U.S. Environmental Protection Agency
Environmental Financial Advisory Board

February 21 – 22, 2017

Held at

District Architecture Center
421 7th Street, NW – Washington, DC

The minutes that follow reflect a summary of remarks and conversation during the meeting. The Board is not responsible for any potential inaccuracies that may appear in the minutes. Moreover, the Board advises that additional information sources be consulted in cases where any concern may exist about statistics or any other information contained within the minutes.

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Meeting Purpose

EPA's Environmental Financial Advisory Board (EFAB) held a public meeting on February 21-22, 2017. EFAB is an EPA advisory committee chartered under the Federal Advisory Committee Act to provide advice and recommendations to EPA on creative approaches to funding environmental programs, projects, and activities. The purpose of this meeting was to hear from informed speakers on environmental finance issues, proposed legislation, and EPA priorities.

Attendees

EFAB Members

Helen Akparanta, Transamerica Stable Value Solutions, Inc.
Aurel Arndt, Lehigh County Authority
Brent Anderson, RESIGHT
Lori Beary, Iowa Finance Authority
Janice Beecher, Michigan State University
William Cobb, Freeport-McMoRan Copper & Gold, Inc.
Edwin Crooks (only Day 1), Transurban
Hope Cupit, Southeast RCAP
Lisa Daniel, Public Financial Management
Yvette Downs, Strategic Management Systems, LLC
Donna Ducharme, Delta Institute
Heather Himmelberger, Southwest Environmental Finance Center at the University of New Mexico
Jeff Hughes, Environmental Finance Center at the University of North Carolina
David Kane, Portland Water District
Suzanne Kim, New Forests
Courtney Knight, Public Financial Management
Thomas Liu, Merrill Lynch, Pierce, Fenner, and Smith, Inc.
James McGoff, Indiana Finance Authority
Karen Massey, Improvement and Energy Resource Authority (EFAB Chairwoman)
G. Tracy Mehan III, American Water Works Association
Chris Meister, Illinois Finance Authority
Wayne Seaton, Janney Montgomery Scott, LLC
Blanca Surgeon, Rural Community Assistance Corporation
Joanne Throwe, Maryland Department of Natural Resources
Richard Weiss, Morgan Stanley

EFAB members not in attendance:

Rick Giardina, Raftelis Financial Consultants, Inc.
Pamela Lemoine, Black & Veatch Management Consulting, LLC
Marie Roberts De La Parra, BMB Construction Properties
Jeff Walker, Texas Water Development Board
Jennifer Wasinger, Freese and Nichols, Inc.

Additional Attendees

Michael Shapiro, EAB Designated Federal Official
Jim Gebhardt, EPA
Kristyn Abhold, EPA
Vanessa Bowie, EPA
Sonia Brubaker, EPA
John Covington, EPA
Alecia Crichlow, EPA
David McKay, EPA
Timothy McProuty, EPA
Michael Patella, EPA
Pamela Scott, EPA
Sandra Williams, EPA
Jorianne Jernberg, EPA
Jordan Dorfman, EPA
Rafael Stein, EPA
Eric Letsinger, Quantified Ventures
Andrew Sawyers, EPA
Jill Witkowski Heaps, NEJAC Work Group Chair
Members of the public and press were also present.

Day 1 – February 21, 2017

Introductions & Opening Remarks

- Mike Shapiro, EFAB Designated Federal Official
- Karen Massey, EFAB Chairwoman
- Jim Gebhardt, Director, Water Infrastructure and Resiliency Finance Center

The meeting began at 1:42pm with *Jim Gebhardt* stepping in for *Mike Shapiro*, who would join later in the afternoon, to deliver the opening remarks. Mr. Gebhardt asked the EFAB members in attendance to introduce themselves and provide background information on their organization.

Mr. Gebhardt then introduced EFAB Chairwoman *Karen Massey*.

Ms. Massey thanked the members who supported or submitted applications for Board membership and noted that applications were being accepted until March 31st. Ms. Massey noted that the next EFAB meeting will be held in August. The location has not yet been determined, but the Board is considering several options. Ms. Massey reviewed the process for participating during discussions and asked everyone to raise their name tent and then wait to be recognized before speaking and to introduce themselves each time they spoke.

Ms. Massey reviewed the agenda and explained that the group would meet until about 4pm on Tuesday with presentations from *Jorianne Jernberg* and others from the WIFIA program to explain the program's eligibility and requirements. Their session will be followed by a presentation by *Eric Letsinger*, from Quantified Ventures, who will share Quantified Ventures' experiences with DC Water. After a quick break the group will have its first report out from the domestic financing workgroup, followed by a summary close-out and group dinner.

Vanessa Bowie provided directions and information for the group dinner that evening.

Mr. Gebhardt directed the Board members to the write-ups in the packets, which provided additional information referenced in the first two presentations. He then introduced Ms. Jernberg, the Director of EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program. Ms. Jernberg was accompanied by *Rafael Stein*, also with the WIFIA program.

EPA's Water Infrastructure Finance and Innovation Act (WIFIA) Program

- Jorianne Jernberg, Director
- Rafael Stein, Director, Water Infrastructure Division

Ms. Jernberg stated that she joined EPA as the WIFIA program director in December 2016. Prior to joining EPA, Ms. Jernberg worked with the Department of Transportation's TIFIA program. Ms. Jernberg indicated that *Jordan Dorfman*, who was scheduled to present with her, was unable to attend due to another meeting but would try to join the group later and that Mr. Stein would be available answer any questions the group may have about the program.

Ms. Jernberg explained that, broadly speaking, the program will be a powerful tool, along with the SRF programs and private debt and equity, which the country needs. WIFIA will provide low cost credit assistance to regional and national water and wastewater projects. Long-term, low-cost flexible credit assistance means that there is flexibility to amortize debt over a long horizon. WIFIA will give prospective borrowers benefits not available for the same low cost through other loans. WIFIA was authorized in 2014 and modeled after TIFIA, although initial appropriations ($20 million) were received in 2016. From that $20 million, the WIFIA program will be able to provide $1 billion in credit assistance and stimulate up to $2 billion in infrastructure investments. The program has the authorization for up to $4 billion in infrastructure investment. WIFIA offers low interest rates combined with flexible payment features.

Additionally, there are benefits to utilizing the WIFIA and SRF programs together. In many ways, WIFIA and SRF were designed to cover different types of projects. WIFIA is meant for primarily large infrastructure projects and the SRF is meant for many different types of projects. WIFIA and SRF funding can be combined for a single project and WIFIA can lend directly to the SRFs.

Virtually every type of entity is eligible for WIFIA funding, including private companies and funds. Those projects eligible for the SRF should also be eligible for WIFIA. Eligibility of projects can overlap between the programs or be supplemental (e.g., energy efficiency, desalinization, and drought mitigation). Finally, WIFIA can lend to a bundle of smaller projects with a common revenue pledge.

Ms. Jernberg reiterated that WIFIA was developed to target large infrastructure projects in the range of $100 million. The minimum eligible project size for large communities is $20 million. The program also includes a small community set-aside under which 15% of the budget authority will be reserved for small community projects. Small communities (25,000 or fewer) with a threshold project cost of $5 million will be eligible for WIFIA funding. Public-private partnership projects are eligible, but only for those projects that are publicly sponsored (EPA has the flexibility to interpret what "publicly sponsored" means).

Credit worthiness is at the core of what the WIFIA team will be doing in terms of evaluating applicants. Most of EPA's time will be spent evaluating the feasibility and credit worthiness of projects, looking at terms and conditions for the loan, potential revenue, the pledge to repay the loan, and other financial conditions. EPA will also conduct an engineering feasibility assessment to make sure they have reasonable assurance that the project will be completed on time, on budget, and will be able to operate effectively. Since WIFIA is a federal lending instrument, utilizing WIFIA funds will federalize the entire project. WIFIA-funded projects will therefore be required to comply with rules and regulations such as AIS, Davis-Bacon, etc.

