

# Austin Water Oversight Committee Meeting Transcript

## – 11/7/2019

Title: City of Austin

Channel: 6 - COAUS

Recorded On: 11/7/2019 6:00:00 AM

Original Air Date: 11/7/2019

Transcript Generated by SnapStream

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>> Ellis:all right. Good afternoon, everyone. If everyone is ready, we are affordable housing get started here. I'm Paige Ellis, chair of the water oversight committee. It is Thursday, November 7 at 10:7 P.M. We are in the board and commissions room at Austin city hall, 301 west second street, joined by my colleagues Leslie pool and Alison alter. Councilmember pool was unable to attend today. This committee is going to be a very important committee, guiding the water quality utility through conservation, infrastructure, water forward, affordability metrics and other strategic initiatives. As we all know water is a very precious resource, especially here in central Texas. I'm appreciative of my colleagues willingness to serve in this capacity.

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I'm going to pass the microphone to councilmember alter to make a few opening remarks. >> Alter: Thank you, chair Ellis. The work of Austin water provides safe, reliable, sustainable and affordable water and wastewater services. Austin water represents over \$600 million of our annual budget plus capital expenses. In June I authored a resolution -- as a council I believe we need space to engage in ongoing conversations with Austin water about the challenges and the opportunities. I want to start by acknowledging that Austin water is doing a lot of things really, really well. We've had recent rate decreases. We've had over the last several years the roll-out of impact fees, which have allowed for significantly lowering of the debt of the utility, developed

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affordability metrics which we're going to talk about today, we have strong conservation efforts, including investments in water quality lands. We recently adopted an integrated water resource plan and rolling out advanced metering infrastructure. We have had recent challenges with the water boil, zebra mussels and most recently reports of leaking pipes. I created this committee to provide oversight and our role as partners in delivering that core service we as council need to be entertained deeper in these conversations. I want to be clear this committee was created in a spirit of collaboration, mutual support, in the face of a rapidly growing city and with the threat of climate change we need to work together to plan our future water supply and infrastructure. We can provide better policy guidance the more informed we are and the more informed the public is about what Austin water is doing.

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It is vital to the future of our city that we pay attention, and I'm looking forward to serving on this committee and extending our relationships with Austin water so that we can continue to be premier provider of these services across our country. Thank you. >> Ellis: Thank you, councilmember alter. Now let's begin with general citizens communication. I am showing that we have one speaker signed up, and that is Bobby levinski. >> Hello. So my name is Bobby

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levinski, here with the save our springs alliance. I wanted to first start by saying thank you for establishing this committee. It's a wonderful idea and quite frankly this is the best competition of a committee I've ever seen so I'm real excited for the work that you guys are gonna do. Today I'm just kind of previewing an idea that we've been working on in the community, especially the communities to ourself. So for the past five years or so save our springs has been branching out to the hill country communities to our south to work on source water protection and getting communities involved with acquiring lands that could help protect the water before it ever gets polluted and then has to be treated in the water treatment plants. So one of the things that we've been working on is this -- a new group called the great springs project. Sos is no longer part of that project but we helped start it and they branched off into their own nonprofit organization themselves and they helped us work with the Texas water trade headed by Charlene lorig, to me the

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Texas water czar. My hope is just getting this information and making this preview might give us an opportunity to bring Charlene and others in to bring you a presentation on broader financial models we've been looking at for various communities including city of Austin on how source water protection can be done, especially in light of the Texas legislature's caps on revenues that have been creating challenges for cities and communities in meeting their priorities. So they worked with us in preparing this report. What I'm giving you today is this recommendations that they were making for the city of Austin, some of the analysis that they were doing. One of the exciting things that I kind of saw was that for the most part I think that we could have Austin water utility back into the land acquisition game without really having much of a financial impact. For the most part the cost allocations included in the rate study includes debt service for land acquisition and a lot of that money is being rolled off because of

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the expiring debt. As we dive into the numbers more specifically we'll find that there's capacity for us to use existing resources and also leverage it with state money that's become available through the clean water state revolving fund. That is a program that cities have begun to use to purchase land for source water protection with significant cost savings for the interest rates. City of San Marcus we worked with them on an application and they ended up saving \$1.6 million with the program that they were able to do with acquiring a really key pearls in the blowing sink -- not the blowing sink, I'm sorry, I can't remember the name of the watershed but a really important one down there. Anyway, there's a lot of information I'm dumping at you. I'm hoping we can continue to talk to your offices in the meantime and maybe come back with experts that know this stuff a lot better than I do. I'm not a numbers guy. I'm more of the letters guy. But hopeful that we can

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continue to work with you and look forward to what you guys are gonna do with this committee. Thank you. >> Ellis: Thank you for your comments, Mr. Levinski. All right. I guess I'm not seeing that anybody else has signed up for general citizens communication. So with that we will move on to item number 2, which is the director's report and overview of the Austin water and its services, programs and infrastructure. Director mazaros. Hold on just a moment. All right. The list I'm working off may be out of order. It looks like the one that's been handed out today has that item number 1 is discussion and approval of the 2020 committee meeting

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schedule. So we have that as backup. I believe we've spoken about it. Do you have any concerns about the schedule? >> Alter: I might have a schedule issue in August but I don't know that yet so I would propose we go ahead and pass it and we can address that if need be. >> Ellis: Okay. Do I have a motion to adopt? >> Pool: I have a comment. >> Ellis: Okay. >> Pool: Yes, we should definitely look for a date if councilmember alter can't be at the August 1, but also the Wednesday, November 4 meeting is the day after election, and so I think if we could find another date rather than November 4. Maybe October 28 or the following -- maybe another day. So I'd be willing -- I can make a motion for the first three days and then find a replacement for Wednesday, November 4. >> Ellis: Okay. >> Pool: I'll make that motion. >> Alter: Second it. >> Ellis: All those in favor? With three votes that passes with councilmember kitchen unable to attend today's

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meeting. And now I believe, make sure I've got my notes straight, now we will move to item 2, the director's report, over view of services, programs and infrastructure. >> Thank you, chair. Greg mazaros, director of Austin water. Pleasure to be here today. You'll see a lot of faces in the audience. We brought out the entire Austin water leadership team today, our first meeting, wasn't sure everything that would be covered and wanted to have the whole team experience this today and get to know this committee and some next steps. Speaking of that I thought I would pause since we are reacquainting some of the key parts of Austin water I might introduce the Austin water leadership team. This is the direct reports to me and they'll be interacting with you not only today but into the future so I'll just note them, if they're here if they could just stand up as I call their names. I'll start kind of with Daryl Slusher, Darrell assistant director over all

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environmental affairs and conservation. Several of you spent time with him today at the dedication event, and so Darrell has been with our team for a long, long timing. Next is Dennis, chief administrative officer Denise takes care of counselling commission matters, records officer, also is leading our equity programs with the equity office so critical part of our team. Chris Stewart is our chief information officer for Austin water, all of our information technology and gis and related activities fall under Chris. Anna is our chief support services officer, takes care of facility maintenance, internal audit, performance management and business and strategy planning. Rick is head of all utility operations. This includes pipeline and treatment. Rick manages by far our largest area, well over 700 employees providing

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treatment operations in four Texas counties. Rick has a big job that never ends, 24/7. Next Kevin leads our water resource program. This would be water rights administration, systems planning, asset management, capital improvement planning, utility development services, if you think of all the plan review activities, service extension requests, those kind of activities, that's all under Kevin's leadership. Next to Kevin is Sherry Hampton. Sherry is assistant director and leads all employee and leadership development programs. Austin water is budgeted for well over 1200 employees. We have very significant demands with how we manage staff, safety programs, technical training, overall leadership development. Sherry leads that for us. David Anders, has been with the utility over 33 years and does all of our budgeting, rate strategies, debt management, procurement, fleet and all the things you would think of as chief financial

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officer. Next is Randy Jenkins. Randy is our assistant director for customer experience really our customer-facing programs, our taps, new customers, customer service, a lot of coordination with Austin energy and the call center, all of our meter processes, as well as our customer communications. Paul is under Randy. Last but not least, interim assistant director Bill, head of all engineering functions, capital delivery, engineering supportive operations and all the things that go with that. So that's our leadership team at Austin water, and have that for you referenced there. Please call upon them any time either through these meetings or other things along the way. So I'm going to start -- we're talking just kind of background. I encourage if you could read one thing just sit around and flip through something or your staff it would be the Austin water drought booklet. We put together this book at

