud, which is allowed by state law, it's very specifically allowed by state law, and we could have conversations on environmental aspects. But right now it's -- the pud is on hold. It's sitting there in the holding pattern passed on first reading.

- >> Alter: So under what ordinance or whatever you would call it are you building under?
- >> We are operating under etj rules, which is city water quality, drainage from water quality and county site development regulations.
- >> Alter: Okay. Thank you you for the clarification.
- >> Pool: David, did you have your hand up?
- >> No, I'm just doing this.

[10:55:15 AM]

- >> Ellis: Councilmember kitchen.
- >> Kitchen: I have one question about the etj requirements. And I don't know if it applies in this case or not, Richard. I've seen it with regard to other cases where it has to go to the county if it's under etj regulations, and I'm just wondering if that's the case.
- >> It is.
- >> Kitchen: So it will go back to the county with regard to zoning-type things. The city is responsible for water quality-type things, and it could come to us if it is -- if it's considered to be the out of city pud along the lines -- or if it's requesting the out of city pud kind of designation that the green pud was. Is that the right way to think about it?
- >> Generally, but there are some fine distinctions. First of all, the county has no zoning authority.

[10:56:17 AM]

They regulate for flood plain, they are the keeper of the flood plain regulations and drainage, and that's -- that's basically what their jurisdiction is out there. And then on the city side, it is because of under the

water code they are able -- we the city are able extend our water quality ordinances into the etj. It's a dual review city and county, but it's all administrative unless you need a variance. And the two variances that will come up eventually on this, there will be on flood plain modification eventually on this site, not under the first phase, and when you building sites this big, there inevitably is a cut and fill variance somewhere along the line. Those are the variances that I can anticipate seeing in the future.

>> Kitchen: Okay, and those are variances that would go to the county.

[10:57:18 AM]

Is that what --

>> Well, it depends. Flood plain modifications go to the county. A watershed ordinance variance would go to the city.

>> Kitchen: Okay. Okay. And then the last question on this is -- I'm familiar with the case we had that was in the etj that went through our zap committee, through our zoning and platting committee, then it went to the county. Would this -- would anything that you all are doing here at the Tesla site go to our zap commission?

>> Well, that was the Austin green pud which was a mixed use land use and zoning. It anticipated the city annexing it for limited purposes and

[indiscernible]. This type wouldn't

[10:58:18 AM]

necessarily do that. If we brought the pud back to you as an E.T.J. Pud, meaning the distinction there is wouldn't be annexed for limited purposes, it would just be an E.T.J. Pud. An E.T.J. Pud is -- it's not zoning, it's a agreement as to gives and takes of the regulations. It would not have to go gabbing to zap, it could come directly to you as an amendment to pud that you've already passed on first reading.

>> Kitchen: Okay. I'm also familiar with circumstances that are not puds that have gone to zap and didn't come on to the city. There was a development that in my etj associated with my district that was obviously a different kind of development and it related to housing, but it did go through zap. And I'm not remembering the details. It may have gone to zap related to water issues. So if -- so really my

[10:59:19 AM]

question is will this be going to zap regardless whether or not it's out of -- regardless of whether it's a pud that has to come to council. And if you don't know that, that's fine. I can go back and check the circumstances. I just know that there are at least some circumstances where there's development in an E.T.J. That will go to our zoning and platting commission.

>> So if you are subdividing, if you are in the subdivision process, you definitely go to zap. But if you don't subdivide, then you don't go to zap. I don't know if you remember the one you are referencing, I can look at it. Right now I can't see a scenario special for phase 1 that's going on right now that it would go to zap.

>> Kitchen: The distinction may have been the subdividing because there was definitely subdividing going on.

>> Okay.

>> Ellis: There's a few

[11:00:21 AM]

things we realize have state law surrounding them that may or may not come to us, but that was a really good point about what our processes allow for and what the expectations are for time line and approval for any of this. If there's no other questions, it's 11:00 and we've got two more items to move on to, but I think this was a really engaging discussion and really appreciate Mr. Foster and Mr. Suttle being here to explain some of these opportunities. I really appreciate you taking time to be here.