Questions

Blanca Surgeon asked if EPA would be requiring an additional engineering study for small systems, even if they have already conducted an engineering study, and whether the cost of any additional engineering study requirements would fall to EPA or the community. Ms. Jernberg responded that EPA would perform due diligence on all the loan requests coming in, including financial assessments, hiring legal advisors to negotiate terms and conditions, and the engineering feasibility assessment. Initially, EPA would bear those costs but if the loan is closed then the borrower would be responsible.

Wayne Seaton asked where the $1 and $2 billion figure was coming from, and what is the timeline for (and chances of) the program reaching $4 billion? Ms. Jernberg responded that Congress appropriated $20 million. The rest of the money is borrowed from the Treasury. As the loan recipient repays EPA, WIFIA will repay the Treasury. Congress says they cannot provide more than $2 billion in credit assistance now, and $1 billion is the estimate of what can be achieved with $20 million.

Courtney Knight asked about having a focus on serving smaller communities but also making projects have regional and national significance. He commented that small community projects will likely not have wide-reaching significance. Ms. Jernberg responded that the small community focus is considered a programmatic responsibility to respond to the statutory mandate from Congress. Congress created this program for larger regulatory and nationally significant projects but also wants EPA to be able to reach smaller communities, hence the set-aside.

James McGoff asked whether a project approved to receive SRF funding would also be automatically approved for WIFIA funding (if the state intended to pool projects). Ms. Jernberg responded that in regards to WIFIA lending to the SRF for a pool of smaller projects, WIFIA's relationship would be with the SRF program. The WIFIA program would underwrite for the SRF balance sheet and the SRF would underwrite the projects. Mr. McGoff asked if the SRF could put EPA resources up for collateral. All the SRFs have balances that would collateralize substantial borrowing from WIFIA. Ms. Jernberg responded that EPA has considered cross-collateralization. WIFIA cannot accept a pledge or repayment of federal funds.

Lisa Daniel stated that her understanding was that the underlying loan pool could be a common security pledge and that repayment streams do not count as federal funds for this purpose. Mr. Stein responded that EPA does not generally talk about this limitation in the context of co-financing arrangements under which WIFIA comes in at 49% and the SRF at 51%. The issue of separation is critical in the context of federal funds to recycle SRF dollars. Ms. Daniel provided an example of a pool of loans that are already lent to borrowers who are already paying them back. Could that payment stream be used as a source of security to pledge towards a WIFIA loan? Mr. Stein responded that he was not aware of any restrictions on such an arrangement.

Ms. Daniel asked what would be passed back to borrowers if there were a cap on WIFIA fees. Mr. Stein responded that EPA has an estimate on the upper range, but not a cap. Ms. Jernberg added that EPA is focusing on providing certainty for the cost structure and overall process. TIFIA was tailored to fit the specific needs of a project, including, in some cases, low cost and expediency. For projects/borrowers with a high credit quality and low engineering complexity, the process will be very different in comparison to a brand-new start-up, private entity, with a less credit worthy source of repayment.

Tom Liu inquired as to loan terms and conditions, and asked whether advisory fees were also eligible. Ms. Jernberg confirmed that advisory fees are eligible and noted that the statute also states that capital market expenses for issuing senior debt are eligible. Fees can also be rolled into the borrower's loan amount. Ms. Jernberg clarified that state and local government rates are used as a proxy, and a 15-year maturity timeline would not be a concern. Borrowers can also pre-pay with no penalty.

Mr. Liu asked about considering due diligence for a water utility, when a borrower could expect to receive funding. Ms. Jernberg responded letters of interests, indicating the borrower's interest, are due by April 10th. EPA will review the forms submitted starting April 10th and will have decisions made as to which projects will be funded by June. EPA's review includes evaluating the letter of intent, conducting a preliminary credit review, and looking at the preliminary project engineering based on the information provided. The cost of that review is borne by EPA. When the project receives funding will depend on the project complexity and credit complexity. Straightforward loans can be executed quickly, but the review process for complex project or credits may take several months. The WIFIA program can offer guidance to potential borrowers on the timeline.

Edwin Crooks asked if there would be a creditworthiness review like that for TIFIA, and whether WIFIA would seek a credit rating on the senior debt. Ms. Jernberg responded affirmatively to both questions and confirmed that EPA would be looking at the borrower's ability to fund operations and maintenance on the project. Mr. Crooks also asked who would be conducting loan scoring and calculating achievable leverage. Ms. Jernberg responded that as with other federal credit programs, the Office of Management and Budget will be signing off on the scoring of loans.

Heather Himmelberger asked whether dam or reservoir projects would be eligible under WIFIA. Mr. Stein responded that when WIFIA was authorized, there were potential dam/reservoir projects for USACE, but they have not yet been funded. Ms. Himmelberger noted that smaller communities affected by drought maybe looking to fund projects for reservoir construction (dams with reservoirs). Mr. Stein suggested that the question be revisited when Mr. Dorfman is present.

Ms. Himmelberger noted that, in regard to the eligibility requirement of providing a governmental letter, some small communities are in unincorporated areas and may not have a municipality to write a letter. Ms. Jernberg asked if the state or county could provide the letter. Mr. Stein responded that there is no liability associated with being a sponsor. EPA merely wants an indication that the project will serve a broader public purpose. There is flexibility on that requirement.

A Board member noted that replacement or rehabilitation in each service area would seem to be an eligible project and asked whether the entire program would need to meet compliance requirements. Ms. Jernberg responded that any project that is part of the bundle would have to follow WIFIA's compliance requirements (e.g., 100% of project components would have to be AIS compliant or would need a waiver from AIS requirements).

Ms. Jernberg stated that EPA is proud of what the WIFIA program has accomplished over the past 2 years, and praised the work of Mr. Dorfman, Mr. Stein and others. In December, EPA published the interim final program implementation rule and fee rule. EPA has received around a dozen public comments on both. EPA is now focused on getting ready to evaluate the letters of interest, and is working to spread the word about the program and ensure that all necessary internal program infrastructure is in place to conduct preliminary reviews, after which select projects will be invited to apply. Selected applicants have up to a year after they are invited to submit the application.

EPA held a webinar in February and will be holding another on March 7. The webinars review the letter of intent process and selection criteria. It is a good opportunity for prospective borrowers to get more information on the process itself.

Ms. Jernberg shared the program's website information. The website includes helpful resources including Q&As, presentations, programmatic material, handbooks, and regulatory information. She thanked the group for listening and opened the discussion for additional questions.

Ms. Surgeon asked what role they saw WIFIA playing under the new Administration. Mr. Stein responded that everything they have heard from the Administration indicates support for the WIFIA program.

Mr. Weiss asked for clarification on the requirements and timeline for notifying the SRF programs when a project is funded. Ms. Jernberg stated that the requirement is that the WIFIA program must notify the states when they receive the applications. The WIFIA program is seeking more of a collaborative relationship with the SRFs. EPA will notify the SRF programs as soon as possible, most likely after the completeness and eligibility check of the letters of intent. Mr. Weiss asked to what extent construction readiness will factor into the review. Ms. Jernberg responded that readiness will be considered as part of the preliminary engineering feasibility. That information will go through staff level review and will be sent to the selection committee, which is made up of senior EPA staff.

Ms. Daniel asked whether, once a loan is awarded, there is a requirement and timeframe for draw downs. Ms. Jernberg responded that there is no one-size fits all approach for when the draw down should take place. Part of the evaluation and negotiation process will include a preliminary draw schedule, and EPA will set an outside date on a project-by-project basis that will be tailored to the construction schedule. Ms. Daniels asked whether, if a project is to be partly financed by bonds and partly by the loan, and the interest rate is ultimately not in the borrower's favor, the borrower could back out of the loan agreement. Ms. Jernberg responded that while not ideal, the borrower could back out but must still pay the fees.

Ms. Jernberg clarified that fees are based on cost incurred.