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the end of 2015. If you remember 2011-2015 we experienced the most intense drought the region ever experienced at least since Austin water that is been around. We put together this book to educate others on how the water supplies work, some of the risk and policy aspects to water supply and so just would give that to you for reference as a critical part of coming better familiar with those issues at Austin water. And speaking of water supply, water utility is a good place to start, where our water comes from, how that all works. We are a surface water utility, all our water comes from surface water sources, all Colorado based water sources. Really our Colorado river rights come in two parts. We have senior runner river rights. In Texas the water law, the sooner you drew water from a

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basin the more senior your right, particularly during dry weather. Austin started drawing water from the Colorado over a century ago so we have some of the most senior rights in the basin not the most senior,

but we have some of the most senior rights. Most dates the bulk of our water we draw for treatment and distribution is coming under our own senior run of river rights. But there are many times that the river cannot supply the necessary water. So that water has to be backed up by highland Lakes water, the storage Lakes of our region, managed by Icra. When full the highland Lakes store a little over 2 million-acre feet of water. The two storage Lakes are Travis and Buchanan. The in between Lakes are not storage Lakes, just constant level Lakes and it's really Travis and Buchanan that supply the bulk of the water. We have a long relationship with Icra for highland Lakes water, we have contracts we can draw up to 325,000-acre

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feet of firm water a year. Firm water is different than you might hear terms like interruptible water, certain water can be interrupted during times of drought. Firm water is just what it means, more firm to all kinds of drought conditions and you pay more for that water. Speaking of payment, another aspect of our water rights are our prepayment. In 1999 the city of Austin entered into an agreement with Icra where the utility paid \$100 million to secure water into the future. That included reservation fees, as well as use fees. Whenever you draw upon firm water from the highland Lakes you have to pay for that. Austin water advanced paid for that water and a trigger was set up. The trigger would require once we crossed the trigger, Austin water would have to begin paying again for raw water from the highland Lakes. That trigger is set at

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201,000-acre feet per year over two years. That is if we were to average over two years more than that amount we'd have to start paying water fees again to Icra. It could be substantial, we'd estimate roughly 10-15000000 a year once we hit that trigger. The good news is the steps that we take to grow our reclaimed water program, to conserve water, that doesn't count against our trigger so we can extend that payment trigger out and get more value for that \$100 million investment. The good news is we're getting great value there if when we struck that deal in 1999, it was anticipated that we would begin paying for water again in the early 2020s. That has changed substantially. You can see our 2018 use was only 149,000 gallons so we have a lot of distance between us and that trigger, you know, we now forecast that trigger to be probably upwards of 20 years into the future. So in the late 2030s or 2040s and that's really a

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testament to the way the community and our utility have worked to manage our water demand into the future. Another part of thinking about water and water supply in the Lakes is where they're going. We're

subject to intense droughts that can happen very rapidly so we work very closely with lcra and monitoring conditions. Lcra publishes all types of forecasts. Google lcra Google report, for example, and you'll see the daily river report. Are any of you familiar with hydronet, the tool you can use to monitor weather and rainfall pattern. There's a whole host of resources that we use. We meet with lcra every quarter per contract. We have an executive management committee, lcra leadership, and we meet every quarter to talk about these matters as well as technical committees. I'm not going to explain the whole graph other than to

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say it shows the direction of the Lakes over the next six months. Since the drought broke in 2015, Lakes have remained relatively full. That's very good news. Even today I just checked this morning, the highland Lakes were 88% full and coming off a really, really tough July, August and September, that's good news that the Lakes are still trending towards full. What influences the Lakes over the long run is the el Nino patterns of the pacific ocean. We're very sensitive here in Texas to el Nino patterns. When the pacific is warming and the el Nino is strengthening, that's a harbinger of wetter conditions. It doesn't guarantee wetter conditions but on average over the years that produces significantly wetter events. Conversely, when the pacific is cooling and it's not el Nino, it's shifting what they call la Nina, that is a

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harbinger of droughts. And the 2011 to 2015 period was a great example. That was a very strong la Nina tendency and it resulted in one of the worse droughts we've ever experienced. The current conditions are neutral. Neither warming nor cooling. So that means we're probably likely to track along that median line of weather, which would forecast the Lakes staying relatively in the 75 to 85% range over the next six months. You know, you never know, but, you know, that's one of the things that we use to kind of get a sense of when the Lakes are rising or falling. As the Lakes rise and fall, as water inflowing into the Lakes is measured, there is a series of decisions that lcra makes to manage lake water, to determine how much water to release for downstream ag, how it affects firm water. That's called the water management plan. The water management plan has gone through significant revisions over the years, particularly after the last

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drought. It's much stronger and better for firm water. It's currently being updated. There's a water management plan submittal pending at tceq. We're very satisfied with the revisions to the water management plan and that's another key document that the utility and Austin works closely on. I mentioned conservation and importance of conservation and we supply this graph for you. This is a 23-

year history of gallons per capita per day. That's one of the key metrics we use to determine how conservation programs are working. If you take all the water we use for any purpose whatsoever and divide it by our population and determine how much gallons per capita per day, that's what this graph shows. This isn't just residential water. This is water for everybody, industrial, Samsung, commercial, schools, people. Take total water divided by total people. You can see how significantly that trend has changed, particularly the last ten years. I note there it's not final,

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but our 2019 gallons per capita per day is an all-time low and we actually think it will drop below 120gcpd for the first time in history once we finalize those numbers, really good news, particularly given how hot and dry July, August and September were. I mean, y'all remember we set records, September was hotter than July. That was really, really a very intense hot, dry period. It's great news we were still able to set an all-time low given those weather conditions during the hottest parts of our season. By the way, if you have questions along the way, just jump in. Whyment to introduce you today to our strategic plan, Austin water 2023 strategic plan. This is a plan that we put together a few years ago. We update it regularly. Yet we take important steps to align it to the city's strategic plan to make sure that what Austin water is doing is complementary of what the policymakers and the city manager are working on from a broader

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perspective. Although obviously for the utility there are specific parts that have plan that we pay a lot of attention to. And we have that plan in your packet for you, too. It's also on our website. I want to introduce you and you'll hear more about this regularly as you're getting updates from us to the eum wheel. Effective utility management. The eum framework is an industry framework that was developed by EPA and water professional organizations and utilities across the nation, and it's a framework for planning and assessing utilities. It has ten core attributes where utilities need to address and function well to be successful. Austin water is a big utility and we do work in all ten of those areas and I'm not gonna go through them all with you today. But I think in the future, you know, we'll be discussing and probing those different areas more. I would note for you, four highlight areas. Those kind of bolder blue ones, we call those the focus four. Those are four of the ten

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attributes that the executive team has selected for special attention, and we've been working on strategies to better strengthen and understand those four areas. I'll just pause briefly to give you a flavor of why we're doing that. One of them is employee and leadership development. We've brought

that to the executive level for sustained focus. As I mentioned we employ well over a thousand people. In a typical year over 100 employees leave Austin water every year. Last year 120. This year it's gonna be a little over 100. 2020 it's gonna be another hundred. I've been director a dozen years and over a thousand employees have changed jobs in that time and that's not stopping. So we have sustained requirements for managing succession and now transfer, for recruiting, for retaining, for developing. It's a very demanding job to keep up with that. Almost all of that attrition

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is associated with retirements. That's the vast majority of what drives our attrition. Although not alone. It's a dynamic economy and particularly here in Austin, employees have a lot of choices. We get a lot of employees transferring out to other city departments and leaving utilities for greener pastures in the private sector. It's a critical part of staying up with a healthy utility, making sure we have a well qualified, diverse workforce. Another area we've selected is customer satisfaction. We want Austin water customers to have high satisfaction. We want to understand better what drives their satisfactions. We want them to have good value for the dollars that they spend on their utilities, and that's why we selected that area of focus. We've been working to pioneer new ways to measure customer satisfaction. You may be familiar on the ae side that they use jd powers to measure customer satisfaction, and they also

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provide water customer satisfaction surveys. So we've been working with jd powers to understand what they're hearing from our customers and help us make better decisions on driving strategies. Certainly communications is a big part of improving customer satisfaction. Our Ami project is centered in large part around customer satisfaction, giving customers better tools to manage their water and find out when they get a leak or if they've crossed into an upper fear. So we see a lot of activities in customer satisfaction. Randy Jenkins is our lead executive over that. I'll drop down to the lower puzzle piece there. Infrastructure stability or infrastructure strategy. We have vast infrastructure holdings and billions and billions of dollars of infrastructure, thousands upon thousands of miles of pipe systems, we have six major plants. You know, hundreds and huns of smaller facilities. So maintaining infrastructure, investing in infrastructure is critical. That's the root of our asset

