

Private Sector Financing Solutions for Nutrient Reductions Webinar Transcript

Hello. And welcome, everyone. I see we have a lot of people starting to join. We're just going to sit tight for a couple of minutes while we wait for everyone to get logged on. And then we will be starting shortly. Thank you.

Hello and welcome. This is Darcy Peth with Ross Strategic. We are contractors to EPA. And this is part of the Innovative Financing Strategies for Reducing Nutrients webinar series. This webinar series is co-hosted by USDA and EPA's Water Infrastructure and Resiliency Finance Center. Our topic for today is Private Sector Financing Solutions for Nutrient Reductions. We're going to wait just one more moment, as everyone is getting logged on. And then we will begin the webinar. Thanks for being here.

OK, well, we're going to start off with a quick agenda overview. We will then proceed to a little bit of logistics for how to participate in the webinar so you can understand how to use the Zoom interface. We'll introduce the webinar series. We'll have a couple of opening polls followed by our two featured presentations from Eric Letsinger, CEO of Quantified Ventures, and Ashley Allen Jones, founder and CEO of i2 Capital. We'll have time for Q&A, both after each presentation and then, time allowing, Q&A at the end. And then we will adjourn.

I want to take a second to also introduce our representatives from our co-host organizations, EPA and USDA. Tara Johnson, would you like to take a second to say hello to everyone?

Hi. This is Tara Johnson. I work in EPA's Water Infrastructure and Resiliency Finance Center located in Washington, DC.

Great, thank you. And Kate Zuck at USDA?

Hey, everybody. This is Kate Zuck. I'm in USDA's Office of Energy and Environmental Policy. I've been working with EPA to coordinate this webinar. And we're excited that you all are here and really grateful to our panelists to share their stories.

Great, thank you.

So how to participate in today's webinar, so you're going to want to click on the Q&A window in the Zoom toolbar at the bottom of your screen. This is going to allow you to ask questions of the hosts and panelists. We will read your question aloud, time permitting, during the Q&A portion after each speaker's presentation. If you have any technical issues or questions about connected to the webinar, you can click on the Chat option in the toolbar. And this will send a chat message to the webinar host.

Please note that the webinar is being recorded and that the recording, along with a PDF of the slides, will be posted on the web within a couple of weeks. I'm going to repeat that, because that's a question we get a lot. Yes, we are recording the webinar. You will be able to access a recording of the webinar on the web as well as a downloadable PDF of the slides.

And as always, we want to remind you that the view of the speakers are their own and do not necessarily reflect that of the federal government. And any mention of commercial enterprise products or publications does not mean that EPA or USDA endorses them.

OK, and I will hand over to Tara for an overview of the webinar series.

Thanks, Darcy. Again, everyone, this is Tara Johnson with EPA. I wanted to start off by saying thank you for making time this afternoon to join us on the second part of our four-part webinar series that we're co-hosting with the USDA on Innovative Financing Strategies for Nutrient Reduction.

Darcy introduced today's topics. We are going to have two more sessions next month, the first on funding landscape-scale nutrient reduction and the last one, the week of July 24, stormwater financing solutions for nutrient reduction. And we are having a series of very interesting speakers for these upcoming webinars. So I hope you're able to join us. But as Darcy mentioned, again, if you miss a part of today's webinar or any of the future webinars, they will be available on EPA's website in the future.

If you have any questions after this webinar, you can contact me directly at waterfinancecenter@epa.gov. Again, that's waterfinancecenter@epa.gov. Thank you.

Great, thank you. And to answer one more question we just got, the recording and the PDF will be posted on the web. And we will send out the link once those are posted. And so that's how you'll find out.

OK, next, opening poll number one. I'm going to launch this just a moment here. We'll ask what type of organization are you from. So you will select, utility, local government, not a utility, state government, federal government, non-governmental, agriculture, or other. OK, I have launched the poll. So you can now take a second to choose the answer that best describes you. I'll leave this open for a few more moments so that everyone who wants to vote will have an opportunity to do so. I'll leave open for a few more seconds here.

OK, looks like most everybody has voted now. I'll share these results. Looks like our top most popular answer at 29% was state governments followed by 15% federal. We have 10% local government, 13% NGOs, 8% from a utility, 2% ag, and 23% said other. Thanks for everyone who participated in the poll.