Jeff Hughes asked if the projects had to be for new construction, or whether WIFIA could finance, e.g., purchase of water rights or concession payments. Mr. Stein responded that EPA would first consider what is eligible, as well as the selection criteria, then evaluate the options with the selection committee. EPA can consult with Agency attorneys on those options.

Mr. Crooks noted that when TIFIA was set-up, it was essentially used as a last resort, and asked whether the same would be true for WIFIA. Mr. Stein responded that EPA has incorporated into the selection criteria a question of whether, without WIFIA, the project would be able to go forward.

DC Water's Environmental Impact Bond

- Eric Letsinger, President, Quantified Ventures

Mr. Gebhardt introduced Mr. Letsinger, the President of Quantified Ventures.

Mr. Letsinger provided some background on DC Water. The District invested in constructing two combined sewer overflow (CSO) tunnels but wanted to look at alternatives to constructing a third, including green infrastructure. Engineers and the General Manager at DC Water were excited to design and build something productive for rate payers, but the utility's financial managers were concerned about the possibility of the alternative approach failing. Modeling indicated that the utility needed 300 acres of green infrastructure for positive results.

Mr. Letsinger stated that the pay for success model is relatively new in the U.S. market, but has been applied in the UK and elsewhere very successfully. Originally, the goal was to attract new sources of impact capital to invest in social problems. The investor is repaid through the savings achieved. This approach allows the private sector to pay for outcomes, not programs. Quantitative Ventures has managed these transactions in the education and health sectors, and DC Water executed one of the first transactions of its kind in the environmental sector. Mr. Letsinger noted that the chances of getting everything right on the first try are very low, but the model offers new opportunities for innovation. Mr. Letsinger cautioned that DC Water's exact approach may not be exactly replicable, but can inform other projects in the environmental sector.

To comply with the consent decree, DC Water needed 300 acres of green infrastructure and sought to finance 25 out of the 300 acres with EIBs. The evaluation of the environmental outcome was complex.

The typical metric for financing would be volumetric measurement of flow in the sewers. DC Water needed to establish the baseline and then measure how well the 25 acres of green infrastructure controlled flow in the sewer. Once the outcome metrics were established, the next step was to design an evaluation process that involved flow meters in the sewer for one year. After they collect data for one year, DC Water will normalize and calibrate the data to create the baseline. In 2.5 years, the green infrastructure will be installed, and in Year 4, DC Water will reinstall the flow meters to see how well the green infrastructure performed against the model.

Mr. Letsinger reviewed some of DC Water's most significant successes:

- DC Water kept the payout options as simple as possible, using three outcome buckets. The middle bucket is the "as predicted" scenario, which would be a good outcome for both DC Water and the investors. The top bucket assumes better than expected performance, and the bottom assumes worse than expected performance.
- Everything in the technical memorandum was prescriptive. DC Water took what they wanted to do and how they expected it to work and created a document that could be used for due diligence.
- DC Water kept due diligence simple by using third party investors.

To date, many Pay for Success models have had high transaction costs. They have taken a long time to put together and have not been directly replicable. This transaction broke that mold in that the transaction costs were low and the model is highly replicable, given that it is an actual bond.

DC Water was attracted to the idea of tying financing to outcomes, as opposed to just going out for traditional bonds. The financing ended up tying interest rates to each of the three outcome buckets. Social impact bonds are not bonds in the U.S.; they are essentially just a loan. Creating a pay for success transaction that is recognizable for the financial community creates a broader group of investors who would be interested.

Mr. Letsinger returned to the discussion of the three outcome buckets and noted that 30-year tax exempt bonds were assigned to the middle bucket, the "as predicted" model. This vehicle looks like a bond and behaves like a bond. At the end of the project term, if it turns out that the green infrastructure is performing better than expected and DC Water does not need 300 acres, they will have realized significant savings. If the green infrastructure performs as expected (tied to a 3.45% return), the utility will be square. If it underperforms, DC Water will hold back $3.3 million when they repay the principal.

Questions

Mr. Seaton inquired as to what happens if the estimates turn out to have been very conservative. Mr. Letsinger responded that the return will still be tied to the top bucket (6%). If DC Water uses the same financing approach in the future, they will need to adjust their models. Essentially, the utility may have created what is effectively an insurance policy.

Suzanne Kim inquired as to the investors. Mr. Letsinger responded that the investors in this project with DC Water were Calvert Foundation and Goldman Sachs. Mr. Letsinger added that his firm is excited about pay for success projects as a new source of capital. The country is looking at the largest wealth transfer in history as baby boomers are passing down wealth to Generation X and Millennials. Those two upcoming generations want to invest and get a financial return on their money, and may accept lower financial returns in exchange for rigorously measured social or environmental returns.

Mr. Letsinger clarified that at the end of the 5 years, the investors will cash out of the EIB, after which it will operate as a normal bond (for the remaining 25 years). Ms. Kim asked about the track record for Pay for Success. Mr. Letsinger responded that private capital investing in social problems has proven successful, but this model is brand new in the environmental space in the U.S.

Mr. Crooks asked if the program was designated as a green bond and if Mr. Letsinger had considered letting the market price the upper and lower bands and bidding the premium for performance. Mr. Letsinger responded that it was not designated as a green bond but added that he was interested in seeing how the field matures in the coming year to work with privately paced bonds.

Lori Beary asked about CSOs going to the wastewater treatment plant, and whether DC Water had considered looking at the savings reaped from not having to treat stormwater. Mr. Letsinger responded that that might be a consideration in the future.

Joanne Throwe asked how such financing accounts for the potential impacts of human error, the risks of extreme weather events, or other factors that are hard to predict. Mr. Letsinger responded that DC Water calibrates for heavy, light, and moderate rainfall years to account for variation. Construction risks were not financed as part of this EIB. This EIB financed the GI performance risk. The goal was to keep the rates down and the logic understandable.

Mr. Weiss asked whether the three buckets set were tied to the consent decree requirements, and asked what will happen during the first five years before the payout is determined. Mr. Letsinger responded that the three buckets or tiers were tied to the consent decree requirements. The technical memorandum is available for others to view and use. DC Water has been looking at other plots and will start implementing a handful of other projects. The majority should be implemented after the 5-year review period is over.

Ms. Himmelberger asked whether a smaller system would be able to pursue a similar financing model. Mr. Letsinger responded that the transaction costs are the real deciding factor. The transaction costs for DC Water were 35% lower than for standard municipal bonds. Ms. Himmelberger asked how the cost for green infrastructure compared to equivalent gray infrastructure costs. Mr. Letsinger responded that he could pursue the issue, but noted that DC Water did not pursue green infrastructure to save costs, rather for the other positive externalities, e.g., job creation for maintenance of aboveground assets.

Aurel Arndt asked whether DC Water considered the risks associated with timing and how those risks increase over time. Mr. Letsinger responded that he was not sure whether those considerations were included in the engineering assumptions.

Mr. Hughes asked whether the design teams that worked on the project had any stake in the investment. Mr. Letsinger responded that they had relatively straightforward contracts with those firms.

Brent Anderson inquired as to the top three or four drivers that were most critical to the decision process in the engineering analysis. Mr. Letsinger responded that everything was all performance based. By the time DC Water decided to pursue and design Pay for Success financing for the project, the decision to proceed with green infrastructure had already been made. The next question was how to connect the financing and the marketing to outcomes.

Mr. Knight asked who managed the process for selected investors. Mr. Letsinger explained that his firm and DC Water worked together to reach out to entities who were interested in impact investments. A critical factor was DC Water's willingness to consider replicability in other cities. The utility intentionally selected a range of investors (from an investment bank to mission-driven non-profit investment funds) to demonstrate the breadth of interest in the bonds.

EFAB Report Out: Financing Domestic Recycling Programs

- Jeff Hughes, Co-chair
- Bill Cobb, Co-chair

Ms. Massey introduced Mike Shapiro. Mr. Shapiro explained that he was arriving late due to meet and greet activities scheduled for Administrator Pruitt's first day at the Agency. Mr. Shapiro added that he would miss some of the second day due to additional meetings with the Administrator. He added that this Administration has expressed an interest in water infrastructure issues and continued support in this area.