>> Great. Thank you.

>> Pool: Thanks so much, Richard and David.

>> Open invitation to all of you including David, if you want to see what's going on out there, it's interesting.

>> Pool: I will take you up on that -- footage you mentioned earlier.

>> There's a guy flying drone. He's unauthorized, he gets under everybody's skin, but

[11:01:21 AM]

he's got very high quality drone footage.

>> Pool: All right. Thanks, guys.

>> Ellis: That moves us into answered metering infrastructure updates.

>> Council, assistant director Rick Coronado is going to provide that presentation.

- >> Ellis: Thanks for being with us, Rick.
- >> Let's see if I can unmute.
- >> Ellis: We hear you now.
- >> Okay. Good, cool. There we go. I also have -- so again, Rick Coronado, assistant director for operations. One of the -- unwith of three of the executive sponsors for the Ami program. Also the line is Randy Jenkins, assistant director for customers experience whose role is over the meter operations, public information and customer

[11:02:23 AM]

services division. She is also on the line in case we have follow-up questions. It's been six months since the last update. We have done a lot in six months, but I wanted to kind of give you an overview of what we last presented as well as some of the progress that we have to date. Last meeting we talked about that we would come to you and commit to a six-month briefing. This is the six-month briefing and an update as well as provide you a little more details on the program, the focus area for the pilot, update on communication plan, and some -- also communication tool updates for the website. If you can go to the next slide, please. So progress to date. I want to thank you for your support for having council approve the contract with

[11:03:24 AM]

both the Clara and water smart. We were able to negotiate the contract and execute within a couple of months from approval. Even with this stay-home order, some of the things we were able to do online and remotely were kind of at least kick off some meetings with both the Clara and water smart independently to get to know Austin water, to understand some of the requirements that were in the contract, get familiar with the issue. Some of the field activities that kind of posed a little challenge but definitely were able to accomplish, in the last report out, there was a significant amount of infrastructure that would have to be built out through

[11:04:27 AM]

the city and it included several components that would build out for the network. And sometimes the terminology is there available and you have some resources on the website to help guide us through that, but just to refamiliarize yourself what's involved in the Ami project. We have a lot of field devices. Aside from just the meters, we have radio communication, we have radios that go into the pits. Then they communicate back to what we call a dcu, a@collection unit. And so some of that early on serving

that we had to do just late spring was to survey potential sites that would be prepared for installation of a dcu. And we had always planned that we would evaluate

[11:05:27 AM]

Austin water properties to use as locations for the installation of the dcus. We have since determined that a substantial amount of those sites are viable and so we're going to continue on that path. And just as a note, I put a note there as the first installation of dcu actually happened yesterday. And so yesterday we were able to take a couple of photos of the 51st street tank is about a 200-foot tower composite tank for the reclaim system, and we were able to install a digital -- or a data collection unit on top of that tank. Now, that's one of the first steps is you have to at least receive the equipment that you are going to install throughout the city. So that's one of the accomplishments that have

[11:06:29 AM]

materialized. We've received over about a third of the meter transmission -- or the mtus, the meter transmission units, in our warehouse. Our next steps in the next coming month is to install those with the exchange of some of the meters in some of the pilot areas. In addition to that, I mentioned this is a transformative project for Austin water, so there's a lot of business process reviews including training with internal staff and also staff for Austin energy. We are continuing to explore and expand our communication internally to make this successful over the -- you know, the coming months and years. And so we've established a lot of change management practices to ensure that this is a successful

[11:07:30 AM]

project. On the right, you should have a copy of this slide deck, but on the right is kind of examples of what we will see in the future is locations, particularly if they are Austin water facilities, whether they are pump stations or lift stations on the wastewater or water or the water storage tanks, we're going to maximize the use of those properties to install equipment such as the dcus. And further as we make progress we'll provide you some of those actual photos of those installations. Next slide, please. So this has been a busy week. We did release -- have a press release on not only to

