

U.S. Environmental Protection Agency
Environmental Financial Advisory Board

April 17 – 18, 2019

Held at

InterContinental Washington D.C. – The Wharf
801 Wharf Street SW – Washington, DC

The minutes 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.

Meeting Purpose

The Environmental Protection Agency (“EPA” or “the Agency”) Environmental Financial Advisory Board (“EFAB” or “Board”) held a public meeting on April 17-18, 2019. EFAB is an EPA advisory committee chartered under the Federal Advisory Committee Act (FACA) to provide advice and recommendations to EPA on creative approaches to funding environmental programs, projects, and activities. The purpose of this meeting was to close existing charges, propose new charges, and consider ways to codify and improve EFAB processes.

Attendees

EFAB Members

- Brent Anderson, RESIGHT
- Janice Beecher, Michigan State University
- Theodore Chapman, S&P Global Ratings
- Rudolph Chow, City of Baltimore
- Edwin Crooks, Greystone Infrastructure Advisors
- Lisa Daniel, Public Financial Management
- Ted Henifin, Hampton Roads Sanitation District
- Craig Holland, The Nature Conservancy
- Jeff Hughes, Environmental Finance Center, University of North Carolina
- Daniel Kaplan, King County Washington
- Pamela Lemoine, Black & Veatch Management Consulting, LLC
- James McGoff, Indiana Finance Authority
- Chris Meister, Illinois Finance Authority
- Marie Roberts De La Parra, BMB Construction Properties*
- Eric Rothstein, Galardi Rothstein Group**
- Angie Sanchez-Virnoche, FCS Group*
- Bill Stannard, RAFTELIS
- Linda Sullivan, American Water**
- Joanne Throwe, Throwe Environmental LLC
- Jeff Walker, Texas Water Development Board
- Richard Weiss, Morgan Stanley
- David Zimmer, New Jersey Infrastructure Bank

*In attendance only on April 17.

**In attendance only on April 18.

EFAB Members unable to attend the meeting:

- Aurel Arndt, Lehigh County Authority
- Lori Beary, Iowa Finance Authority

- Hope Cupit, Southeast Rural Community Assistance Project, Inc.
- Yvette Downs, Sewerage & Water Board of New Orleans
- Heather Himmelberger, Southwest Environmental Finance Center, University of New Mexico
- Suzanne Kim, SPI Partners
- Tony Parrott, Metropolitan Sewer District of Louisville
- Carl Thompson, Infiltrator Water Technologies
- Jennifer Wasinger, Freese and Nichols, Inc.

Additional Attendees

- Laura Beaven, Inside EPA
- Lisa Bechini, Northbridge Environmental
- Seth Brown, Storm and Stream Solutions
- Sonia Brubaker, EPA
- Bevin Buchheister, National Governors Association
- Elliott Campbell, Maryland Department of Natural Resources
- Gabriela Carvalho, EPA
- Edward Chu, EFAB Designated Federal Official, EPA
- Jennifer Cotting, Environmental Finance Center, University of Maryland
- John Covington, EPA
- Robert Daguillard, EPA
- Steve Dye, Water Environment Federation
- Jim Gebhardt, EPA
- Julian Gonsalves, WSP USA
- Julian Gonzalez, Association of Clean Water Administrators
- Mary Grant, Food & Water Watch
- Holly Greaves, EPA
- Tim Hamlin, EPA
- Adrienne Harris, EPA
- Charles Job, National Ground Water Association
- Tara Johnson, EPA
- Frances Josephs, EPA
- George Kelly, Resource Environmental Solutions
- Anna Krueger, EPA
- Kevin Letterly, Association of State Drinking Water Administrators
- Tom Liu, Bank of America Merrill Lynch
- Timothy McProuty, EPA
- Judy O'Babatunde
- Michael Patella, EPA
- Bradley Raszewski, EPA
- Matt Reed, EPA
- Stephanie Santell, EPA
- David Schultz, Bloomberg Environment

- Raffael Stein, EPA
- Ellen Tarquinio, EPA
- Anita Thompkins, EPA
- Sandra Williams, EPA
- Emma Zinsmeister, EPA
- Rob Willis, Ross Strategic

Day 1 – April 17, 2019

Welcome & Opening Remarks

Ed Chu

Joanne Throwe

The meeting began at 9:03 am ET with *Ed Chu* thanking board members for their time and preparation ahead of the meeting. Mr. Chu also thanked his EPA colleagues for organizing the meeting. Mr. Chu introduced *Rob Willis*. Mr. Willis is a consultant to EPA who has worked for Ross Strategic in Seattle since 2001 when he graduated from the University of Washington. Mr. Willis will be helping with EFAB work processes and meetings. Mr. Willis has been contributing to problem solving, research, and communication skill support. He has also been involved with the Environmental Council of the States (ECOS).

Mr. Chu explained his responsibilities as the Designated Federal Official (DFO), including serving as the liaison between the Board and the Agency, ensuring provisions of FACA are met for how the Board operates, and ensuring ethics and recordkeeping requirements are met. Mr. Chu noted all board members have been briefed as they joined the Board about the federal conflict of interest laws. Each EFAB member who is a Special Government Employee (SGE) has also filed federal financial disclosure forms. Mr. Chu noted proceedings from the Board go to the National Archives. Mr. Chu notified the Board of a new recordkeeping practice, requesting board members send any email communications about Board business to EFAB@epa.gov.

David Zimmer asked if board members should put the charge in the subject heading of the emails.

Mr. Chu responded that adding the charge to emails would be very helpful, though all emails will be categorized and organized once collected. Mr. Chu noted he will designate alternate DFOs to serve on workgroups since he is unable to participate in every meeting. He noted the Board has four workgroup recommendations to review. Mr. Chu instructed board members to raise their name tents and turn on their microphones in order to speak. He also noted there is a public docket for the meeting and that copies of all meeting materials will be available on the EFAB website. He noted that members of the public wishing to make public comments must limit their comments to three minutes or less and must let *Sonia Brubaker* know if they wish to make a public comment. If board members require greater clarification on any issues requiring participation from the public, they may request that information and someone will be designated to help with the discussion. Mr. Chu explained meeting minutes will be prepared capturing all matters and conclusions discussed. Mr. Chu is required to prepare the minutes and ensure they are certified by *Joanne Throwe* within 90 days of the meeting. He also noted meeting discussions are being recorded. Mr. Chu indicated the Board can choose to make specific recommendations through workgroup report transmittals and/or recommendation letters. Mr. Chu officially convened the meeting at 9:13 am.

Ms. Throwe thanked Mr. Chu for doing a fantastic job as the DFO and being well-organized and responsive. Ms. Throwe also thanked others in the room for their contributions to the Board and the

meeting, including Ms. Brubaker, *Tara Johnson*, *John Covington*, *Timothy McProuty*, *Alecia Crichlow*, *Sandra Williams*, and *Tom Liu*. Ms. Throwe recognized EPA expert consultants in the room for their support on EFAB charges. Ms. Throwe indicated the meeting provides an opportunity for the Board to pause, reflect, and determine if adjustments need to be made. She emphasized how hard the board members have worked and how much expertise they have. Ms. Throwe encouraged board members to be vocal and share their ideas as well as try to close out projects. She indicated a desire to bring a new framework to the Board for how new projects are approached and to have a broad discussion on how members' expertise can be better utilized for the Board.

Introductions, Agenda Review, And Approach to Establishing EFAB Standard Operating Procedures

Ed Chu

Joanne Throwe

Rob Willis

Ms. Throwe asked the board members around the table and others in the room to introduce themselves (see roster list above). Ms. Throwe recognized the Environmental Finance Centers (EFCs) and noted they will be gathering in June. Ms. Throwe encouraged board members to reach out to and get to know the EFCs. She then turned to Mr. Willis to explain the objectives and agenda for the day.

Mr. Willis acknowledged the packet of materials board members received which included guest speaker biographies. Mr. Willis indicated he had worked with Mr. Chu and Ms. Throwe to develop the agenda. He indicated Mr. Chu and Ms. Throwe have directed him to be reflective about how the Board operates to improve EFAB's efficiency and to engage everyone on how board members can be empowered to help improve the efficiency and efficacy of the Board. Mr. Willis indicated he would be developing standard operating procedures (SOPs) for the Board after the meeting.

Brent Anderson asked Mr. Willis to share more about his background.

Mr. Willis explained he has a master's degree in urban planning and works for a consulting firm in Seattle. His work is focused on facilitating large groups and some mediation. His current portfolio includes helping state and federal executives improve and codify their relationships. Mr. Willis indicated he takes an adaptive management approach by experimenting with how things are going and asking for real time feedback to understand interpersonal and workgroup dynamics. Mr. Chu added Mr. Willis has been outstanding in helping develop consensus documents in his work with ECOS.

Mr. Willis indicated he will be looking to understand the workflows of the Board (i.e., how the Board does its work), expectations board members have for one another and EPA, and which tools and criteria the Board can put in place to support the SOPs. In discussions with Mr. Chu and Ms. Throwe, Mr. Willis identified the high-level workflow of EFAB. Mr. Willis indicated he views SOPs as where workflows, expectations, and tools and criteria interact with one another. He used topic identification and selection as an area where workflows, expectations, and tools and criteria interact. Topic identification and

selection is a workflow since it represents how EFAB does its work, infers expectations of how members participate, how EPA fits into the process, and poses the question of what types of criteria and tools could help facilitate the process.

Mr. Willis indicated that, over the course of the meeting, the Board will be identifying potential changes by experimenting with the following workflows: topic identification, charge development and workgroup establishment, EFAB and workgroup deliberations, report and recommendation development, EFAB decision-making, and recommendations transmittal. Mr. Willis requested board members be reflective with their participation and responsive to real time feedback requests. He asked them to consider the following two questions:

1. What changes could we make to how EFAB operates to improve this workflow?
2. How could EFAB more effectively engage me or my colleagues to improve this workflow?

Mr. Willis requested board members participate in a test poll using their phones since much of the real-time feedback will be done through polling. Mr. Chu indicated the polling was only for board members. Mr. Willis walked members through the agenda. He requested that, during the next session of workgroup team meetings, board members consider if there are specific questions they are interested in engaging their fellow EFAB members on, given that the purpose is to bring closure to the charges. Mr. Willis encouraged board members to float between the workgroup discussions. Mr. Willis highlighted the purpose of the workgroup discussions is to allow time to get comfortable with workgroup materials and determine which items to engage the full Board on.

Ms. Throwe reminded everyone the Board is seeking to close the charges out. She encouraged those with concerns and questions about a particular charge to go to that group to work those out.

Mr. Willis indicated that, after the workgroup discussions, the Board would reconvene and go through the charges while reflecting on process improvement. In the afternoon, the Board would look at potential new work the Board could undertake. There would be a presentation on a topic impacting the work of the Board moving forward and two presentations with specific charges for new work. Mr. Willis then provided instructions on how the workgroups would split up and reemphasized members should think about what they will present to EFAB, including questions for their colleagues in order to close out the charges. He also reminded members they have an open invitation to listen in on any of the group discussions.

Jeff Hughes asked to clarify if the regionalization workgroup was meeting.

Ms. Throwe noted neither of the two co-chairs for the workgroup were present.

Mr. Chu indicated a workgroup leader is not necessary in the discussions since the intent is to close out the charges and members should consider what clarifying questions they have in order to finalize the products.

Each workgroup then met and the Board reconvened at 10:52 am.

EFAB Report Out: Alaska Waste Backhaul Revenue Options

Joanne Throwe

Mr. Willis indicated he had listened in on multiple workgroup discussions and was excited to hear both the content of the conversations and discussions about Board process improvements. He indicated changes would be made to how the meeting would be structured. Originally, there were small group discussions on the second day. Instead, the board members will remain in plenary on the second day and Mr. Willis will summarize the feedback the members provide through polls. He indicated he would walk members through different workflows and request members to reflect on implications for how EFAB operates. He emphasized Board participation in the polls will be important for informing discussions on the second day. Mr. Willis posed three poll questions to the members (see the “Establishing Standard Operating Procedures” session on the second day).

1. What are some of the key takeaways about process changes that you talked about in your small groups?
2. What changes could we make to how EFAB operates to improve workgroup deliberations?
3. How could EFAB more effectively engage me or my colleagues to improve workgroup deliberations?

Mr. Willis then previewed the question he would pose after the Alaska Waste Backhaul Revenue Options workgroup report out. He emphasized that, over the course of the meeting, board members would be asked to tie up ongoing work. The process involves the workgroups finishing their work and engaging the full EFAB so Ms. Throwe, in part of her responsibility as Board chair, can transmit findings and recommendations with EFAB concurrence. Mr. Willis indicated he would be asking, “How can EFAB operate more effectively in preparing you as EFAB members to do that concurrence process?” Mr. Willis then turned the floor over to Ms. Throwe to report out on the Alaska Waste Backhaul Revenue Options workgroup charge.

Ms. Throwe thanked Mr. Willis and indicated she is speaking on behalf of the workgroup and the two chairs, *Hope Cupit* and *Heather Himmelberger*, who were unable to attend the meeting. Ms. Throwe indicated there was good discussion when the workgroup met earlier in the day. Ms. Throwe was one of the co-chairs of the workgroup before she became EFAB chair. Ms. Throwe requested *Gabriela Carvalho*, EPA Region 10 Tribal Solid and Hazardous Waste Coordinator, join the board members at the main table for the report out. Ms. Throwe indicated the project was a very unique one from which the Board could learn. She indicated the workgroup had great guidance from Ms. Carvalho and others. Ms. Throwe indicated the workgroup members had first been hesitant to be part of the workgroup because they felt they did not know the topic and thus did not bring expertise. She indicated there was a learning curve but thanked Ms. Carvalho for the constant input.

Ms. Throwe indicated EPA asked EFAB to assess revenue options to backhaul hazardous waste and other materials from Alaskan villages. The villages are mostly remote communities looking to reduce the toxicity of landfills and the emissions from open waste burning. Ms. Throwe indicated Alaska is the only state allowed to “open waste burn.” Alaska has a very unique classification system for their landfills;

landfills are typically unlined and uncovered and open burning takes place. Most of the communities are not connected by roads to urban areas or to each other, so an ideal safe way to get rid of the waste does not exist. Ms. Thrope clarified backhaul refers to shipping back waste from rural Alaska by plane or barge. It is a complex and very expensive setup and it would be best to coordinate these activities with regional entities as such coordination does not currently exist. Currently, most communities are paying for backhaul using the Indian Environmental General Assistance Program (IGAP); however, not much money is available and what is available does not go very far. The charge was to develop information and analyze ways to set backhaul up for long-term sustainability. The workgroup was given the charge and decided to divide it into three areas:

1. Fee-Based Programs

- a. The workgroup looked at metrics to assess the fee, knowing the unique circumstances in Alaska. When designing a fee-based program, factors to consider include administrative costs and that some community members will get involved to cover those costs and equity. The workgroup found most local governments have authority to assess the fee on waste generation in Alaska. The communities are socially, geographically, and economically diverse. Furthermore, their infrastructure challenges go beyond what many states have seen. The workgroup determined it was necessary for each community or region to be able to examine its own needs and capabilities. There was no one size fits all fee solution and a local decision would need to be made on assessing the fee. The appendix for the Alaska Waste Backhaul Revenue Options report has a list of considerations when assessing the fee based on the unique circumstances in this case. There was agreement that this information would be useful.

2. Financing and Funding Options

- a. Supporting backhaul through financing or third-party resources can alleviate cost pressures for communities. The workgroup looked at recycling revenue to offset costs and the opportunity to bring jobs related to recycling. The workgroup looked at a potential cooperative model and there was momentum in this area. There is already traction on this front because coordination with a university is already occurring to get guidance on the cooperative suggestion. The workgroup examined revenue sources as they are necessary whether a cooperative model or backhaul are in place. Mr. Anderson in particular was helpful in looking at financial projections which became an initial tool as part of the business plan. Ms. Thrope encouraged members to look closely at the projections because they could help inform other projects. The workgroup also examined needing a feasibility analysis to discuss operational costs, labor needs, and cash flow.

