

**Allen Restoration Project
Virtual Community Meeting: September 30, 2021
Questions & Answers**

Q. Mark Yates, please tell us about your role with TVA and describe what it means for TVA to be a community partner in Memphis?

A. Mark Yates: My name is Mark Yates and my job and my title is regional vice president of the West region for TVA. Serving TVA's External Relations organization and this External Relations organization developed the regional model as a new long term vision to help build our relationships with local power companies, our direct serve customers, state and local government officials and community groups. In order to play a more active role in local communities. We want to have a pull model, if you will, that supports TVA's mission to make life better for the people we serve. When you ask what it means for TVA to be a community partner in Memphis, it means a lot and we'll talk a lot about that. As a native Memphian, I'm personally committed to ensuring we work to build a stronger, more inclusive Memphis. And I've committed almost most of my career to serving this community and helping building a bigger and brighter Memphis. As regional VP, I'm dedicated to ensuring the same and we do that by working with our customers and local communities throughout Memphis, providing opportunities to engage with the community through forums like this -this virtual community meeting, and being good stewards to the environment, especially to that. And that's an example of what we're doing and proposing to do with the coal ash at the retired Allen plant. We provide low-cost reliable power for our customers. And through economic development, we help our communities.

Q. Scott, what is your role with the Allen restoration project? And can you provide some historical perspective on the site and how site ownership reflects a shared responsibility among key stakeholders?

A. Scott Turnbow: My name is Scott Turnbow. I am the Vice President of our Civil Projects organization. And one of the areas of responsibility that I have is this particular restoration project and construction activities there at the Allen fossil plant. You know, in terms of the shared responsibility, it's an interesting concept, you know, back in 1956, this facility, the Alan fossil plant and the property there of was all built and constructed by MLGW. And they operated for several years. In 1984, TVA actually purchased the property at that time and then, of course, ran the units there until the end in 2018. But this shared responsibility is really about the combination of MLGW, the port commission or International Port of Memphis, the Shelby County and the city of Memphis. And when we start to think about the actual property in the way the ownership of the property is outlined, I think there's another slide that we have yeah, this slide here really kind of outlines that, so that you can see who owns what. So in 1984, when we purchased the

Allen fossil plant, we really only purchased the plant itself, and the property that it sits on, and it's highlighted here in this lighter colored blue, but both on the east and the west sides of the plant are the two ash ponds that we're talking about now. We call them the East Ash Disposal Area, and West Ash Disposal Area. Both of those pieces of property and the ash that is inside of them actually belong to a combination of the city of Memphis, Shelby County, the Port Commission, and MLGW. So we came to this conclusion back around 2015, 2016, when various rules started to come out from the EPA, relative to CCR - coal combustion residuals - coal ash, and then also a TDEC Commissioners Order that was issued about the same time on how to deal with coal ash at fossil plants, the two of those orders when they came together, we came together with these entities and talked about how it would be best to move forward. And at that time, we decided this is a shared responsibility and the entire entity group signed what we call a memorandum of agreement (MOA), ultimately giving TVA sole responsibility to do the evaluations that are required in the CCR rule and under the TDEC commissioner's order, and then of course, updating those participants of the MOA throughout every quarter throughout this entire process. This has been ongoing since 2016. And if you're interested, some of the data that has been presented to the MOA and that is actually part of the CCR rule or the TDEC Commissioner's Order, just encourage you to go to TVA.com/allen or TVA.com/CCR and you can find that information there.... And I will add one more part is that really we all came together for one big reason and that ultimately is just the shared responsibility there in terms of protecting the Memphis aquifer.

Q. What role does the Tennessee Department of Environmental Conservation or TDEC for short play in the Allen restoration project?

A. Robert Wilkinson, TDEC: I am the CCR technical manager here at TDEC. Our role here at Allen is to be the regulatory authority that is overseeing the Commissioner's Order investigation, the remedial investigation that has occurred at the site, as well as the process to remove the ash and transport it off site for disposal and ultimately the remediation and cleanup of the groundwater beneath the unit. And our job is to make sure that TVA conducts the removal and remediation and compliance with plans that are approved by TDEC with all existing permits at the site, and in compliance with our state environmental regulations.

Q. Angela Austin, what is your role with the Allen Restoration Project and tell us how TVA is protecting the Memphis aquifer?