[11:08:33 AM]

the impact immediate areas for the pilot, just kind of a step back, the pilot is a more advanced demonstration of the system than what we did about six years ago in the river place area was where we had only limited proof of concept type piloting. And this time around we're targeting about 5,000 meters, which represents about 2% of the entire population of the meters. In doing so, we still have in the initial proof of concept terrain and signal strength as well as getting adequate repeatability of signals was some of the things we learned in the demonstration pilot. So we're going to advance that and still challenge the terrain areas as well as some of the aging

[11:09:34 AM]

infrastructure that we may have in particular like in the Mueller and Windsor park area. And we tried to maximize as many of the districts in this pilot as possible, but knowing that, you know, the quicker we can get through some of the system tests is quicker for us to get into a long-term replacement. So hopefully by this time next year, we're looking at full city deployment if all the checks and balances check out. The other part is, you know, we have to work with our existing reroutes and, you know, there will be opportunities where there are blackout times and we have to ensure that the customer is not impacted on their bills, so we have a lot of intimate details that

[11:10:34 AM]

we have to work through when we have to do a citywide rollout. Another guiding criteria we use for the pilot was just the various sizes and metering and dwelling types, as well as, again, we're focusing about 5,000 meters of which 2,000 of that will be in the river place, Glenn lake and long canyon areas, as well as another 3,000 in the Windsor park, Mueller areas. And so that's kind of the breakdown of these targeted areas, we'll have definitely a good sample set of things to work through, how well we can change meters if there's any obstructions that we have to deal with on replacing some of the meter boxes. One of the key goals is at

[11:11:34 AM]

some point is also the launch of the portal. And so I'll talk a little more about the portal launch as well. Next slide, please. So a critical component of the success of this program is the external communication. For the past couple of months we've been, would go on internal communications and making sure all our teams are adequately taped and informed. If you go to the next slide, it kind of also highlights that not only internal customers or stakeholders are part of the plan for the pilot, but also what we launchinged this week is now the community and external stakeholder announcement of what is -- what to expect when aclara's courter comes

## [11:12:39 AM]

out -- contractor comes out to change career meter and how do you get the insidess of your water usage, these are all critical pieces and we don't want to shortcut any of those during the communication plan. This kind of highlights a little on the different categories and steps that we're taking to ensure that we have adequate staffing that communicates internally and externally over the next couple of months and year as we get into full deployment. So what you saw in some of the press release and also updates to the website is content that will be available to any customers whether it's areas that you are currently in the pilot area or not, we have communication on the website as well for the new launch

## [11:13:40 AM]

of the new website. We've been working on the website for some time and it is -- I want you to take advantage of taking a look at what is in that so that way if you have any feedback, we would love to hear from in the next couple of months, you know, obviously this month is heavy on external stakeholders. We have this meeting today. We have water and wastewater that we will also update tomorrow. We did send out some mailers this week, and like I mentioned, the launch of the new website. And a lot of social media and press release information was also sent out this week. So we're definitely gearing up for questions from the community. And in the next couple of months, we'll also be gearing up for communication to the pilot customers.

#### [11:14:41 AM]

The pilot customers will see a mailer. We'll continue to send mailers to the last quarter of the year. Calendar year. Postcards will be received by the pilot customers as well as we'll eventually install a meter and exchange that out with existing meters. When we complete the work, we'll definitely have door hangers, even prior to exchanging. So we'll have multiple points of communication, including community outreach, and virtual meetings. We want to ensure that we have as much feedback as possible, and we'll also request for future customer feedback through surveys. This is kind of a lot to do in a short period of time, but I think we're well posed, and positioned to do this with the

## [11:15:42 AM]

teams that we have on board. Let's go to the next slide, please. This is a sample of some of the material that customers will be receiving starting from the left to the right. The left is a postcard that will be sent

to the customers. And it kind of depicts -- you know, you see it as my atx water, that's the new branding for this launch. I will not be referring to this as the Ami program. I'm going to be referring to it now moving forward as my atx water. And some of the background with that is that over the last two years, we've had focus groups with west Monroe, the tire group solutions, we've had community meetings to understand if customers know what Ami means, what is a digital meter. And we've also engaged with our own Pio with Austin energy to do