OK, now I'm going to launch our second poll. This is, what is your experience or familiarity with financing for nutrient reductions? So options are funded one or more nutrient reduction projects in the past, have nutrient reduction initiatives or projects and looking for additional funding, do not have immediate project to fund but interested to learn more, and familiar with potential financing opportunities but would like to lend more, and no or very little experience or familiarity with the topic. So I have launched the poll. And you can now select the option that best describes you.

And the polls should be popping up automatically. I'm getting one or two chats from people that are having some technical issues and not seeing the poll. Apologies that's not working. Thanks for letting us know. We will look into that. Yeah, again, I apologize if you're not able to select an option in the poll.

We'll leave this open for one more moment. OK, thanks to everyone who voted in the poll. I'll share these results. Looks like our most popular answer was 25% said familiar with potential financing

opportunities but would like to learn more. Very close behind at 24% was no or very little experience or familiarity with the topic. 20% said have nutrient reduction initiatives or projects and are looking for additional funding. 17% said funded one or more nutrient reduction projects in the past. And 14% said do not have immediate projects to fund but interested to learn more. Again, thanks very much for participating.

OK, now we are going to shift over to our featured presentations. I'm going to introduce our first speaker now is Eric Letsinger, the founder and CEO of Quantified Ventures, an impact investing firm that helps clients finance specific and measurable environmental health and educational outcomes. Eric is a tri-sector executive, bringing 25-plus years of leadership experience in government, nonprofit, and private sector organizations operating in health care, environment, education, and housing. He has led transformative public-private initiatives to drive social impact in complex cross-sector business environments, including IBM, Baltimore Public Schools, Baltimore Housing Department, Cyveillance Software, PWC, and Samaritan Inn Homeless Services. With that, I will hand it over to Eric. Eric, go ahead.

And we'll just start with the basics here. So a little bit about Quantified Ventures there on that second slide. We are an outcomes-based capital firm, essentially seeking to drive positive impacts for health, social, and environmental challenges. I realize it's a little fluffy, but that undergirds a lot of our work.

And as we get a little deeper into this, you'll see that we're very focused on the pay for success model. We've had a lot of fun innovating off of the basic tenets of outcomes-based financing. But you'll see as we progress here, we've been pioneering the environmental impact bond model and taking it into a lot of different use cases actually just to unstuck some things and to get more solutions on the field.

If we can go to slide number three there with the cartoonish picture of the diagram. We structure what we think are catalytic investments across the environmental space. Like I said, we're focused primarily on enabling governments to pay for results and not process. So as you can tell from my bio, I spent 1/3 of my career running agencies at the municipal level. We pay for a lot of things on the upfront, and we hope for the best. And what this model is enabling government agencies to do is to allow impact investors to shoulder some of that financial risk, or the performance risk, of new, innovative solutions which are enabling more nature-based solutions to find their way onto the field.

This is all about connecting impact capital directly with whether the project actually performed and delivered the outcomes that the government predicted it would actually achieve. This is also a way for governments to attract a new cast of characters to their investment base. Obviously, impact capital and impact investment, as a field, is growing significantly, at 23% a year. That's a source of capital cities, counties, and states are going to want to figure out how to attract. Because most impact investors are looking to connect their capital directly with outcomes, as opposed to process, here's a model that achieves that and starts to begin to create ways for municipalities and counties and states to attract that new source of investment.

Let's look at the model here and describe a little bit about how this actually works. In the bottom right there, you're seeing the service provider. That service provider does something, meaning they implement a solution. And for a variety of reasons, of which that possible menu lists the reasons is endless, for a variety of reasons, the entity on the left there, oftentimes the government, is unable or unwilling, for 5,000 possible reasons, to pay that service provider to do their thing, to implement their

solution. Perhaps the solution is perceived or is riskier than the government is comfortable moving forward with. There's one of the many reasons that triggers the use of this model.

Up top there, where you're seeing the investors, those are the impact investors. So they're wanting to see that intervention or that solution that that service provider provides be put on the field. And they're willing to actually pay that service provider to actually implement that solution.

That player in the middle is the evaluator. They're like the referee. And so we design the rules of the road or the rules of the ballgame, meaning if that investor pays that service provider to do their thing, then how are we going to define success? What are the outcomes that that investor is betting on will result as a result of what that service provider provided?

And then when outcomes are realized and validated and approved by that evaluator, the referee, then success payments go from that pair in the bottom left-hand corner, again oftentimes the government or a health plan or a health system, success payments go from that payer back to the investor.

So just to kind of replay that loop, you've got investors paying service providers to actually put that investment and put that solution on the field. The evaluator measures whether success is achieved, when success or if success is achieved, then that payer, the government agency, pays back the investor based on those agreed upon terms.