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management programs, which is one of the council's strategic directions, is to have improved asset management, to better understand which assets are critical, what condition they're in, if they're at risk of fail, how you program that into your capital budgets, how you program that into maintenance. That

that's a big part of that program. And the last puzzle piece, we call it stakeholder understanding and support and affordability. So we have a lot of stakeholders that are involved in Austin water. The number 1 stakeholder is the policymakers, right? We really care about you guys. We want you to understand us better and we want to understand you better and make sure that we're, you know, taking the right steps to carry out your policy direction. So that's the beauty of this committee, is it's gonna connect us more deeply and richly to the policymakers. We've also grouped affordability under here. One of the directions we hear, you know, regularly from the council is about being a more affordable

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community, and certainly a major utility plays a big role in that. Just broad based affordability but also making sure that we remain affordable for our most vulnerable customers, that you can't do without water. We're a special utility in that regard and we want to make sure that we're preserving core affordability for our most vulnerable customers and you'll hear more about those programs with the briefing coming up today. That's our focus four within our eum wheel and our strategic plan. >> Ellis: Just a couple questions on that chart. They're pretty high level. How many total employees do you have at Austin water? >> It's a little over 1200. Sherry, do you know what the number was, we're budgeted for exactly? >> [Off mic] >> We're budgeted for 1218 and we have roughly 100 vacancies right now. >> Ellis: Okay. Then the satisfaction surveys, are those things that are paper copies that go out with the bill or is it an online satisfaction

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survey people can go and do at any time? >> Jd powers, at least in terms of the satisfaction survey through jd powers, they call a subset of our customers each quarter. I think they do it every month and then they provide us quarterly results. It's a statistically driven kind of sampling of customers in our service area. We'd be happy to share more details with you on how jd powers works. In addition we also use other survey tools. For example, each year the city does its customer survey tool that they report out to council. It isn't just on Austin water but we do have a set of questions that are included in that survey. So it's a combination of survey tools, but the jd powers is one that we've been using more frequently here recently. >> Ellis: Okay. That's helpful. That's all the questions I had on that chart. >> Thank you. >> Alter: I had a question. >> Ellis: Councilmember alter. >> Alter: Thank you. You mentioned you have about 100 vacancies and obviously we're a large organization

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and at some level vacancies are a natural part of the process. Does that -- within Austin water, though, does that lead to a lot of overtime costs? We've seen this, for example, in our fire department, that when we had a lot of vacancies we ended up with very large overtime costs. Is that anything that happens with Austin water as well? >> We do invest significant dollars in premium time costs. Some of it is driven by vacancies but not a lot. It doesn't vary a lot. We don't see huge spikes that then drop down very rapidly. Weather can drive that. If we have an extremely cold spell and it might -- you know, we might generate, you know, 100 water main breaks if it gets down to 20 degrees, those don't happen often but that can spike a little bit. Most of our overtime is driven by the need to staff 24/7 so at our plants when staff are on vacation or,

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you know, off for holidays or other kind of things we have to use overtime for that. Similarly in our pipeline group, particularly water and wastewater, that's a big part of that. Be happy to share more details on premium time. We actively manage premium time, and bringing down vacancies I think, you know, would ultimately help us manage premium time a little more effectively but not in a substantial way where it would go down 50% or something like that. >> Alter: Thank you. With the fire department we had to get to a point where we were better managing overtime so I'm glad to hear that you're already doing that. >> A lot of our vacancies, the hard ones to fill are often in senior positions. They're in -- it's very difficult to attract I.T. Positions, engineers, others are difficult to fill. This is a good news thing but also a challenge, we work really hard to build our employees' skills so they can step up into new positions as there's vacancies. Approximately 40% of our

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postings are filled with internal employees. Which is good. But it creates another vacancy. You know, so as you hire a superintendent, it creates a supervisor vacancy. A supervisor vacancy creates a crew leader vacancy. So it can take a while to kind of cascade through that vacancy chain. We do over -- well over 200 hiring transactions a year, every single year, and we're stepping that up. We've been increasing the resources and tools for vacancies. This year our goal, being 2020, our goal for vacancies is 388 hiring transactions, which would be an all-time record for us. We could talk more about that but that is a critical thing, is that we continue to stay up with that, that attrition demand. >> Ellis: All right. Let's continue. >> Also in your packet we have our monthly performance dashboard, which connects to our strategic plan, framework and some of the critical performance metrics that we have. I'm not going to go over that with you.

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It's just a resource for you to know that we have that. You might have seen it's similar to kind of what we does, and it's -- I'll call it still a little experimental in the sense it's still kind of being perfected but it is a way for us to communicate progress on key initiatives and strategies and bond ratings and, you know, just gives you a flavor of Austin water each month. So we provide that to you as a resource. >> Alter: Where is that available for the public? >> We haven't put it on the fumble-facing website yet. It's been more of an internal document. Anna is gonna have to help me with this. >> Alter: When appropriate if we can move it on to the website when you're comfortable with it. I think it's something that we certainly need as a council and I'm glad that we're creating it, but I think it would be good to make it more public. >> We agree 100%. That's our plan and, you know, we think transparency

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is really good. We'll work to get that as soon as we possibly can. >> Alter: Thank you. >> Yeah. Another part of our strategic plan are things that we call strategic initiatives. You know, these are -- kind of standalone things beyond our framework. At the very top is water forward. Council is familiar with water forward. Can you believe it's been a year since we adopted that. This time last year that we adopted that. Time is flying. I'm not going to cover the whole water forward plan with you today but I do want to catch up a little bit. I suspect council will want to probe this deeper in the future. A big part of water forward is our advanced metering structure project and, chair, we appreciate you mentioning that. That is a real driver of innovation at the utility and I think is gonna fundamentally change the way customers interact with the utility and have tools to manage their water. It's a tough project. To change out a quarter

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million meters, many of which have been in the ground for 20 years, it's gonna be tough. So we've got a lot of hard work ahead of us. Where we are in this project is it's been -- it's gone through the procurement and it's being evaluated with final recommendations. Expect it to come to the council in the first quarter of calendar year 2020. When you come back from your Christmas break, right, you get to look forward to Ami coming in January, probably February if we all stay on track. So, you know, get ready for that inbound for you. We are significantly advancing our innovative water strategies that we envision under our water forward plan and I would note a couple for you that are very active. The planning development center is going to be opening up here in the late spring, maybe kind of June time frame. I'm not sure if the council knows but Austin water sponsored an innovative water strategy at that facility.

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Where we included funding and we're gonna provide operational expertise to run an on-site treatment plant for that building. So almost all the water that is used in that building, including black water, toilet flushing water, is not going to leave the site. It's going to stay on-site. There's gonna be a mini treatment plant there that is going to treat that water and recirculate it back to the building for non-potable purposes. We estimate that that building will offset 84% of its typical water demand through this first on-site building scale treatment project. So we're excited about that. We've got a lot to learn. This is our first one of that nature. We modeled it after one that we visited in San Francisco, and so, you know, get ready. The other thing we like about that is because it's at the planning and development center, right, all these engineers and developers and others are coming through the building they're gonna get exposed to

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this new facility and feature some education about it. So hopefully that inspires more of that in the future. We also have we also have advanced the water code significantly. The council gave us dais direction during the land development code Q and a policy direction to advance the water forward codes envisioned in the plan. Particularly for those associated with large scale developments, 250,000 square feet or above. Our team has been working really hard with that on the water forward task force and stakeholders and land development code and we have included land development code aspects I think are well supported across that spectrum to be included in the land development code you will be taking up for adoption shortly. Just giving you background on that. I think we hit a sweet spot there. A few other things to mention.

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People don't always think about Austin water and the wildlands, but we are the agency responsible for managing the wildlands, over 40,000 acres that we manage. Two big parks, balcones preserves that protects endangered species and the water quality particularly into Barton springs. That might be an area you want more information on in the future. We take climate very seriously at Austin water. We're a leader in understanding and preparing for climate risk. We're a member of the water utility climate alliance, and I know some of you attended a conference we hosted about a year ago with wuca, Daryl Slusher and his team are a big part of that. Another example, in December, December, I believe it's 4th and 5th , we're hosting at the sheraton a climate education

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seminar for anybody that wants to know more. Sharing that knowledge with others in Texas. Lastly, I want to give you a look ahead on council actions that are coming up in the next quarter. Every council

meeting we have something with Austin water. So I'm not thinking about, you know, all the basic things that we do. These are more special or bigger or maybe more provocative council items coming up. I wanted to note three and I've mention add few of these, but one, probably in January we're going to have a large chemical purchase contract to add a new chemical, copper sulfate, to our raw water system to rid the piping, raw water piping system of zebra mussels.