[11:16:44 AM]

focus groups and surveys to kind of determine what's the best way to communicate this content to customers. And so this is a result of a lot of those focus areas, is they like a significant amount of feedback, and it was this style of presentation, the branding of my atx water. It will also be part of the portal. So this is kind of the launch of the new branding of, you know, the insights into your water. Again, this is not only a conservation program, but definitely a communication tool to customers moving forward. Also on the left, to the lower, is a card that we would expect that our vendors to hold if they have questions as they will -- our vendors will be in uniform and be identifiable to the

[11:17:46 AM]

community, to make sure that any customer understands who the vendors are. They'll provide any additional communication. This would be a business card related to the installation vendor, if further communications is required. The middle pamphlet or brochure goes out to the customers that are impacted directly along with a letter. And so it's in English and Spanish. And finally, you have typical door hangers that either are initiated before the install or after the install. So these are just samples of some of the communications. But definitely we'll refine this to the pilot and adjust as needed from some of the feedback that we receive. Next slide, please.

[11:18:47 AM]

So I mentioned the launch of the website, with the redesign of the website. There's a lot of information there that we will continue to display as we get additional feedback. We'll also update the frequently asked questions that we've spent a significant amount of time preparing from other utilities that have had frequently asked questions, what we've learned from our demonstration from the river place demonstration pilot, and also through our consultant and customer feedback, or focus feedback that we've received is how the development of the frequently asked questions was done. And any other material that's on the website. Next slide, please. One of the key elements of the

# [11:19:49 AM]

website also is a pilot project area map. And I've played with this a little bit, and you can definitely type in an address. The areas in green are the highlighted pilot areas. And definitely as we move forward, this would be a tool for customers to use in our scheduling of the rollout for the city-wide would be on this map. Eventually it would transition from a pilot project area to a full deployment map. So that way customers will know when will we be in the area, and see when they may be impacted in exchange of their meter and receive new tools. Next slide, please. Finally, you know, we're kind of looking through the lens of the customer, and understanding how will we benefit from, you know,

## [11:20:50 AM]

the Ami program. My atx water portal will be available as early as next year, spring. We're going through right now the training. We've been designing the website, or the platform portal. We've been testing it, and training internal staff. We're advancing that training with other Austin water customers to get the feel for this portal. As soon as we feel that it's significantly advanced enough that we can then move to the spring time frame, to introduce this to the first level customers on the pilot as well as those that are currently on drop counter could transition to

## [11:21:54 AM]

this my atx water, which is the smart water product. So this kind of gives you a sample of some of the information that you would see, not only conservation tips, but notifications through social media type connections. You'll have links to how to pay a bill. You'll have the ability to set up notifications. So we're definitely advancing our capability, new services for customers to not only have a self-service portal, but look at your data use, and analytics, customize messaging that I mentioned from conservation tips, as well as setting up automated alerts and notifications. Next slide, please. So what to expect in the next

## [11:22:56 AM]

six-month briefing. So, with the first dcu installed yesterday, we still have a long way to go, and we plan to start installing meters as early as September. And with that, we'll also be updating just overall city progress. I mentioned earlier there's potentially up to 190 dcus, data collection units that would be installed throughout the city, and that would probably, you know, happen over a course of a year and a half to two years. And so we'll definitely tell you what the progress is in the next meeting. We'll also give you an update on how we've progressed on installations in the pilot area. And also update you on the

customer portal rollout. I mentioned a little bit about, you know, we're doing some training, we're going to

[11:23:57 AM]

continue to do advance in testing. But by the time next report out in six months, sometime February, March, we will definitely have more details on our progress. With that, I believe that's the end of my slide deck. One more slide, please. And I'll entertain any questions, or if there's anything that Randy can supplement on, she'll gladly do that as well.

>> Chair: I appreciate that update. That's good information. How do you decide where to roll out next? Are you waiting to see how the pilot works? Or trying to figure out if you do it by districts, or -- you know, how people are able to request those, or how you decide to expand next.