A. Angela Austin, Construction Manager, Allen Restoration Project: My name is Angela Austin. I've been with TVA for over 26 years and a proud Memphian for over 26 years. My title is the site and construction manager for the Allen project, better known

as the boots on the ground. So I am responsible for that on site and restoration of the site. So the three ways that we're protecting the aquifer, we have like you saw in the video over 100 monitor wells across the entire site. And these are at different depths within the ground. Secondly, we will dewater and we will move ash from the site. And thirdly, we will construct and operate a groundwater pump and treat system. And how this system works is we have currently non-extraction wells from a multi south side of the East ash pond. These extraction wells, we extract the groundwater and send it through this water treatment facility. So, we'll have that in service by late summer of 2022. As a Memphian for over 26 years, Memphis has the best water and so it's in my best interest because I live here, this is my community. This is where my family and friends are. And most of all is about protecting the environment and this critical water source. By these three ways, this is how we're planning to protect the aquifer.

Q. Jason, what is your role at Republic Services? Tell us more about the South Shelby Landfill and how coal ash would be safely stored there?

A. Jason West, Republic Services: My name is Jason West. Like many others on this panel, I'm a Memphian as well. I'm the general manager of Republic Services so I manage all operations here in Memphis, including this Allen project - Allen Restoration Project. And so the South Shelby Landfill is located in the southeast side of Memphis in the Capleville district. It's an industrial area and we've been a partner to the community for over 40 years. So we are protecting the community by partnering with TVA on this project. We will bring this waste to a highly engineered cell, just like in the video and talked about it, it will consist of multiple layers including a geosynthetic membrane that will last in excess of 400 years. We look forward to partnering with TVA, to bring this solution to the community of Memphis and to protect Memphis and its citizens.

Q. We also received questions during our last virtual meeting about how we advertised or promoted the meeting. It's a good question and we'd like to answer this question for you again this evening.

Q. Why didn't everyone subscribed to TVA's Allen or Memphis email lists receive notice of this meeting?

Q. I signed up for news alerts on TVA's website. No one on the email list was sent information about these two events.

A. Latrivia Welch, TVA: We sent out 40,000 mailers to local community members in addition to 500 door hangers that were placed in the community. Print ads ran in the Commercial Appeal, Tri-State Defender, and the Daily Memphian website. Radio spots have been running since September 15 on the following stations iHeart Media's WHAL-FM, WDIA-AM, KSJM-FM, Cumulus Media's WRBO-FM and WLOK-AM.

Also, Bev Johnson interviewed Mark Yates on her show and TVA spokesperson Scott Brooks was on WREG's Live at Nine. Now we also contacted neighborhood associations directly about the meeting and posted a story on our website, sharing it with local media, community stakeholders and our social media platforms. We have been running a social media campaign for the past week to remind everyone about the meeting as well. Our efforts are designed to drive as many people to this meeting as possible. Last week, we did receive helpful feedback from a few folks – thank you – who said that they signed up to receive email updates from us, but they never received anything. We heard you. So this week, we distributed updates for both the Memphis community and our Allen Restoration Project newsletters based upon your feedback. By the way, if you'd like to receive updates about the project, go to tva.com/allen and sign up.

Q. What opportunities exist for the Allen site especially in light of the news that Ford is coming to Tennessee, and what role did TVA play in bringing Ford to the Memphis region.

A. Mark Yates: I'm glad you asked it because it means so much for our region in terms of economic development. Looking at the announcement that happened this past Tuesday with respect to the Blue Oval City which is Ford's announcement along with SK Innovation out of Seoul, South Korea. They will manufacture the F-150 Ford pickup truck - all electric – along with batteries at the West Tennessee - if you will - the Memphis mega site property. This is a long time coming and we're just ever so grateful. TVA played a critical role in this. We played critical role because we helped the state Tennessee, we helped Ford, SK innovation. We help several chambers of commerce, our local power companies, our communities in this area to land this project. We bested 26 communities throughout the entire world. That was our competition. They did not select us because they liked us, they selected us because we provided the most advantageous business proposition, and we also provided reliable low-cost electricity. That was a key component to landing this project. But what it will mean for potentially for Memphis port is, they will be manufacturing cars, trucks, and batteries. They will have to transport raw materials in and that is an opportunity for the Port to be used to transport into the Memphis megasite. That is a tremendous opportunity for jobs – already they're expecting over 5,000 jobs at the Blue Oval City. And so that could even mean jobs here in Memphis, training opportunities, just a tremendous economic boost.