And so we got really excited about this very simple, elegant model and then took this into the environmental space. And I want to bring out a little bit of a journey. We started in the stormwater arena. If we can go to slide four there.

And these were the problems that we began to tackle, essentially stormwater and the pollution associated with heavy rains in urban centers. And we did the very first one of these environmental impact bonds in Washington, DC. They were under a consent decree to address their combined sewer challenges. And we were able to use this model to effectively make it a rational decision for the city of Washington, DC to choose 350 acres of green infrastructure instead of a \$1 billion gray infrastructure tunnel. There's the cartoon headline story of that transaction.

What we found along the way, as we were structuring that transaction, that there were a lot of benefits to this environmental impact bond model, essentially outcomes-based capital. It can help a lot of cities with a handful of things here portrayed on this slide. Number one is aligning incentives. And again, we'll circulate these slides. But if you look back at that cartoon model of how this works, one of the things that we like about the environmental impact bond model is that it aligns incentives, meaning everybody wants it, everybody can win, meaning when the city wins, the investor is also winning. When the service provider wins, everybody wins or everybody loses. So you have incentives lined up.

This is a way to transfer performance risk off to a source of capital, impact investors, who want to shoulder that kind of performance risk. This enables cities to access new sources of investment capital, like we've talked about, and showcase themselves and their projects. Frankly, the cities who have closed environmental impact bonds, whether that's Washington, DC or Atlanta or Baltimore, they've found themselves on national stages, talking about how and why they achieved what they achieved by using this innovative model.

Engaging other stakeholders, this is sort of interesting and not something that we really were smart enough to figure out how to do intentionally. But one of the things that we found, by actually tying your investment capital directly to outcomes, you have to go through a process of actually inventorying those outcomes and determining to whom those outcomes actually accrue. And as a result of doing that, you're able to bring in a lot of extra back end payers so that that one agency is not shouldering the full financial burden of the project anymore. And as a result, you were seeing some interesting bedfellow stakeholders in these financial transactions.

Tracking and collecting data, I want to stay on this for a second. Because the rigorous evaluation of the performance of the solution or the intervention, because it's a non-optional component to an environmental impact bond, because everybody wants it, meaning the investor wants it, because that's what's going to drive their return on investment, the city wants it or the municipality or the state. So as a result, what we're doing with every environmental impact bond, no matter the use case, we're building a library of evidence that can be used by that city to make future decisions and other cities who are contemplating that particular intervention.

OK, let's move onto the next slide there, slide five, if we could. We do these environmental impact bonds on three different practice areas. We have a very large forestry and land use practice. We have an agriculture practice. And we have an urban and coastal resilience practice.

We're fortunate enough to be working with some great partners, as you can see, on this slide. It takes a village to pull these transactions off. And we're lucky to be working with some of the best in class partners as we innovate and roll out this model.

OK, if we could, let's move on to slide six. It was interesting. When we closed the Washington, DC environmental impact bond, we had an N of one. That's a tough conversation, because these are all customized transactions for a particular municipality. But as we're starting to see more and more of these close, they're all a little different. You're starting to see a menu of options that cities can choose from. And as a result, what we're seeing is we're seeing the structuring times and costs associated with this financing model shrink dramatically.

As you can see, the primary value proposition, meaning why they're doing this, is different across these three cities. The size is a little bit different. The term is a little bit different. How these bonds were placed is different. The pricing structure, the three-tiered pricing structure or two-tiered pricing structure.

I'll take a quick one more point on that Atlanta one. You see that two-tiered pricing model. What was exciting about that one that just closed a couple of months ago to finance a whole bunch of green infrastructure in Atlanta is that that was the first publicly issued impact bond on the planet.

So what does that mean? How does that translate to the usability and the efficiency of this financing vehicle, the environmental impact bond? The time to structure just got cut in half, because that Atlanta impact bond was essentially sold in the exact same way that every other municipal bond is structured, meaning we didn't have to sit in a conference room and negotiate terms with a privately placed bond holder, like we did in the very first one.

Some of these transactions have regulatory drivers, some do not. And then also, you're starting to see different cities choose different types of green infrastructure to roll out as a result of their priorities and the projects that they're getting launched.

Let's just see, if we could, slide seven. We'll talk a little bit about the case study here in Washington, DC. And I'm going to blaze through this. My intent here was to actually just expose you to these slides, because these are being distributed. I want everybody to have a little bit of context around the handful of transactions.