3. Options for Involving Other Entities

- a. Producer responsibility entails product manufacturers taking a cradle-to-grave approach to cover portions of the cost of backhaul. The workgroup looked into potentially suggesting altering purchasing practices or other behaviors to reduce the volume of waste. Alaska has zero extended producer responsibility laws in place. The workgroup saw that as an opportunity to have a conversation to engage entities working closely

with the state to pursue guidelines and legislation related to producer responsibility. The workgroup also examined if there is a reuse market for the products and looked into a stewardship task force. The report includes rich case study content that backstops the workgroup's findings. Ms. Throwe encouraged members to review the content. There may be potential to involve the federal government to leverage disposition services that may result in cost savings. Backhaul could also be looked at as a potential emergency management situation. The report discusses engaging emergency management personnel and looking at the National Guard as a potential stakeholder to collaborate with. The workgroup also looked at fee districts and indicated more research is needed in particular areas.

Ms. Throwe indicated the project report is done, for all intents and purposes. She indicated the executive summary and conclusion need to be bolstered. She noted one exciting aspect of the project is that Ms. Carvalho and *Tim Hamlin* will be discussing how it could be used as a model for another charge. Ms. Throwe indicated that members do not need to be backhaul experts to participate. The project was an opportunity to use workgroup members' expertise and brain power to develop specific recommendations. Ms. Throwe asked for other workgroup members to indicate if she had missed anything, if further clarification was needed, or if there were any other additional comments.

Discussion/Questions

Mr. Anderson indicated the report is ready to go. He also noted the workgroup spent a lot of time refining the charge. The workgroup asked repeatedly if the findings were useful to the end user and for affirmation not only during today's discussions but also along the process. Mr. Anderson reinforced Ms. Throwe's point that no one was an expert in the topic, but the project is an example of problems the workgroup routinely sees—underfunded needs or needs that require creative funding. Mr. Anderson noted the project was indicative of bringing a thought process and knowledge from somewhere else and seeing if it can be applied to a circumstance where it had not been applied before.

Ms. Throwe noted the report does not serve a lobbying purpose or suggests legislation within the framework, but it does explore the idea of producer responsibility and examines what the responsibility might be. At the local level, the ideas could be explored further. Ms. Throwe opened the floor to board members for any questions.

Ted Henifin asked if the workgroup looked into the Alaska Permanent Fund as a revenue source.

Ms. Carvalho noted the Alaska Permanent Fund comes up often when trying to find funding for services in Alaska, but it is a hot button political issue and Alaskans depend on it. The Alaska Permanent Fund was not explored in the backhaul context and EPA would not necessarily have a role in suggesting it. However, for Alaskan partners looking at the potential suite of sources of funding, it is something that could be considered.

Mr. Henifin noted if a fee were to be imposed, the system could be set up so the fee would be taken out of the Alaska Permanent Fund dividend.

Ms. Throwe indicated *Pamela Lemoine* was taking notes to bring back to the chairs about potentially exploring such an option.

Ted Chapman noted the state budget situation in Alaska is probably not currently in a position to offer that type of assistance since the Alaska Permanent Fund has been under significant stresses. Ms. Lemoine noted that instating a fee could also serve the important purpose of trying to make everyone aware of recycling and proper waste management. Ms. Throwe provided Ms. Carvalho with the opportunity to provide closing remarks.

Ms. Carvalho thanked EFAB for taking on this charge, especially since it was different from some of the other projects the Board has tackled before. She indicated it has been wonderful digging into such a wide variety of issues and brainstorming solutions with the workgroup. Ms. Carvalho indicated there was a lot of value gained from the engagement and she appreciated the time and thoughts provided. She noted it was valuable to have access to EFAB and be able to ask questions and have dialogue throughout the project. Ms. Carvalho's team was able to take some of the recommendations that emerged during the brainstorming process and run with them. She noted that working with Mr. Anderson on the cash flow projection model was great for thinking about the data being developed in a new way and was helpful for thinking ahead in terms of what data needs to be collected for a pilot program. Ms. Carvalho noted the recommendation to work on a co-op business model has already resulted in engagement with the University of Alaska. The University has a specific group providing technical assistance to efforts such as the backhaul project. Ms. Carvalho said she is looking forward to taking this report from this independent body and using it to engage stakeholders in Alaska to help get the conversation started.

Mr. Zimmer noted it is important to look at the challenge through a cash flow framework. He indicated waste can be treated as a liability/expense or as an asset. Mr. Zimmer stated there are certain products in waste that can be sold or recycled and, if waste will be paid for because it is an expense, it can be done through fees or taxes. Mr. Zimmer asked if there was consideration for creating another fee that would be a usage fee so it would be incorporated into the products, somewhat like a value added tax. So a tax, which would have a waste component to it, would be placed on all products coming to Alaska and people would receive credit back for recyclable items they delivered to a recycling center. Mr. Zimmer noted there is also the question of who manages the system, whether it be the military or a co-op, but indicated that, personally, the more interesting question is how you create the necessary revenue.

Ms. Carvalho responded the tax and credit idea has been tried in Alaska and has not been successful, though that does not mean it should not be tried again. She noted extended producer responsibility programs are a similar model wherein the product producers implement a fee upon sale of products, but it would be a state legislative program. Ms. Carvalho noted it is worth exploring a variety of those kinds of models to see what would work for the unique circumstances in the state. She emphasized that finding new sources of revenue is critical.

Mr. Chu noted that Ms. Throwe and Ms. Carvalho both noted how unique this project was. He mentioned the number one focus area of EFAB is lowering the cost of environmental protection, for water, land, or any other medium. Mr. Chu thought it was notable that this particular medium and this

topic is unusual, which indicates members have been working a lot on water issues. He indicated he would like the Board to consider looking at lowering the cost of environmental protection in all of EPA's work areas.

Craig Holland mentioned that, as further research is pursued in this topic area, it is worth looking at how the limitation of importation of waste streams into China is probably going to affect the finances of whatever entity gets created to manage waste streams. He indicated the restriction has really thrown the global recycling industry into disarray.

Mr. Willis asked if there was anything the EFAB members want to put on the table or hear about since they would be asked for concurrence on the report the next day. He noted the expectation is that with the small number of changes Ms. Throwe identified—that the executive summary and conclusion need to be bolstered and looking into the issues Mr. Henifin, Mr. Zimmer, and Mr. Holland brought up—the Board will be asked for their concurrence.

Mr. Zimmer asked if the suggested changes show up in the transmittal letter or as redlines in the report so that when the Board votes, it is comfortable the changes were sufficiently addressed.

Ms. Throwe indicated there were minor edits and changes discussed during the workgroup meeting that morning and those would be brought to the two co-chairs. She indicated members can rest assured that all the comments will be reflected somehow in the report. Ms. Throwe noted extended producer responsibility had been addressed, but maybe not as clearly as it could be. She emphasized that all comments collected will be incorporated into the report before it is final.

Ms. Lemoine agreed that all comments will be incorporated but there will not be a redline version to review.

Mr. Willis indicated he would ask the Board about the EFAB concurrence process. He reviewed the process just used—the workgroup presents content, invites other participants to augment the content, opens it up to the Board to ask questions, and requests the Board to provide issues which give them pause before moving toward concurrence.

Mr. Anderson asked what is required for concurrence, whether that be a simple majority or unanimity.

Mr. Chu noted that his understanding is there had never been a situation where there was not concurrence. He said the idea is to have workgroup process so, when a project comes to a vote, there is clear understanding and agreement on moving forward. Mr. Chu mentioned the Board should discuss the scenario of not achieving concurrence and whether unanimity or majority would be necessary. He noted, in other advisory committees he has served in, there could be a majority recommendation and a minority report. Mr. Chu highlighted the Board needs to have SOPs which outline the steps to take if and when the Board runs into a situation where there is not concurrence.

Ms. Throwe noted, for example with the backhaul project, there was been so much engagement over time that if the Board is not on the same page at this point, something must be off. If board members concur and have comments, that is acceptable.

Mr. Chu added the reason the Board is discussing the workgroup process with the entire Board is because the Board needs to be absolutely transparent to the public on how the decisions are being made. He noted, for the backhaul project, he heard comments which need to be addressed but none of those were showstoppers. If the level of comments at this point are editorial or focused on adding certain considerations, those are comments Ms. Lemoine and Ms. Throwe can address easily. Mr. Chu noted it is a question for the Board whether they are comfortable knowing the comments will be addressed or whether the process should be to review a redline version of a document.

Mr. Anderson clarified he thought the report is good to go once editorial changes are made and stated his question was on how concurrence is defined. He also noted concurrence applies authority to a workgroup. He asked if a workgroup has the ability to choose to address or not address comments and what is its level of authority when it gets a charge.

Mr. Willis responded that, based on his consultation with Sonia Brubaker, concurrence is getting some type of response from everyone on the Board, but not necessarily agreement from all board members.

Ms. Brubaker reminded everyone the workgroups are considered working groups, which is an EPA term. They are not standalone subcommittees, so the full Board has to vote on all workgroup products. Workgroups can provide information on why something was not included, but there is always a discussion with the Board and the full Board votes on every single workgroup product and deliverable.

Mr. Chu added the workgroup is just the mechanics of how the Board decides to conduct its work. He noted recordkeeping requirements extend to workgroups, but they cannot provide recommendations to the Agency on their own; they must go through the full Board.

Chris Meister indicated he has spoken with Ms. Lemoine about Mr. Holland's comment and it could be addressed through a brief paragraph summarizing the issue in Section 2.2.2 of the report under the description of the problem since it is a timely input touching on the underlying foundation of the proposed recommendation. He asked what the best way would be to incorporate a suggestion like that or the comment made by Mr. Zimmer at this stage since they are relatively minor additions.

Ms. Throwe noted the Board is trying to close projects out and she respects that everyone wants to see the writeups and remarks. She acknowledged that getting everything in is difficult without the co-chairs being present but there are workgroup members who will make sure everything is incorporated.

Mr. Chu suggested if the comments are not critical and do not alter the recommendations, he will ask if Mr. Holland for example would consider taking his comment off the table or to have it be a footnote in the transmittal letter. Mr. Chu noted if there are showstopper comments at this point, there should be opportunity to deliberate on them. However, if the comments are nice to have but do not affect the recommendations, the inclusion in the transmittal letter could be another path to take.

Mr. Holland noted his comment does not affect the recommendations but was a rather comment for Ms. Carvalho's benefit as she is developing the next steps following this report. He remarked the next phase seems to be institution building for the entity needing to be created to take responsibility for the

actions and, since the entity will be working in a dynamic international market for waste services, they have to be aware of the issues which might affect them as a business.

Mr. Willis indicated he had ideas for how to handle this piece of getting a deliverable to the finish line which could be incorporated into the SOPs. He suggested the process could be the Board's time is spent on showstopper comments and the expectation could be that the inclusion of additional content is produced by board members before a meeting so board members could see changes. Mr. Willis then asked members to respond to two poll questions (see the "Establishing Standard Operating Procedures" on the second day):

1. What changes could we make to how EFAB operates to improve full EFAB concurrence?
2. How can EFAB more effectively engage you or your colleagues and support you in order to improve the process of EFAB concurrence?

Mr. Willis indicated the Board would now move to the report out from the Alternative Project Delivery for Water Projects project.

Report Out: Alternative Project Delivery for Water Projects

Lisa Daniel

Richard Weiss

Mr. Willis previewed he would ask the Board to reflect on the process of transmittal after *Lisa Daniel* and *Richard Weiss* reported out. He then turned the floor over to Ms. Daniel.

Ms. Daniel noted she would be discussing two items in parallel: (1) the product itself, titled "A Decision-maker's Guide to Alternative Service Delivery Options for Public Utility Projects" and, (2) a discussion of what this workgroup has done to get to this point. She thanked everyone who participated in the workgroup. Ms. Daniel noted this charge came about from EPA's Water Infrastructure and Resiliency Finance Center (WIRFC) with a focus on public-private partnerships (P3s). The workgroup struggled with how to work such a broad topic into a narrow, workable charge and considered that there were only a handful of water utilities which had engaged with P3s or public-to-public partnerships. Meanwhile, Mr. Hughes compiled case studies, so the workgroup's first effort became to help provide direction and guidance for, as well as review of, that material. When Former Administrator Scott Pruitt came onboard, the workgroup drafted a letter to him from EFAB to introduce EFAB as a resource. The letter mentioned the state revolving funds (SRFs), the Water Infrastructure Finance and Innovation Act (WIFIA), tax-exempt bonds and their benefits, and offered EFAB's support to him. EPA is working on a technical model to help provide technical guidance around alternative delivery. Ms. Daniel believes the model is still under development. She explained the guide is intended to work in tandem with EPA's model. The product provides guidance to a decision-maker who may receive direction to pursue a P3 by a superior about ten steps to consider before pursuing a P3. The guide emphasizes that alternative service delivery (ASD) is not a source of free money and includes a discussion on risk transfer. Ms. Daniel turned the floor over to Mr. Weiss to discuss the guide's contents.

Mr. Weiss highlighted that the workgroup played two roles, one being advisory by reviewing information prepared by WIRFC and the second being to create a decision-maker's guide. Mr. Weiss noted the guide was intended to be an unbiased view of P3s and/or public-to-public partnerships for decision-makers to come up with a process of whether or not they want to proceed with ASD (which encompasses a range from design/build to full privatization). The workgroup compiled the guide which is 12 pages long and includes 10 steps and considerations for each of the steps. The steps include:

1. Identifying a project for evaluation;
2. Coming up with a steering committee to help the pre-development efforts (including who would be on the committee and what their roles would be);
3. Establishing the mission of the committee and determining how it would decide which ASD options to evaluate, examining ASD barriers including legislative barriers, then developing a work plan for the pre-development effort with project personnel at the utility and any potential outsiders or consultants;
4. Developing an evaluation report based on a comparative analysis;
5. Having the committee review the evaluation report in the previous step;
6. Socializing the plan with various constituencies, like city council members, unions, professionals, and ratepayer representatives since one of the biggest issues with ASD is getting buy-in from the community;
7. If needed, bringing in expert consultants for further evaluation;
8. Developing a final process and report;
9. Reporting to stakeholders; and,
10. Making a final decision whether there is sufficient support to proceed with ASD.

Mr. Weiss indicated the workgroup considered the guide to be final and is looking for final concurrence from the Board. He noted the previously received comments have been incorporated into the current version of the guide.

Ms. Daniel asked if anyone else from the workgroup wanted to comment and emphasized the workgroup is at a place where all questions received to date have been addressed. She noted the workgroup did not produce the typical paper but provided advice along the way to several components of an effort to fully vet and understand ASD.

Discussion/Questions

Ed Crooks noted he participated in the workgroup and the group battled with the temptation to rewrite what was already written. He mentioned there is a tremendous volume of good information about alternative delivery and P3s. The workgroup thought that it was far more important for decision-makers to have a tool to help them ask the questions they do not know how to ask. The existing body of literature can be brought in later, but the workgroup felt it was important to produce something WIRFC can hopefully put out to the industry and the public sector to help them get started. The report does not include comparisons of different delivery models or the pluses and minuses of design-build-finance-operate-maintain or design-build-operate; it is about questions to ask first.

Mr. Willis asked other workgroup members if they had anything else to augment what had already been discussed. None were heard. Mr. Willis then asked the Board for any questions or red flag comments.

Mr. Henifin noted it was a great guide and he really liked it. He asked where a reader might get the information Mr. Crooks alluded to and stated the workgroup may want to point a reader in the right direction.

Mr. Weiss responded the guide is meant to be used alongside the module – this report is supposed to be along with the module that WIRFC will finalize in the future, which has a lot of resources on the various types of ASD.