Q. What is TDEC's oversight of Republic Services once the ash is stored there?

A. Robert Wilkinson, TDEC: The landfill is a permanent landfill through the state of Tennessee. It is a subtitle D landfill. It is required to be inspected on a quarterly basis. It is required to submit groundwater reports. So as part of that process, TDEC will be conducting inspections at the landfill, reviewing the groundwater reports, ensuring compliance with all of the permit requirements that the landfill has at that site, not only with respect to the area that the material is stored in the CCR material, but the landfill as a whole. It does require groundwater monitoring and periodic inspections by TDEC.

Q. What are the measures TVA is taking to protect workers during the project.

A. Angela Austin, Construction Manager, Allen Restoration Project: Always safety is first. It's one of our core values at TVA and safety is so important to me. And so just like many other workers that's out there providing this mission of service for this Allen restoration project, you know, it has to be safety first. So part of keeping our workers safe is we have to properly train our employees. The work they're about to do. The work they'll do on the ash pond, the safety measures that are in place, the alarm systems are in place. So extensive training is provided to the employees. Also personal protective equipment better known as PPE is provided to employees in different forms and fashions just based off of where the workers are working. Those may be like me, the boots on the ground, right there's a certain level of PPE that I need. I might be going around the ash ponds to where I have booties, I might have a Tyvek suit all those kinds of things. Also, as far as the employees that work in the heavy equipment, there are pressurized cab, filtration systems. Also, we have a decon station to where the employees when they come off the ash ponds or around the ash ponds they can decon there. Take those booties off. We put those in and drums and dispose of those properly.

We have a blue cleaning station. We have basically a place to clean your clothes. Also we have a place to where employees if they need to or want to take a shower, they can take a shower before going home. And that's also to protect their family also, so they're not taking anything to their homes.

Also, we have a dust mitigation program and part of that dust mitigation program is that we knew we would have a lot of traffic around the site and so you know, when you have gravel, when you have dirt and things like that, you know, of course, how hot Memphis is, right? You will have this created just by riding on the road. So, first part of that is we did a lot of pavement around the site on those frequently traveled areas. Secondly, we use water trucks to water down the roadways across the site.

Thirdly, in regards to dust mitigation, we ensure that we have a certain percentage of moisture in the ash before we load it in those trucks that's going to Republic. So, we

ensure there is a certain level of moisture, we put it in the truck, of course the trucks are tarped. And, also it prevents any of the ash moving around on site as long as it has that moisture in it. And, also as the trucks are traveling to the landfill, we're ensuring that no dust or none of the dust or any of the ash will be removed from those trucks.

Lastly, I'll talk about our robust air monitoring plan program. We have perimeter air monitoring plan that's around the entire site – 10 different stations have a weather station – wind speed, wind direction, those kinds of things. Also, we have a worker area air monitoring plan. And then we also have a personnel monitoring plan and each one of those programs or those plans, we have an alarm system and it's fit to wear and goes off early enough to protect the employee. So if it goes off, we'll stop the work. We will remove the employee from that area to investigate and then we'll mitigate. That way we ensure we are not creating any dust or any health hazards to the employee.

Q: Is the landfill above the Memphis aquifer and how will Republic protect the Memphis aquifer when the ash is stored there?

A: Jason West, Republic Services: I want to make sure to hit on to that we have the groundwater monitoring in place, much similar to what TVA has to have for groundwater monitoring. I've talked about the cell; I want to hit on that again. Once again, a highly engineered cell, not only do we have multiple liners and layers in place but we also have a leachate collection system there. Like many things in Memphis, we are above the aquifer there but we are in excess of 40 feet above any groundwater below the cell, which is over four times the permitted limit. So to answer your question, yes, but all the measures that we have in place to not

I can't answer your question. Yes. But all the measures that we have in place to not only protect the ground directly beneath, but all the groundwater monitoring we have in place, as well as the TDEC monitoring. We will protect the city of Memphis and that's that's what we have in place to do so.

Q. Does TDEC monitor the South Shelby Landfill for all coal ash constituents required to be monitored under the federal coal ash rule?