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The chemical purchase for that, that rca, is coming we expect in January. I mentioned Ami procurement. That is coming in probably February would be our target date for that and so that will be a significant procurement item. The other thing we note is council has given direction to the city manager and we are all working on our strategies to insource more services. Council will recall that thing like security, janitorial and grounds maintenance are currently by and large outsourced. And the policy direction is to be evaluating the options to insource that and we are well underway with our strategies for that and formulating our 2021 budget which would include the first steps to do that. But we're going to need some kind of bridging time given that these are currently contracted services to work

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through alternately programming those into our budget and hiring all those staff and gearing up for that and just giving you a heads up that we are expecting a security services contract coming to the council in January or February. Which would give us contracted security services while we're working on our insourcing strategies. That's three look ahead rca's. That's it for me. >> Ellis: Vice chair pool. >> Pool: I have two questions on the zebra mussels. Can you talk about the impact, toxicity on any other critters or is this going to be in the pipes to clean them out? >> This would only be in the pipes. This would not be a chemical we would put into the lake system. This would just be injected into our raw water pump and go into our raw water piping to rid that piping of the mussels.

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>> Pool: Okay. And so there's some science behind that that says this particular -- did you say it was a zinc? >> Copper sulfate. >> Pool: How does it work on the mussels? Does it keep them from breathing, does it clog up their functions? >> Yes, they -- zebra mussels do not like copper in the water and it takes a tiny amount of copper. We have been experimenting with some of this so this will be our first step. There will be other chemical strategies that will we'll be implements and that's one of the briefings coming up is on that. But the goal would be just within the raw water piping that this would make the mussels unable to live in that environment. And so they would -- they would ultimately exit the raw

water piping and we would continue to add that chemical at a very small amount to keep them from building up again in the raw water piping.

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>> Pool: So they exit the pipe -- >> They will die, yeah. It will be a forced exit. [Laughter] >> Pool: So then they just -- the remains end up in the raw water and that is treated with recognition there's some other materials in there and then we clean all that out as far as making the water safe for people to drink. >> Yeah, it will all be safe. There will be, like, shells and shell management and particularly our Hancock plant we have a very big tunnel and we might have to clean out some shells when they expire and we'll work through all of that. This is just for the raw water piping. The intakes which are in the Lakes themselves, those accumulate mussels and that's still going to require mechanical scraping of the mussels which we do through diver contracts. That part will continue. This would just be for the interior piping system. >> Pool: So I know the advent of the zebra mussels has been a long time coming

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locally, but the state of Texas has been working on -- they knew the zebra mussels were moving our direction for quite a while. Was it the comptroller's office has had a committee on the mussels for ten years or something. >> That's a little different. The state comptroller's office is managing more of fresh water mussels that are endangered or threatened. >> Pool: But they have not talked about the zebra mussels at all? >> I can't say definitively, but I don't recall that coming from them. But you are right, this March of zebra mussels has been from north Texas into our region now. >> Pool: Where I'm going with all this, I think the state has also been alerting people throughout the state to clean off their boats and frankly when we get out of the water we need to rinse off pretty well to make sure there isn't something in bathing suits and so forth, but I wondered because this is a new cost center for any city, but certainly for Austin, and it -- this is a

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huge concern for a lot of reasons. Are there any grants that the state is offering? Is there any action at the state level to help mitigate the additional budget impacts that this will have? >> Not that we know of. Certainly not for operating costs like things like chemicals. >> Pool: So I think that that is a conversation that we should have with the state agencies. I don't know if it's the department of agriculture, I don't know if there's still a connection with the comptroller's office or maybe some of the leadership, senator Watson, some of the folks with the Travis county delegation, that we should explore this for the upcoming session in '21 because this isn't going to be taken care of -- I mean this will be an ongoing, us stained effort for who knows how long and it will probably get worse. We're dealing with it

as best we can here and staff have worked really hard to try to figure out how to manage it. But I really would like to

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see a partnership with our -- our state agencies to see if they can help us with the funding for it. >> We have our legislative liaison, Heather Cook, is in the audience and I'm sure she is taking notes. >> Pool: Where are you, Heather? There she is. Maybe on a -- in an upcoming agenda, maybe not the first but the second committee meeting next year we could get up a date from Heather on to some -- on how that's going and bring in our legislative affairs office and add it to our legislative agenda. >> Thank you, councilmember. >> Pool: I bet there will be a lot of cities that would benefit from that too. Thanks. And then -- thank you for this report. >> Ellis: Those are great questions and they are going to affect other cities as we deal with this threatened endangered species

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discussions. Councilmember Alter. >> Alter: Thank you. I represent a lot of lake Austin properties and there's a lot of concern about zebra mussels in the lake and that tends to fall under watershed, not water. How is Austin water working with Austin watershed because if the zebra mussels are in the lake, they are going to get in the pipes and is there any discussion about reducing that threat at its source as opposed to just in the pipes as it relates to the utility? >> We regularly collaborate with watershed on a whole host of issues including water quality, zebra mussels, algae, things of that sort. And to the best of my knowledge, there has not a universal solution to managing the proliferation of mussels in raw water systems. I have read here recently there's some U.T. Work going on about potential, like,

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genetic solutions, but I think it's far from kind of a practical option right now. Quite honestly, councilmember, I don't know how to manage, you know, the mussels in the system. I mean, eventually - they will hit a kind of a maximum growth, you know, where they can't proliferate anymore, the system won't support it, but that's a risk we're going to have to continue to work through as it clogs not only our raw water pipes, but other pipes in the lake. It's going to clog those, it's going to accumulate on piers. The city would request Lady Bird Lake to lower lake Austin so people could clean out and reposition docks and piers, you might have billions in that lake. If you lower that water and you have billions of zebra mussels die, that would not

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be a good day. We're going to have to think through what kind of practices might change in the future with lake Austin and others with regards to having so many zebra mussels in there. We don't know all the answers, but that's where we need to collaborate closely with other departments and other regions. >> Alter: I don't know if that's under the full scope of this committee, but I would like to have your help in facilitating a meeting maybe with the folks at Austin water and watershed so I can better understand what we are doing at this point and what our options are, and I think we're probably coming on that year when we would have drained the lake and that's a really important observation I hadn't thought of. So I would welcome opportunity to continue that conversation. It's probably most appropriate not in this committee until we were to come up with some plan or something at the end of those discussions. >> We'll follow up. >> Alter: Thank you. >> Ellis: Those are great questions and I appreciate you calling out the task

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force on water forward. It's really helpful to have their advice through this process as well so that we can all work together to make sure we're doing the best that we can with the water that we have. As far as the wildlands conservation district, division, my team was lucky to be able to go and take a tour of these water quality protection lands and it's important to make sure people in the community kind of know where these lands are and how important they are for making sure that water is clean as it's, you know, entering the creeks. But there's a few neighborhoods too especially in district 8 that have little parks people may see the signs and know that it's there and they are running around it, but not know exactly why it's being protected, why it's fenced off. What critters might live in there and it -- live in there and it's something very much in the ground in our neighborhoods, very close and personal to us and I want to make sure if anyone is interested in knowing where they are closer to them, they visit

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the Austin water website because all the information is there. I think that's all the questions that I would have for that topic and just for clarification, there were no speakers signed up for that particular item, in case anybody was wondering. And I actually don't see any other speakers signed up so we may not call them for the future items. Do you all have any more for item number 2? Okay. >> Alter: Do we have time for another question? >> Ellis: I believe so. We're doing okay. >> Alter: So I had a question on the dashboard. So it indicates that we have double a rating for the utility and we have a -- it doesn't say this, but we have a triple a rating for the city overall. And that seems to be a typical pattern, that's what Austin energy has as well. But can you just help me understand why we have a different rating for the utility versus the city as a whole?