Mr. Willis noted Mr. Henifin’s comment may be appropriate to be addressed in the transmittal letter with phrasing such as, “This document is intended to be used alongside a module. In conjunction, those two things should give folks...”

Janice Beecher stated the guide was a real contribution and an evolution from P3s that is going in the right direction. She noted there needs to be a fourth “P” for performance. Ms. Beecher suggested that bringing performance-based contracting and relating that to both environmental and economic regulation could be a natural follow-on to this type of project. Performance could be defined broadly in terms of meeting environmental goals and providing real benefit to communities.

Rudy Chow noted the workgroup developed a really good report, especially based on his city government perspective where he has experienced the mayor wanting to explore topics in this area. Mr. Chow said it was amazing the workgroup kept the guide so short with easy to follow steps. He noted readers could add or subtract steps based on the type of project at hand. Mr. Chow added that, for the City of Baltimore, this type of conversation is so real and voters voted on a referendum basically prohibiting the sale of the city’s water systems.

Mr. Crooks highlighted that the workgroup created a new acronym—ASD for alternative service delivery—because the group felt P3 was too much of a lightning rod, implies certain things, and means something different to everyone. ASD was meant to be very broad to include everything from design/build to full privatization and public-to-public partnerships.

Mr. Holland noted the guide was great and included very useful content. He requested a visualization of the steps be created, showing a decision tree that could, for example, be developed into a PowerPoint presentation a staff member could present to their mayor. Mr. Holland also noted he did not see anything about the timing of the process. He acknowledged it would be different for every case so perhaps an exact amount cannot be included but some sort of range of expectations about a reasonable amount of time to spend doing this would be helpful. He noted that timing could be built into the case studies being produced. Mr. Holland indicated that, at the end of step 10, it would be good to have an expectation of what is next, such as the development of a request for proposals (RFP) or a decision on sole source delivery versus an open bid process.

Mr. Meister noted perhaps it could be delegated to the workgroup chairs to have the discretion to work with EPA staff to make a graphic as was suggested. He noted that, as Mr. Cooks, Ms. Daniel, and Mr.

Weiss commented, there was a deliberate strategy to note that a mountain of information on this topic exists and EPA is working on navigating it, but the guide is really intended for a city manager or executive director. Mr. Meister added that since some of the steps in the guide may involve changes in local, state, or federal law, the workgroup may not want to put a timeline since long-term problems require long-term solutions. Thus, the workgroup did not include months or years in the guide.

Mr. Weiss also noted the workgroup wrestled with the notion of having 10 steps; originally there were 17. He highlighted some of the steps may not happen, so it is difficult to come up with a timeline.

Mr. Willis summarized the discussion by noting there were no major concerns from the Board and there was general support for the product. He added there was a suggestion that there be an explicit description of the relationship between the product and content of other information available on the topic in the transmittal letter. Mr. Willis stated that, regarding the product content, there was a sense there could be some visual work that could be done and perhaps the workgroup chairs could have the discretion to include any description with regard to timing and concluding statements about what next steps might be.

Ms. Daniel affirmed that Mr. Willis characterized the discussion correctly. She noted the timing issue is important but does hinge on state and local decisions and also the size and magnitude of the project. Ms. Daniel suggested the workgroup could add a sentence to address timing and the fact that it depends on the circumstances.

The Board broke for lunch and the meeting reconvened at 1:36 pm.

Report Out: Chesapeake Bay Performance Metrics

Craig Holland

Mr. Willis explained there would be some changes to the schedule for the rest of the day. The report out from the Chesapeake Bay Performance Metrics project will take place first, followed by the report out from the Pre-Disaster Resilience Investment project. After that, there will be a presentation from EPA on America's Water Infrastructure Act (AWIA), and then a shortened discussion on the stormwater financing workgroup. Later, some time will be allocated to allow for the Alternative Project Delivery for Water Projects workgroup to discuss the process they used and then there will be a presentation about the next phase of the Alaska Waste Backhaul Revenue Options project.

Mr. Holland indicated the workgroup received concurrence on Chesapeake Bay report last fall. He indicated the current conversation was a follow-up to the report after receiving preliminary feedback from EPA Region 3 and a discussion of the potential of a phase two for this work. Mr. Holland explained the Region asked EFAB to clarify the requirements of private equity capital providers in order to improve access to capital to meet total maximum daily load (TMDL) requirements in the Chesapeake Bay. The workgroup explored creating a template financing guide for the Region to review to demonstrate what a private equity capital provider would look at and need in order to invest in a project. The workgroup developed two outputs. One was a financial model to provide assumptions and revenue streams that a

private equity capital provider could look at to determine whether a project was investible. The second output was a report serving as both a primer for private finance in the water quality space and a guide for the model. On February 28, the workgroup received feedback from Cosmo Servidio, the EPA Region 3 Administrator, indicating the report is currently being reviewed. The report is also being reviewed by the EPA Region 3 Chesapeake Bay Program Office's budget and finance workgroup. Mr. Holland indicated *Dr. Elliott Campbell* from the Maryland Department of Natural Resources was in attendance to provide feedback from the budget and finance workgroup and on the report. Mr. Holland also noted Ms. Throwe would provide additional feedback she had received from EPA's Chesapeake Bay Program Office.

Dr. Campbell began by thanking all the members of EFAB who participated in this workgroup, particularly Mr. Holland and *Suzanne Kim*. He indicated they were given a challenging charge and they worked to put it in a form that made sense. Dr. Campbell stated the outputs produced by the workgroup have a lot of utility for the Chesapeake Bay Program Office and the individual municipalities and counties faced with the challenge of meeting the Chesapeake Bay TMDL by 2025. The workgroup's report is a step in the right direction to figure how the entities needing to comply with the TMDL could potentially interface with private investment. Dr. Campbell indicated the budget and finance workgroup has not met on this issue, but it is meeting next week and will talk about this report. Dr. Campbell explained he represents Maryland on the workgroup and there are also representatives from Virginia, Pennsylvania, and the District of Columbia who will be reviewing the report and providing additional comments. Dr. Campbell noted the document is relatively straightforward and will be very useful. However, the model is somewhat complicated and may be challenging for municipalities with limited resources to use themselves. He noted a potential way to address the issue would be to provide technical assistance from the Chesapeake Bay Program Office or an EFC to conduct workshops taking people through the model and explaining its utility. The model and report are addressing stormwater and impervious surface and there is a correlation between impervious surface and nutrients which is more relevant for municipal separate storm sewer system (MS4) counties. However, nutrient reduction is going to be watershed-wide. Dr. Campbell thus suggested the report may have to be adjusted. He noted EPA recently released a report on costs of best management practices for nutrient reduction and it would have been nice to have that information prior to the report. Going forward, the Chesapeake Bay Program Office can use the report as a good place to start and make adjustments as necessary. Dr. Campbell noted the budget and finance workgroup will review the report and examine ways to use it and look at any additional information available on private financing and meeting nutrient goals, such as through pay-for-performance contracts and public and private interactions. Dr. Campbell mentioned the Conowingo Dam nutrient reduction allocation was given to the states. He explained there is a large amount of nutrients stored behind the dam and no one wants to pay for it. EPA has divvied up who is responsible for reducing the nutrient loads but has not determined who will pay. There is a currently an RFP out for a financing strategy for paying for reducing those loads. The information produced through the report could inform the financing strategy. Dr. Campbell noted that, in the process of developing the report, ideas were generated on how EFAB could help the Chesapeake Bay Program Office further. One idea was to use the SRFs to leverage private financing which could be potentially another charge. Dr.

Campbell said he appreciated the input EFAB provided and hoped this issue could be explored further, though he clarified he was not asking for a new charge at the moment.

Ms. Throwe thanked Dr. Campbell and indicated she had some comments from a phone call with the Chesapeake Bay Program Office. She highlighted that a lot of work was put into this charge. Ms. Throwe noted there were so many changes which occurred in the Chesapeake Bay Program Office and within its workgroups, such as retirements, that the best utilization of the report and tools did not quite connect at the time. Ms. Throwe noted Dr. Campbell and the budget and finance workgroup will be able to better understand, utilize, and adapt the report and tools, but may need some guidance and clarifications from the Board. She noted the Board is excited to continue work with the Chesapeake Bay Program Office and noted the Chesapeake Bay region has so many unique situations that apply to the rest of the country. Ms. Throwe indicated she would continue to contact Dr. Campbell and see where things go.

Mr. Holland noted the workgroup co-chair Ms. Kim was unable to attend the meeting because she just had a baby and shared his congratulations. He indicated that, when a workgroup receives a charge about how to leverage private finance to meet a very large issue such as TMDL compliance in our nation's largest estuary, it is a broad challenge. Mr. Holland said that, as the workgroup explored the myriad political, policy, and regulatory challenges and the changes happening at the Chesapeake Bay Program Office, it became clear the charge had to be split up into bite-size chunks to make it usable for the end user. He noted the workgroup came up against the question of "Where is the revenue stream to pay back investors?" He noted the answer will look different for a situation like the Conowingo Dam project versus an MS4 compliance project. Mr. Holland noted the model is imperfect since it is somewhat generic, but to make it more specific would require a much deeper analysis of factors for a specific place. He cautioned Dr. Campbell as he goes through the budget and finance workgroup that there is no one-size-fits-all model fitting all circumstances but hopes the model is a good template for what exactly a private financing provider might think about in the context of this work.

Discussion/Questions

Mr. Willis asked Ms. Throwe how questions received from the Chesapeake Bay Program Office would be handled moving forward.

Ms. Throwe indicated communication needs to happen between EPA support staff and EPA colleagues at the Chesapeake Bay Program Office to coordinate on the questions. Instead of reaching out to the Board directly, questions should flow between EPA colleagues.

Mr. Holland indicated he and Ms. Kim are willing to do a webinar to provide an overview of the functionality of the model for whomever in the program will own this work.

Mr. Chu noted the issue is whether or not Mr. Holland and Ms. Kim would want the technical support to be part of the EFAB support. He added that, even if a small charge comes later, it should go through the charging process so everyone is involved and the Board makes decisions. Mr. Chu noted Ms. Throwe was discussing any support EPA could provide separately from the Board and that is okay. However, if it is the Board's work, it needs to go through a separate process.

Mr. Zimmer noted there are workgroup reports he would love to post on his website and asked if board members are allowed to make information in the report or the report itself public.

Mr. Chu noted that work products of the advisory committee are public. He noted board members can refer to products on EFAB's website. He added that, as long as Mr. Zimmer indicates the reports are products of the Board, he does not think there are copyright issues or anything of that sort since it is a public document.

Mr. Zimmer clarified the document becomes public once the chair transmits it to EPA and noted he would never want to post the work of the Board before the EPA Administrator received the report.

Mr. Chu confirmed that is correct. He added there are several intermediate products of the workgroups. Reports become public when they are posted to the EFAB website.

Mr. Meister noted the work product could potentially be a framework not only for the new charge on stormwater, but for any state wrestling with nutrients in stormwater.

Mr. Holland agreed with that and indicated it was not meant to be Chesapeake Bay specific. He noted the Chesapeake Bay probably has most robust framework of anywhere in the United States for incorporating private finance into a program, whether that is MS4 or another compliance program, but that is not to say it could not work for other places around the country developing similar market-based frameworks.

Mr. Willis turned the floor over to Mr. Chapman to present on the Pre-Disaster Resilience Investment charge.

[Report Out: Pre-Disaster Resilience Investment](#)

Ted Chapman

Mr. Chapman noted that while it was difficult for the Alaska backhaul workgroup to come up with workable solutions, the Pre-Disaster Resilience Investment workgroup had the opposite problem – like drinking from a fire hose. He noted there were a lot of good ideas which had to be funneled into something workable and actionable for EPA. He said discussions started with trying to define resilience and what would be within the scope. There are different ideas of resilience, such as within academia or the Rockefeller Foundation. Some ideas encompass keeping the integrity of our infrastructure safe and workable or, from a municipality's perspective, doing what we can to make sure there is less risk to the tax base and less risk to the economic growth over time or the chance a big chunk of population would be lost. The workgroup focused on infrastructure because it is more visible. He noted resilience is about how quickly local communities bounce back, recover, get back to normal, and adjust to the new normal. The workgroup viewed a focus on pre-disaster as within the scope. The original charge did mention post-disaster work, but the workgroup felt it was outside of scope since there are other entities, such as the Federal Emergency Management Agency, which have a post-disaster focus. The workgroup also focused on municipalities. Rate-regulated entities have a prudent investment standard; if they feel

resilience is hardening of infrastructure, undergrounding, or building sea walls or flood walls, those are generally things they will probably be allowed to put into the rate base as long as they are justifiable. Municipalities have different rate regulators, such as the local city council or a utility board. The workgroup focused on stormwater and flood control, not on things such as earthquakes or cybersecurity. The workgroup also touched on drought and climate in the sense of adaptation and mitigation by discussing how to adjust to a new normal and preventing a really bad significant event.

The workgroup came up with actionable recommendations and sought to answer the question of what the workgroup can relay to the Board and EPA that would address what can be done. The workgroup's approach was to observe best practices and success stories through case studies and relay those in the draft report. The workgroup observed that entities at the local level have varying financial, technical, and human resources, but they can adopt asset management to help make decision-making more apolitical. Municipalities have operations staff managing infrastructure, back office staff providing financial resources, and the decision-making body. There was consensus among the workgroup that more objective data could be produced through asset management to help prioritize decisions. There are myriad entities with competing yet complementary missions. Sometimes, stormwater is a function of the general government, such as the public works department, and is paid for from general revenues of the city. There are states which permit local government to create a stormwater enterprise and can leverage a discreet, perpetual source of funding by way of borrowing. The workgroup set forth a recommendation to enhance coordination among entities and break down silos.

Clean Water State Revolving Fund (CWSRF) rules have certain limitations as to whether stormwater is eligible. The workgroup included a consideration for expanding the definition of stormwater to potentially include flood control or consideration of a new SRF for stormwater. The workgroup's final recommendation relates to the different definitions of resilience. The workgroup recommended WIRFC develop a compendium of information to measure resiliency costs, benefits, and best practices. Instead of telling local communities how to define resilience, they could have the discretion to define it themselves, but EPA could provide them with resources for their unique objectives. The workgroup started with a 100-page draft but narrowed it down into four major areas of focus. Some items had to be removed because they were impractical to point out to EPA. Mr. Chapman emphasized to the Board the workgroup is not professing this is the end of the discussion but did seek to be as concise as possible.

Discussion/Questions

Mr. Willis asked if anyone had clarification comments.

Dan Kaplan indicated he had worked with Mr. Chapman and *Jennifer Wasinger* on the report and extended his appreciation for the co-chairs distilling the 100 pages of information into something cogent and hopefully helpful to EPA and other communities across the country. He recommended the Board look at the case studies to understand what happens at the local level to make disaster resiliency a reality. Board members will see the planning process and capital programs laid out in various levels of detail, the many years of work that have gone in to these programs, and the importance of funding in each of the case studies. The Iowa case study called out eight different federal and state agencies

responsible for creating the funding program. In the case of New York, it was federal legislation. Funding is always the key. One of the issues the workgroup faced is that group members did not have a lot of discussion and feedback with EPA staff on the report. The AWIA was passed last year and codified integrated planning into federal law which provided guidelines for communities to follow with guidance from EPA. Part of AWIA is for EPA to begin providing guidance to the Regions and the states. Looking at the 2012 guidance, there were discussions of water quality overall, specifically wastewater and stormwater, but Mr. Kaplan did not see particular call-outs on disaster resiliency as a component of water quality. In each of the case studies the workgroup highlighted, when a disaster occurred, there were impairments in water quality. Mr. Kaplan posed a question to EPA about how it sees the role of disaster resiliency in integrated planning and asked if it would be helpful to call that out in the report.

Mr. Willis indicated this type of back and forth happens as part of the recommendations development process. He was unsure if Mr. Kaplan could pose the question as he did to EPA since that does not position the Board to be in an advisory capacity.