A. Robert Wilkinson, TDEC: The permit at the South Shelby Landfill for the ash disposal requires that they incorporate the federal CCR rule constituents into their groundwater monitoring program. For their detection monitoring program, they will not only be monitoring for the state rule, appendix I and II, but also the federal CCR rule appendix III constituents and any type of assessment monitoring that may occur at the site, they will be required to include not only appendix II from the state rule, appendix III and IV from the federal CCR rule as part of their monitoring program. So the short

answer to that is yes, they are required under the permit for the disposal of coal ash at the South Shelby Landfill to monitor for the constituents of federal CCR rule.

Q. Is it safe to store ash at the South Shelby Landfill?

A. Robert Wilkinson, TDEC: The landfill is a permitted state of the art subtitle D landfill with - as has been mentioned already on the call - many that are incorporated to the design and installation of what we consider a safe disposal facility including geologic buffer liner system, a leachate collection system, groundwater monitoring, monthly inspections...we inspect class I landfills on a monthly basis from the state, and they are required to operate in compliance with all of our permit requirements, which are designed to make a landfill a safe and proper place to dispose of waste, including coal ash material. This specific cell was designed to accept coal ash material. The design was reviewed by TDEC's Division of Solid Waste Management to ensure compliance with all regulations and that it would be a safe place to dispose of ash and it has been approved as such.

Q. What is the traffic route for the ash from the Allen site to the landfill and did you develop in traffic management plan?

A. Scott Turnbow, TVA: Yes, certainly and I think last week we had a slide that showed this right, if we have it now if we could pull it up, because visuals are to me a 1000 words, right. They say 1000 words a picture and it does in this particular case. As you look at this where the traffic route is, it's going from an industrial site, specifically the pigeon industrial area which is where the plant is located, it will travel the path there through that site on Riverport Road, then it will get on I-55, Interstate 55 and travel east and south on that and then get off there at State Route 175. All industrial areas highway areas down to Malone Road into South Shelby Landfill area where that is also an industrial area. So that is the route.

In terms of a traffic management plan, yes, we did do a traffic management plan as part of our NEPA process or National Environmental Policy Act process that we as a government have to follow. And much of that we went over that's meant made public, so people can see that for sure, our environmental impact statements and we went over that back in November publicly in a public open house back in November 2020. So we shared that at that time, but on this slide, you can see the impact of what it would be to the traffic. There is roughly about point three (0.3%) to point six (0.6%) percent in traffic on the roadways that you might see in terms of impact. Now when we selected this and I'll give it away to Jason, I think he's got something he wants to say, I'll give him a chance here in just a second, but real quickly, when we were evaluating this, we wanted to pick a route that was the shortest route path to an engineered landfill, a highly

technical and qualified landfill and we wanted a route that would impact the public the least. We didn't want to disproportionately impact any one person, one group or one community more than another.

And so this route really is a de minimis impact to the people of Memphis or any of those communities along that route. Jason, you got some you want to say partner?

Jason West, Republic Services: Scott, I couldn't have said it better. I think you nailed everything that I was going to say.

Q. How does TVA know it's not impacting the Memphis aquifer?

A. Angela Austin, TVA: The biggest thing, as we talked about previously, those 100 monitoring wells. So if you can show that slide again, as far as where those monitoring wells were located. Over 100 monitoring wells across the site, and we do quarterly, early sampling around the site to ensure that we are not impacting the Memphis aquifer. So like I said, these monitoring wells have been put in place you can see all across the site - over 100. And we do the quarterly sampling of these wells to ensure that we're not impacting Memphis aquifer.

Q. What is Republic Services track record on safety and environmental stewardship?

A. Jason West, Republic Services: When it comes to safety, just like Angela said before, safety is top priority for Republic services and we demonstrate that through a safety record that's 29% better than the industry average. So not only do we take the safety of our employees very seriously with the systems that we have in place, we take the safety of the community very seriously with those systems as well.