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>> Well, bond ratings are a combination of factors. You know, part of it is your -- a big part of it is your financial metrics, how much cash you have on hand, your debt service coverage levels, how much above your minimum debt payments you have excess coverage. Your -- the reliability of your revenue streams. You know, the growth of your marketplace. I think, you know, double a is high investment grade. Most utilities are double a, a few are triple a. Triple a utilities require much stronger financial metrics which drives rates significantly. That's one of the reasons why we're not triple a, we don't meet the financial metric requirements. David anders could supply more data. The city's triple a, the tax base growing, the collection

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is very high. They just have probably overall better financial metrics to attain triple a than we do. >> Alter: Thank you. Also on the dashboard there was this asset upkeep section, and I believe that's part of your strategic plan to look at each of those classes. Am I reading this right to say that you've done the analysis for one of the 18 different asset classes? Is that what -- >> It's a little broader than that and one of the briefings today is on our capital program and I think Kevin and some of his staff can probably provide you a little more indepth discussion of that. But, you know, our ultimate goal is across all of our asset bases is to have a clear understand being of which assets are critical versus which are less critical. In the end risk is different. If you have a transmission main under interstate 35 and one in a hay field, they might carry the same amount of water, but you know which one you would rather have

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break. That's a part of our asset management is which one of those are most critical and what condition are they in. But we've advanced that significantly. I can't recall it off the top of my head, but I think that's an area we can share with you more if not today certainly in a future briefing. >> Alter: I imagine you are going to touch on it, but the water leak management index looks like we're leaking quite a bit of water and I know there was just a story covered by KXAN about water leakage and we may not get to it today, but maybe at the next meeting we can understand better about that water loss and what we're doing to stem that and how we should interpret the numbers that we're seeing. >> A stand-alone discussion in the future is how are we managing water loss, what are the techniques. We have a very robust system. What that metric means. It's a part of water forward

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we've identified the need to bray -- bring that down. A big part of water loss is improved management. It relies on dozens of measurements and small variations particularly in metered water can really affect how that measurement comes out. And so that's a part of the strategy too and we would love to be able to update you on that. >> Alter: I think we do. I would really like to get a better understanding and answers about why we're leaking the amount we are and what we should take away from that in terms of the magnitude of the problem and the risks involved in that. I agree with you that some of it has to do with measurement. I worked with your staff and pard on some projects for getting some of that metering information for our pools and have done -- they've done some pilots together and saving pard a lot of money and saving water by using that more advanced technology to identify the leaks. But I just, you know, want

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to make sure we're doing everything we can to prevent this. >> I hear you. >> Alter: Thank you. >> Ellis: And with that, let's move on to item number 3, which is a briefing regarding Austin water affordability metrics. >> I'm going to let you take it. I'm going to sit down. >> Good afternoon, chair, councilmembers. My name is David anders, assistant director over financial services for Austin water and I'm here to talk a little about the Austin water affordability plan and metrics. So as Greg mentioned, the eum wheel, this is the stakeholder understanding support and affordability part of that. It's a focus forward initiative and the executive team leads the focus on these affordability strategies and improvements that we're going to see

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today. So I want to talk a little about the Austin water affordability plan. You know, back in the drought of 2011 to about 2015 where we experienced significant revenue losses for the utility as well as we had significant rate increases and definitely affordability concerns that we started to develop the Austin water affordability plan. And so Austin water convened a commission joint committee where they looked at our business model adaptation, they looked at cost containment and efficiencies and how we could reduce those costs. We looked at enhancing capital recovery fee revenue to provide for that. We also looked at debt management and over the last several years and I'm going to go into more detail on our debt management, but we have used some of the capital recovery fees for

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defeasances. We have low interest loans for Texas water development board that we've been focusing on for the last few years to reduce our financing costs. And then also looking at actually cash funding of our capital projects to avoid the debt issuance and financing costs altogether. This has allowed Austin

water utility to stabilize its rates over the last few years, and in addition to that we just recently completed an affordability study and metrics report that we'll provide more information today. So just looking at some of that affordability plan components, one is cost containment. The graph you see here is our total requirements or costs over the last several years. And you can see from 2016 there was significant increases each year going till 2018. And then over the last couple years we've actually been able to reduce those

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overall costs from that high in 2018. So stabilizing our costs is a big part of remaining affordability. Some of those efforts include, you know, like some of the operations and maintenance reviews. When we do our budgets, we look at a lot of the cost allocations that are charged to Austin and try and really look at making certain that we're being charged the right amounts and making steps that we can take that would actually reduce those costs. We've limited staffing additions as low as we could to be able to reduce those costs and increases. We've included some energy efficiency projects where, like one of our capital projects at our south Austin regional plant was to replace some of the blowers, which is electrical pump, and those blowers, you know, with new efficiencies in those we're able to save

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significant amounts of energy costs. So those kind of things that provide for cost containment of our operating costs. And, of course, also looking at our capital projects and reviewing the priorities of those as we look each year to create a five-year capital spending plan. We have really a best practice process of moving forward with those priorities. And then as I mentioned debt management that we'll talk a little bit as well. So speaking of debt management, you know, debt management has really some key components. As I mentioned, defeasances of revenue bond debt. That is actually like taking cash that we have today and paying the debt service that we have maybe for -- some of our debt service for next year or the following years and actually paying off that debt early. Which provides for a reduced amount of spending in those future years. So those are a key part.

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I mentioned the Texas water development board low-interest loans. Those are definitely from the state, in applying for those being able to take advantage of the state's triple A rating and those low-interest costs that saves on that financing cost. And then obvious looking at cash financing of some of those projects as well. Back in 2014, the council approved a change in our capital recovery fees that increased those significantly to basically the 100% maximum allowable that the state would allow through their calculation process. And that increased our revenue. Prior to that time on cap recovery fees was around

\$8 million per year. And now it's over \$30 million per year that we're getting just from capital recovery fees. And those capital recovery fees are restricted to be

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used for either debt service or defeasance the way we calculate that. So we are using it by the state allowable method in trying to use those funds for defeasance, and that had been a big part of our debt management strategies. In the graph you see here is sort of a representation of what we have done in our debt defeasance thing. So this graph, the blue line at the top is the debt service cost that we anticipated back in 2016, between 2016 and 2024. That was sort of our baseline debt service cost. The blue bars that you see are what our actual debt service is today going forward. So the green bars is the difference between those two lines, which is the savings that we've had from the defeasance. So over this time frame, over the last several years

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and then going into the future, we will have saved around \$159.3 million in defeasance savings during that time frame. If you were to look just at 20, this current fiscal year, you can see that the defeasance savings that were prior to this year saved about \$36 million in 2020 that we would have had to pay had we not done those defeasance answers. If we had to pay that in 2020, we would have had to have had a rate increase to be able to do that. And so those defeasancees are avoiding some of those rate increases. As I mentioned, the rate increases, the rate stabilization is a big part of our affordability strategies. Because of these efforts in cost containment and debt management, those kind of things, we were able to in

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2018 to provide for a zero rate increase or have a no rate increase in 2018. That was the first time in 14 years that we have had a rate increase, so we had 14 straight rate increases at Austin water leading up till 2018, the zero rate increase in that year. As a result of our cost of study results in mid-year 2018, we actually went to council and y'all approved a 4.8% rate reduction for all retail customers. So we implemented that in May of 2018. With that we said we're going to reduce rates in 2018. We're not going to come back and raise rates again, you know, fairly quickly, so in 2019 we have a zero rate increase as well. In 2020, it was just approved in September, we also had a zero rate increase, but that also included 8.3% reduction for our customer assistance

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program customers. So, you know, that was a significant -- for our most vulnerable customers, a significant reduction to their bills as well. And then in our 2021 forecast that we're developing right now, we are forecasting for a zero percent rate increase again in 2021. As part of the affordability strategies, we have completed a couple of studies or a report that I have shown here. The Austin water affordability benchmarking study was completed in December. It was the result of a February 2018 resolution from council to complete that study. Austin water hired a consultant called NewJe. That worked on that as well as a Texas A&M professor who is an expert in water industry affordability and

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metrics, and so he was also part of our team. This study was to make recommendations on how Austin water evaluates affordability going forward and how to communicate these metrics and ongoing efforts. As part of that study, we also updated that study and the metrics that were recommended in our report, the Austin water affordability metrics report. This was completed in June of this year. And I think you have a copy of that in your packet today for you to take a look at, but that was basically an updated amount because as we came through the first year, a lot of the cities have rate increases that come on in January or the first quarter, and so we updated all of the metrics, and this report, the metrics report, would be something that Austin water would plan on updating every February or March time frame going forward. So that it can be, you know,

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one, be communicated through potentially the budget process or used in the budget process to be able to see the results, and then obviously be able to track some of those improvements in our metrics over time. So I wanted to over the next few slides just highlight some of the metrics that are in the affordability metric report, provide you those results. So this first one is sort of a metric that tracks water industry CPI trends and our Austin water rate increases over time. So on this graph the purple line is a water industry CPI. And so there's -- CPI indices for water industry that you can look up on the sites and it has been trending at about 5% industry average per year. And so that's what that purple line represents. The red line and the shaded area below is a 2%