So the one in Washington, DC, as I was talking about, was designed to replace the planned gray infrastructure. That was the \$1 billion gray infrastructure tunnel. They knew the gray infrastructure tunnel would work. The risk was very, very low. And it cost a billion dollars.

They wanted to move forward with green infrastructure, which they estimated would cost about \$350 million. But the risk profile for green infrastructure was slightly out of their reach. And so by using the environmental impact bond model, they financed the green infrastructure using the environmental impact bond, which essentially shifted some of the performance risk off onto the investor and made it something that they felt comfortable moving forward with.

They had big regulatory requirements that they had the address. Frankly, when we did this transaction, we assumed all environmental impact bonds would have to be done where there was a regulatory requirement. As you can see from the Atlanta and the Baltimore ones, those were not driven by regulatory compliance issues. So it's interesting to see municipalities actually choose this model, not because they have to.

And then enhancing DC Water's reputation for innovation, efficiency, and engagement. Interesting, I would say a subset of that point is, if you talk to the leadership at DC Water, I think it created an entirely different conversation with their ratepayers, meaning we are going to move forward with this innovative solution, green infrastructure, that you, the citizens, want us to move forward with. That said, we're going to pay for it smartly, meaning we're not just going to pay for it how we've paid for everything else, by yet another municipal bond that we have to pay back, regardless of the performance. We're going to actually share the risk with some impact investors who also want to see that green infrastructure put on the field.

And so that was positively received by their ratepayers. And as you know, these community meetings can get rough. I think the mayor and the general manager and a lot of the employees of DC Water who spent a lot of time at community meetings appreciated having this new way of sharing how they are using ratepayer dollars to actually be innovative and lower risk.

OK, so this was a volume management transaction. That was the reason they say they moved forward. It was all about being responsive to the rate payers' interest in seeing more green infrastructure put on the field. And there was significant outreach to the communities to actually design the types of green infrastructure that would be used and where it would be used. And then it was the triple line benefit that created that narrative between the city and the ratepayers that I think was quite attractive.

In slide nine here, and then we can move towards closing out here, here's the Atlanta transaction. This was all about reducing stormwater runoff for environmentally and economically distressed

neighborhoods using this new impact-driven source of financing. Improving green space and recreation, there was a big educational component to this stormwater project. And then advancing the city's capacity to implement green infrastructure and then showcase the city's leadership in action by addressing some of these vexing challenges.

If we could move past slide 10, I just wanted the participants to have that for the future. Just one more minute here. I just want to touch briefly on slide 11. The forestry practice that we have at Quantified Ventures is using the environmental impact bond model in two ways. Number one, financing the thinning of forests around the country to reduce wildfires and to bring forward capital for outdoor recreation, whether it's hiking trails or assets like this 88-mile biking trail in southeast Ohio in the Wayne National Forest.

Those are tough projects to find financing for. And this outcome-based model is a way to kind of unstuck that.

And then the 12th slide here, which is a good segue way to Ashley's presentation, is our agriculture and best management practices practice area, which is all about essentially driving capital to pay for on-farm best management practices, whether they be wetlands or other cover crops or no-kill solutions that actually reduce the phosphorus and nitrate and sediment loads to downstream municipalities who are under the gun to actually finance significant capital projects to pay for that sediment load.

So that would be a reasonable place for me to stop. How about I turn it over back to the moderator who can take it from there? And I'm looking forward to the Q&A period later.

Great. Thank you very much, Eric. We're going to take a few questions now. And then probably after we've moved through a few of them, then we can shift over to Ashley. I'm going to start with Virginia Lechevsky. At the beginning of the presentation, she had asked, a little more clarification on outcome-based capital firm, wants to understand a little bit more about what that means and maybe an example.

Sure. I was describing Quantified Ventures. We are an outcome-based capital firm, meaning we source investment capital to local projects that are stuck, meaning they lack the full funding or capital needed to move forward. And oftentimes, by sourcing outcome-based investors, impact investors who want to see that kind of solution be put on the field, as opposed to perhaps maybe more gray infrastructure-- so they're wanting to see more nature-based solutions put on the field. And they're willing to pay for those, meaning they're willing to take the performance risk that it will actually achieve the desired outcome and then put their money where their mouth is on whether those solutions will actually drive those outcomes.

Great, thank you. A few people asked about ROI. What level of return on equity do the investors require? How much do the investors receive? Someone else said, what is the ROI for the three different projects?

Yeah, great question. So these are debt vehicles. So they're bond-like returns. The DC Water one was 3.43%. And that was a tax-exempt bond. So these rates are commensurate with standard municipal bonds.