Ms. Massey then introduced the members who would provide the report out from the first workgroup, Jeff Hughes and Bill Cobb.

William Cobb noted that he and Mr. Hughes would not be talking about water, rather waste and recycling out of EPA's Office of Land and Emergency management (OLEM; formerly the Office of Solid Waste and Emergency Response). OLEM has a group focused on sustainable materials management that has looked at recycling and the circular economy. In general, their staff is frustrated with progress on recycling nationwide. There are some pockets of progress, but in many other areas adoption has been slow to non-existent. The main question to answer is: how do they make things better?

OLEM has a significant amount of data in the draft charge about types of waste stream and what is and is not working. Solving this challenge could become very difficult and expensive. Mr. Cobb noted that this effort would be ideal for a 4-year work project. Mr. Cobb added that the group has had conversations with EPA staff and amongst themselves and is struggling with how to approach the charge. No work product has been developed yet. The group had a brainstorming session about how to move forward during the morning sessions.

Mr. Cobb added that they are struggling with what exactly they want to address. In the charge, OLEM requests that EFAB benchmark financing mechanisms for recycling infrastructure that are more sustainable and resilient to market viability. This could be to overcome energy and commodity price sensitivity and volatility. The central challenge is location. Some programs work well because distances are short, but a recycling program is not going to work if the recycling must be hauled 200 miles. Mr. Cobb provided some ideas that the group will take back to OLEM to evaluate:

1) Extended producer responsibility – For example, a paint manufacturer charges a premium amount and takes the paint back. Or, tire manufacturers lease tires and then take them back. At the far end of the spectrum there could be grants and 0% interest loans.
2) At the far end of the spectrum, there could be grants and 0% interest loans.

3) Political and economic assessment for the current structure - Can you move the meter in a different way? Maybe the task is to revise the old assumptions upon which cost and revenue structures are built.
4) Policy or regulatory mandate - Once regulation comes into play, does that change business and consumer policies? Under the new Administration, new regulations may be embraced if others are done away with in the process.

Mr. Hughes added that the morning brainstorming session covered many different ideas. In the end, from a product standpoint, the group came to an inventory of finance mechanisms with the group collecting rate studies and other information and providing commentary on changing assumptions.

Mr. Cobb explained that one of their concerns is creating value, rather than compiling a compendium of case studies that could have easily been found with a search engine.

Questions

Ms. Throwe asked whether the research effort could be framed in terms of how many jobs would be created from this industry. Mr. Hughes responded that the charge was specific to finance mechanisms, but there are other opportunities for research on this topic. The concern is whether that would be breaking scope.

Yvette Downs noted that there may be trade-offs with other jobs. It is also important to consider how any new requirement or regulation would be implemented, to avoid burdening lower income communities.

Tracy Mehan asked Mr. Cobb to reiterate the working group's brainstorming ideas. Mr. Cobb listed the following:

1. New regulatory constraint policy mandate
2. Community political acceptance
3. 0% interest loans, closed loop funding
4. State grants and pools
5. Extended producer responsibility for mandatory recycling.

Mr. Mehan added that the financing mechanisms discussed were innovative or new, and asked whether the charge was in fact policy development.

Mr. Cobb responded that the challenge is the volatility of materials and energy pricing. EFAB needs to schedule a call with the EPA client to go through the outcomes of the brainstorming session. Assuming concurrence, they will come back to the team and begin working on the product. The team is dominated by participants from EFCs and not as many EFAB members. The team would welcome additional members who would be interested in supporting this effort.

Ms. Massey asked if a draft product would be ready for review at the August meeting. Mr. Cobb responded that he was unsure as to whether that would be possible.

Summary of Day One

– Mike Shapiro, EFAB Designated Federal Official

– Karen Massey, EFAB Chairwoman

Mr. Shapiro recognized those members who are completing their terms, and noted the need to recruit new members. Typically, those leaving are still serving through June, so this will be the last meeting for departing members. They are still available for supporting group efforts until their terms expire. Mr. Shapiro handed out plaques to the following members:

- Helen Akparanta, co-chair for the lead risk reduction working group and support for the financing stormwater, private public partnerships, drinking water pricing, and green infrastructure working groups.
- Donna Ducharme, who supported working groups for financing O&M at green infrastructure sites, lead risk reduction, greenhouse gas, and green infrastructure using SRFs, among others.
- Rick Giardina, who supported working groups on public-private partnerships, financial capacity development for small systems, financial cap framework, transit-oriented pricing, and more.
- Wayne Seaton, who has been on the board since 2011 and supported the finance capacity development for small systems, financing stormwater, green infrastructure, and the energy efficiency greenhouse gas reduction working groups.
- Blanca Surgeon, who has served on many working groups, including decentralized wastewater, EFAB's collaboration with NEJAB, financing pre-development on communities, compliance in Puerto Rico, and tribal environmental programs.
- Courtney Knight, who has supported working groups on financial asset development for small systems, financing stormwater, and green infrastructure, and the EFAB consultation with NEJAB.

In addition to the board members leaving, Karen Massey, EFAB chair, will be leaving in July. In addition to chairing the Board she has also contributed to working groups on greenhouse gases, finance capability assessments, boiler MACT, and SRF investment options, and has helped reenergize and revitalize EFAB, as chair.

Mr. Shapiro stated that Tom Liu has agreed to be the interim chair, and that the Board looks forward to continuing their great work.

Day 2 – February 22, 2017

Opening Remarks

- Mike Shapiro, EFAB Designated Federal Official
- Karen Massey, EFAB Chairwoman

Mr. Shapiro reconvened the group at 9:12am on February 22nd. Mr. Shapiro thanked Ms. Crichlow for coordinating the dinner the evening before. He also noted that circumstances beyond his control meant that he would need to depart at 11am for a briefing with Administrator Pruitt on water issues. He expected to be back when the group reconvened after 1:30pm.

Ms. Massey reported that the group would be hearing updates from Dr. Sawyers with the Office of Wastewater Management, the Environmental Finance Center Network, the EFAB/National Environmental Justice Advisory Council (NEJAC) collaboration, and the Water Infrastructure and Resiliency Finance Center (WIRFC) before hearing the remaining group report outs in the afternoon.

Mr. Shapiro turned the floor over to Dr. Sawyers for the first presentation of the day.

Affordability and Non-Traditional Project Financing

- Andrew Sawyers, Director, Office of Wastewater Management

Dr. Sawyers thanked Mr. Shapiro and Ms. Massey and noted that he had served as a member of EFAB for 10 years while working for the State of Maryland. He thanked all participants for volunteering and supporting EFAB and thanked Mr. Gebhardt, the WIFIA program, and others for their efforts and contributions to the program. He added that EFAB is important to the Office of Water and that EPA is doing everything they can to make sure the Board is strong. Mr. Shapiro is committed to the board, and will continue to give the Board the support it needs.

Dr. Sawyers explained that OWM houses the NPDES, WIFIA, SRF, and Mexico Border programs. He thanked the EPA staff present for their efforts and support.

Dr. Sawyers noted in terms of affordability and non-traditional financing, OWM is working on the following recommendations:

1) Developing a compendium and offering questions for response.
2) Defining and leveraging the role of the Agency, primarily in regards to determining how to get affordable programs developed and utilized.
3) Looking at the possibilities for customer assistance models.

Dr. Sawyers stated that there is no doubt that affordability is a concern across the country for water and wastewater, and the problem will only grow. In addition, in some cities and rural communities, people are unable to pay their bills. Part of the affordability question is, how should EPA and utilities/municipalities respond? At the same time, infrastructure age is also a concern. There are many numbers out there that suggest that infrastructure is expensive to build, but technology may lower costs. A lack of asset management is leading to a lack of affordability. Financial management in many communities is a challenge, which the EFCs are trying to address. Asset management can improve a utility's sustainability and ability to withstand events going forward and keep up with demand.