Q. What was the process for determining where the ash would go?

A. Scott Turnbow: Okay, well there was a very exhaustive process. As part of our NEPA process and our evaluation of lots of things at TVA, we go through a very exhaustive process to really come up with the best solution possible that we can do. So in this particular case, we started off looking at roughly little over 700 different landfills, I think it's 784 to be exact but in a radius of 600 miles from the Allen site. So we started that process looking at those sites trying to find what is the best routes, whether it's rail, whether it's barge or by truck and so we looked at all those types of opportunities trying to find the landfill that is really as close as possible to the site and has, you know, the least impact in terms of transporting it. And when you look at all these – look at these

various landfills that are spread out almost 600 miles – a little over 600 miles away. We kept narrowing that down until we got to finally just a few landfills locally. The selection ultimately comes down to landfill therein South Shelby because they met the requirements that we had for this landfill.

As I talked about a little bit before, we wanted something that was environmentally safe. We wanted a landfill company that could manage, there has a track record of managing their landfills in a safe manner, in an environmental manner within good environmental compliance or better, and the South Shelby Landfill there with Republic met those requirements. Then the next piece is just the impact of transporting material long distances versus short distances and the impact of a short distance is much better for the general public than a long distance. That's how we ultimately landed in this Republic South Shelby Landfill.

Q. How has TVA been a community partner in Memphis? And can you describe TVA's investment and commitment to Memphis?

A. Mark Yates, TVA: One of TVA's long-term priorities is strengthening the power of partnerships that are critical to growing the region. I think we have a slide actually that speaks a little bit to some of the things that we've done here in 2020 and potentially in 2021. There you go. Yeah, so in Memphis over recent time last year, in 2020 we invested over \$40 million for Memphis that came in the form, if you'll see on the slide in the blue, \$20 million in pandemic relief bill credits that went directly to MLGW, and they had the discretion to use that money to do what they needed during the pandemic. As we continue \$16.5 million in tax equivalent payments to Memphis and Shelby County. Those are real dollars in terms of what TVA does pay, another \$3.4 million in weatherization and energy efficiency training and workshops that goes to help people who need any energy efficient window caulking, windows, doors, HVAC upgrades, those sorts of things. And we also did a number of other things including locally with the local NAACP, the Urban League, the greater Memphis Chamber of Commerce, Latino Memphis, greater White Haven Economic Development Corporation, we work with Ida B Wells project all totaling well over \$860,000 and about another \$400,000 in matching what MLGW does with the local food bank. So tremendous, and then I might even add that we also have another \$72 million that we invested in the infrastructure here in Memphis. So, there are significant investments that TVA is making and continues to make.

Q. Why did TDEC approve the plan. That's what we often call a Record of Decision that allows for coal ash to be stored at the south Shelby Landfill.

A. Robert Wilkinson, TDEC: Well, there's actually two parts to that question, we did approve the special waste application for the transportation and disposal of that material to the south Shelby landfill, as well as the permit modification that was submitted, as I said we reviewed the design criteria for the landfill, and TDEC division of solid waste management went through that process. And then on the remediation side we had two documents that we've gone through. We've gone through a record of decision, which includes ultimately where the ash is disposed of at and our target cleanup goals for groundwater. That is, when we get to that phase of the remediation. And we also have a remedial action plan that we are still in the process of reviewing. We are around, I believe, revision two of the remedial action plan that has been submitted to TDEC. That plan has not been approved yet it is still being reviewed by TDEC. At this time, it does include things like how the ash will be handled on site. It includes things like the planned approach to managing traffic. It includes the perimeter air monitoring program, it includes the type of activities that are going to go on site with regards to how the actual Ash will be removed and then transported to the landfill, so we are still in the process of reviewing that particular remedial action plan. So we have not given final approval on that document yet. So we're still in the process of reviewing and have not gotten to a point yet where I where I'd say that everything is completely done we're getting very close and we are still going through the review process with TVA. Thank you.

Q. Have the liners that will be used at the landfill been tested to withstand an earthquake?

A. Robert Wilkinson, TDEC: I will have to get some information on that from our division of solid waste management, I apologize. I'm not a landfill design engineer. Do not review those portions of these submittals. I apologize for not having that information at hand here as part of the review process, there is a stability component that the solid waste division, looks at when looking at the design of these landfills, but I'm not the person to be answering that question and I will, I can definitely get a response to that at a later date.

Follow up answer from TDEC: To answer the question, I've broken it into two parts. Part 1 is: What engineering analyses were performed to verify that the landfill will withstand an earthquake? Part 2 is: What testing was performed on the geomembrane and soil lining components to withstand an earthquake?