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cumulative trend line. So basically it takes 2016 as sort of the starting point and then a 2% annual increase which sort of gives that trend. Then obviously the blue line is Austin water over the same time frame. So in 2017, Austin water did have a rate increase that was about equivalent to right at 5%, which

was the industry ample. In 2018 we had a zero percent -- average. Ultimately a rate reduction that brought us below that cumulative 2% increase. As we've had zero rate increases over the last couple years and we would project to have minor increases in 2022, 2024, you can see over time that Austin water's rate increases will remain below that 2% trend line which is Austin water's goal. The next slide, I know this is sort of hard to read,

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hopefully you will be able to see it in your hand out a little better, but this is average monthly bill comparison. It's a combined bill for water and wastewater for residential customers, but it's at a low volume. Basically sort of a sustainable, low volume water use. It's basically about half of our average use customers. So it assumes 3,000-gallon waters and 2,000 gallons usage. At part of the affordability benchmark study and the update in the metric report, we benchmarked 36 different cities that you see listed here and basically get their rates, calculate the bills similarly to at these levels. And then, you know, graph the results. And for Austin water, we show really three results for Austin water. One is what we just call Austin, Texas, which is just our normal residential rate. It's a noncap rate. And then we also have a cap

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rate that shows Austin cap for fiscal year 19, that was in 2019 the actual rates that were in effect for cap. And then in addition to this, we show a green result that is the Austin cap, which is actually the 2020 rate that assumes that -- it was a \$4 reduction in the cap rate average bill. And so each of these graphs will show those three results for, you know, the Austin water residential and then the cap residential and then the 2020 reduction. So for here, we have set a goal for Austin water to just the regular residential rates would be below the 50th percentile. And in Austin water basically right on that edge or right of a the 50th percentile. Our goal for our cap customers, our most vulnerable customers, we want to be lower at about

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20%. But as you can see for a low volume usage, our cap customers are lower than any of the 36 cities that we looked at in our recent 2020 reduction lowers that bill even further. The next slide is one that we've actually tracked for many years at Austin water, and this is our average volume for a combined bill. So our average residential customer uses around 5800 gallons of water per month and around 4,000 ghouls of wastewater. So -- gallons of wastewater. We track those same 36 cities and provide the results here. Austin water's goal for the noncap regular residential is to be below the 65th percentile, and we're

a little above that by two or three cities. So we're hoping to try and obtain that over the next several years. Our cap goal is to be below

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the 25th percentile. We are right around at that level in 2019, and with the \$4 reduction on the cap, you can see it's a little bit lower, there's only a few cities that have a lower rate for the 5800 and 4,000-gallon level. This next ratio is one that was suggested in our study by Manny, the A&M professor, the water industry affordability expert. And it takes a little more to explain, but it's not too -- too complicated, but it does take some effort to try and update each year. It's called the affordability ratio 20. And the reason why it says 20 on there is they look at the income for -- within each one of these cities and look at the 20th so the median household income, which is a lot of

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the metrics, that is right at the 50th percentile. So this is a below that level at 20%, which is really very low income customers. So the very low level of income. And then they take that level of income for each city, and then in each city they have identified certain -- or the work and the research that professor tiado ro did identifies essential need costs within each of those cities. And those essential needs is for housing, other utilities, also, you know, other, like, food. And so they take that 20th percentile income, they reduce it by the essential needs costs in that city, and then the remaining income that's left over, they look at this combined bill for a 4,000-gallon

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water and 4,000-gallon water wastewater bill, sort of essential needs, they take that as a percentage of that remaining income after you pay for all the essential needs. And in the article and work that the professor has done, he suggested a, you know, a rule of thumb of being at least 10% of that -- that bill should be less than 10% of that remaining income. And we wanted to be a little more aggressive on that and say that Austin water for either cap and noncap should be below 5%. Our noncap customers are right at 5% this year and hopefully in the future will be below that. But then you can see our average cap customer in 2019 was around 3%. And then the -- with the \$4 reduction that we had in 2020, that they would be around 2.7%. So we're very strong in that

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for the most vulnerable customers that have the low income, we have really relatively form rates for that essential water -- affordable rates for that essential water use. Cap customers are a very important part of what we do for affordability. Those are our most vulnerable customers. We wanted to provide this historical view of what our cap program has provided. Our cap program was implemented in 2009. And so we started in 2009 with a fixed fee discount. So all the fixed fees that we had at that time would actually be waived and those cap customers who qualified would not pay those fees. So in 2008, you can see that for our average customer, 5800 gallons of water and 4,000 gallons wastewater, they would -- they had a bill in 2008 before the

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program of \$49.29 for that. And then with that initial program, fixed fee waivers, it brought that down to \$33. But then, as I mentioned, since 2009 through 2017, Austin water had significant rate increases that also increased the rates for the cap customers. You can see how their bill through 2017 grew to around \$54.16, probably about a 40% discount from the capital -- or the noncap customers. The residential residential customers about 40% higher than this. They definitely have provided significant discounts to our cap customers. But then over the last couple years in 2018 when we had the rate decrease, we also implemented wastewater discounts for the volume charges. And so that brought down

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their average bill by around \$6. And then the 2018 -- excuse me, the 2020 reduction, the \$4, also brought that down. Where our cap customers are today in 2020, their bill is about 43.97, which is about \$5 lower than ten years ago. So that shows and we track that to make certain we continue to try and make sure that our most vulnerable customers have an affordable rate. -- Affordable rate. In closing, some of our continuing affordability strategies, we will continue to update our affordability metrics and provide those to council and, you know, provide that as a part of our budgeting process. Austin water is going to continue our cost containment and debt management strategies to try and stabilize our rates. One thing that we have learned just recently is

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that one of our rating agencies, they are starting to all pick up on affordability as being a key issue in looking at the ratings, and so I think Fitz ratings is actually developing right now an affordability criteria that they will be looking at all cities and sort of a consistent methodology for judging affordability among cities. That's something that we'll continue to look at as we move forward to see what that criteria is. It might be additional metrics that we track so that we know what we're doing on that. And

then also we'll, you know, consider additional cap customer discounts or programs that we can do to make their bills even more affordable. One of that is ongoing right now where the university of Texas is working with us to sort of analyze our cap

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programs and they are looking at sort of an analysis of our cap customers, their income and census district and they are also looking at potentially other cities and what they are doing as well as, you know, trying to see if there's any availability for expansion of programs. And so hopefully by December of this year we'll get their final report and see, you know, some of their recommendations that we'll take into consideration as well. So with that, that's all the presentation slides I have and I'll be glad to open up to any questions you might have. >> Ellis: Thank you very much. That was a really informative presentation. I know councilmember alter has her light on so she's got questions. It's 2:27. And we still have topics number 4 is water treatment plants and water quality status and number 5 is plant infrastructure improvements. I know these are both important topics and if need

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be, maybe we cover some of the most important parts and add them to the next agenda because I know -- >> [Inaudible] >> Ellis: Treatment plants next time? Are you okay with that. >> Alter: Yeah, and I have a hard stop at 3:00 because I have a meeting with the city manager. I will be quick. I really appreciate this overview of the affordable plan you have as well as the benchmark. Austin water is doing some really good things in that regard with respect to rate decreases. I'm proud that since I've been on council we haven't raised Austin water rates at all, we've decreased them. The work we're doing on the debt defeasance using the state loans to be able to reduce that as well as the process that was set in place by the at-large council to do the capital recovery fees is really

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important. My hope is that will actually be a model as we continue with transportation impact fees to see how well that has worked for water. And allowing us to deliver affordability and in that case it would also be some of our fees but being able to deliver the infrastructure that we need. I wanted to pause for a second on the metrics, which that came out of a resolution that I worked on with councilmember troxclair , Renteria and Houston in 2018 and I think there's a lot of good reports but we never had an opportunity to talk about them or so kind of daylight that work. And the idea behind the resolution originally was, you know, we have these metrics for Austin energy, we're holding Austin energy to these affordability goals as part of what they are doing. Let's do the same for Austin water and Austin resource recovery. Today we're talking about

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Austin water. I think this data gives us a lot of good information, particularly about how well we're working for our lowest income customers who are using the least amount of water. I think there's some, you know, interesting differences across, you he know, how we measure it and I'm glad there's a stretch goal in terms of going from the 75th percentile to the 65th percentile. I think we need to try to get lower on that and my hope is that, you know, over time because of the planning that we're doing for our water supply and the steps that we're taking that we'll get there. But we may, you know, over the next year want to dive in a little deeper there and see, you know, what else we're doing to get that lower in that regard. My question, though, is about the key performance