>> Sure. The pilot is only focused on certain areas based on where the

[11:24:59 AM]

dcus are installed. So some of the challenges, you know, with city-wide rollout is that we can't necessarily start in any one particular geographic area. They're all site specific. So we are concentrating on where our assets are, like high level towers. And so like our drinking water towers are ideal for capturing a large amount of customers. And so those are probably one of the areas of focus that would initiate first, because it's easy to install those dcus. After that, it becomes, you know, permitting that we have to go through with if they're in the right-of-way, if we have to install poles. So they become a little more complicated. But the install for city-wide is really going to run through in

[11:25:59 AM]

coordination with the routes. And the routes actually cut through multiple areas. So it's not like if it's in one concentrated neighborhood. So it may cut through several neighborhoods, routes would, but we would want to align them to make sure that we are not in blackout dates. So I think that we can definitely -- we don't have a plan yet, but this is why we have the map that we will provide as much information as possible on what next steps are.

>> Ellis: I appreciate that. That would be helpful for us to understand. My presumption is if we're going to be using water towers we'll see them on the west side of town rather than the east side of town, for instance. I think it's helpful for owners and families to really get a

good grasp on their water usage. So I'm interested in that conversation. We may like to bring this back a little bit more, just to kind of know how the pilot's going, you know, so that we can help our constituents understand what they can expect with this.

>> We have two significant towers on the east side. We have the reclaimed tower at Zar. We also will be looking at other building facilities that we can leverage within Austin water and other city departments. Just because the towers are mainly in the west, we will concentrate also looking at definitely in the east as well.

>> Ellis: Certainly appreciate that. Do we have questions from committee members? Councilmember alter?

[11:28:04 AM]

>> Alter: I'm just going to turn my video off. I have other folks in the house right now. Okay. I think we're fine now. So I'm really excited about this metering stuff being pulled out, and just want to ask that you please connect up with my office quickly, because there's some upcoming meetings in those areas that I'd like to get you before the neighbors, so that we can help facilitate the rollout, and create opportunities for you to answer some questions at those opportunities. Those don't come very often, so I would love to connect you with them. You can reach out to Kurt in my office and work on that. I was just wondering, to what extent was water usage one of the factors -- I know we have a

[11:29:04 AM]

high level of water usage in some of the areas that I'm familiar with, and, you know, part of the advantage of the metering system is to have a better sense of their water usage. Did that play any role in the pilot choices? Or was it more just where the dcus could be in proximity to where you have them already?

>> That did not play into the factor of determining the pilot areas. However, I believe we will capture some of that in this pilot. Definitely we want -- one of the things that we determined that was very significant is making sure that the signal strength and the signal gets back to a centralized location. So getting the meter read digitally and wirelessly was very critical. And so terrain tends to factor

[11:30:04 AM]

into that. Like I mentioned, the other part of that was, you may have new development, and that might be an easier installation exchange. But aged infrastructure which some of the meter boxes have not been exchanged in such a long time, they may be concrete boxes. You may have to exchange the lids. Those are the other areas of challenge that we were looking at to ensure that we would have a success in the pilot.

- >> Alter: Thank you. I'm looking forward to seeing this rollout. What was the full-time horizon for full implementation?
- >> We expect to be in full implementation to start about this time next year. So definitely we're going to have about a year's worth of piloting. By the time we've completed the installations, we're looking at

[11:31:05 AM]

the beginning of next -- 2021. We want to ensure that all the systems check out before we do a system-wide rollout. So by the time, you know, late summer, early fall next year, we will be launching full city-wide implementation. Which, again, will be dedicated and determined by routes throughout the city, where the concentrated dcus are, how far we are in installing the network. But that is the plan over the next year.

- >> Alter: Thank you.
- >> Ellis: Miss Jenkins, how are things going? Are you getting feedback on this program?
- >> We are. We're really excited to kick this off. This is an exciting time for Austin water. This is one of the strategies coming out of water forward. So we're looking forward to it and all systems are a go.