Mr. Chu indicated that was the correct interpretation. As the DFO, Mr. Chu serves as a liaison between the Board and the Agency. If there is a further area of exploration Mr. Kaplan would like to do, Mr. Chu could engage the Agency in doing that, but he cannot answer for the Agency as to what the Board should ask. He can provide resources to the Board but cannot speak for the Agency in terms of what should go into the report.

Mr. Willis posed the question to the EFAB members by asking them if they think that, as part of finalizing this document, there should be some comment getting at the relationship between water quality impairment and pre-disaster planning. Mr. Willis asked if that was a fair representation of Mr. Kaplan's question.

Mr. Kaplan said yes.

Bill Stannard indicated he supports the report and thinks it provides excellent information on the importance of asset management planning. The report made him think of similarities with enterprise risk management and things the private sector and publicly traded companies have to go through, examining what their risks are and how to mitigate them. Charlotte-Mecklenburg Schools have gotten grant money from the U.S. Department of Homeland Security to undertake pre-disaster assessments for flooding and how they can be prepared through early warning systems. Mr. Stannard noted important questions to consider include: "What investment do we need to make to mitigate the damage that will happen as a result of a disaster?", "Can that investment be made?", and "How do we pay for it?" He noted there is a lot of money spent in recovery, but a question is whether it would be a more prudent use of those funds if some of the money was used in advance so the money used for recovery is less.

Mr. Weiss noted he sees an increased focus on asset management by utilities. He suggested perhaps there would be something in the report about technical assistance for asset management, particularly for utilities that may be challenged with implementation.

Mr. Willis asked if anyone had any red flag comments on the report content. None were heard. Mr. Willis summarized the discussion by stating there were no red flags, there was general support for the

content, and perhaps in the transmittal letter the points about pre-disaster investment and water quality and technical assistance could be included.

Mr. Willis indicated the Board will now switch gears from trying to wrap up existing work to thinking about what it might look like for EFAB to take on additional work. There may be occasions where it would be valuable to provide a presentation to the Board about something likely to impact work the group does, such as AWIA. He noted Ms. Throwe and Mr. Chu were thinking it would serve as an opportunity to learn and listen and for the Board to ask questions as they pertain to potential new work.

Presentation to EFAB on America's Water Infrastructure Act (AWIA)

Raffael Stein

Anita Thompkins

Anita Thompkins introduced herself as the Director of the Drinking Water Protection Division (DWPD) at EPA. She indicated AWIA was signed into law on October 23, 2018 and she would discuss the provisions affecting the DWPD, which implements the Safe Drinking Water Act (SDWA). AWIA supports EPA's strategic measure goals. One of the goals is to reduce the number of drinking water systems out of health-based compliance by 25% by 2022. AWIA came up with 53 provisions affecting EPA. Of those, 23 fall under the purview of the DWPD. Out of those 23, two involve partnerships with the Office of Wastewater Management (OWM). The 23 provisions support the Agency's strategic measure goals, broaden the impacts of drinking water infrastructure, and ensure the public has more modernized, understandable information about their drinking water quality so they can have better data and consumer confidence reports. The 23 provisions fall into four major areas:

1. Assistance to small and disadvantaged water systems
 - a. There are three major subcategories in this category:
 - i. Assistance to Small and Disadvantaged Communities Grant. This grant was associated with the Water Infrastructure Improvements for the Nation Act (WIIN Act) signed in December 2016. The WIIN Act authorized, but did not appropriate, three different grants. EPA received appropriation for the three grants in Fiscal Year (FY) 2018. One of those grants was the Assistance to Small and Disadvantaged Communities Grant. This grant focuses on communities with a population under 10,000 and those out of compliance. The grant supports EPA's health-based measure. The majority of the community water systems are small systems.
 - ii. Lead Testing in School Grant. This grant was also part of the WIIN Act and EPA received appropriations in 2018. More funding was added to AWIA for this grant. EPA announced this grant on September 21, 2018. The announcement was a letter to governors talking about the grant and asking for their notice of intention to participate in the grant program.

Mr. Chapman asked how disadvantaged is being defined.

Ms. Thompkins responded that, for this particular grant, it is being defined by the Drinking Water State Revolving Fund (DWSRF) definition of disadvantaged. Some states do not have a state-defined “disadvantaged communities” definition. This has been discussed with the Council of Infrastructure Financing Authorities (CIFA) and the states know they have to work on getting a state-defined definition.

Mr. Zimmer clarified each state gets to define what disadvantaged means and come before EPA to make sure EPA agrees with that definition, but there is not a national definition.

Ms. Thompkins indicated that was correct.

- iii. DWSRF Loan Flexibilities. These were categorized under assistance to small and disadvantaged water systems because the flexibilities talk about the long term. In AWIA, states have the flexibility now to have a 30-year loan term (instead of a 20-year loan term) based on the life expectancy of the specific project. Disadvantaged communities get to go up to a 40-year loan term. This puts EPA in alignment with the United States Department of Agriculture (USDA) Rural Utilities Services (RUS). Therefore, there might be more opportunity for leveraging in this area. AWIA also allows repayments to begin up to 18 months after completion of a project (instead of 12 months). Another flexibility was the increase in additional subsidy. With the state-defined disadvantaged communities program, the original additional subsidy had 0% as the floor, up to 30%. With AWIA, the floor is 6%, up to 35% of the capitalization grant. From EPA’s perspective, these amendments to AWIA help with flexibilities and help support the small and disadvantaged communities.

2. Water systems operations

- a. Source Water. In AWIA, there is a provision which helps with source water protection and could help with having less maintenance done at a drinking water system plant. It expands the DWSRF set-aside for the 15% set-aside to allow for funding for delineation and assessing of source water protection areas. The Farm Bill has set aside money directly for source water protection. If EPA works with the states to update their source water protection areas, EPA could provide a template assisting them if they want to apply for some funding from the Farm Bill so they are not doing duplicate work. There are discussions starting now between EPA and USDA's Natural Resources Conservation Service (NRCS) to find out what NRCS needs to help with their application process and how EPA can create a template states can use for their source water assessments.
- b. Asset Management. Asset management is crucial and helps with the operations of a water system. Small systems experience challenges with not understanding all the assets they have. AWIA indicates states need to include asset management as part of their Capacity Development Strategies. EPA is working with states and associations to develop templates and other materials to help support states in this area.
- c. Workforce. Workforce is one of the priority areas for EPA Office of Water Assistant Administrator David Ross. AWIA’s provision related to workforce discusses a grant that

has not been appropriated yet. DWPDP convened a meeting yesterday with partners about the federal level tools which can address workforce at the state and local levels.

- d. Intractable water systems. Intractable water systems are those which have been historically in noncompliance. DWPDP is charged with conducting a study of these water systems with the U.S. Department of Health and Human Services and USDA to describe the barriers these systems have in delivering water to consumers. The report is due to Congress by October 2020. The focus is on systems that serve less than 1,000 customers. DWPDP has started working with the Office of Compliance to identify the systems and their barriers.
 - e. Consolidation of Systems. When discussing consolidation, EPA focuses on partnership. Partnerships can vary from sharing an accountant or sharing billing all the way to consolidation. EPA is charged with developing regulations to support potential water system consolidation.
 - f. Contractual Agreements. An aspect of the regulations needing to be developed for consolidation is contractual agreements. The contractual agreement would be focusing on the administrative and managerial side of things, not the physical consolidation. AWIA says EPA has two years to develop the regulations.
3. Consumer Right to Know
- a. This subcategory focuses on the Consumer Confidence Report (CCR). AWIA wants EPA to revise the CCR Rule and have the CCR come out twice a year for systems greater than 10,000 people. DWPDP is still trying to understand, from a legal perspective, how the reports will look. AWIA also charged EPA with improving the readability and accuracy of the CCRs and facilitating electronic delivery. EPA is having discussions with stakeholders on how to move forward with the revisions to the CCR Rule.
 - b. Report on Improved Accuracy and Availability of Compliance Monitoring Data. This report is due by October 2019 and requires EPA to develop a strategic plan on how to improve the accuracy and availability of drinking water monitoring data, in consultation with stakeholders. EPA has been in the process of modernizing the Safe Drinking Water Infrastructure System (SDWIS) and has developed a compliance monitoring data portal allowing labs to electronically deliver their compliance monitoring data to the states.
4. Infrastructure
- a. AWIA reauthorizes DWSRF to include some amounts EPA needs to move forward with.
 - b. AWIA mentioned the Drinking Water Needs Survey and that it had to include an estimate of replacement costs of all lead service lines, both public and private. EPA is working with contractors to understand how to make those estimates and realizes this particular survey will probably be a big one because EPA will be looking at the large systems, the statistical significance of the medium systems, and will probably need to do the small systems and the Alaska native villages. The Drinking Water Needs Survey has a direct impact on the DWSRF allocation formula to the states.
 - c. AWIA codified Davis-Bacon but EPA has been following Davis-Bacon so that is not a big change.

- d. AWIA made the State Revolving Fund American Iron and Steel (AIS) provision permanent for a little bit of time. For the DWSRF, it will be permanent until 2023. This has provided more certainty; until FY 2023, it is a requirement for the drinking water program.

Ms. Thompkins indicated that system compliance can be envisioned like the Parthenon, with all the funding sources at the bottom and the columns helping systems get in compliance being capacity development programs, operator certification programs, partnerships, technical assistance, implementation of SDWA rules, infrastructure, and asset management. The requirements in AWIA will support a system to get into compliance. At the end of the day, DWPD's focus is to ensure it provides safe drinking water to the American people and customers. In addition to the AWIA provisions affecting DWPD, there are two additional changes affecting sister divisions, including one dealing with risk resiliency and another on the expansion of the unregulated contaminant monitoring program.

Discussion/Questions

Ms. Beecher asked if when referring to "intractable," Ms. Thompkins was referring to an intractable system or a system with intractable problems. An intractable system implies one that is recalcitrant and does not want to comply while many systems have intractable problems, such as poverty.

Ms. Thompkins responded AWIA specified to focus on systems that serve less than 1,000. AWIA does not distinguish between a system that is recalcitrant or one that has issues. EPA will look across the gambit and the issues will likely emerge when identifying barriers.

Ms. Beecher asked Ms. Thompkins to clarify the underlying point about consolidation.

Ms. Thompkins responded the underlying point is that AWIA wants EPA to develop a regulation to help support the potential consolidation a state might want to do.

Ms. Beecher asked Ms. Thompkins if she is distinguishing between regionalization and consolidation.

Ms. Thompkins responded her team is still working with the Office of General Counsel and will conduct workgroups in order to be clear on how to move forward with that distinction.

Ms. Beecher noted that this is an area where the EFAB workgroup on this topic could help provide ideas.

Mr. Chapman asked Ms. Thompkins if she had a ballpark estimate as to when the next Drinking Water Needs Survey will go out.

Ms. Thompkins responded EPA is in the process of creating the Information Collection Request (ICR) that is necessary in order to collect the information. The goal is to submit the methodology to the Office of Management and Budget for approval by the end of this fiscal year. The survey collection may not start until 2020.

Ms. Beecher asked if anyone had done a preliminary analysis of the impact of geography and age of systems on allocations because of the nature of where the lead lines are distributed.

Ms. Thompkins noted the American Water Works Association did a report about the estimated number of lead service lines, so EPA is using its information. EPA is also in the process of revising the Lead and Copper Rule and there has been a lot of research on distribution of lead service lines. When Flint happened, there was a letter that went out to all the governors, talking about the inventory of lead service lines. Part of the Lead and Copper Rule is to know where lead service lines are. DWPD is working with its sister division to figure out what information it has so DWPD can start working with its contractors to get estimates.

Mr. Willis thanked Ms. Thompkins and turned the floor over to *Raffael Stein*.

Mr. Stein noted the biggest impact of AWIA was on drinking water side rather than the clean water side. The Water Infrastructure Division (WID) is impacted by nine provisions in AWIA:

1. Stormwater Funding Task Force. Mr. Stein thanked the Board for accepting the stormwater task force charge since it will make it manageable for EPA to carry out this mandate. The alternative would have been very administratively burdensome and time consuming.
2. Wastewater Technology Clearinghouse. WID has a requirement for a wastewater technology clearinghouse. It is focused on updating and disseminating information with an emphasis on onsite and decentralized systems. WID has been in discussions with stakeholders and making plans on how to address this. WID has good ideas on how to approach this and there is no authorized funding associated with this requirement.
3. Technical Assistance for Treatment Works. This provision is to provide grants to nonprofit organizations to assist rural, small, and tribal municipalities. There was a \$25 million-dollar authorization on this, but not an appropriation. The Administration has put forward a budget proposal which includes \$7.5 million for this program. WID is moving forward on developing a competition package for award.
4. Sewer Overflow Control Grants. These grants have been authorized in the past but have not received appropriations. The President's budget includes a little over \$60 million dollars in an appropriation request associated with these grants. This was potentially a very challenging grant program to start up because it was a two-year authorization. The first year, FY 2019, had it as a direct grant program to municipalities so WID would have had to do some sort of competitive process, which would be very onerous. The second year, FY 2020, has WID funnel the money to the states via a formula, if the appropriation comes through. WID is working on ideas to come up with a formula.
5. Assistance for Individual Household Decentralized Wastewater Treatment Systems. The provision expands the CWSRF eligibility to authorize nonprofits to be involved in supporting repair or replacement of individual household decentralized wastewater treatment systems. It is focused on low- and moderate-income households, defined as 50% of the median nonmetropolitan household income. The CWSRF program is working on updating its eligibility guidance.
6. WIFIA Reauthorization. The SRF WIIN legislation was potentially a major change to the WIFIA program. Some of the earlier versions introduced would have effectively created a whole new WIFIA program for the SRFs and provided very significant incentives to the SRFs for them to

leverage their programs via WIFIA. One of the items that ended up in AWIA is the reduction of the requirement of two credit ratings to one. There is an authorization of \$5 million dedicated for SRF borrowing. A small appropriation can go very far but there are requirements that WIFIA base funding has to be maintained at the \$50 million level and the CWSRF and DWSRF appropriation levels cannot go down either. There were a number of items in this section WID had to grapple with; WID provided a lot of technical assistance in the earlier versions but had not seen this version. It has taken WID some time to work with its General Counsel's Office to figure out the implications. WID has launched a state-EPA workgroup specifically dedicated to SRF/WIFIA issues to discuss the interpretation of this AWIA provision and the implementation of it.

7. Agreement with Commissioner of Reclamation. AWIA requires EPA to enter into a memorandum of understanding (MOU) with the Bureau of Reclamation. There has been a lot of movement on Capitol Hill and within the Administration to get EPA to partner and assist other federal agencies with their federal credit subsidy programs. There have been proposals in the past to do a WIFIA-type program for the Bureau of Reclamation focusing on dams. Mr. Stein believes the intent behind this is to potentially cross-service programs if they are authorized and appropriated.
8. Water Infrastructure and Workforce Investment. It is a small \$1 million authorization for a competitive grant program for water infrastructure and workforce and workforce investment. In the President's budget, there is a \$300,000 request for this. Mr. Stein noted Ms. Thompkins covered the most important point, which was this is a big initiative for EPA Office of Water Assistant Administrator David Ross and there is a lot of activity related to this. If there is an appropriation on this, it will be one of many things EPA is doing in the workforce space. EPA will be working with a number of stakeholders on this front.
9. WaterSense. After 11 years of existence, WaterSense has been officially authorized by Congress. There are activities associated with the provision, but it is not a big hurdle and WID is addressing any hurdles. It enables WID to do more marketing than before. WID's stakeholder community is very excited about this.

Mr. Willis asked if there were any questions for Mr. Stein. None were heard. Mr. Willis announced a break and noted that once the Board reconvened, *Ellen Tarquinio* will talk to board members about the charge for the stormwater financing task force.