OK, great. This sounds like a public-private partnership arrangement. That question is from Karl Dupoult. Any thoughts on that?

Yeah, great question. I'm glad you asked that. So it is. If you have a loose definition of what a public-private partnership is, then this fits. But there is no transfer of assets to a private company. This is all about the government choosing what the government wants to do and just having normal vendor relationships with the service provider. And that service provider could just be an engineering firm who implements the green infrastructure.

The capital comes from private sources. But there is no transfer of ownership or responsibility in a way that a standard P3 does. If you have government does everything and pays for everything on the far left, if you have P3s on the far right, environmental impact bonds would be somewhere in the middle.

OK, great. I'm going to take one more question before we move on to Ashley. And then we'll hold the rest of his questions. If there's time at the end, we'll get to these. So next question is from Patrick Gallagher. Does the financing typically include a blend of debt and equity? And if so, what's the percentage?

No, it's just debt.

OK. Well, that one was so quick, maybe we can take one more. Daniela Rossi asks, are you working in opportunity zones slash coupling with opportunity funds at all?

Oh, great question. Yes, absolutely. There's another way just to bring the rate of return even lower. And so yes, we have a lot of projects going on around the country that happen to fall in opportunity zones. And so we are taking advantage of that additional benefit. A lot of the transactions that we work on have a lot of layered financing and layered benefit and layered back end payers. We consider that particular financing benefit just yet another layer to enable municipalities, counties, and states to pay less.

OK, great, thanks. I am going to move on now and introduce our next speaker, Ashley. And again, if we have time at the end, we'll come back around to your questions. Thanks very much to everyone who has typed in questions. And thanks to Eric for providing all those answers.

OK, our next speaker is Ashley Allen Jones, CEO and founder of i2 Capital. As a pioneer in impact investing, Ashley Allen Jones works to evolve traditional financial models that separate financial and social returns and to galvanize capital behind business enterprises whose core business activities generate positive social or environmental impact.

Ms. Allen Jones is the co-founder of the Upper Green River Conservancy, a biodiversity offset business in Wyoming as well as the Revolving Water Fund, a water quality offset business in Pennsylvania and Delaware. She also is the founder of the Conservation Innovation Fund, a new philanthropic investment fund being formed to make mission-related investments in the conservation sector.

Prior to founding i2 Capital, Ashley was co-founder and partner in the Endeavor Group, an international consultancy that manages the business, legal, and philanthropic interests of a select group of high net

worth individuals and family offices. I will hand it over to Ashley for your presentation. Go ahead, Ashley.

--so much. And thank you all for joining. Thanks, Eric, for your great presentation. It's fun to follow on behind your lead. So if we could go to my second slide.

So the Revolving Water Fund is an entity that exists in Pennsylvania. And actually, it's headquartered in Delaware. Right now, it's a partnership between i2 Capital and the Nature Conservancy.

And I think it's very important to point out at the outset here that this initiative falls within the much broader context of an initiative called the Delaware River Watershed Initiative, which probably many people on the phone are familiar with. It's one of the biggest clean water protection efforts going on in the country right now. And the largest funder behind that is the William Penn Foundation. They've put about \$100 million-plus to date into that initiative.

And so we are working as part of a much larger group of people that includes just extraordinary firepower across the board. And I would encourage everyone on the call to look into the Delaware River Watershed Initiative as a hotbed of innovation that's happening.

And this initiative, the Revolving Water Fund, is working within one of the sub-watersheds of eight watersheds that are in the Delaware River Watershed Initiative. And we also have backing from NRCS, the Conservation Innovation Grant Program at NRCS. And so even from the beginning, we have public capital, philanthropic capital, and then private capital, which i2 Capital has put in as the seed funding to drive the development of the Revolving Water Fund. So I think that puts us in a really exciting place, just as we think about this initiative and how we're trying to change the financial structures that exist that can try to drive some of these really vexing challenges in water quality and quantity.

So with that, said why don't I move to the next slide? So this is a little bit of a different cut on the slide that Eric presented on the three-way relationship between an investor, a municipality, and an offtake partner. And in this particular slide, you can see that at the top of this slide, we have a pool of conservation investors. And so what we're trying to do with the Revolving Water Fund is actually move beyond a linear transaction where you have a conservation investor investing in a project which then produces a conservation solution in order to repay the conservation investor.