[11:32:07 AM]

- >> Chair: That's great to hear. We appreciate the update. We know there's a lot of work going into a successful rollout. We're all excited to see it continue on and one day be everywhere.
- >> Absolutely. So are we. And to speak to councilmember alter's point about reaching out to her office, I have noted that and I will ensure that staff does so.
- >> Ellis: Fantastic. That's much appreciated. Are there any more questions on the Ami updates before moving on to our last agenda item? I guess not. All right. Thank you. Our last item is going to be about aquifer storage and recovery.
- >> Council, assistant director Kevin kritendon will be providing this update for you.
- >> Ellis: Fantastic. We'll give you a second to switch over. I know it takes a minute to get the video and audio merged in here.

## [11:33:27 AM]

>> Good morning, councilmembers. I'm Kevin, am I come will through there?

>> Ellis: Yes.

>> I appreciate the opportunity this morning to talk about our aquifer storage and recovery initiative. I'll ask the atx folks too ahead and put up the presentation for me. All right. While that's there, again, my name is Kevin kortendon, I'm assistant for Austin water. I'm in the development services program. Again, we appreciate the opportunity to provide an update on this transformation Al water supply approach. A significant element of our efforts to try to promote further resilient, sustainable water supply for our community into the future. Next slide, please.

[11:34:27 AM]

As an overview, and first of all just in deference to councilmember Houston, I'm going to try to talk about the asr aquifer storage and recovery is a mouthful. So I will probably fall back on using abbreviations. So my apologies. What I'll try to cover in the next 10 or 15 minutes is just a bit of an overview of what asr is. As it relates to our norward initiative.

[Lapse in audio] And provide a brief summary. Next slide. As far as background is concerned, aquifer storage and recovery is a water management strategy. It uses a natural aquifer to store water. When supplies are plenty full. That allows us to have water at a later time when water is

[11:35:28 AM]

needed. The feature of asr provides resiliency during drought and other situations where water upsets may occur. It simply acts as basically a savings account. It's different from other storage strategies, because it uses a natural aquifer which protects the water from evaporation. It also requires much less land development impacts as a more perfect conventional surface water reservoir, or a series of tanks. I would also like to point out that it's additionally different from traditional groundwater development in that it doesn't mind native groundwater, but it introduces water from an additional source, and to an underground formation where it can be withdrawn at a later time. Next slide. Aquifer storage and recovery is used throughout the world, and throughout the U.S. There are hundreds of applications, including

[11:36:29 AM]

Australia, Spain, California, Colorado, Florida, Oregon, and other states. Specifically in Texas, there are three notable asr facilities that are currently in use. The El Paso facility dates back to 1985. It's a 10 million gallon a day facility. It's one of the longer lived asr applications in the state. Kerrville was installed in 1995. And the H 2rks 0 facility, that's a very large facility storing around 16 million gallons a day of water supply where it takes water from the Edwards and stores it in of the koreso. Traditionally, there are a number of studies being conducted in partnership with the Texas water development board around the asr for use in potentially Corpus Christi, new Brun Fels. The board is independently looking at a state-wide aquifer

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study and currently engaged as we speak. Next slide. Just to try to provide some linkage for, you know, how asr links into some of the key drivers, and principles of our water forward planning, I'm not sure if there's a delay on that -- there we go, perfect. Overall, our water forward planning strategy included chief drivers [lapse in audio] Population growth, and trying to protect in the event of extreme drought. As I described some of the characteristics earlier, asr meets those drivers in a very direct way. Asr anticipates additional growth and it provides for additional water supply, and drought resiliency that I described in that it's storing water underground, and it provides a full feature of being an emergency backup in the

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instance of, you know, potential system upset. Some of the other features where asr really aligns with our guiding principles in water forward, asr is a local resource. It allows us to maximize local resources. It is protective of the environment, wherein it allows us to store very large volumes of water with less land development. It also helps us protect and restore our Colorado river supplies and helps ensure [lapse in audio] During droughts or emergency situations. Next slide. Now I'd like to focus on Austin water's plan for implementation of asr in our community. We have some major tasks upcoming, probably the key of is the beginning of our pilot study, and feasibility work to try to identify appropriate locations for feasibility work,