[EFAB Charge: Stormwater Financing Workgroup](#)

Ellen Tarquinio

Mr. Willis previewed the rest of the day for board members. Ms. Tarquinio will be talking to EFAB about a new charge. He requested that, in parallel with the presentation, board members consider the content and potential participation on the task force and reflect on what the process should be by which EFAB takes on a new charge. Mr. Willis noticed two places that called for SOPs in preparing for this meeting: (1) the deliberation and finalization of products and (2) topic selection and charge development.

Ms. Tarquinio explained she would talk about the stormwater financing task force. Ms. Tarquinio noted she would discuss process first and then get into the details of the charge, including the tight timeline. Ms. Tarquinio referenced that Mr. Stein had touched on AWIA and what was in there for the stormwater financing task force. AWIA provided timelines so when EPA connects with EFAB members about getting things done, it is because of the timelines in AWIA. The task force had to be established by April of 2019. There was a little bit of extra time due to the government shutdown, so the task force is being established by the beginning of May. The report has to go to Congress in April 2020. In AWIA, EPA was told to establish a task force which would conduct a study on and develop recommendations to improve the availability of public and private sources of funding for the construction, rehabilitation, and operations and maintenance (O&M) of stormwater infrastructure to meet the requirements of the Federal Water Pollution Control Act. That is what the task force will be centered around addressing. AWIA also included three distinct areas the task force must address:

1. How funding stormwater is done in each of the states, including how it is made available and how it is utilized;
2. How the source of funding affects the affordability of infrastructure, including consideration of costs associated with financing the infrastructure; and,
3. Evaluate whether the sources of funding, both private and public sector sources, are sufficient to support capital expenditures and long-term O&M costs.

Ms. Tarquinio noted the charge was built around these three areas listed in AWIA.

Discussion/Questions

Mr. Holland asked if a new developer having to comply with regulations to build stormwater infrastructure would be an example of a private source of funding. He asked for an example of a private source of funding.

Ms. Tarquinio responded it could be; what was written in AWIA was “private (including nonprofit).” There are a couple different ways to interpret that and the workgroup itself can help shape that. It is an area that could be scope creep if the workgroup gets into some of the individual sources of funding for each one of the developers. Limiting the scope is something the workgroup will have to tackle in the first in-person meeting to make sure everything can get done.

Mr. Holland indicated the definition as written could include foundations or philanthropic organizations.

Ms. Tarquinio agreed and added it could include investment in the first part of the definition.

Mr. Weiss asked if there was distinction between grey and green stormwater infrastructure.

Ms. Tarquinio responded there was no distinction made so that will probably be part of the recommendations in the report to look at the different sources for grey or green infrastructure. Ms. Tarquinio explained the workgroup charge was put forward to the Board to vote on via webinar, which is a different process than what might be seen for some of the other workgroups. The reason is that EPA saw the language in AWIA and the expertise in EFAB and it was a natural fit. It is a great opportunity to bring something to the Board not only generated by EPA but also with a statutory requirement. It is new

for EFAB to have something statutorily brought to the Board and there will be a much higher-level look at the recommendations that come out. When the charge was presented, all board members had the opportunity to vote by March 21, 2019 and it was accepted. Ms. Tarquinio thanked everyone for voting and for taking it on. Ms. Throwe and Mr. Chow will be the co-chairs of the workgroup. Ms. Tarquinio remarked she is grateful for them for taking on this charge and agreeing to be the co-chairs. Because the group is very large and there is a lot being asked of the workgroup, there will be three distinct sections, each with a section lead. Ms. Lemoine, Mr. Henifin, and Mr. Chapman have agreed to be the section leads. A number of board members have reached out to express interest in being on the workgroup and EPA appreciates that. EPA took the resumes all board members had to send in when they were nominated to be board members and EPA knows there are a lot of members with stormwater expertise. Less than half of the Board needs to be on the workgroup so a quorum is not reached. Ms. Tarquinio encouraged board members interested in being part of the workgroup to reach out.

Ms. Throwe encouraged board members to weigh in if they are interested in this workgroup. She thanked those who stepped forward to participate, especially the section leads. She added the workgroup is still looking for more input and wanted to ensure everyone knew the workgroup is still open.

Mr. Chu added that, since this is a workgroup affiliated with the workgroup process, the Board will ratify all the work that comes out of the workgroup. Board members can choose to participate or not participate in the workgroup with the limitation that there cannot be a quorum because, in that case, it would become the Board again. Mr. Chu noted it would take 15 members to reach a quorum.

Ms. Tarquinio noted there is still space on the workgroup and opportunity to participate. Ms. Tarquinio mentioned the workgroup would see a lot more of EPA than workgroups are typically used to. EPA acknowledges it is asking for a large task. There is a lot of research that will go into the recommendations. EPA is going to play a much larger role in doing research and pulling things together to open up the workgroup's expertise and time to ensure the workgroup focuses on the policy recommendations. The workgroups will be identifying gaps and perhaps seeing things that need to be changed. The workgroup members will provide the guidance and the direction. EPA is going to make sure there are staff dedicated to providing the backstop and the bulk of the research for the project. EPA also has contractor support. EPA will make sure the workgroup is well supported.

Mr. Chu noted that, during the webinar, there were questions about the first of the three areas listed above. There is a lot of research and information needing to be gathered. Mr. Chu remarked one way to deal with that is just to go in as it is charged or the other discussion that could be had is whether or not the charges can be modified to reflect the policy recommendations and have EPA continue to do the work on the research side. There needs to be clarity in roles and responsibilities. Mr. Chu highlighted the Board decides what charge to accept and what could be modified. In this case, it is EPA that is on the hook to deliver the report to Congress and EPA is seeking the Board's advice on the policy side. Mr. Chu noted it is important to figure out what the process is for looking at a charge like this. In the past, the Board may have accepted charges that are very complex and then decided it was perhaps the wrong road to go down. With this particular charge, there is not room to experiment with timing or milestones.

Mr. Chow noted this is a huge undertaking. He added he is in charge of the three waters—drinking water, wastewater, and stormwater—and considers stormwater to be the least mature utility out of the three. The issues include MS4 permits and dedicated funding. Baltimore is fortunate to have a dedicated enterprise fund, which has happened recently, but the vast majority of entities do not have that luxury.

Mr. Holland expressed the output is clear, but it is unclear who is doing what to get there, meaning what the responsibility of EFAB is relative to EPA relative to the expert consultants.

Ms. Tarquinio noted she would discuss that later in her presentation and took any additional questions.

Mr. Hughes thought there was language about the geographic scope of this. He noted the geographic focus will be important because stormwater is structured very differently from a legal and regulatory finance component at the state level. Having a good geographic diversity among the people on the workgroup will be important.

Ms. Tarquinio indicated there is language that it is every state, so that is why EPA is making sure there is contractor support and will be taking on that aspect so EFAB can focus on the policy components. EPA will do the research for all the different states. When EPA was looking through the resumes for those who had stormwater expertise in the EFAB group, it jumped out that the west coast and southwest are not well represented. Those gaps, combined with the large workload and knowing there are experts out there who want to be part of this group, meant EPA knew it had to bring expert consultants in to supplement the Board. EPA put out a Federal Register Notice that is currently open and closes on Friday. It is a simple nomination process: people email the resume and contact information for anyone who should be part of this group or they can self-nominate. EPA staff are conducting the review for the expert consultants. They are going through and making sure these are going to be people who are going to help the workgroup get the work done. They are expected to assist in the development of the recommendations, help write the report, provide external expertise, provide any resources, and participate in workgroup calls and in-person meetings. However, they are not EFAB members; they are on this group as expert consultants for a limited amount of time. They are only going to participate in this workgroup and they will not have voting authority. EPA and EPA contractors will be a work backstop to the group by helping to do the research. In terms of the process, the Federal Register Notice included there will be calls every other week for an hour but that will be up to workgroup and section leads to tease out. EPA expects two in-person meetings. EPA is hoping to avoid questions of scope creep by being clear with the charge. EPA certainly does not want to be in the position that other workgroups have expressed where they are six months in and still unclear what the charge is. EPA intends to get questions out of the way during the first meeting and set up processes and procedures for the workgroup. The final report is due to EPA by December 6, 2019 so EPA can get the report to Congress.

Mr. Willis observed that Ms. Tarquinio described a different type of role for EFAB members, a different level of support for EFAB members, the high-level delineation of roles, and an overall timeline. Mr. Willis stated that, for the purpose of SOP development, he took notes on membership selection, geographic diversity, roles and responsibilities, what support for the Board looks like, and what is the relationship of EFAB to that support. Mr. Willis asked if anyone had questions with regard to what Ms. Tarquinio laid out in terms of the responsibility of board members when saying yes or no to the charge.

Mr. Crooks asked if EFAB will be endorsing the findings of the research conducted. He questioned the ability of the Board to validate research done at this extensive, detailed level.

Ms. Tarquinio responded the first item in the charge is a compendium of federal funding sources. EPA's expectations are that EPA will take the lead role in building that compendium, identifying some of the gaps, and then bringing the work products back to EFAB to identify any missing areas or resources EPA should go to. EPA will work with the section lead and set up review processes to identify gaps and missing resources.

Mr. Henifin asked to clarify if EPA was talking about the broad suite of stormwater, which includes flood mitigation, disaster resilience, and more to go beyond traditional MS4s.

Ms. Tarquinio indicated that was correct.

Mr. Chu indicated his presumption is that the workgroup will at some point decide whether it will take the research EPA provided and accept it as is. Mr. Chu suggested to the workgroup that it be explicit if it decides to take on a charge of reviewing the compendium and having recommendations about it. But from EPA's perspective, the simplest thing would be for the workgroup to accept that EPA has done a comprehensive job and make the policy recommendations based on the research already done by EPA. Defining the charge is important and has implications on the timeline and how much time will be spent on the policy recommendations rather than the data gathering portion. Mr. Chu noted he had a side conversation with Ms. Throwe to discuss if board members' decisions apply to the task force and the answer is yes. If you are a board member, you do have a different status on the workgroup than the consultants and others who are helping because you, as a workgroup member, are trying to come up with recommendations that will get buy-in from the entire Board. It is the responsibility of a workgroup member to strive toward that. There may be just as many or more consultants on the workgroup than actual board members. So, there will be an interesting workgroup dynamic.

Mr. Anderson asked to clarify if the Board is informing EPA for a report EPA will submit to Congress.

Ms. Tarquinio indicated that was correct. The Board will provide the recommendations and structure, then EPA will take the recommendations and wrap them into a formal report to Congress which will come from the Agency, including the recommendations as they come from EFAB.

Ms. Beecher indicated she voted for the charge because it is a critical issue, but she has some concerns about process and workflow. Ms. Beecher indicated she would be hesitant to sign on to something that would obligate, pre-judge, or pre-approve the outputs. The Board does not know the mix of consultants or the scope at this point. Ms. Beecher encouraged pursuing the charge but also clarifying the Board's advisory role.

Mr. Chu indicated the reason the discussion is being had is because this is a very important piece of work for the Agency. As a federal advisory committee, the Board has a role and responsibility for what the Board provides to the Agency. The Board is supposed to provide independent advice. In the next few weeks, the Board can define some of the charges because the Board wants to get to an outcome at the end of the process when the Board produces a set of recommendations that is not only useful, but

something the Board wanted to provide to EPA, not a predestined outcome. Mr. Chu indicated he heard a lot of interest and expertise within the group to be able to assist EPA; it is a perfect alignment of interests. He encouraged board members to be cognizant that there is a process wherein the Board is still able to hold its responsibility and still be able to assist EPA. There needs to be some sort of the process for the task force to figure out what is on and off the table, what it can accomplish, and what it cannot do so there is a clear set of expectations wherein everyone benefits from the process.

Mr. Willis noted there is a built-in firewall between EPA's work and the work of EFAB because board members have to vote on the set of recommendations to be sent to EPA. If at any point things feel uncomfortable, the December deadline will pass and it will not absolve EPA from submitting its report.

Ms. Tarquinio indicated she went back to the language in AWIA. AWIA states EPA is to establish a task force and that task force is supposed to take on these different areas. The task force is supposed to provide recommendations on these three areas. It is the task force that will provide recommendations to EPA which will be bundled into the report that goes to Congress. EPA is working with EFAB and is looking to EFAB to provide those recommendations. EPA is not being directed to provide recommendations, but the task force is. EFAB will give EPA and the expert consultants direction and guidance on where EFAB needs help and EPA will help EFAB but EPA is not going to direct the areas or recommendations. EPA will provide any of the support material for the recommendations that EFAB will produce.

Mr. Meister noted he understood Ms. Beecher's concern. When he first saw the charge, he thought it was good stewardship by EPA. It would be onerous to create a task force out of thin air when the expertise, mechanics, and infrastructure already exist. The firewall is set up, the support is provided, and board members can always vote it down. This is a big national problem and the Board is a natural avenue to go down in order to get recommendations to begin to solve it.

Ms. Lemoine requested more clarity on what is being called the task force versus workgroup. She understood that EFAB collectively is the task force but it sounded like it would be a broader group.

Mr. Chu explained when AWIA was passed, in order to create a task force, EPA would be creating another federal advisory committee. The Agency looked around to see if there was another advisory board that meets the requirements of the task force. EFAB seemed to make sense and fit the timeline. It would be difficult for the Agency to meet the timeline without EFAB. The Agency is trying to get a set of recommendations from the Board to fulfill the requirement. The Agency sees this group as a way to get the board members' expert advice in order to meet the requirements of the law. The process for doing this is not unique to this project but to all federal advisory committees. Although the Board has a diversity in membership even in terms of geography, when it comes to the stormwater issue, it requires further diversity. The way EPA will augment the group is through consultants and contractors. EPA is intending to take the Board's recommendations; EPA is not trying to say there should be a certain outcome. Board members get to decide what goes to EPA. Mr. Chu hoped by December 6, the workgroup and board members will have worked this through so there will not be disagreement on that day. This process will be a good test and challenge for the Board. There seems to be an alignment in interest and need. The Agency needs the Board's help to make recommendations under this task force

requirement. The Board needs to make sure transparency and decision-making requirements are kept intact throughout the process. In the next few weeks, there have to be close working relationships with Ms. Tarquinio and others at EPA to figure out what the Board is willing to take on and what the Board cannot do, so additional resources can be brought in. The point of talking through the process is that everyone goes into this with full knowledge of what they are committing to.

Ms. Throwe asked Ms. Tarquinio to clarify what would be the next steps for those interested in participating in the workgroup.

Ms. Tarquinio indicated board members who want to be part of the workgroup should email her by close of business on Monday.

Ms. Daniel indicated this is what the Board has been waiting for. She noted, although Ms. Tarquinio is asking if the board members want to be part of the group, they are all part of the group because board members have to vote. There needs to be a line of communication between the workgroup and the rest of the Board. EFAB is the task force and part of EFAB is the workgroup. Ultimately, EFAB has to make the recommendations to EPA.

Ms. Tarquinio noted using task force and workgroup interchangeably is leading to some confusion. AWIA uses the term task force but EPA does not really use task forces. The workgroup under EFAB is what EPA is envisioning as the task force, but Ms. Daniel is right that the larger Board has to vote on this and sign off. The workgroup will create the recommendations and EFAB will indicate if the Board agrees with them. EFAB would send the recommendations to EPA. EPA is on the hook for taking the recommendations and putting them in the report to Congress being submitted in April 2020.

Ms. Daniel indicated there needs to be a clear process on the front end about potential competing points of view. She asked what would happen if the task force hands EPA something it does not agree with.

Ms. Tarquinio stated EPA does not want to be surprised by any of the recommendations. EPA wants to know they are coming and have that discussion much earlier. EPA will be involved in all meetings and calls throughout the process but will not direct any of the recommendations. The recommendations will come as they are from the workgroup and EPA will put them in the report.

Ms. Daniel noted in the past there have been situations where EFAB recommends EPA does something and the Board gets pushback and told that is lobbying. She indicated EFAB would like clear expectations about what it can and cannot promote.