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metrics in the strategic plan which I assume was developed perhaps before we had the affordability metrics. Part of the whole point of this was to get that to be one of the things that we were looking at. So how are you incorporating one or more of these affordability measures into your key performance indicators? >> So we do have an affordability metric in the key performance indicator. Before we did this full report, we had often used percentage of median household income as an affordability metric and that's still within we refer to. If I do all recall, I think that was in the dashboard. >> Alter: I was looking -- didn't have one among the performance indicators. It's fine if we have key performance indicators on

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our dashboard, but I want that to be something Austin water is striving for so we need to figure out which one of these or how we're going to implement that into key performance. >> Point well taken. That's a worthy update. >> Alter: So when does this get updated? >> We typically update it every year and in 2020 we're planning a more significant update, a review of all ten attributes so I would think that's an area that we would address when we do that. >> Alter: Okay. There's a lot of different measures and each are giving us information. Obviously we want all of those measured, but I do think we need to think about what is our equivalent to some of those key metrics we're using for Austin energy that help us make and balance some of our decisions so when we made some decisions on renewable energy, timing and other things we're also keeping in mind the affordability goals so we are maximizing both goals of environmental and the affordability.

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I would like to make sure that we're able to do both of those with Austin water. >> Yes, and amended our mission statement to include the word affordability so linking it back is really great. >> Alter: Thank you. Really appreciate the work on this. >> Ellis: Thank you. I was just chatting with vice chair pool about item 4 or 5 was going to be moved. We were just chatting about the infrastructure improvements probably being better to move to text time because we were just having conversations about leaks and things of that nature, as vice chair pool had an article yesterday or the day before. >> Pool: One of those. >> Ellis: The director also participated in. So if it's okay, we may do the Austin water treatment plants and water quality status update if that's okay. >> Do that one today and

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postpone the other one? >> Ellis: Correct. Today would be treatment plants and water quality and in February we would do infrastructure improvements including leakages and things like that that we just started talking about over the last couple of days. >> Understood. Got it. >> Ellis: Sorry to switch gears on you quickly like that. >> We're nimble at Austin water. >> Ellis: You can handle it. [Laughter] >> Good afternoon, assistant director for operations. Just a side note that the -- we'll cover a little about the infrastructure leak index in the consumer confidence report, but I

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would probably be providing you an update next time on the infrastructure leak index number. >> Ellis: That would be great. Thank you. >> So referring back to the product wheel or at least the effective utility management and kind of highlighting the product quality, that really focuses on not only regulatory requirements but also reliability. And so when you talk about the product quality, it can vary from anything from water quality on water treatment plants as well as wastewater treatment plants. The delivery of distribution of water or the collection of water. So this is kind of what will be a standing briefing to cover a broad range of topics that may be product quality related. So you have with you kind of dashboard, and what I've

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done is I've just kind of pulled and highlighted the product quality section of this. And some of the things that you'll see on a regular rotation or basis is metrics related to product quality. In this sample you have product quality related to drinking water standards, you have graphics that kind of display not only permit requirements for water treatment plants, there are three water treatment plants, the Davis water treatment plant, the Ulrich water treatment plant, and also the Hancock water treatment plant, and they all have permitted goals or levels as well as utility goals. And a lot of those utility goals are

based and focused on partnership for safe water requirements. So you will have a lot lower target, in this case it's a sample of turbidity measurement that's targeted a very low .1 ntus. We'll graph those on

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occasion so you can sense the performance that we have on water quality for water treatment plants. In addition to that, we have kind of some posted language on some of the initiatives or strategies to help enhance some of the water quality parameters. We have a substantial amount of water quality tests that we perform both on the source water inside the treatment plants and also in the distribution system. And we have a staff of laboratory staff within Austin water, significant amount of water and wastewater laboratory staff, so water quality scientists and so forth that kind of perform the majority of these tests for regulatory compliance and also process control. In addition to we do outsource some of these tests to other labs that we can't perform those tests inhouse. So for example, we have listed a couple of bullets

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and we can go into any of those details. Feel free to ask any questions if you have any. Related to, you know, we started during the zebra mussel taste and order, we started to test at the plant. It gives us an indication whether there's odors in the raw water. We also monitor the complaints we have throughout the city and whether or not there's complaints at the customer tap that we keep track of. We have a couple of other bullets related to our goal to try to minimize the zebra mussel growth within our infrastructure and we'll go into more detail what that might look like on strategies moving forward. I didn't want to ignore the wastewater side, but in future updates I'll kind of

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dive into the wastewater water quality, whether it's the permit requirements or any factors that we may see in the collection system. So, for example, you have a water permitted level for bod listed on your graph, and we'll rotate those out occasionally so that way you can see performance measurements. >> Ellis: I have a real quick question. Since you brought up the minimumization, if we are putting copper sulfate in to minimize their ability to be as invasive, are there any measures to ensure that we don't end with another taste and order situation since it was a deceased mussel situation that caused that? >> I think I will highlight a little of the diving contract and the inspections. That's kind of going to be a measure, maybe a physical measure on whether or not any chemicals that we do add

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in our pipelines or the inspections and cleaning activities, whether or not that's resulted in the reduction. We do on occasion do robotic inspections to see whether or not they have proliferated through the pipeline. So in addition to that, there are some existing protocols that we're changing up to try to make sure that we are capturing all the performance measures we need to to say that we've achieved our goals. And there's a slide on that we might go into a little more detail for that. >> Ellis: That's great. >> I think Rick will expand that we're mixing up and adding additional ways that we can manage taste and odor impacts from as we're working to kill off the zebra mussel. We can get at that for you. >> Ellis: Certainly prevention is best. >> Yes. So I mentioned the consumer

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confidence report. We have a direct link on all quality related to water. So not only do you get the link, it's [Austin.water.org, water quality,/water quality](http://Austin.water.org/waterquality/), you also get I guess a section of continuous reports from the water quality lab that we have in addition to the consumer confidence report. And this is a landing page within our website that you can go to to see frequently asked questions as well as water report. There's a requirement to submit this by July of every year. Recently the congress passed the American water infrastructure act, and that includes some language there that you may see this water quality report be provided twice a year. So currently its annual, but there is an indication that that may change within a

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couple years to go to twice a year. We don't have any details on that, but it covers everything from regulated to unregulated tests. And we did highlight that in October 2018 was a exceedance of turbidity and that was described in the water quality report. In addition to that, we have to report the infrastructure leak index in this report and that's kind of a -- that's an annual number that's submitted to the water development board sometime by may 1st. So it's a lag of information because it's of the previous calendar year. Essentially what was submitted was information from 2018 shows up may of 2019. So it's kind of a lagging indicator. The infrastructure leak index. And as I mentioned, we can go into detail on some of the strategies that we use to reduce the infrastructure

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leak index in the next update. I mentioned a little about the American water infrastructure act. As a large utility, we are going to be required to submit to EPA certification that we've gone through what we call a risk assessment. And that's an all hazards risk assessment that includes not only security issues,

whether it's cyber security, physical security issues, but also all hazards, meaning natural disasters and how they impact operations on water. That will be something we'll be working towards to meet the deadline March 31 of 2020, for utilities of this size. In addition to in addition to that we have a follow-up requirement within six months to provide emergency response plan for those risks that also is by

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September 30 of 2020. >> Alter: Who did you say was requiring that? >> EPA. Yes. That is under the American water and infrastructure act. So speaking of -- we've had some multiple challenges that you mentioned. The first one being the flooding event of October 2018 and the after-action report completed back in July identified some key ways that we will make our system more resilient. One of those is we're introducing the polymer feed system at all our water treatment plants. We've never had polymer feed systems at our plants. We have lime softening coagulate feed systems. This will add an additional tool to help us through challenging turbidity events as well as water quality changes we experienced back

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in October. And in addition to that procedures would have to be changed on how to deal with changing water quality when you introduce a new chemical such as that. We have also invested in instrumentation through all our -- with all our water treatment plants to kind of help us through some of these particle charge changes that may come through the lake system. We have to actually see some background information before it becomes useful so as we build our inventory of water quality information and adjust our procedures, add polymer to our inventory or tool set we will also adjust our procedures whenever we have a high turbidity event or just a change in water quality within the lake system. And this definitely supports