Many large urban communities are also faced with declining populations, and therefore declining revenue. Other communities have capacity concerns and are pursuing alternative ways to raise revenue.

Dr. Sawyers and Mr. Hughes, from the EFC Network, discussed the issues that small and medium-sized communities face when they are highly leveraged and cannot take on new debt. EFAB needs to think holistically. The affordability paper provided last year was useful to EPA, and EPA could use more support in thinking through the investment angle.

Internally, EPA is considering the following issues:

1) Funding and Portfolio Expansion – The WIFIA program has assembled an excellent team. Available programs (such as SRF, USDA, and HUD) need to expand as much as possible to offer resources to communities in need. Hopefully, WIFIA will bring several projects into their portfolio and help expand the SRF and other existing programs.
2) Water Technology and Affordability – Several years back, Dr. Sawyers and Jeff Hughes looked at how analytics could help answer the affordability question. Analytics are needed in the context of affordability and optimization principles. Technology could be used to predict ability to pay. Targeted interventions, e.g., identifying leak issues through metering, are important. Technology can also help with benchmarking.
3) Technical Transfer, Sharing, and Support – The Agency is focusing heavily on partnerships, specifically P3s. EPA is evaluating the extent to which P3 engagement in the water sector has worked. EPA is also looking at alternative ways to finance infrastructure and to understand what has and has not been successful and the criteria for success. Dr. Sawyers added that utilities and communities need to be making informed decisions on what entity will be financing a product, and what form the financing will take. WIRFC has been working with the EFCs to evaluate issues and provide support for one community in each EPA Region.
4) Innovation – EPA has been engaging with NAPA to study the affordability definition and will be in touch with many EFAB members about this effort. There are also many innovative ways to think about household affordability programs, e.g., creating a funding pool from SRF loan repayments (from larger communities) to fund household affordability programs. This could also work with non-profits. EPA has also been working to compile financial leadership best practices in three areas: funding strategies, funding models, and access and readiness.
5) Partnerships – This includes public to public, public-private partnerships, and procurement strategies that help communities in need.

Over the last decade or so, EPA has invested time working on green infrastructure and projects that improve livability. These efforts need to be expanded further and EPA wanted to know what financing strategies can be used to expand projects in communities of need. EPA has a document on such strategies that will be shared with EFAB and CIFA soon. The next step is to determine how to get those tools into smaller communities.

EPA also wants to take a holistic and strategic look at affordability going forward, and to think about the affordability issue and adapting to growth. Right now, EPA is working with Puerto Rico and other communities to figure out how to pay for obligations. EFAB and the EFCs can help EPA by looking at standard underwriting principals to determine how to help communities understand their ability to pay.

Dr. Sawyers stated that over the next 10 years, EPA will be thinking about municipal issues and decide what they can commit to, in terms of investment. EPA is considering questions such as: On what communities should EPA focus? Where is the greatest return on investment – resilient infrastructure, or combining green and grey infrastructure? How can communities that are experiencing population decline right-size? What is the federal role beyond facilitation and leveraging? Going forward, what resources will they use to build infrastructure? The SRFs will still provide resources and USDA will be active, but is there a need for additional programs like WIFIA? For the next 10 years, how can EPA package approaches to meet the larger needs systems are wrestling with? The programs evolve and right now the question is about affordability and whether the right tools exist to meet system requirements. EPA will continue to provide ideas on how to use existing programs such as the SRFs, smaller programs, and new programs. The goal is to think through how EPA can address its obligations to the water sector for at least the next 10 years and to think about how to make infrastructure that was built 30 to 40 years ago sustainable and resilient.

Questions

Chris Meister thanked Dr. Sawyers for the clear overview and the charge and added that infrastructure is often an "out of sight, out of mind" problem. Many urban areas are tied to larger, more vibrant metropolitan areas. The centers of economic vitality have shifted. Additionally, rural and smaller towns across the country are also seeing declining populations and do not have the benefits of nearby suburban populations.

Mr. Mehan thanked Dr. Sawyers and his office for establishing the WIFIA program. Mr. Mehan added that the program is an example of the Agency's ability to mobilize on important issues. Regarding the NAPA affordability study, AWWA determined that the issue they were addressing was CSO consent decree affordability rather than rate payer affordability. In effect, they did not appear to understand the tension between meeting CSO consent decrees and public health on the drinking water side. He asked Dr. Sawyers how to break the compartmentalization between drinking water and wastewater, as the rate payers are one and the same. Dr. Sawyers responded that he will follow up with NAPA on the issue.

Mr. Mehan noted that, on the LIHEAP issue, there also needs to be a focus on full cost pricing. Mr. Shapiro noted that some recent studies indicate an increase in drinking water and wastewater rates across the country. Mr. Mehan responded that those numbers reflected averages and percentages, not absolute numbers, and do not take CSO consent decrees into account. Dr. Sawyers stated that he hoped the Board would recognize that some handouts to pay off debt or address urgent issues are not effective.

Ms. Throwe asked that EPA also consider the needs and perspectives of EPA Regions and the states. Ms. Throwe stated that Maryland has been looking at EPA programs and trying to support the idea of partnerships. However, there appears to be a disconnect between the programs, leveraging, and conversations taking place at the state level. All stakeholders need to be part of the conversation. Dr. Sawyers agreed and noted that during his time with the State of Maryland, he interacted with EPA on financial issues throughout the region.

Ms. Surgeon thanked Dr. Sawyers for his efforts and noted that most of her time is spent working with small and mid-size communities. She asked that EPA add community outreach and education to their list of priorities. Ms. Surgeon added that affordability is one issue that motivates people to talk. Many communities know they are facing significant problems due to declining populations, but do not always talk about how that impacts the utilities.

Dr. Sawyers agreed, and stated that EPA can expand the list to include engagement. WIRFC is already trying to better understand how to do engage with communities and utilities, and EPA is very committed to these efforts.

Janice Beecher reiterated the importance of full cost pricing and noted that the numbers are moving in the right direction. Sustainable models require utilities to spend to the correct level and price to that expenditure. Water service essentially involves delivering five products through one pipe, and utilities need more sophisticated pricing models, as prices are rising while demand is falling. There is a real risk that utilities will continue to oversize systems. Optimization is the future. If utilities replace everything in kind, they will continue to perpetuate cost and affordability problems. She asked about public health and system health and how it is directly related to affordability. Basic needs should be provided at an affordable rate. Utilities could set fixed costs based on property taxes or other factors to meet societal goals. She concluded that economic efficiency is a criterion but the goal should be public health. Dr. Sawyers responded that he liked Dr. Beecher's ideas. The issue of public health is central to OWM's public health and water quality missions. The other important point is innovative financing. The question is whether the country is ready for real innovation in terms of pricing and financing for water and wastewater service.

Mr. Arndt noted that water utilities are extremely capital intensive, but can take advantage of economies of scale. Greenfield or brownfield development brings investment in infrastructure. While it does not necessarily fit the private public partnerships mold, it is essentially private investment in public systems.

Dr. Sawyers thanked the EFAB members for their contributions.

Environmental Financing Challenges

- Heather Himmelberger, President, Environmental Finance Center Network

Ms. Massey introduced Heather Himmelberger, the President of the Environmental Finance Center Network.

Ms. Himmelberger stated that four new EFCs have been added within the past year. The EFCN is still working on how to integrate the new centers and work together. There will be 12 centers in total, and there are many opportunities to work together and go in new directions.

Ms. Himmelberger noted that the EFC report-out format will be changing. Each of the EFCs and WIRFC will have a chance to mention an environmental challenge that they are facing in their work. After the centers report out on those challenges, the floor will open for discussion.

Ed Suslovic from Region 1 stated the greatest challenge and opportunity ahead of them is working with over 1,500 municipalities in the New England states to develop sustainable financing for stormwater improvements. There are approximately 15 operational stormwater utilities but there is much more work to be done. WIRFC's November 2016 stormwater finance forum drew attendees from over 61 municipalities.