Mr. Chu noted there are particular things the Board is prohibited from doing under the law, like lobbying. The Agency will support the work EFAB is doing so that, for example, things which are illegal for EPA to do, are flagged so illegal recommendations are not made.

Ms. Throwe noted the Board and EPA is walking hand in hand through this entire process. There is a teamwork approach since chairs will be in constant contact with the section leads.

Mr. Stannard clarified if the workgroup will be the task force under the auspices of EFAB.

Ms. Tarquinio confirmed that was correct.

Mr. Stannard noted the 15-member limitation. He asked if the total members of the three subgroups could total to more than 15 and then have only 15 members convene when the three groups come together.

Ms. Tarquinio noted the section leads and subgroups are EPA's official approach for getting everything done. So, 15 is the limit for the workgroup. Ms. Tarquinio agreed with Ms. Daniel there needs to be a good path of communication from the workgroup to the larger EFAB. This will allow those who do not have the time or expertise to still hear what is going on and provide their thoughts.

Ms. Throwe asked to see a show of hands from members interested in being part of the workgroup. Nine members raised their hands though Ms. Throwe noted there were some members not in attendance who had expressed interest.

Mr. Willis noted this was not the only opportunity for members to express their views on roles and responsibilities for this charge. He stated the conversation might be able to advance if board members had something to react to regarding roles and responsibilities. Mr. Willis remarked the situation feels perfect for a responsibility assignment matrix, also known as a RACI matrix. The matrix identifies who is responsible, accountable, informed, and communicated with. It defines the relative relationships between all of the different parties and all of the different tasks. Mr. Willis believed it would clarify a lot of the process questions.

Mr. Anderson agreed the RACI matrix is a great approach. He expressed he thought it was cool that EFAB has a statutory charge with policy implications. He noted the independence of EFAB needs to be preserved. While a RACI matrix will identify how EFAB gets things done, he requested the independence element be built into the discussion since it will be critical.

Mr. Chu noted he appreciated Mr. Anderson's comment and agreed that a RACI matrix would be an appropriate next step.

Mr. Zimmer asked to clarify if there will be set deliverables so the Agency does not have to wait until December 6 to see what the workgroup produced.

Ms. Throwe indicated Mr. Zimmer was correct.

Mr. Chow pointed out a realistic logistical issue. There is the December deliverable date. From Mr. Chow's experience on the Board, he knows there are rounds of reviews and the report must be approved by the Board. Mr. Chow noted he is nervous about the logistics since the Board does not have much time, so the Board needs to work backwards from December 6 and will have to get commitments now from those on the Board, otherwise the Board may miss the deadline. Mr. Chow said he did not want to miss the deadline because this is such important work.

Ms. Throwe noted Mr. Chow will be an awesome co-chair.

Ms. Tarquinio noted she was hearing a lot about having something to react to. She noted the next step will be for EPA to provide a set of information to the Board to answer some of these questions, including

who is doing what, what the communications channel is, when experts will be brought in, and what the timeline is.

Mr. Chu said the Board will try to add an EFAB meeting date, so the Board can make a decision by December 6.

Mr. Willis indicated he would switch gears and have Ms. Daniel and Mr. Weiss discuss potential changes to the way the Board works. He requested Ms. Daniel and Mr. Weiss speak on that topic, see if there are reflections, and then conduct additional polling questions before turning it over to the Alaska backhaul presentation.

Ms. Daniel noted she was asked to share the experience her workgroup had as a workgroup who did not have a paper to deliver. The workgroup had a process that evolved over time. She noted she sees the value of the Board as a whole as a brain trust. She noted there two ways to go about sharing that value with EPA: (1) one-way communication, like a paper, letter, webinar, feedback, or advice in one direction and (2) two-way communication, which is probably much more valuable like a question and answer, debate, or brainstorming. The compression of time is going to create pressure to develop and deliver a product. Ms. Daniel believes it is important to build in time for debate and friction among each other, so the Board collectively goes at a topic and as everyone discusses, it results in a robust product from all the minds and different perspectives at the table. Ms. Daniel noted Mr. Chow would have to build that into the timetable and make sure the Board can offer EPA the value that is created with that.

Ms. Daniel also noted her workgroup narrowed in on the additive process and not trying to spend a lot of time, effort, and resources on repackaging or redressing things already out there. For the compendium portion of the stormwater charge, the Board can add value but needs somebody else to do a lot of the research. She noted it was good to hear the Board has other people at the table.

Mr. Weiss noted the workgroup was given a charge regarding a topic: ASD. The workgroup discussed looking at case studies and EPA's module. The workgroup acted in two roles: (1) an advisory role to review things being created by EPA for this topic, and (2) adding on with the workgroup's own work product.

Mr. Willis posed two poll questions to the members (see the "Establishing Standard Operating Procedures" session on the second day).

1. What changes could we make to how EFAB operates to improve and structure work? Mr. Willis explained that by "structure" he means high value ways to engage the EFAB members.
2. What changes could we make to how EFAB establishes and puts into place its charges? Mr. Willis distinguished the charge development workflow from the topic development workflow.

Mr. Willis previewed he would later ask additional polling questions about topic selection and vetting, the workflow of transmittal to EPA, if there is a role for EFAB following the response, and an open question reflecting on the day. Mr. Willis turned the floor over to Ms. Carvalho, who turned it over to Mr. Hamlin to kick-off the presentation.

Presentation to EFAB on Next Phase of Alaska Waste Backhaul Revenue Options

Tim Hamlin

Gabriela Carvalho

Mr. Hamlin introduced himself as the Division Director in EPA Region 10 of the Land, Chemicals, and Redevelopment Division which includes the waste program. He noted he was involved in the IGAP program in the Region. Mr. Hamlin said his team tried something like the backhaul program back then and had a somewhat successful pilot but did not know what happened after he left. He thanked EFAB for their work on the backhaul program so far. Mr. Hamlin noted he started out in the water program and is familiar with SRFs. He said he noticed the Clean Water Act (CWA), SDWA, and the Resource Conservation and Recovery Act (RCRA) all get EPA involved with local municipalities trying to deliver utilities in a cost-effective way. In the case of the first two, there is the SRF framework which can help a lot. However, sometimes having funding makes you realize how much more complicated the task is. In the case of solid waste, EPA does not have a SRF. However, in the IGAP program, there is the ability for tribes to work on solid waste management. In the case of Alaska native villages, that is one of the biggest things they can do and need to do. EPA does not have resources to get to a sustainable way to manage waste in rural Alaska. EPA has the vision of the backhaul program and a good, comprehensive vision for how this could be done. EPA is learning about the program's strengths and weaknesses, and, in particular, how to pay for all of it which is where EFAB comes in. Mr. Hamlin thanked EFAB for the work provided so far and emphasized EPA needs all the help EFAB can provide. He noted EFAB's knowledge and experience has been invaluable and EPA would like to keep tapping it. Mr. Hamlin noted Ms. Carvalho is extremely capable and passionately committed to help EFAB determine how it can help EPA. Mr. Hamlin then turned the floor over to Ms. Carvalho.

Ms. Carvalho indicated she works in the EPA Region 10 office under Mr. Hamlin. She noted the team works with tribes across the four state region. She indicated the Alaska backhaul project has been primary in terms of her scope of work. Ms. Carvalho indicated she wanted to make sure everyone is up to speed on the nuts and bolts of what EPA is trying to do with the project. She proposed digging deeper and continuing engagement on the project since there has already been so much good work done and there are areas of further study in the report. Ms. Carvalho noted she has a proposal for a slightly different approach to answering the remaining project questions. She indicated EPA staff have the benefit of working with and interacting with the people it serves through its work. Ms. Carvalho indicated she had a recording with a message from one of the local leaders in Alaska who has been doing solid waste backhaul for her region for about 10 years now. She has been instrumental in getting this program designed. Ms. Carvalho then played the recording from *Anahma Shannon*.

On the recording, Ms. Shannon introduced herself as the Environmental Program Director for a native nonprofit in Alaska called Kawerak, Inc. Ten years ago, a couple villages asked Kawerak for assistance in backhauling, i.e., the hauling back of some of the materials they were trying to get out of their communities like lead acid batteries. The villages pointed out nobody in the hub communities was there to help coordinate the transportation of goods through to the recyclers. The Kawerak backhaul and Alaska backhaul programs have been able to target the most hazardous materials which should never be

allowed into village landfills. Every landfill in Ms. Shannon's region burns trash and she believes this is the case for the great majority of Class 3 landfills throughout the state. Because the landfills indiscriminately burn trash to reduce mass, not in an incinerator, it is imperative to keep hazardous items like electronic waste, lead acid batteries, and fluorescent bulbs out of the waste stream. While Kawerak has been able to make a backhaul program possible in Ms. Shannon's region even though it is not perfect, most villages and hub communities in Alaska have not figured out how to make this type of system work. They still struggle with the unique challenges inherent to rural locations, like limited or no road access and transportation costs that are usually \$1.00 per pound or more. The price of transportation dictates the cost of living and many in Alaska's rural villages are forced to sell oil and gas at \$9.00 per gallon or more. When local governments are struggling to provide the most basic needs of a community, you can imagine how the task of managing a landfill or responsibly recycling hazardous material can get pushed to the wayside if education and funding are lacking. Unfortunately, it is people's health and the beautiful environment suffering the negative impacts. Some of the villages struggle with unemployment rates of 70-80%. You may ask how people survive. The majority of the people hunt, fish, and gather greens and berries that sustain them throughout the year. However, they do this from the very land that is affected by burning hazardous materials at their local landfills. Ms. Shannon stated we must find and show people a path towards sustainable management attainable for rural Alaska. The Alaska backhaul program strives to develop that path to sustainable communities; it is training local workers and leadership to understand how and why to remove harmful material. It is setting up and evaluating a statewide system for removing household hazardous waste. Ms. Shannon indicated the Alaska backhaul program needs the EFAB's help. She believes she speaks for most rural Alaskans in saying they would appreciate any help EFAB members can give to find financing solutions to make Alaska backhaul successful. She concluded by thanking everyone.

Ms. Carvalho noted Ms. Shannon is part of a group of technical assistance providers working with local communities to build capacity on dealing with solid waste and hazardous waste. Ms. Carvalho added Ms. Shannon has been a leader in getting the Alaska backhaul program to where it is today. She added it has been wonderful to work with Ms. Shannon and that Ms. Shannon does a nice job talking about why this program is so important. Ms. Carvalho explained the vision for the program is to coordinate waste backhaul efforts statewide and save costs through more efficient routing, training, and communications. The ultimate goal is to build a full management service for any entity-created waste and try to provide local jobs as a part of that. The program is currently in a pilot phase, which includes a training program on how to package waste, a network of coordinators to help make sure people at the village, regional, and statewide level are working together. There is a control tower which works to ensure at the time at which shippers are dropping off cargo at a village, there is someone to load up that empty space in an airplane or a boat. Lead acid batteries have value. Through commodity brokering, the program is trying to ensure the most value is captured from them or other materials being backhauled. Bulk supply purchasing is also part of the program, which is ensuring that buying all material for packaging waste is done at a low cost.

Ms. Carvalho noted the program has been a collaborative effort. The Solid Waste Alaska Taskforce and the state have been instrumental for working on permitting. Three federal agencies—EPA, Bureau of Indian Affairs, and the U.S. Department of Transportation—have pitched in money to help support the

program. Additionally, groups of people have been brought together, including recyclers, transporters, tribal organizations, nonprofits, and state and government agencies that have been working together along the way to provide input to the development of the program. Although EPA is asking for advice from the Board, it is asking on behalf of this large, collaborative effort. Therefore, some of the recommendations in the report may be for state partners or others.

Ms. Carvalho indicated, regarding EPA's role and interest, there are three programs invested in the success of the Alaska backhaul program:

1. IGAP
 - a. This program consists of noncompetitive grants that go to tribes and tribal consortia throughout Alaska. They cover all environmental management programs. When tribes use this money for backhaul, it is eating away at money needed for so many other high environmental priorities. In 2020, each tribe will get just shy of \$200,000 which funds a staff person and some extra materials. EPA wants to ensure those dollars go as far as they can. Anything that can be done to make backhaul more cost effective or bring in new sources of revenue will help all communities use IGAP for so many other environmental programs.
2. Tribal Waste Program
 - a. Ms. Carvalho works under this program which provides technical assistance and training on all sorts of solid and hazardous waste management issues. The program focuses on working with partners to address systemic barriers like the high cost of transportation.
3. Environment Justice Program
 - a. This key program helps ensure all individuals impacted by this issue are involved as part of the solution.

Ms. Carvalho provided an overview of the program's implementation plan. The program is in the middle of its 2018-2020 pilot phase. There are two ongoing pilot programs of about 20 months each. One has 13 villages and the second one kicked off in February and has 15 villages. Program components are being built and tested through the pilot communities. The first pilot project will be doing its backhaul starting this May through the summer. This fall, EPA is expecting to have good data on what the costs, impacts, and revenue from the recycled material were. EPA will also convene program stakeholders to discuss projections for the program's financing so EFAB could be engaged with that. In 2021, when the pilots are over, the program will kick-off. The first charge EFAB worked on focused on long-term financing for the program, touching on fees and recycling income. EPA is expecting another source of revenue through donations; transporters already provide less cost for transporting of backhaul and other potential donations from local entities could emerge. Ms. Carvalho noted, on the topic of extended producer responsibility, there is a group in Alaska which has convened to talk about what such a program would look like for the state.

Ms. Carvalho reviewed that the first charge questions were focused on fee-based programs, financing and funding options, and involving outside entities. She thanked the workgroup that produced the report from the first charge. Ms. Carvalho indicated she would appreciate the Board's consideration for a second charge to take a deeper dive. The first charge report took an awesome first step but also

identified areas for further study. Ms. Carvalho proposed to take a deeper dive into the following three areas:

1. Fee Program Administration

- a. The first charge looked at considerations for local governments to think and work through when developing fee programs at the local level given the varying differences in geographies, population, and economic status.
- b. Ms. Carvalho would like to ask the Board—given an interest in wanting to serve villages equitably despite the long geographic distances, high cost of transportation, and variable volume of waste—what factors should be considered in setting a statewide fee program for communities with disparate resources. She also asked, “How should fee payments made by villages be allocated to program costs?” and “What is the most efficient means of moving the money?”

2. Financing Strategy

- a. In the first round of this analysis, a cash flow model was developed. It was based on a lot of data EPA provided and is a great tool to use to look ahead 10 years to see where the shortfalls might be. It is an awesome tool to use as communication tool as EPA is engaging people in the state and meeting on financing for the program to show where shortfalls are. The model focused on data including fees coming from different contributors to the waste steam and recycling income.
- b. As EPA develops new potential sources of revenue, it will try to fill in shortfalls. Given suite of financing and funding options available or to be developed, Ms. Carvalho posed the question of “How should the program balance funding over a 10-year horizon to ensure sufficient cash flow reserves to sustain the program?” She also asked, “What should be done to increase investment by potential funders to achieve solvency?”

3. Program Structure

- a. EPA has a unique opportunity in developing this program to work with Alaska partners on defining the entity that will run the program. There are entities out there that might be the right candidate organizations to run the program, but EPA also has the opportunity to create something new. Ms. Carvalho posed the following three questions:
 - i. How should the backhaul Alaska program be organized and governed to best fulfill its financial strategy?
 - ii. What roles should federal, state, and local government, and others play to strengthen the backhaul program’s financial standing?
 - iii. Are there complementary business activities that backhaul Alaska should engage in to implement its financial strategy?