Part 1 Answer: Earthquakes cause additional loads (additional to static, or non-earthquake loads) on a landfill from strong ground motions. A way to visualize this is to think of a plate with a block of Jello on it. If you shook the plate, you would cause the

Jello to begin to sway back and forth. This is how structures, including landfills, react to strong ground motions.

Strong ground motions applied to landfills can cause slope failures, which can cause damage to the lining system. This is of concern to the engineers that design landfills and this concern is investigated very thoroughly. To verify that the expected ground motions from an earthquake don't result in slope failures (which could damage the lining system), calculations called slope stability analyses are performed. The ground motions used in these calculations come from US Geologic Survey maps which present top of rock motions for earthquakes expected to occur once every 2,500 years. In the Memphis area, these maps are strongly influenced by the New Madrid Fault which exists in the very southeast portion of Missouri. Movement along this fault resulted in a series of large earthquakes in December 1811 through February 1812 which are believed to be the most powerful earthquakes to have hit the US east of the Rocky Mountains in recorded history. The ground motion maps I reference above show the area around the New Madrid earthquake (including Memphis) having the highest ground motions in the US outside of the west coast. Please know that the South Shelby LF has been analyzed to verify that it can withstand large ground motions resulting from an earthquake.

Part 2 Answer: Landfills have highly engineered lining systems that include many components. These components exist to perform two functions, 1. To collect and remove water that comes into contact with waste to prevent it from entering the environment, and 2. To provide barrier layers that keep this water inside the landfill to prevent it from entering the environment. The barrier layers primarily consist of two parts. The first part is a plastic liner. The plastic is an engineered polymer used because it is impervious to water and because it is inert (won't break down) when exposed to chemicals. Underneath the plastic liner is a soil (clay) liner. The clay was selected, moisture-conditioned, and compacted to result in a soil that is highly resistant to the flow of water. There are other liner components, both above and below the two I've described, but I will just focus on these two.

In designing the landfill, engineers spend considerable time and effort performing analyses to make sure the strength of the soil components (the clay liner is usually the weakest soil component) and the plastic liner (which is very strong, so the interface between the plastic and adjacent components is usually weaker than the plastic liner itself) are sufficient to resist both static and earthquake loads. Engineers can adjust the geometry of the landfill to improve its resistance to earthquakes. The engineers also have the ability to select from a number of products used for liner components, as well as the ability to rearrange (within limits) the liner components themselves to increase the landfill's resistance to earthquakes. Please know that permitting landfills that are resistant to earthquakes is very important to TDEC and considerable time and effort is spent reviewing these calculations in permit applications.

Both the plastic liner and the clay liner are extensively tested before and after construction. Plastic liners go through an extensive Manufacturer's Quality Control program to verify and document that the liner meets performance standards and project specifications. Rolls of plastic liner that arrive on site are additionally sampled and tested in a process known as Conformance Testing. Plastic liner is delivered in rolls that must be deployed and seamed together. Plastic seams are 100% tested to verify that they are water-tight and are of sufficient strength. Clay liner also goes through substantial pre-construction testing, and extensive compaction and moisture content testing is performed during construction to verify and document that the completed clay liner meets performance standards and specifications.

Also, please be aware that the engineering analyses required to permit a landfill, including those that address performance during earthquakes, is set out both in federal rules (which you may have heard referred to as Subtitle D) and in State rules (Tennessee's rules are a little more stringent than the federal rules). We would be happy to discuss this in more detail if you have additional questions. Please contact Kathryn Schulte, the TDEC Memphis Area Director of External affairs at Kathryn.D.Schulte@tn.gov for more info.

Q. What are the measures taken to transport the ash safely from the Allen site to the landfill?

A. Angela Austin, TVA: Thank you for that and I'll ask Jason to piggyback on part of the transportation wants at least the site. As I've talked previously about conditioning of the ash before we load it into the truck so we have to have a certain level of moisture, before we load into the lined truck that Republic will be sending to the site for transportation. But part of that also will be how we actually load those trucks on site. So we have it to where those paved areas for dust mitigation of course, and then we'll load it with the correct moisture content. And we'll have the truck driver to close the start, and then we'll send it through a nice state of the art truck wash station so excited, I mean, this the true truck wash station to clean it up, and we'll have it all cleaned up any dirt, debris, Ash is clearing off of these trucks before it's taken off site so there is still a travel area after these trucks are washed on site before they hit the streets.