Khris Dodson from Region 2 noted that the needs and opportunities between New Jersey and New York and the islands (Puerto Rico, USVI) are night and day. The need and enthusiasm for sustainable materials development in Puerto Rico is great, and the Region 2 EFC has an opportunity to help address that need. Another challenge is affordability. There are too many layers of bureaucracy over an overbuilt infrastructure with towns and villages facing shrinking populations. In rural areas of New York, the EFCs are providing technical assistance and innovative planning for the future. These communities are determining whether to continue to use and repair/replace the current infrastructure or look at creative alternatives.

Dan Nees with Region 3 noted the issue of climate change, which is scaring but also motivating utilities in Region 3. The EFC will continue to focus on ecosystem financing, but is also increasingly looking at urban resilience, and will be launching a community resilience initiative. This initiative is meant to provide direct financing and technical assistance for urban centers and resilient infrastructure.

Mr. Hughes reported that the Region 4 EFC is looking at household customer assistance programs across the country and legal policy frameworks to determine whether such programs could exist in other areas. There at 52 different state regulatory frameworks, and investor-owned and government-owned utilities have different regulations. The challenge is in the legal governance framework. Mr. Hughes noted that executing an investment strategy like DC Water did would be an uphill battle in other areas of the country.

John Velat reported that Region 5's biggest challenge is lack of understanding by local agencies about what they have and what they need to do. Essentially, it is a question of asset management. Utilities are spending on new development, but are not planning for O&M, and the small agencies are not aware of best management practices once a system is in place. It is also a reflection of where the workforce is heading, as it shrinks and knowledge transfer fails to happen.

Ms. Himmelberger reported on Region 6, noting that in all her meetings with community decision makers, their concern is focused on not raising rates. Decision makers are focused on cost, not public health, and that mindset allows disasters like Flint to happen. That mindset also makes it harder for the EFCs to effectively engage in conversations about replacing infrastructure, dealing with changing populations, and other issues.

Michele Pugh from Region 7 stated that the EFC works with small systems facing challenges with wastewater nutrient limits that will require system changes. The systems are often in economically disadvantaged communities with few opportunities for economies of scale. There is little consolidation happening on the wastewater side, which is creating a big challenge for the Region.

Ramzi Mahmood from Region 9 agreed with the concerns raised so far and added that California's Proposition 218 grandfathered in utilities in terms of their abilities to increase their fees without much external input. If a utility is not grandfathered in, voters must approve the fees. This has created a complicated process in California.

Ms. Himmelberger read an email from the Region 10 representative, Heather Cannon, who was not able to attend the meeting. In the email, Ms. Cannon noted that Region 10 deals with small rural communities that lack an understanding of threats and challenges. Utilities facing issues related to erosion, storm surge or earthquake tidal impacts have access to more limited funds compared to relocation, clean-up, protection, and improvements.

Questions

Ms. Throwe noted the importance of the EFCs, and encouraged EPA to strengthen the EFCs.

Ms. Kim asked if there was a template for underwriting and doing pro formas. She asked if the EFCs had those templates or the capacity to put resources like them together. Mr. Hughes responded that several EFCs have undertaken development of spreadsheets and benchmarking exercises and have established partnerships with the SRF program for affordability studies and other similar efforts. Ms. Himmelberger added that EPA and the EFCs are always looking for tools to be developed to fill niches. If there is a need for a tool that does not exist, the EFCs can help to address that need.

Ms. Surgeon asked the EFCs about community outreach to residents, given the issue raised regarding decision makers' reluctance to raise rates. When residents appreciate the services they have and understand the importance of sanitation and drinking water, but decision makers are unwilling to price the services responsibly, no progress will be made. Ms. Himmelberger responded that the Region 6 EFC has had experiences in which the decision makers will allow the EFC to talk to customers and others where they will not. The EFC worked with a tribal community in New Mexico to create outreach materials, hold workshops and water fairs, and otherwise engage with the community to have a meaningful conversation about water resource needs. Now, the utility has a rate structure in place, and service is shut off when customers do not pay. Mr. Suslovic added that he is working with elected officials to set up a task force with the community leaders. The community task force develops recommendations, which the decision makers can then use to justify their decisions.

Mr. Liu stated that utility managers seem to be more willing than in the past to deal with pricing issues. The conversations need to happen with the right people.

Mr. Hughes explained that DC Water will be rolling a customer assistance program into the customer service program. The challenge is that there are utilities who want to do that but can't because of established policies about how the rates can be set in the state. They want to take good ideas in one area and apply them elsewhere, but are unable to. The Region 4 EFC has been engaged by six professional associations to create two-page legal summaries of the state policy framework for 52 states.

Ms. Himmelberger noted that one issue that came up at the January EPA partnership meeting was the challenge of addressing hundreds of thousands of utilities, given the complexities of utility ownership models and state regulatory structures. Texas alone represents a level of complexity that is unmatched by some other countries. Affordability and all other issues are much more complicated in the context of the volume and diversity of systems. The question will be, can EPA reduce complexity in the drinking water and wastewater sector?

National Environmental Justice Advisory Council (NEJAC) / EFAB Collaboration: Water Infrastructure Financing in Vulnerable and Overburdened Communities

- Jill Witkowski Heaps, NEJAC Work Group Chair

Ms. Massey expressed her enthusiasm for the EFAB/NEJAC collaboration and introduced Jill Witkowski Heaps.

Jill Witkowski Heaps stated that she is currently the Vice-Chair of the NEJAC and Chair of water infrastructure issues. Environmental justice refers to the fair treatment and meaningful involvement of all people with respect to environmental policies and treatment. Ms. Heaps noted that environmental justice communities are not defined. One key question, therefore, is: what is environmental justice from a water infrastructure finance standpoint? The Office of Water charged NEJAC with identifying the challenges for communities providing clean water: who gets priority, what are the best practices for building capacity, and how can communities be engaged on infrastructure issues?

Ms. Heaps thanked the EFAB/NEJAC collaboration workgroup members for their involvement and asked the Board to think about where they see the challenges and best management practices and how best to encourage partnerships. Ms. Heaps acknowledged that the diversity of systems is a key issue. Cost and complexity vary from system to system, which already face very different climate change stressors, population stressors, economic stressors, and different levels of engagement and understanding. Ultimately, the issues all come back to affordability. When you look at what people pay as a percentage of income in some systems, there is a level of unaffordability.

Ms. Heaps noted that involving people most in need and prioritizing those communities is important for the SRF programs. Trust is a significant barrier for partnerships. Ms. Heaps solicited questions, noting that the workgroup is focusing on identifying challenges and determining how to identify and prioritize in-need communities, and asked others to raise issues of concern that the workgroup can or should be working on.

Questions

Ms. Himmelberger stated that she is impressed by how much the workgroup has accomplished in such a short amount of time. The four subgroups compiled an 80-page compendium for the charge.

Mr. Knight noted the focus on community engagement. The group looked at different best practices around the country related to community engagement and found one common theme: early and sincere engagement of the community. Getting people involved in the decision making process early on accelerates the ability to get buy-in at the end.

Hope Cupit noted that the workgroup charge was compelling because RCAP works in the rural communities that this charge is meant to support. She added that topics like lead pipes are often discussed without acknowledgment of associated economic and social justice issues.

Mr. Hughes noted the example of a community outside of Chapel Hill, North Carolina that has historically been underserved. After 15 years, community groups determined that three local governments could partner to get the water to the community.

Ms. Throwe said that she and Ms. Heaps had met to discuss question #1, which is a challenge. For those states under TMDLs, there is also an environmental justice component. The Maryland Department of Natural Resources is leading a charge to move forward with activities Chesapeake Bay-wide, because they are central to meeting environmental justice goals. Partnerships with other states and community engagement and outreach are challenging, but very important. She concluded that the more voices, the more NGO involvement, the more local engagement there can be, the further their efforts can reach.

Ms. Surgeon added that the challenge is getting communities to identify and state the challenges they face in providing safe drinking water. She noted that the report presents new and innovative approaches to addressing challenges.