Ms. Carvalho proposed a change to the approach for this charge. She noted that, working with EFAB workgroup on the previous charge, it was wonderful to be a part of the discussion. EPA got a lot out of the conference calls which provided an opportunity to bounce ideas off one another. Given how dynamic this program is and the timeline for the pilot, EPA will have pilot data this fall and then will have one year to have a solid plan. In the spring, Ms. Carvalho anticipates engaging with Alaskans to set up

the program. Ms. Carvalho believes it would be valuable to have facilitated meetings on the charge questions, ideally in person or, if not, by webinars and conference calls. Ms. Carvalho is thinking of having a day-long meeting where there could be a half hour or 45-minute presentation on the charge question with data, background, and information, and a 90-minute brainstorming back and forth on how to address the question. EPA Region 10 could provide support in terms of capturing those discussions and the product in the end would be a summary of the meeting. Ms. Carvalho noted she was not sure how that fits in with the process of typical EFAB engagement but, for EPA's purposes, those discussions could identify short-term and long-term research needs to identify solutions. It would be hugely beneficial to meet, get the information, and act on it.

Mr. Hamlin added EPA is approaching the launch moment. EPA, hopefully with EFAB's help, is either going to be able to figure this out, go to its state partners, and be able to launch backhaul Alaska or going to have done all this work and still not have figured out how to get there. He noted that, in terms of the human health need, subsistence resource protection, and benefits to real people, he did not think there was anything else EFAB is working on that is more compelling. Mr. Hamlin added he hoped the Board is as inspired by Ms. Carvalho's passion as he is. He indicated EPA would love the EFAB's help in making sure the program takes off.

Discussion/Questions

Mr. Willis highlighted what Ms. Carvalho and Mr. Hamlin are proposing is a different process by which the EFAB members are engaged and a different product would be delivered. The charge to the group is those questions Ms. Carvalho presented, but the Board is not being asked to produce a report with recommendations on those questions. The Board is being asked to commit valuable time to be an advisory body to EPA and the deliverable would be a summary of those conversations, whether they were in person or on a call.

Ms. Thrope encouraged people who were not on the project the first time to not feel like they missed out. They can think of it as a new opportunity and she encouraged them to consider the project.

Mr. Holland requested Ms. Carvalho go back to a slide featuring icons with the different aspects of the work. He noticed each of the services listed are services provided in more mature markets. There are companies out there that do this work. He wondered if the companies could be engaged to see what it would take for them to participate in this market, which is disaggregated with no clear revenue stream. Mr. Holland thought it was important to size the total market—though some assumptions would need to be made, such as about people paying—and then taking those assumptions to the companies that already provide these services and have the existing infrastructure to do it and engaging them in conversations about their interest in participating in this market, with backhaul Alaska operating as market administrator sitting between the local communities, landfill operators, and the service providers.

Ms. Carvalho responded she did not think what Mr. Holland described has been written down and she indicated she would like to follow-up with him about the idea. She noted EPA has started conversations with the Responsible Battery Coalition (RBC), a nonprofit of battery manufacturers and retailers focused

on lead acid batteries. Ms. Carvalho noted Mr. Holland's idea could apply in a product-specific context and would like to further discuss the idea with him.

Mr. Holland noted he was thinking of logistics and freight companies and companies that deal with transporting waste. He assumes they are not participating in this market because the market does not exist. He noted EPA is trying to create the market conditions for them to come in and provide services.

Mr. Crooks said he thought this was exactly how EFAB ought to operate, to be a consultative body and weigh in on these questions. The Board can help EPA think through the commercial aspects of how this could come together, how EPA could get a good deal with the providers, and how to equip EPA as it rolls out the program.

Mr. Anderson observed EPA is at a point where it has asked the right questions and is now putting together a business and marketing plan. He noted that engaging people in the plan development is important. He added that the Board often sees people without a compendium of knowledge. Mr. Anderson stated there is an indigent population with a problem which needs to be solved. The population does not have the educational background needed, but they are not alone. As populations move to urban centers, the problem is going to be exacerbated. He posed the question, "How does the Board inform these constituencies, so they can figure out how to do it?" He suggested rather than breaking things down into all the questions, it might be worth going back and examining the real goals and figuring out how the Board can inform those goals, not just informing the goals for this project but how can the Board use that as a building block for the next one that will come along.

Mr. Weiss agreed it was a very good project and right up EFAB's alley. He asked if EPA had looked at models of what was done in Canada in this area.

Ms. Carvalho responded EPA has been looking at Canada and much of Canada has extended producer responsibility programs, wherein consumers of products pay a fee that covers the cost of recovery. The really remote communities in Canada are not being served even though they are paying into it because of the transportation challenges. A lack of points of contact within the communities has also been a challenge. The product stewardship organizations have said that if the waste is collected, they will go get it, but getting all the material has been a big challenge. Through IGAP, there is a single point of contact funded through EPA grants who can be that coordinator. EPA can train them and has capacity to do that. Extended producer responsibility may not pass so EPA wants to explore the other things that it can do.

Mr. Henifin noted if we are confined to a fee program, it becomes very regressive with an indigent population. The government needs to step in at some point and share some costs for things people cannot afford to deal with. He said he was struggling with how EFAB was going to come up with something that will not continue the existing problems and end up in a failure. It is a regressive policy and people cannot afford it, it will not happen. Mr. Henifin indicated he was not sure how a fee-based program gets anywhere.

Mr. Hamlin indicated that, when he thinks of how to solve this problem, he thinks there may be some fee as part of it and some extended producer responsibility as part of it. EPA would love the EFAB's ideas

on what makes sense from the perspective of the members on how to create the components. EPA will then present the ideas to its Alaskan counterparts and ask them how they want to run with it.

Ms. Beecher noted this was a case of classic market failure, which affects the recycling sector under the best of circumstances. This case adds remoteness and poverty. She suggested recognizing the failure and to look for solutions. She added the Board always gravitates toward market-based, pricing, and even structural solutions and the Board may have to look outside of the traditional model, such as looking at nonprofits or competitive bidding that remedies the failure. She suggested looking at models around the world where we are struggling with these issues and put environmental public health and addressing poverty as priorities.

Mr. Zimmer stated that the entire system costs a certain amount to handle. Maybe in the large cities it is very efficient because all the resources are there and in the far-away regions, it is very expensive. From his viewpoint, the mix between the market and the government is that the government says how much it costs to manage this problem, whether that is per unit or per person. The people in the urban communities are paying more even though it costs less and that subsidization pays for that additional cost of reaching the outer villages. It could be looked at from a more systemic perspective.

Mr. Willis noted this is the type of conversation he has heard people wanting to have on EFAB.

Mr. Chu said it is clear what EPA can and cannot do on this. He thought everyone agrees there is not much EPA can do. Mr. Chu noted he had talked with the Regional Administrator in EPA Region 10 and he has said this is a problem he could not solve. Mr. Chu then spoke with Chad McIntosh, who is the head of the Office of International and Tribal Affairs and he also indicated EPA cannot solve it. The charge is coming from EPA but is being brought by the Region because it needs EFAB's expertise and help. In Mr. Chu's opinion, the question about taking on this charge will be how much the Board is going to explore the different options and whether EFAB is willing to put a stamp on a report laying out the naked truth. The process being suggested is a little bit different. EPA is really asking EFAB's expertise to weigh in on the policy options. The Board can invite experts who do have a role in the markets, so it is not just about getting their advice and expertise but also their buy-in in terms of the issues in Alaska. There are many ways of taking this on. The charge, in Mr. Chu's opinion, is not necessarily what EPA can do, but what advice the Board has for the broader community in Alaska for how to solve this problem. This is a unique challenge for the Board to take on. EPA's Office of Water has offered resources to support the task force. EPA Region 10, like most of the EPA Regions, are really resource poor and unlikely to offer a lot of help. If the Board decides to proceed with the charge, Mr. Chu will commit to working to see if EPA can get some resources to support it adequately, such as consultants and meetings out west so EPA Region 10 does not have to put up all resources. This is the type of high-level policy project EPA is struggling with; EPA does not have an answer. As a society we may not have one answer, so this is truly asking for the Board's innovative thinking and leadership.

Mr. Zimmer stated EPA cannot do this, so the Board is trying to come up with a suggestion. He noted his state and a lot of other states receive consent orders on the water side for combined sewer overflows. Mr. Zimmer questioned how the state of Alaska has this massive land pollution issue and EPA does not have the authority to go into Alaska and slap a fine so the state has to figure it out.

Mr. Hamlin responded EPA's role emerged out of the IGAP to allow tribes to do direct implementation of solid waste activities. This is where RCRA and solid waste management are completely different than the CWA and the SDWA. EPA does not have the authority to tell people how to do things; EPA only provides guidance. In the case of IGAP, EPA is able to provide some funding for that direct implementation.

Mr. Zimmer asked about a scenario where a company pollutes the land and there is a responsible party.

Mr. Hamlin said hazardous waste management is an area EPA can address.

Mr. Zimmer indicated this situation does involve hazardous waste.

Mr. Hamlin noted very small native villages are at hand, not the state. It is a municipal government's responsibility; it is not the state's nor EPA's. He supposed EPA could go in and start doing inspections and conveying there are lead acid batteries leaking into their wetlands. They already know that, so it would not do much.

Mr. Chu suggested the conversation be continued at the reception. Mr. Chu turned the floor over to Ms. Carvalho, who turned it over to Mr. Willis.

Mr. Willis noted the next steps with this charge will be important so the Board feels fully informed in their decision to take the charge or not. The details necessary include roles and responsibilities, what is being produced, and what the timeline looks like. He indicated that, as a next step, that type of information needs to be documented and the Board review it. Mr. Willis indicated the question which needs to be collectively answered tomorrow is the SOP by which the Board makes the yes or no decision for the charge.

Summary of Day One

Ed Chu

Joanne Throwe

Mr. Willis indicated that, between now and tomorrow, he planned to take the feedback the Board provided over the course of the meeting via the polls and notes he took and frame three SOPs for the Board to discuss. The first one is on the process by which concurrence occurs, the second is about deliberations including how workgroups are structured, and a third about charge development and acceptance. That conversation will be had in plenary. Mr. Willis noted he will speak with Mr. Chu and Ms. Throwe to make space in the agenda to formally close-out the work from earlier in the day. That will be a scenario where we go through the process and then ask ourselves if we want to codify it as an SOP. Mr. Willis turned the floor over to Mr. Chu and Ms. Throwe to provide closing comments.

Ms. Throwe noted she wrote down a few comments throughout the day and wanted to make sure everyone was on the same page. She thought all of the report outs were excellent. She noted they were well done and the workgroups had great products. Ms. Throwe remarked she was incredibly impressed with everybody's work. She observed the Board is engaging in new ways today. So many of the board

members were interacting and staying engaged. Ms. Throwe expressed appreciation for everyone sticking through a long, thorough, and productive day. The Board is exploring adjustments in how things are done. Ms. Throwe indicated what she was hearing is that the Board welcomed that. There were great presentations from EPA which will be shared with the group. She noted the Board is meeting back at 8:30 am the next day and will start at 9:00 am. She thanked everyone.

Mr. Chu said he really appreciated everyone spending time today and the way Mr. Willis has structured the day. The Board is experimenting. He noticed some board members are very much engaged. He encouraged board members to tell him, Mr. Willis, and Ms. Throwe if they think some of the changes they are trying to implement are not working as well. The whole idea is for the Board to be productive moving forward, be collegial, and to have difficult conversations. Mr. Chu noted some of the board members were very energized by the conversation, but others may not be, and he is interested in hearing about that as well. He appreciated everyone spending time and thanked them. Mr. Chu also thanked Mr. Willis.

Mr. Willis posed a poll question to the members to provide their reflections on the first day.

The meeting adjourned at 5:22 pm.

Day 2 – April 18, 2019

Opening Remarks

Ed Chu

Joanne Throwe

The Board reconvened on Thursday, April 18 at 9:00 am.

Mr. Chu welcomed everyone to the second day of the EFAB meeting. He noted there will be a lot to cover on the second day.

Ms. Throwe wished everyone good morning and thanked the two board members who joined, *Linda Sullivan* and *Eric Rothstein*. She encouraged everyone to stay engaged since there is so much going on today.

Mr. Willis relayed the agenda adjustments made for the day two. There will be a new item at 10:45 am. Holly Greaves, EPA's Chief Financial Officer (OCFO) will join the Board to provide remarks and take questions. Mr. Willis said there will be time to make concurrence decisions for the work discussed yesterday. After lunch, the Board will dive into the details of establishing SOPs based on yesterday's conversation and the poll results. Sometime between 2:00 pm and 2:15 pm, the Board will pause for public comment and then the Board will strive to adjourn at 2:30 pm. At the 10:00 am session, the Board will discuss what type of work EFAB should consider. He pointed out there was a template in the meeting materials with questions to consider when contemplating taking on new work. Mr. Willis turned the floor over to Mr. Rothstein and Ms. Sullivan.

Report Out: Financing Water System Regionalization

Eric Rothstein

Linda Sullivan

Ms. Sullivan thanked Mr. Willis and apologized for not being able to be in attendance yesterday. She remarked this charge has been interesting for the workgroup and it is a very broad charge on regionalization. The workgroup took a bit of a different approach in terms of how everyone was brought together. Ms. Sullivan thanked EPA, Mr. Chu, and Ms. Throwe for allowing the workgroup to have a very collaborative session. Ms. Sullivan thanked Mr. Covington for putting it together and acknowledged it was done in a very short period of time. The workgroup met in a one-day session which Ms. Throwe facilitated and it made a big difference in getting to the recommendations the workgroup has for this charge. It was a large group with a lot of input from everyone. Ms. Sullivan thanked the team for that. The outcome from the workgroup is a little bit different than some of the other charges. Because the charge was very broad, the workgroup had to have some findings along the way in order to get from the charge to the recommendations. Ms. Sullivan remarked that, after the report out, she would like to talk a little bit more about process if there is time. The charge was focused on looking at the financing strategies for system consolidation and regionalization.

Ms. Sullivan noted one of the biggest findings is the fragmentation of the market and large number of water and wastewater systems in the United States. A map is included in the workgroup findings which was put together by Ms. Beecher and her team demonstrating the structure of the industry. There is opportunity for consolidation and regionalization which can drive efficiencies and help improve water quality. Another finding is that, as you look at the state of the water and wastewater industry, there is a significant need for capital investment for critical infrastructure, as numerous reports discuss. EPA estimates the need at around \$800 billion over the next 20 years. Regionalization can provide a way to address this need economically.

Mr. Rothstein noted the workgroup struggled with the notion of beneficial consolidation and regionalization instead of consolidation for consolidation's sake. It is important to keep a focus on ensuring the potential benefits—improving the ability to finance and improving service—are actually realized for customers, not just for changing the landscape of the marketplace. Mr. Rothstein added it is important the impacts on end users are kept in mind. The workgroup spent a lot of time struggling with the basic politics around consolidation and regionalization. In many cases water and wastewater systems are critical components of a municipal government so the notion of sharing government's responsibilities and changing structures goes at the core of people's senses of community. The workgroup sought to identifying mechanisms which will help communities look towards achieving the benefits for end users while navigating the difficult political landscape.

Ms. Sullivan indicated the workgroup also talked about how to define benefits. Benefits are not necessarily only about affordability but also about making the needed investments for the systems and water quality. Benefits can mean a lot of things and should mean a lot of things. Another finding was

that, when looking at consolidation or regionalization, it is important to address water quality as part of that. Ms. Sullivan reiterated the major findings included infrastructure, investment, and water quality.

Mr. Rothstein highlighted the issue of respecting local decision-making. Oftentimes, local decisions are not being made with as much information as would be ideal to have. Some of the findings and recommendations speak to the need to try to help ensure well-informed decision-making at the local level to be able to achieve beneficial consolidation.

Ms. Sullivan noted another finding was there is a lot of information about regionalization and consolidation, but it is difficult to access. Improving availability of and access to the information would be very helpful when faced with these types of decisions. The workgroup also looked at the credit rating agencies, which are precluded from advising on structuring, but they recognize that credit quality by way of economies of scale is an element of the credit ratings.