What we're trying to do here is pool, into a fund form, conservation capital and allow that capital to be a source of upfront investing into conservation solutions on the ground, which then are quantified into what we're calling an environmental impact unit. We debated for months what it should be called. But it's fundamentally a unit that is reflective of pollution reduction. So in this case, that means sediment, phosphorus, nutrients.

And Environmental Incentives, which is a firm that many on the phone may have heard of out of Nevada, but Evan Branosky, who also developed some of the stormwater metrics for the DC Stormwater Program, worked very closely with our team and was the lead designer on the environmental impact unit quantification tool. And that's a really critical piece of this puzzle.

And then the thesis is that the environmental impact unit, which is fundamentally a unit that is a pollution reduction quantifier, is purchased by a municipality. And in this case, in Pennsylvania and in

Delaware, the municipalities are governed by TMDL plans and MS4 plans which require the reduction of sediment and phosphorus.

And so just to distinguish a bit from what Eric just talked about, although he touched on their ag practice, so this solution is very much agriculture-driven. And what it's doing is, it's testing the application of an environmental impact unit pollution reduction strategy that happens on agricultural land. It's testing whether that can achieve the municipal regulatory compliance obligations of municipalities in the watershed.

And so when you think about this as a method of risk reduction, the main thing that we're trying to get at initially is actually a regulatory solution. And I think that's a really critical point to make. I know there are a lot of people from regulators on this phone call or that have a regulatory role in this. And in order for this particular solution that we've devised to work in a watershed, we have to align the implementation and quantification of our pollution reductions with regulatory guidance that the regulators in the municipality agree meets regulatory obligations. If we don't have that regulatory alignment, our solution, in this phase, doesn't work.

So I would augment that explanation by saying that there are potential voluntary purchasers of these environmental impact units. But what we've found to date in this sector, lots of bloodshed around voluntary markets and a lot more clarity around regulated markets. And so I think, particularly in the water context, it's going to be absolutely critical that we align these solutions that are trying to unleash the liquidity and the innovation of private capital, that we align those solutions with the regulatory constructs that exist.

And I know the current leaders at EPA agree with that. There are some great memos that have been written around that about that. And everyone sort of gets excited about it. But when you get into the field and look at the actual piece of paper that has to be signed off on by the regulator, what we need to do is have a municipality build into its regulatory plan these environmental impact units, the source, the impact of them, and have that then translate into something that the regulators in Pennsylvania and Delaware are going to say, OK, that meets what we're looking for. And so when you get very granular on it, it becomes a lot more nuanced and complicated.

But the thesis here, again, is that we have a pool of conservation funding that invests in agricultural practices on farm land. We're very interested in farmland, because, as many people know, the runoff from agriculture, non-point source runoff is one of our big challenges. And we all need to work together to try to solve it. So very much focused on agriculture and then the translation of that into environmental regulatory compliance.

And at the end of the day, what we hope is that, similar to what Eric said, the pool of capital that comes in from conservation investors goes into the Revolving Water Fund entity, gets deployed into projects on the ground, gets measured into these environmental impact units, and then the units get acquired by municipalities. Ultimately, that creates a revolving return that comes back to the Water Fund and allows this whole cycle to go again.

I think that's all I want to say on that slide, if I could go to the next slide.

So there's a lot of detail here. But the bottom line I've sort of just summarized for everyone, that in Pennsylvania, PADEP requires MS4 permits for 45 of the 55 municipalities. And so we're out working with the municipalities on how they're going to meet their compliance obligations. These are all under Section 402, MS4 and MPDES.

I know that there are conversations that are happening about trying to expand the compliance remit so that we could perhaps include Section 404, endangered species, et cetera in some of these solutions. I think that would be incredible. But right now, in this particular context, we're really looking at Section 402 and MS4.

And part of the value add that we are appealing to in this context is that ag BMPs, we believe and, actually, the data shows, can, in many cases, provide a cheaper solution for meeting pollution reduction obligations than another option. And so we're fundamentally trying to use agriculture runoff in order to create conservation solutions that provide maximum pollution reductions and an alternative compliance method that is affordable. I realize I just described nirvana, but that's what we're going after. So if we can get to the next slide.

So this, we put on our municipal manager hat in terms of looking at what a municipality might be struggling with as they're looking at meeting their MS4 obligations. I don't know of a municipality in the country that doesn't feel cost-constrained. So cost is probably the number one challenge for municipalities trying to meet these water quality obligations. But there's also budget uncertainty.