Jason West, Republic Services: Thanks, Angela, I appreciate it. And I do want to go back to and just talk about the trucks period. So, these, these are solidly built trucks, they were specifically commissioned for this project. These are side dump trucks so they're not even like the regular Republic Services trucks, you see, rolling up and down the street every day. I believe we do have a picture, if we could pull that out, so you can see that across the top there's a heavy-duty vinyl tarping that goes across that completely seals the truck as it's moving across the road so to Angela's point about the moisture content, and the truck washes they leave it to the routes that we talked about

before. That is going to just greatly eliminate pretty much any risk of fugitive dust, as these trucks travel across the streets, and these are the safest trucks to do that with.

Q. Has TVA installed any monitoring wells, not production wells in the Memphis aquifer under the East ash pond?

A. Scott Turnbow, TVA: Great question. I know a lot of people are curious about that. There are no wells in the East ash pond that are penetrating the Memphis sand aquifer. So back to the 100 wells that Angela was talking about a little while ago, those wells, we call them monitoring wells, but they're really like monitoring points and they're points where we're actually able to go into a small pipe, go down and pull water out and test it. And so around the East ash pond or ash disposal area there were 100 monitoring wells, and each of those vary in depth. So in any given spot that we're monitoring we may have a well that is or monitoring point that's 50 feet deep, 100 feet deep right below that and then another, maybe 150 feet below that so 50 100 150 feet. The Memphis sands aquifer sits about 200 feet below the East ash disposal area. So, from that information that we have at 50, 100, 150, we're able to tell that the impacted area is in that area and that's why we only measured 50 To 100 to 150 in those areas. So from that information. We know that there's no impact the Memphis sands aquifer. I'll go one step further across the street I use that kind of loosely but at our Allen combined cycle plant, there are five big deep wells that we've talked about in the past that people have talked about, that are there and those are in the Memphis sands aquifer, and that was part of that construction of that project we're not using those wells, but they are they are. And so as part of the investigation and Environmental Assessment. We did monitor those wells to see if there was an impact and it was from that monitoring that we determine and can determine that there is no impact to the Memphis sands aquifer.

Q. Isn't it faster, safer and cheaper to ship by barge?

A. Scott Turnbow, TVA: It's a great question and it's really dependent on where the landfill is that, that you would take it to if it was about barge. And so that's one of the things we evaluated through this elaborate process that we went through when I mentioned a little earlier ago. But really when we got to looking at the barge there are several aspects of the barging that makes it, maybe not the best solution for this particular site, which means there's a lot of handling so you can imagine you're taking the ash you pick it truck it on site and get it to the barge you put it in the barge now the bar goes down the river to some other location, a pretty good ways away, and then once it gets to wherever that port is somewhere, then you got to handle it again, Put it in another truck and take it down a road to some landfill and impact some other community and so for us when we evaluated all that all that handling and all that different transportation, just didn't add up and make the right sense for us in terms of not

impacting the environment, not impacting various communities and really limiting the impact that we have both environmentally, socially, and for various organizations and communities and so that's how we ended up with the 19 mile distance from the Allen fossil plant to the Republic landfill there in South Shelby.

Q. How does TVA put safety first?

A. Angela Austin, TVA: Thank you for that. I talked about that a little bit, but I'll go a little bit deeper. It's just our core values, you know, we have to protect our employees by any means, and safety has to be first and foremost, we're all part of the family. We're all part of the community, right, and no one wants to see anyone go home, hurt and so it is so imperative that we go about protecting our workers, protecting our loved ones protecting our community. Because, like, Cedric [Adams, principal project manager for the Allen Restoration Project] has said in the video, we must and we should all do this correctly, for the safety of the people and safety of our community. So it's just our core values, which we, you know, it's one of those things where anyone on site can stop a job if they see something if it doesn't look like they have the authority to stop work at any point in time, so you know I am proud of the fact that we engage our team there, and they have that power of authority to start working at any point in time so like I said, safety is our core value it's first and foremost, If I can't do it safe, I can't get the work done so safety has to be first.