Donna Ducharme stated that community engagement is critical but expensive. Many efforts fail because utilities or communities cannot finance the level of community engagement needed for a successful effort. She suggested sharing approaches for paying for continued community engagement efforts.

Ms. Heaps cited the shipyard clean-up project in San Diego Bay as one for which community engagement was a required component. The project engineers came up with a community engagement plan, but did not truly engage the community. Instead, their communications consultants suggested using signage and websites, without thinking about how the community tends to get their information. Few people think about water infrastructure unless something is broken. Communication and outreach campaigns should become regular communications, to build a mutually beneficial relationship between the utility and the community.

Ms. Surgeon noted that planning and technology are important, but if a utility is not going directly to residents to talk to them, success will not be possible.

Ms. Massey reiterated the four asks that are in the paper and added that examples from members under each of their asks would help the charge:

1. challenges to consider
2. best practices and tools,
3. recommendations regarding community outreach, and
4. recommendations for how EPA can engage and advance the efforts.

Ms. Heaps added that the full charge was on the back page of the document included in the member packets.

Ms. Massey stated that comments could be emailed to *Timothy McProuty* (copying Vanessa Bowie). She thanked the EFAB members who have been working on the NEJAC collaboration.

Ms. Heaps expressed her excitement on the intersection of NEJAC's and EFAB's missions. Ms. Heaps added that she is presenting the work product in its most advanced stage to NEJAC on April 24th and will receive feedback in the following month.

Ms. Massey asked Mr. McProuty to send a reminder email about the asks.

Ms. Heaps noted that NEJAC will be in the process of new member recruitment in the next few months and anyone interested is welcome to self-nominate.

Update on The Water Infrastructure and Resiliency Finance Center's (WIRFC) Activities

– Jim Gebhardt, Director, WIRFC

Jim Gebhardt noted that WIRFC is not a funding entity, and does not manage the SRF or WIFIA programs. Additionally, WIRFC cannot manage federal water assets. WIRFC is a technical assistance and outreach operation within EPA and OW, and was created and designed to serve that function. The Center's roles include the following:

1. Research.
2. Advisory support.
3. Identifying, creating and articulating innovations to offer value.
4. Networking.

WIRFC is currently working on three different product lines and 30 different task functions. The Center's mission is to provide decision makers with the best available knowledge to inform work related to addressing water infrastructure challenges. WIRFC is trying to identify and amplify that knowledge to move the conversation.

Mr. Gebhardt noted that WIRFC is looking to follow up on rate setting challenges brought up previously, and acknowledged the challenges related to affordability. The discussion of rate setting challenges and price signaling presents somewhat of a chicken and the egg scenario. Rates need to be increased, but there is resistance, coming in part from customers who truly cannot afford to pay increased rates. WIRFC will be releasing a report on affordability soon, and will continue to work with the EFCs on related initiatives. He added that for the better part of the last 2 years, Mr. Hughes has looked at P3s in the water space and the UNC EFC has developed specific profiles of nine P3 examples in the water sector.

Through its work, WIRFC aims to address lessons learned, and what worked well and what did not. Mr. Gebhardt thanked Mr. Hughes for his efforts.

Mr. Gebhardt stated that the finance forums hosted in each Region, in conjunction with the EFCs, have focused on themes with relevance to each region. Examples mentioned included Region 3 which focused on small systems, Region 2 on storm resilience, and Region 6 on drought resilience. The Region 1 finance forum which was dedicated to stormwater finance challenges had a record number of participants (between 120 and 130). The next two forums will also be stormwater finance focused (in Oakland and Alhambra, CA), and 150 to 200 attendees are expected at each location. Upcoming forums in Regions 4 and 7 are expected to focus on small systems.

WIRFC is also working with the National Drought Resilience Partnership, a federal cross-agency initiative working with states to address challenges related to drought-resilient investment. WIRFC is specifically working with DOI and USDA to look at market-based financing solutions that showcase state-of-the-art practices and emerging innovations that can effectively address public infrastructure needs. WIRFC expects to hold a forum on this topic later in the year, and will also develop a series of related white papers.

WIRFC can also potentially host webinars and outreach to communities to draw attention to the work that EFAB is doing and to communicate messages about best practices and decision making more broadly.

WIRF is also putting together a central clearinghouse on water finance, which will serve as a one-stop shop for information and engagement. WIRFC staff member Kristyn Abhold was asked to comment about the clearinghouse development and upcoming steps.

Ms. Abhold provided information about the clearinghouse, stating that it was developed in response to EFAB recommendations. The clearinghouse will include resources and information on funding opportunities. EPA is in the process of developing the site and should have a beta site ready for testing in

April. WIRFC is still collecting recommendations on resources and funding opportunities and would welcome any additional suggestions from EFAB.

Mr. Gebhardt added that, with respect to the finance forum initiatives, WIRFC is working with the EPA Regions and the EFCs and welcomes volunteer event speakers.

Mr. Gebhardt stated that WIRFC has ten dedicated FTEs and is also leveraging outside resources. The critical challenge now is deepening the Center's network. Mr. Gebhardt asked for suggestions on critical points on which WIRFC should be focused.

Questions

Mr. Mehan asked what metrics WIRFC has or what metrics they are tracking to make sure they are reaching their intended audience and building relationships with states and other partners. Mr. Gebhardt responded that WIRFC has not yet established a set of metrics. It has focused on getting grounded in the mission and the process looking to see what is measurable and useful as performance metrics. To date, WIRFC has actively been involved in 50 or more events and has consequently been involved in idea- and innovation-driven discussions. Similarly, the Center receives calls from many different stakeholders to share ideas, among them an interest in natural infrastructure and the potential for engagement with the SRFs using new approaches. WIRFC has not been tracking all the outreach they participate in but can work on doing so moving forward.

EFAB Report Out: Financing Failing Decentralized Wastewater Systems

- Tom Liu, Co-chair
- Blanca Surgeon, Co-chair

Mr. Shapiro noted that the real work of the Board happens in the working groups. However, there have been challenges with attendance and recruitment in working groups. Participating in these working groups is not optional. The Agency has rolled out new guidance which stresses the importance of members actively participating in the work through whatever subgroups are formed. Mr. Shapiro expressed appreciation for the time and effort the Board members put into attending meetings.

Ms. Surgeon stated that the workgroup has been focused on providing ideas for existing or innovative funding programs and ideas to propose for septic system replacement for low income communities. The cost of replacement can be extremely high, sometimes for no apparent reason. If a family does not have the money to replace, they are fined and are up against a deadline. The working group is trying to compile a complete list of existing programs, and asked Board members for additional suggestions (which can be sent to Ms. Surgeon, Mr. Liu, or anyone else on the workgroup).

Mr. Liu reiterated that the working group is looking first at existing funding programs, though there is no central source of information on these programs. CIFA sent a survey to their members to solicit information. Additionally, state rules vary and certain anti-donation clauses make these programs complex. The working group also needs to understand the different state priorities at play. The CIFA survey will provide a high-level view of state priorities and programs, and the working group will then focus on specific states (e.g., Massachusetts which has dedicated up to $5 million per year in loans for septic replacement and repairs and a $6,000 homeowner tax incentive). Maine had set up a well-intended septic replacement program that was ultimately shut down due to high administrative costs.

The Chesapeake Bay restoration flush fee provides approximately $16 million in grants for septic tank replacement. Mr. Liu noted that this program was somewhat controversial, and western Maryland residents did not want to be taxed without seeing a direct benefit. Hawaii offered a tax credit of around $10,000 in 2015.

Ms. Surgeon added that there are several tribal communities that lend money in smaller amounts. The CIFA annual conference may be an opportunity to learn more about these programs.

Mr. Liu noted that the workgroup will reach out to RCAP and NRWA to hear more about their perspectives and the work they have been doing in this area. Additionally, there are HUD and USDA programs that provide public health and safety loans and grants. The workgroup will also work with the EFCs to learn more about the programs in their Regions and existing or new funding sources.