A big problem that we've heard from the municipalities that we're dealing with is the issue of O&M and ongoing maintenance of practices. And this is a big question, I think, for the regulators also is, we can put a practice in in an agricultural environment. But how are we guaranteed that that practice will continue to reduce pollutants over time and achieve the outcomes that it's targeted to achieve?

And then I think everyone who's working on this issue want to expand the approach from a small municipality approach to a multi-municipality, watershed-wide approach that can make the whole equation much more efficient. But again, at the end of the day when we're talking about these deals, somebody has to write a contract. Somebody has to negotiate a contract. Somebody has to sign a contract. And money has to change hands. And it's hard to do that across multiple municipalities at once. So I think that it's definitely an objective. But right now, we're trying to prove the thesis in several related municipalities within a single watershed en route to potentially a broader regional approach. Next slide.

So this just gets at, again, the point of the regulatory framework. What we have found, and I've heard from colleagues across the country, that one of the big challenges for us as finance practitioners moving into this conservation finance space is the lack of consistency and clarity among regulatory frameworks, which isn't meant to be a criticism, just an observation, that the regulatory frameworks are not often sufficiently clear, in many contexts, to allow for transactions to happen that are as clean as we'd like them to be. And there are all sorts of nuanced challenges around putting regulations in place that work for everyone. But just suffice it to say that in this particular solution, it's very important that we get clarity on regulatory frameworks. Next slide.

So I believe I made this point already. This is just a graphical representation of cost-effectiveness per pound of pollution reductions using ag BMPs versus urban BMPs. Now, we're not arguing that ag BMPs

necessarily replace, writ large, urban BMPs. I think we'll always have a combination of both, for many reasons. But we do believe that ag BMPs can provide significant incremental pollution reduction capacity for a lower cost and just more efficiently than some of the more traditional urban BMPs. So that's the point that we're making on this slide. Next.

I'm going to skip this one. It's a little too detailed. Thank you.

So these are just some of the examples. For a finance person like myself, these aren't obvious. But for many people on the phone, they probably are. We're talking about relatively straightforward conservation practices, cover crops, conservation tillage, riparian buffers, agricultural wetlands. There's no technical development risk in the solutions that we're talking about implementing. It's simply a question of having the capital and the capacity to get these solutions implemented on agricultural lands and then, again, aligning with the quantification methodologies that are in place in that environment in order to translate those into compliance.

And in this situation in Pennsylvania, this is interesting. This is one of the nuances. There are three different systems that are used to calculate pollutant removal rates. So even trying to get to a unified system of calculation is relatively complex. So we've built a tool that translates amongst the three. And that's great. We can put in any of these three and come out with what we need. But that's just one of the many examples of the complexity on the ground. Next slide.

So a lot of people ask about our EIU calculation methodology. Again, there is really nothing that is a scientific breakthrough here. This is all information that people that work in conservation and water quality are probably quite familiar with. We have just put it together in a calculation methodology that allows us to very quickly assess pollution reduction potential for various different projects. So we'll move to the next slide.

So this is an important piece of our puzzle. When we're sitting down and speaking with municipalities about their water quality compliance challenges, we have found that it's quite helpful for us to be able to come up with a back of the envelope calculator that assesses the cost per pound or cost per reduction unit that the municipality is presently projecting and then assessing quickly whether we believe that we can come up with a better, more cost-effective solution. And the next slide actually gets at this in a little more detail.

So this is an actual municipality that we worked with, where we looked at what their current MS4 plan was. And then we looked at the most expensive options that they were implementing in order to meet their plan. And then we were able to swap out the most expensive options with a couple ag options. And we've projected that we're going to save \$50,000 in cost savings just by doing that swap out. And I think part of the value that we're trying to bring to the table in this process is just the ability to do this type of analysis, to have the data and have the information that municipalities need in order to be able to make smarter decisions about how they're spending their money to achieve compliance. Next slide.

I think let's just click through the rest of these. I feel like I'm probably getting toward the end. I'll just say one thing about the governance model. You don't have to go back to the slide.

The bottom line on the governance model for an initiative like this is that, in our opinion, and we think reflective of best practices, a governance model that has a unit that is a finance unit, so people like

myself who are seasoned in financial transactions and then an operation that is much more about the conservation science and process and having those two capacities as sister organizations is a governance model that we are seeing deployed that I think tends to help clarify some of the alignments.

So we still have a lot of work to do. We're still in the early stages of this. We have one transaction under our belts with the city of Newark. We have several others that are in the pipeline that are really exciting. And I hope to be able to report out on successes as we proceed. So I will stop there.