Q. when it comes to the landfill. Did you consider the protection of the Memphis aquifer?

A. Scott Turnbow, TVA: that that is the primary decision maker for everything we've done at the Allen restoration project. Matter of fact, you know, just going through the entire investigation the evaluation, determining that we're going to remove this source material it's not ours. It's not our ash, but we decided it's the right thing to do to remove it, why are we removing the ash? Well for this site, it's about protecting the Memphis aquifer. The next step is taking it to an engineered landfill, something that is modern. So when you think about the where the ash is at the moment. Remember, I said, the site was built in 1956. These ash disposal areas were built in 1956, we're talking about taking to a landfill that's built in 2021. Big difference in technology, as you know, Just sitting as you're sitting in your homes, things are different than they were in 1956. And so we're taking this and then the goal is really to take it somewhere where it will be safe for, for as long as possible, ever is really the goal. And I think Jason probably got some comments but I know he said a while ago he talked about the liner, you know, lasting 400 plus years, or greater. And so that's, that was in our consideration, we want to take it somewhere where it doesn't impact the environment or the Memphis aquifer.

Jason West, Republic Services: I just wanted to emphasize to everything that you just said about the you know the landfill that we built the subtitle D requirements that we have to follow, and it isn't, you know the Memphis aquifer, as we all know it touches seven states. It isn't just under this cell. Republic Services, like I said we've been a partner in the community for over 40 years now. And so, you know, the way that we manage on a day to day basis, like I said we have a safety record that's 29% Better than industry average the way that we manage on a day to day basis, is the reason that there's been no impact to the aquifer even with our other operations so we expect to continue that, you know, 100%, and we're proud to partner with TVA and bringing this solution to the community.

Q. Does Republic have any experience handling and disposing of coal ash.

A. Jason West, Republic Services: Yes we do. This, this isn't our first time, you know, handling CCR material we've done this in three other locations as well. And just like with this project we'll manage it to the standard of Republic Services, and everything that I've covered here tonight, so we will do that as safely as possible, to protect the community and the people of Memphis. Thank you.

Q. What would you like our neighbors to know?

A. Angela Austin, TVA: this is my community. This is where I raised my kids this is where my family and loved ones are, and you know it's so important that you know and I take such honor and pride to be able to lead this effort to ensure that we protect the Memphis aquifer, and we basically protect the employees and the community while we're removing ash from the site and restoring the site. Thank you so much.

Robert Wilkinson, TDEC: I would like to just reiterate, you know that the process that we're doing at Allen is we are taking a material that has been said is stored in a place that is not ideal for coal ash right, and it is caused problems with the groundwater so we're taking this material, we're removing it from the environment we're removing it where it's a hazard, we're putting it into a state of the art permitted design landfill where it will be stored safely, and it will be stored, isolated from the environment, and I can't say enough that this is a process that that needs to happen, that is going to be done in accordance with our regulations, with the commissioners order with our remedial investigation process, and that TDEC takes it very seriously, and we conduct our oversight very stringently and work with TVA and the landfill to make sure that this process is done as safely and protective of the environment as possible. Thank you.

Scott Turnbow, TVA: I'll jump in here now let Mark close this out But real quickly for me personally is I want you to know, and I said last week too is that we've got some of

the greatest people the best people possible working on this project, and they take their jobs, very, very serious, as you saw Angela tonight, she's boots on the ground our construction manager on this job. She deeply cares not only about protecting the Memphis aquifer, the community there in Memphis but also the people that we have working on that job site, and that is our focus. It's one of the focuses of our company though is the environment, and protecting the Memphis aquifer is a key component of that for us, for the city of Memphis and making sure that we take care of you all, as well as we really respond and relate and respect that shared partnership that we have with MLG W, Shelby County, the City of Memphis, and The Port Commission, so thanks a lot for being here tonight and listening to this presentation.

Mark Yates, TVA: Absolutely Scott yeah I'll just echo what you just said. It's very important for us to see this project through to the end to see it through safely to recognize the commitment that we have made to both ourselves, to the community, to our partners, including the city of Memphis the Port Authority, MLGW, and Shelby County government, and to remediate this project and get this ash in a safe storage place, and provide economic development opportunities for the community. So with that, thank everyone who took time to join us during this virtual open house.

For more information, please see the posted Q&A from our virtual community meeting held on September 22, 2021.

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