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the infrastructure water -- the American water infrastructure act risk assessment, as well as it will also enhance the way we operate in response to these emergencies. It will take a large amount of not only training of our staff. We talk about these -- these individual plants are becoming more and more advanced. As we add more tools and processes, they become more advanced and we have to adapt to training our staff and to retain our staff to operate these significantly technical plants. In addition to the flooding event, the February taste [indiscernible] Event posed a little bit of challenge with not only taste and odor but our integrity of our

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pipelines. Definitely as zebra mussels have spawned and we've seen a significant amount of our infrastructure very much coated with zebra mussels that we have to take a aggressive look at not only prevention but continuous improvements and inspections. One of the major tools we use is our diving contract and cleaning contract. We do that annually. We have a diving contractor that goes and inspects our raw water intake structures and our screens as well as cleans them in order to provide flow to our pumps, our screens and our pipelines. That has become a challenge because we can for two of our plants, we can maintain a low-level operations of flow. We actually have to shut

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down the Hancock water treatment plant in order to provide that service, mainly for safety concerns. We can't divers operating or cleaning during this time frame. We have completed two of our treatment plants. The [indiscernible] Plant was inspected about a week and a half ago and we are currently inspecting the Davis water treatment plant. We expect to delay a little bit on the Hancock's, probably until December. Typically in low-flow periods as well we'll do this inspection. In addition to the diving contract, we are looking to bring to council a chemical copper sulfate chemical contract, and that will be for all three water treatment plants. Currently we do have some spot purchase chemicals of copper sulfate at the

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Hancock's water treatment plant and we've started feeding that. In addition to feeding that chemical we do have on sighs sodium permanganate and that will said in any taste and odor events we may will oxidize. It is also look at ways to ensure that we don't have taste and odor events. Another part of our tools fortes and odor events is the use of powder activated carbon. We've been using powder activated carbon since February continuously and that is something we'll continue to be using to ensure we don't have taste and odor events. This is a scheme that we've never dealt with before. So we're learning from this, at the same time adapting to our operations to ensure

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that, you know, this is occurring at all of our plants over time. Let's see. And that is just a photo of one of the camera rovers that was sent at the Hancock's water treatment plant. We'll continue this process. That was something at times we cannot enter these pipelines and it is best to use technology to help us inspect these real estate water pipe plants that may be thousands of feet in length. >> Pool: I just have

to jump in here one more time on those darn zebra mussels because I feel like if the state had been more active in doing something about it, they could have prevented it invading all of our systems, and I'm just looking at this page here with the little electronic -- looks like a

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little drone diver that you've got there. I just -- I want to see the state of Texas take some responsibility for this and get involved financially to help us with the matter and then do something with the areas that they have responsibility for as well. And I cra too. Okay. I'm done with that little rant. >> Well noted. Thank you. >> Pool: Right? Don't y'all feel that way as well? That we should get some help from other governmental entities in dealing with this issue? >> We always like help, but it doesn't seem to come very often. >> Pool: I know. Maybe we should just insist more. We are kind of at the bottom end of the feeding scale, right? And it all just comes down on us so maybe we push back more. >> We'll try. >> Pool: Let's push back together. >> Is we're a team with you, councilmember. >> Pool: All right. >> Ellis: It's like in any

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community, we're not in this alone. We're not a silo. What happens upstream will effect us, what we do will affect downstream and it's very hard to feel like you're in a silo trying to do all the legwork yourself when it's really a team effort. We'll let you continue. >> Sure. Well, moving to kind of continue with the water quality and now talk a little bit about the algae monitoring. [ Laughter ] So we've experienced -- in the past we have experienced algae blooms, and that's something that we continue to monitor as the algae levels, in particular the blue green algae in the lake levels. We have some internal goals or triggers that kind of will -- kind of spark some internal conversations to ensure that we are still at acceptable levels.

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Typically, at least in the last -- this past season, we did not see high levels of algae. In addition to that, we're required to monitor for cyanotoxins in the party as part of EPA's role. That ended in July. However we continue to have that monitoring regiment through the summer and we continue that today so we monitor -- what you have listed in this table is a couple of analyze analyzes, [ reading document ] So we did not detect in the raw water lake system as well as we didn't expect to detect it in the drinking water as well. So that is a regiment that we'll continue to have. We're probably going to taper that off on a quarterly basis because all

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results have been negative throughout the whole season, which is a good thing because typically that is not a common test that we run, but that's gonna be part of our plan moving forward on monitoring the lake system. Taste and odor monitoring, I mentioned that a little bit, is not only are we going to continue to monitor that at the water treatment plants with our operators, but also the indicators that we see out with the customers. Back in February we had up to 800 concerns from customers of taste and odor, and that quickly dropped off after the zebra mussel event. We typically see a handful of complaints throughout the city in a month so I looked at October's data and I only found about six customers had a taste and odor issue throughout the city.

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If they go through the route of calling 311 or our dispatch we'll record that information. And that's gonna be one of our surveillance to see whether or not we're experiencing anything also with our lake systems. >> Ellis: Could you provide an update of the status of red bud isle? >> I did see some correspondence with watershed that isle is still closed. I have not received any latest status on what their latest water quality information has been. We did set up a quarterly meeting with watershed to kind of share data, to share information on what we see in lake Austin and lake Travis as well as what they're seeing in lady bird lake. >> Ellis: Okay. I can get with them off-line. I think it's -- there were some extremely unfortunate occurrences this summer where there was a chemical

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situation going on and it wasn't closed yet. So I know hindsight is 2020 but I certainly want to at least voice my preference that you're allowed to continue testing and to make sure that we can catch things as early as possible, which I know is also your goal. So I just wanted to put it out there that that kind of testing and that kind of recurring testing would be extremely helpful to make sure people swimming or pets are gonna be safe in our community. >> Thank you. And finally I want to touch on wastewater treatment plants and we'll get into a little more detail on the next update to kind of give you a status. A lot of the wastewater treatment plans have renewal permits so we'll update you on the status of those but the typical parameters we'll measure for wastewater treatment plants and their effluent, also part of your

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dashboard, you have bod performance measurement but we can also have total suspended solids, ammonia nitrogen and other disinfection parameters because we disinfect and dechlorinate before it goes into the river system. I wanted to highlight that we typically apply for awards to ensure that we have the highest quality water that's leaving our major wastewater treatment plants in particular the south Austin regional and walnut creek received what we call 2018 silver peak performance awards. We'll highlight those positives as well as the challenges that we may have in the future. We have a substantial amount of treatment plants not only the large ones but we also have package plants and so future updates will also include those facilities. And with that, that's -- I have any questions?

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I'd be glad to entertain them. >> Ellis: Councilmember pool. >> Pool: Yeah with future updates on the different package plants and the other treatment plants that may not be overseen by the city of Austin but that are in the city of Austin and Travis county I'd like to get a map so we can see where they are. With changes in growth patterns in our city we're now seeing that new housing developments are happening where M.U.D.S have been operating, water and wastewater treatment plants and we need to understand what the logistics of those are, what the financial responsibilities are, who operates them, are they -- under what standards are they operating. I'm hearing some unfortunate stories about effluent being released into the groundwater, and also I guess surface water too and there's some -- which is having a negative impact on the different parts of the city where people are

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looking to put new development. So to the extent that we may find ourselves having to take over some of the treatment plants that are either -- have been run by municipal utility districts or other types of non-city entities I want to have a better appreciation and understanding of what all is within the city limits. >> Great. >> Pool: And a map would be a great place to start to see where they all are and it will give us a sense of what's happening. The particular case I'm talking about is in northeast Austin. There was a zoning case not -- I think it was on our last -- or maybe two council meetings ago. >> I'll look into that. >> Pool: Yeah, thanks. >> Ellis: Thank you so much for those updates. And with that I believe we will move to adjourn. The updates that we are

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gonna be talking about at future meetings so far are infrastructure, planning, and leakages, a legislative update, and we covered the treatment plant so that one won't be on. So thank you so much. >> Pool: [Off mic] >> Ellis: And the map of treatment plants that's not within the city of Austin. >> Yes, the map of treatment plants. >> Pool: I mean they're within the city of Austin but they're not city of austin-owned

or operated. >> Okay. >> Pool: Yeah. >> We'll distinguish those, too. >> Pool: Yeah, that would be great. >> Okay. >> Pool: Connect one my staff for the specifics on the criteria that I'm looking for. >> The northeast. >> Pool: Yeah. I think there are more than just the northeast part of the city. There's some southeast, in the -- on the eastern crescent. There's a number of municipal utility districts.

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>> Okay. Thank you. >> Ellis: All right. And with that the time is now 3:01 and this meeting is adjourned.  
[ Adjourned ]