Great. Thank you so much, Ashley, for that presentation. We have had a lot of questions come in, which is great. We are going to get to as many of these as we can in the next few minutes before we wrap up at the top of the hour. I'll dive into these. Rod Geysler asked, do these bonds provide a pledge of revenues only or also provide a general obligation pledge to repay the bonds?

In the situation that we have negotiated thus far, it's a general obligation pledge to repay upon regulatory compliance. We will probably play around with some revenue models in different situations. But right now, it's general obligation.

Nicole Zacharda asks, does this differ from water quality trading?

That is a very good question. And there are probably people on that on this call that could answer it better than I. But water quality trading, I think this is probably sort of a different flavor of water quality trading. I've had water quality trading described to me. And I've seen it in so many different contexts that I would really need to have a longer conversation about what the definition of water quality trading is that's being asked about.

The thing that I would define in what we're doing is that it's watershed-specific. And it's even sub-watershed-specific. And so you can't produce a credit in one municipal boundary and sell it across to another municipal boundary or produce a credit that allows someone to overproduce pollutants by purchasing someone else's reductions. So this is really just about compliance within a particular regulatory framework within a watershed.

Thank you. Lorrie Johnson asks, does the municipality pay for the ag BMPs?

So the municipality would pay on the back end. The investor invests upfront and produces the ag BMPs. Once the pollution reductions from those BMPs have been implemented into the pollution reduction plan for the municipality, then the municipality would reimburse a pre-negotiated rate on the ag BMPs.

So again, getting at the point that Eric made, municipalities have to take a lot of risk in entering into a straight pollution reduction contract. So what we're trying to do is say, we want you to pay but only if the pollution reduction achieves the regulatory compliance obligation that you are required to achieve.

So it's reducing the risk. Let me just add one other thing, which we talked about in the pre-call. I think it is important to note that this is not about private capital coming in, unless it's in a voluntary state, as I mentioned earlier, coming in and acquiring these pollution reductions itself. This is a financing mechanism that reduces risk and creates velocity around public sector financing for water quality.

I think the next phase of this, we need to all be thinking about, what's the private benefit. And how can we monetize the private benefit of clean water? That's the next big frontier.

Our next question, Christine Davis asked, what tools are being used to determine and confirm the BMP's pollutant load reduction amounts?

So right now, there are lots of different tools, but we're using the NRCS BMP guideline. So that's actually a really good question for Evan, because I didn't build it up from the ground. But we're using well-established BMP metrics and modeling in order to predict the pollution reductions from the BMPs. And we've cleared the methodology with the regulators in advance too to make sure that they are on board with the methods we're using.

OK. Another question, how close are you to agreement with state regulators about how they will credit municipalities for EIU purchases? How transparent are the regulators able to be in these discussions with you?

That is such a great question. And I will tell you that we are on the cusp of sitting down with the Pennsylvania regulators. If any of you are on the phone, please cheer for us or root us on. We are planning to meet in July with the PADEP team in charge of MS4 compliance and walk them through the appendices for the permits for the municipalities that we're working with. And if we're all aligned and get buy in, it'll be a very happy day.

Great. And unfortunately, we are very close to our end of our time here. So I'm going to read out loud one last question. Gail Pergament asks, what is the source of the bloodletting in the reluctance for ag to adopt voluntarily? Is it a cost-benefit of existing technical solutions on offer or other reasons?

I'm not sure I heard the question. What's the source of the bloodletting?

Yes. It was the source of the bloodletting and the reluctance for ag to adopt voluntarily. Is it cost and benefit of existing technical solutions on offer or other reasons?

My sense is it's cost. And especially with small farmers in this country, it's not a particularly high-margin business. And there is a lot of work being done right now, particularly across the Midwest, trying to capture the economic benefits in soil erosion, crop yield, et cetera of putting these practices in voluntarily.

And I know that there are a lot of upstream ag purchasers that are also looking to add incentives around that. But bottom line, I think it's cost. I just think it's cost. I think, as cheap as we can make the BMPs, it's an additional solution that has to be implemented and maintained.

Great. And with that, we are a little bit past our time. And we want to be respectful of everybody's time. So I want to thank everyone who has attended the webinar today, especially thank our featured speakers, Eric and Ashley, for your great and informative presentations. And as mentioned earlier, we will be posting recordings of the webinar, along with downloadable PDF of the slides on the web within a couple of weeks. And you'll get an email with the link when we do that. So thanks very much. And hope you have a great rest of your day.

Thank you.

Thank you, everyone.