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and ultimately pilot testing of asr. All of that effort would be in front of or before we would move into a full scale facility design, which would be much later down the road. But again, overall, the plan is to store treated Austin water surface water from our distribution system, in the water forward study we

looked at the possibility of using the Preza Wilcox as a receiving aquifer for that water. But during this pilot phase, and the study around it, we'll be looking at additional

(indiscernible) So we're sure we're confident that is the appropriate target aquifer. Long term our target would be to have 60,000 acre feet of water supply stored in an asr facility by 2040, so it's important for us to get moving today. Ultimately our water forward

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estimates anticipate the cost of this implementation to be around 360 to \$370 million. Of course, that will be spread out over the next 15 years as we work through the piloting, the feasibility, and then move into further phases of the project. Next slide, please. In addition to the technical details that we'll be looking at through our project feasibility, and operational consideration, we'll also be looking at a number of qualitative elements. These are just some examples. I won't go through them individually. But again, these were very important aspects of our water forward program overall. The importance for us to be an environmental steward in the work that we're doing in developing additional water supplies. The importance of being a good neighbor, in citing the facilities and impact of those facilities in our community. Obviously affordability is an

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ongoing important issue for the utility. So that will be a point of consideration as we work through our feasibility work. And then, of course, equity. Just to make sure in addition to being a sustainable utility, that we're a sustainable water supply for all in our community. Next slide. Just another focus on climate and community resilience. You know, asr initiative increases our climate resiliency by having a second source of water during a drought or emergency. It protects that water from rising climate evaporation risk, or weather related upsets. I mentioned in previous slides, asr is unique, it's a strategy in that it actually stores physical molecules of water for future use. So in addition to enhancing, you know, some of our water conservation, the water

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efficiency strategies that reduce use, this is an important aspect, this actually provides additional water to meet a growing demand. And then finally, asr aligns with our sd-2023 outcomes, and the safety and health environment fronts in providing for an additional source of water that's safe from climate effects and adds resiliency to our system. Next slide. This is basically an overview of the overall implementation of the asr initiative. As you can tell, it's a very long project, Startin in 2020 and continuing to 2035. So over the next 15 years or so. As I said earlier, our goal is to have 60,000 acre feed of water stored in an

asr facility available for use by the 2040 time frame. So those were the time frames represented in our water forward

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plan. But of course, the journey of 100 years starts with, you know, the steps that we take today. And so right now, we're working on the very first piece of understanding feasibility, trying to find appropriate pilot locations, so that we can ultimately move into a piloting exercise so we can test some of the assumptions that we'll find through our feasibility work. Next slide. As far as the near term asr work that's coming, basically it's broken into three phases. Phase 1 would be to develop an asr program and perform desktop modeling and field testing that will evaluate the potential testing sites. That will be the subject of a request for council action that will be presented to council in a very few days -- actually,

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weeks. The second phase would then be for design and construction and testing of an asr pilot facility. And then assuming that, you know, the viability of the asr installation will be proven out as we anticipate, then we would move to further phases, phases 3 and beyond to actually do final design and full scale implementation of asr. Next slide. Very near term, as I mentioned, we will be presenting a recommendation for council action to water and wastewater commission that would actually be tomorrow. From there, we will bring that rca to council on August the 27th. That rca seeks to approve \$6 million worth of contract for phase 1 services, and some

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contingency. That would be the first in a series of future council actions that would be needed along the way to ultimately get full scale strategy. Next. Along the way, we intend to continue our information sharing about asr, and its progress. Obviously we will continue to use our water forward task force to provide regular updates on asr. We're meeting with our task force about roughly on a bimonthly or every-other-month basis. So we anticipate we'll continue that. In addition, we've formed an asr technical advisory group to share information, and to get feedback from that group. Our technical advisory group includes members of academia, state agencies, other utilities who are currently practitioners of asr strategies. And then selected representatives from our water board task force are also on

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that advisory group. Again, we're committed to ongoing community engagement through our overall community engagement in the water forward exercise broadly. And then specifically about asr as an independent element as well. Next slide. So in summary, asr is an important water supply strategy, and a vision in our water forward plan, that improves Austin's climate resiliency. It stores drinking water, maximizes local resources. We will be coming to you with phase 1 asr consulting services, primarily for desktop modeling and field testing, and then we'll come back to council for future expenditures and future requests. And again, reinforce that we anticipate considerable community engagement as we learn more about asr and the benefits that it can provide for our

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community's water supply. Next slide. So with that, I'm available for questions.