Mr. Liu noted that the SRF programs have restrictions and administrative challenges for individual loans but the more municipality involvement, the better. The working group will be spending more time looking at the idea of an SRF funding pool, as well as opportunities for applying a PACE program-type model in this context. Part of the issue with financing septic systems is providing funding to elderly and lower income individuals with credit problems.

Mr. Liu described the linked deposit programs in use in some states (e.g., Ohio and Iowa). One initial concern is how many banks may want to be involved.

Mr. Liu stated that the working group is still looking for additional ideas to incorporate into their paper. As noted, the group will reach out to the EFCs and others on this topic. The working group will also coordinate with WIRFC on getting resources related to septic funding included in the clearinghouse.

Questions

Mr. Seaton provided additional information on PACE financing programs, of which California has taken advantage. The state has extended the program to seismic retrofits, water, and possibly even septic. He asked Mr. Liu if there is a difference in financing for residential vs. commercial septic.

Mr. Weiss noted that Rhode Island has two relevant programs, one for replacement of septic systems with alternative equipment and one for hook-up of a property to a wastewater utility and sewer lines. Some of the financing ideas coming out of lead service line replacement activities may be helpful in thinking about residential sewer replacement.

Ms. Throwe explained that the Maryland septic program offers grants for septic system replacement (not for removal and connection to sewer), and is run through the Maryland Department of the Environment. She offered to provide Mr. Liu with information on the program.

Ms. Downs noted that conversion was a much greater challenge in Maryland than replacement.

Ms. Cupit asked whether the $25,000 cost cited was for replacement or an alternative. Ms. Downs responded that costs for replacement could be up to $25,000. Ms. Downs added that in Loudon County, Virginia, the Commonwealth faced issues of residents not maintaining the septic systems.

Ms. Massey stated that a local government councils group and non-profit watershed group have received SRF funding for septic replacement. The loan agreements included a maintenance schedule.

Helen Akparanta noted that Maryland has had success with linked deposits, but there hasn't been much interest in the funds due to the low interest rate environment.

Mr. Arndt noted that Pennsylvania does have a septic funding program for municipalities, one focus of which is preventing malfunctioning systems. Each municipality must develop and manage their septic programs.

Ms. Himmelberger noted that some communities reliant on septic systems are in isolated areas where the cost for centralizing is prohibitive. She asked if there was any place in the paper to discuss what happens in those communities, especially if homeowners are interested in alternatives to septic.

Mr. Mehan said he was aware of a western utility with 10,000 septic systems sitting on top of a surface water aquifer. The utility is interested in pursuing a WIFIA loan. Mr. Liu responded that the working group did discuss WIFIA with Mr. Gebhardt. Using WIFIA appears to be an option, but there is an issue of scale, unless the projects could be sufficiently pooled.

Mr. Liu noted that next steps include more conversations with the utilities and EFCs. The group will expand and refine the outline, and welcomes additional ideas from the EFAB. The hope is to have a complete draft by August, and engage expert witnesses.

EFAB Report Out: Public-Private Partnerships for Water Infrastructure Projects

– Lisa Daniel, Co-chair
– Richard Weiss, Co-chair

Ms. Daniel noted that the charge is dynamic and nebulous, to the working group's advantage. The working group worked with the UNC EFC to help guide the report on P3s in the water space, and to discuss how the report could be helpful to municipal and community leaders develop that report to be something helpful for them. The working group received a revised charge last week that is somewhat expanded, and now includes the following components:

1. to look at regulatory and federal policy framework and any changes in the frameworks that could support water infrastructure development,
2. to look back at the final UNC EFC P3 report and determine next steps, and
3. to conduct outreach continuing the same theme about where to go to help alternative financing initiatives.

Mr. Hughes thanked EFAB for their comments and input on the P3 report.

Mr. Weiss stated that considerations related to regulatory and federal policy frameworks include:

1. Private activity bond volume cap alternatives.
2. Changes in tax policy for the management contract rules and arbitrage rebate.
3. SRFs and their involvement with alternative delivery mechanisms.
4. Tax credits.

In the near-term, the working group plans to develop a letter addressed to the new Administrator that outlines their support for financing mechanisms, emphasizing WIFIA appropriations, modifying the tax code for water and wastewater financing facilitation, and additional funding for the SRFs.

Ms. Daniel added that the committee had a sense of urgency to get such a letter drafted quickly and asked what they needed from the Board to have that happen before the next meeting. The hope is to get the letter to the Administrator prior to the March budget cycle.

Ms. Massey noted that in the past, EFAB has sent letters to the Administrator on tribal bonds and lifting the volume cap on private activity bonds.

Ms. Daniel said the discussion hinged on whether they should wait for the Administrator to approach EFAB on these issues, or whether to actively voice their position to the Administrator first.

Mr. Shapiro stated that it may not be appropriate for EFAB to advocate on budget-related issues. Providing advice to the EPA Administrator about things EPA cannot control may not be the best use of the Board's time.

Ms. Daniel stated that the working group hoped that, by the August meeting, they will have worked with WIRFC to narrow down the charge and begin drafting materials.

Questions

Mr. Meister stated that he believes that the Administration had appointed a special assistant for infrastructure who is also a P3 expert. If there is a letter sent to the Administrator, it may be helpful to use a bullet point format and underscore the urgency of the issues presented.

Dr. Beecher noted the importance of promoting state regulatory capacity and local capacity for rate payer protection, if private investment is going to be an emphasis going forward.

Mr. Gebhardt noted that the intent of the letter to the Administrator would not be to advocate for certain appropriations, but rather to react to the fact that infrastructure is clearly a priority for the new Administration.

Ms. Daniel asked if there was a process for getting a letter approved via email. Ms. Massey responded affirmatively.

Ms. Daniel expressed appreciation for the group's comments. The working group will draft a letter not to advocate a program but to support funding for aging infrastructure and existing infrastructure finance programs. The letter will be sent to the committee next week for sign-off in the next 2 weeks or so.

EFAB Report Out: Financing Lead Risk Reduction

- Joanne Throwe, Co-chair
- Helen Akparanta, Co-chair

Ms. Akparanta stated that the working group has held several brainstorming sessions on the charge, and has been working with several EPA offices. She further stated that the working group had developed an outline which was included in the disseminated packet, and the group had robust discussions during the work group meeting. Ms. Throwe noted that the charge was initially not related to SRFs and financing. The group is focusing on highly impacted populations, including young children and underserved communities. One challenge is the cost of both lead testing and child blood tests. Lead problems stem from houses or schools, so identifying and resolving those issues is expensive. The group is also considering the shortage of affordable housing for underserved communities. The next question is how to target these problems as projects to be financed. The outline includes a list of federal grant programs, and the group is also looking at private funding sources and state programs. Eventually, the list should be long and very inclusive. The group also hopes to look at case studies from around the country and innovative measures that could be replicated (as well as any inefficiencies identified).

The group will be looking at issues that are often not covered by EFAB, including education and outreach and coordination and fragmentation of programs. The group is also considering a multi-media approach, e.g., looking at energy efficiency programs and window replacement, which could also include lead paint considerations. Long-term financial benefits could be identified.

Finally, the concept of resiliency. When EPA works with communities to help them rebuild and improve resilience, how can lead be included in that conversation?

The timeline for this work is aggressive. The hope is to have a working draft by April 1 and a report done by the August meeting.

Questions

Dr. Beecher stated that she was very impressed by the presentations and discussions throughout the meeting, and added that in regard to co-benefits, underscoring the societal and financial benefits of preventing contamination is important.

Ms. Throwe expressed the working group's excitement in moving forward with their project, and their concern that lead poisoning and contamination may be a growing problem. The report could be very timely.

Public Comment

The public comment period was opened at 3:08 p.m. No public input was provided.

Next Steps

As soon as the dates and location for the August meeting are finalized, the information will be shared with the group.

Mr. Shapiro thanked everyone for their hard work to organize the meeting and ended the meeting at 3:11 p.m.