>> Ellis: I apologize if you have your hand up. Can you tell me a little more about your triggers for when you would decide to store water

[lapse in audio]? Are there specific metrics? Or projections that you rely on?

>> At this point we have not developed any particular operational tools that would, you know, express and guide that. As a general concept, you know, during normal weather patterns, there's often quite a bit of water available from the Colorado river that could be captured and stored. So generally speaking, you know, even outside of floods and what we would describe as more traditional wet years, there's a

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lot of surface water that would be available. Simply put, you know, it would be in wet years we would store -- we can go ahead and treat that water to the extent we have available treatment capacity and then store that water. And the ultimate goal would be to sort of build up that cache or storage of water so that it would be available to withdraw at a future time. So the specific details of that, you know, is simply something we have to deal with later as we do more further design on the actual location and well configurations and those sorts of things.

>> Ellis: I appreciate that. And I look forward to seeing what the water and wastewater commission will work on tomorrow, and what their recommendations will be. Because I know there's ongoing conversations around, you know, how our downstream neighbors and -- the historic conversations around wells and

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well registrations. I know this is kind of different, but an overlapping conversation around storing water and what that means for people downstream. So I'm really interested in that, and I look forward to seeing what the commission discusses tomorrow. Are there any more questions? Any additional items that you all would like to see on the next agenda? I've made note of what councilmember alter brought up about the multifamily customer assistance, and the water forward with the ldc court case currently going on. Councilmember alter?

>> Alter: I really appreciate the increased work that Austin water is doing on wildfire mitigation. And we got update on that in our budget q&a. But I think it would be good if there's time at the next meeting for them to present about the

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work they're doing for wildfire mitigation. I appreciate them stepping up and the utility recognizing how important those efforts are for continued safety of our city. But on the particular wildlands that they manage as well as their facilities. And I think that it will be good for more people to know about that work.

>> We plan to prepare for that, councilmember.

>> Alter: And the other items may be more time sensitive. So we can do that one last. But I think it would be good to -- it's been challenging to get the fire department to pay attention and I really appreciate the utility stepping up and moving these things forward.

(Indiscernible).

>> Ellis: Councilmember kitchen?

>> Kitchen: I know periodically we get an update on the water

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forward plan. There's a lot of different aspects to it. So this one was very helpful today. It's a huge part of it. So I don't know what the schedule is for that, chair. But I would -- one of our next meetings -- I thought we were going to do those updates quarterly, but I don't know if we specified. There's a whole -- obviously there's a whole implementation plan going on around the different aspects of water forward.

>> Ellis: I can certainly check on that, with us meeting quarterly. That might get a headline within our director's report, or kind of as a standing item. But I'm happy to look into that and see what's appropriate, given the water forward task force meetings, and other topics at hand.

>> Kitchen: Yeah, it would just help us stay abreast of what the latest information is.

>> Ellis: Absolutely.

[11:52:56 AM]

## Councilmember alter? Sorry?

- >> We have continued to expand our water forward dashboard for this committee, and there is an expanded dashboard with more details on the look ahead as well as the overall schedule. So just kind of pointing that out.
- >> Ellis: Perfect. That's appreciated. I did not mean to cut you off, councilmember alter. I thought it might be germane to councilmember kitchen's question.
- >> Alter: I just wanted to point out there is an update in our backup.
- >> Kitchen: I just want to know, if we have it presented, it might be better for the public to see. We can go find data. Again, it depends on time. That's all I was thinking.
- >> Ellis: All right. If there's no more comments or questions, this meeting is adjourned at 11:53 A.M. Thanks, everyone, for participating.