Mr. Rothstein stated the last finding is the launch point for the core of the workgroup's recommendations focusing on EPA actions. He mentioned the notion that EPA-sponsored programs can incrementally impact the financial landscape with respect to opportunities for beneficial regionalization and consolidation. The recommendations speak to how EPA can go about altering that landscape to promote beneficial regionalization and consolidation. Before going through the recommendations, Mr. Rothstein expressed his thanks to EPA staff for getting the workgroup focused. The workgroup focused on potential recommendations for EPA as it thought about how it administers programs.

The workgroup had six recommendations:

1. SRFs and WIFIA. Mr. Rothstein noted the workgroup is recommending promoting and incentivizing consideration of beneficial regionalization and consolidation through SRFs and WIFIA and through the permitting process. This could be done in a number of different ways, for example by potentially altering the terms for SRF and WIFIA loans that provide some advantage for projects that would advance regionalization and consolidation. The workgroup spent a couple months discussing the terms regionalization and consolidation and what falls into either one or the other. That discussion is included in the report. Ms. Sullivan noted that, as systems are going through and getting their permits, there is not one way to look at the capacity being built. There could be excess capacity being built when looking at systems in isolation and projects for systems in isolation. This recommendation is asking we step back and look at the particular area and make it a criterion for SRF funding, for example, to look at whether excess capacity is being developed or if there are better ways to do this from a regionalization standpoint that are more efficient and effective. That can be a requirement of the funding and there can be a basis point added to the extent there is a regionalization project so there is an incentive for people to look broadly at the work being done.
2. Safe Harbor Provisions. Mr. Rothstein noted this issue comes from the perspective of a utility director who may be thinking if they go about a process which has them bringing in a system, if the system is of substandard quality, they are potentially inviting enforcement actions on their larger system. There is a notion to provide safe harbor so potentially consolidating entities would be in a position protected from an adverse enforcement action when trying to do the

right thing and lending aid to surrounding community water systems which may be struggling. Ms. Sullivan added this would be for a reasonable period of time so they have the ability to address the issues.

3. Public Water System Supervision (PWSS) Grant. Mr. Rothstein remarked existing allocation formulas for PWSS grants may be structured in a way that discourages consolidations because the formulas are based on numbers of systems. States could be adversely impacted in terms of allocation of dollars by consolidating systems. It is important to look through and see if there may be adjustments needing to be made to avoid that disincentive.
4. Capacity Development Strategies. Ms. Sullivan noted there have been Capacity Development Strategies out there for a long period of time that look at technical, managerial, and financial capacity. It is important to review these as part of the regionalization and consolidation approach.
5. Website. Ms. Sullivan remarked there is a lot of great information out there, but it is difficult to find. It would be helpful to pull all information on one landing page on the EPA website, so someone could go and find information about regionalization and consolidation. It would be objective information on the site. Mr. Rothstein noted EPA mentioned it has a website that does have a lot of the information. This caught the workgroup a bit off guard. The availability of these tools and the ability to access these tools is not well versed among many people making the decisions. We need to work not on building new things that duplicate something already there, but to work with stakeholders and others to make sure the connections are made to achieve a level of stakeholder engagement where those who are responsible for making decisions and need to have this information know to go to EPA's tools and use those tools and know they include objective information. It is less about a technology solution but more about communications, messaging, and marketing of information EPA already does a good job of compiling and collating.
6. Stakeholder Education. Ms. Sullivan noted this recommendation is similar to the previous one. There is a lot of good information on a state-by-state basis yet pulling it together into one place so there is access to what is happening would be very helpful. For example, in New Jersey, there is a Water Quality Accountability Act so individuals in New Jersey probably know that Act, but Ms. Sullivan questioned if there is access to information when things are happening on a statewide level.

Mr. Rothstein stated the workgroup completed its report and put together a transmittal letter for Ms. Throwe's signature.

Ms. Throwe asked if Mr. Rothstein and Ms. Sullivan were able to connect with those who were in the breakout group yesterday.

Mr. Zimmer highlighted formatting issues. On the case studies, the group was looking at adding words to the titles to inform people. For example, the first case study could say "Case Study 1 - Facilitating Legislation" and then the title of the case study. He indicated he would sit down with the co-chairs to relay the formatting suggestions the group had.

Mr. Rothstein acknowledged Ms. Sullivan made one of her colleagues available who was spectacular with dealing with editing.

Discussion/Questions

Ms. Daniel stated she loved the way this is laid out and the recommendations are clear. Ms. Daniel pointed out a section on page 12 that jumped out at her: “EPA should authorize an interest rate incentive discount (50 basis points) for SRF projects that meet the applicant’s objectives.” Ms. Daniel asked if the Board was suggesting that EPA implement a mandate, since that is usually up to a state’s discretion.

Mr. Zimmer responded by noting there is a lot of communication happening between EPA and all the states in terms of guidance and best practices. The idea is that EPA is the central warehouse. He posed a question about what kind of information EPA contains that would touch on green infrastructure or AIS. Mr. Zimmer noted the Board is *recommending* people do certain things.

Ms. Beecher indicated the group had a loose but productive conversation yesterday primarily around issues of process and editorial control. Ms. Beecher pointed out the original charge was about regionalization and it morphed into consolidation. It would have been helpful to have more of an iterative process around defining the scope right from the beginning. She thanked the chairs for including “beneficial” because you want to see solutions with tangible benefits that can be empirically demonstrated. Word choices matter and send policy signals. She noted the workgroup produced a useful product with lessons learned for future projects.

Mr. Willis turned the floor back to Mr. Rothstein and Ms. Sullivan to talk about process.

Mr. Rothstein indicated the process was difficult. He acknowledged he did not have a clear idea about what he was to be doing. He was interested in the subject, thought it would be good to get involved in, and has useful experience, but it was not clear what the workgroup was to do. The workgroup produced an outline of ideas which was a pretty expansive potential document. The workgroup participated in conference calls where Mr. Rothstein felt as though he was beseeching people to do things and nothing would happen.

Ms. Sullivan added, in addition to the outline, there were also deadlines and a timeline, but they were not met.

Mr. Rothstein also noted the workgroup struggled with understanding the level of authorship the workgroup should be doing versus referencing other resources. The Board is not a research organization, but the workgroup did need product of research. Navigating through that was difficult. The special work session the workgroup was able to hold in D.C. was really helpful. Coming out of that with the notion of just focusing on recommendations proved very helpful in narrowing things down. However, the workgroup struggled with how to make recommendations without providing a greater level of contents, which is why the findings are included in the document. Now the workgroup has questions about the fate of the document and how it will be used. It is difficult to think the workgroup will have done all this work and not know what happens to it. It is not necessarily going to be tied with

the other really good work being done on this subject. The U.S. Water Alliance and the University of North Carolina have publications out related to this topic and it would be invigorating to think the workgroup's work is being leveraged with some of the other work that is occurring to achieve a large level of momentum.

Ms. Sullivan added the face-to-face workshop made all the difference in terms of process. It brought out the expertise that exists on this Board and the accountability for bringing up recommendations. Ms. Sullivan suggested exploring how to bring people together for face-to-face meetings, so the Board can have more meaningful workshops.

Mr. Hughes remarked when the Board takes on a topic of such national importance, there are so many people to communicate with. The letter will go to EPA, but the workgroup could be communicating with small utility directors, those at the state level, public officials, EPA headquarters, EPA regulators, or EPA dissemination units. Yesterday, the Board discussed what the expectations are when sending the letter to EPA and who is receiving it. With this topic in particular, it became clear some of the recommendation are for EPA and some are for EPA to send to someone else. The workgroup recommended adding to the letter that whoever receives this letter be tasked with sending the results of this work out to Regional Offices in EPA and different units within EPA because it was not clear if the Administrator on his own would know what to do with it. Early on, the workgroup was doing some projects which were probably better oriented toward units of government or utility commissions.

Ms. Throve indicated the letter has not been sent out, so it can be pulled out to make those changes. Mr. Covington will work with the workgroup to do it quickly. Ms. Throve agreed to add language about who the workgroup wants to see this. Ms. Throve noted Ms. Sullivan and Mr. Rothstein did an amazing job. There were challenges but the right expertise was on the workgroup. Being new members, Ms. Sullivan and Mr. Rothstein pulled this together and did an amazing job. The day locked away was so productive and the workgroup needed it. Ms. Throve noted she appreciated the discussion on process.

Mr. Willis clarified there will be two sets of changes. The first change was for formatting of the case studies and other items Mr. Zimmer pointed out and the second is to add explicit action for EPA to the cover letter. Mr. Willis explained yesterday when going through the other topic areas, he made a call for red flag issues. He indicated he has not heard any but did hear editorial comments. Mr. Willis stated the workgroup already got the requisite number of calls for concurrence.

Mr. Meister noted the document will be an extraordinary work product and thanked the group. He asked if the Board resolved the issue raised by Ms. Daniel and Mr. Zimmer on the SRFs. He noted if it was not addressed, perhaps an SRF manager would read it the wrong way.

Mr. Willis said he interpreted the exchange as Ms. Daniel asking the question and Mr. Zimmer clarifying.

Ms. Daniel stated a slight tweak in language would be helpful so readers know it is a suggested best practice and not a suggested mandate. States have discretion and states manage their programs according to their capacity and needs. She noted, if the Board is suggesting a mandate, it needs to be said emphatically, but if it is just a reference around best practices, a two-word change might be helpful.

At this point in the meeting, the fire alarm system in the hotel went off, interrupting the discussion. The meeting reconvened at 9:52 am.

Mr. Willis noted that before the alarm went off, the Board was finalizing the last set of editorial changes to the document.

Ms. Daniel suggested replacing the word “authorize” with “encourage” and strike the content in parentheses in the sentence stating “EPA should authorize an interest rate incentive discount (50 basis points) for SRF projects...”

Mr. Willis asked if Ms. Sullivan and Mr. Rothstein were okay with those changes.

Ms. Sullivan and Mr. Rothstein both said yes.

EFAB Member-Driven Topics: Ideas for New EFAB Work

Mr. Willis indicated Mr. Chu and Ms. Throwe have discussed the process associated with the pipeline of work this group does. They expressed there might be value in allowing EFAB members themselves time and space to think about what work might be germane, both for EFAB and for EPA. Mr. Willis said he would open the floor up to members to talk about work they think might be germane for EFAB. He reminded members, as they think about the lifecycle of the work and the process of the work, they will have an SOP which identifies and vets what those topics are, another SOP detailing how topics go into a charge, and a process by which the Board accepts the charge, executes the work, and delivers it. Mr. Willis presented the template provided to members. The template takes the content of what EFAB is in a position to do and turns it into a screening criterion. As members think about work germane to EFAB, they need to ask and answer the screening questions:

1. What is the problem or opportunity to be addressed?
2. How will resolution to this problem or opportunity contribute to lowering the cost of environmental protection in this area?
3. Does EPA have authority or the ability to take action in this area? If yes, how does this topic fit into work done by EPA?
4. What about this issue lends it to being germane for EFAB to explore?

Mr. Willis opened the floor up for members to present ideas of work for EFAB to explore and indicated members should answer those questions as they do so. He noted the Board would also have to identify the process by which the topics would move through the lifecycle.

Ms. Throwe provided an example of what happened in the past on a particular topic the Board discussed and then went forward with as a charge. A few years back, the Board was having an open discussion and Ms. Throwe brought up the topic of financing for the replacement of lead pipes. There was a lot of interest from board members. The Board decided to move forward and propose it as a potential topic to EPA. There were several offices that became engaged. EPA was not necessarily aware it could be a possible charge but there was so much interest and backed up support from EPA. It turned

into a very successful report. That was an example of how EFAB was able to drive an issue to completion.

Mr. Chu noted the reason it was important to allow time for this discussion is that, from EPA's perspective, EPA is focused on the mission of the day and a lot of the work is statutory. EFAB members—due to their expertise and location—may see issues EPA does not have bandwidth for or is a blind spot for EPA but important to consider. Mr. Chu indicated the discussion opened up the opportunity for a dialogue. He underscored the point made by Mr. Willis related to needing a rigorous and transparent process for charge development.

Mr. Crooks encouraged fellow board members to think more broadly as the Board responds to this request. He indicated he is not a fan of writing extensive reports at this level. He encouraged the Board to think about opportunities where the Board might be in a consultative posture about how EFAB can use its connections to connect EPA staff with decision-makers and sources of information about issues, and how EFAB can help hone EPA's thinking in certain areas rather than thinking about what kind of report to write or in addition to writing a report. Mr. Crooks encouraged members to think about outside of the traditional EFAB report writing mold.

Mr. Chapman noted that annually, every electric system in the United States—regardless of ownership or government structure—submits Form 860 to the Energy Information Administration (EIA). It is a detailed snapshot of financial and operational data that those interested in the sector get a lot of useful data from, including average rate revenue per kilowatt hour by customer rates. He did not believe a comparable collection of data exists in the drinking water or clean water sector. There are affordability concerns; it is a third rail issue in this industry. However, it is hard to know where to go unless you have a measure of where you are right now. Mr. Chapman proposed considering some way to capture that data whether it is average revenue per customer or assuming some amount of consumption, or other options. To have that data would be useful for all decision-makers to be able to craft intelligent policy recommendations. He acknowledged that various attempts to measure affordability have been done for decades by this group and by others. Having a comprehensive, continually refreshed set of data would be very helpful. Right now, it is a sampling and it is not consistent in reporting or measurement.

Mr. Willis indicated he would ask Mr. Chapman follow-up questions to test the list out and then allow for five minutes of question and answer. He asked Mr. Chapman, "What is it about this problem that makes it germane to the charge of EFAB?"

Mr. Chapman acknowledged it will potentially meet resistance, for example, if rates are low because it is a policy decision or rates are high because the system is tiny. He suggested that, once everyone is put on a level playing field, you may identify things like a utility being small and lending itself to regionalization or ASD. Mr. Chapman believes there is potential to foster discussions about improving efficiencies, lowering costs, and affordability.

Mr. Willis asked Mr. Chapman, "What could EPA potentially do?"

Mr. Chapman said he is not advocating dumping projects on anybody, especially since the potential direction of EPA resources may not be commensurate with taking on new projects. He stated he thought

everyone was in favor of transparency and disclosure. The financial industry certainly is and those who invest in the water sector would certainly like to have more than a rote recitation of assets and liabilities. Mr. Chapman acknowledged most of it is in the municipal sector, but municipal sector disclosure has room for improvement. He is not proposing a regulatory, unilateral initiative, but he indicated local communities could be encouraged to think about this. They are all monopolistic providers of their service; they do not have to worry about competition per se. However, if you can see the next town over has lower rates, maybe a discussion can be had about shared costs, partnerships, or common procurement. Mr. Chapman believes every little bit would help and certainly would not hurt.

Mr. Willis indicated there would now be time for questions, answers, and reflections.

Mr. Henifin noted it was an interesting concept, but, as a utility he is thinking this would be another reporting/regulatory issue. He did not see where it gets to lowering costs because water is underpriced throughout the United States, so he believed that what would result is a race to the bottom. As it becomes more visible your neighbors are charging less, potentially less investment is made by the higher cost utilities. Mr. Henifin did not believe reporting would lower overall costs.

Mr. Crooks noted it sounded like a worthwhile piece of data, but it does not sound like a piece of work EFAB should be doing. He asked Mr. Chapman if he saw a role for EFAB to advise or consult with EPA in formulating an approach to doing this. It would be useful for the industry, credit markets, and decision-makers.

Mr. Chapman said the credit markets and their counterparts would be very interested in this. This sector is capital intensive. Regardless of ownership structure, borrowing is probably part of the solution for addressing capital expenditures. Financial counterparts and lenders are interested in this kind of stuff.

Ms. Beecher noted that the dream would be to have data comparable to EIA data. The difference is there is a federal economic regulatory presence in the energy sector, which is the Federal Energy Regulatory Commission (FERC). FERC provides uniform system of accounts which could be a barrier for the water sector. All of the major state-regulated private systems have this data and are following a system that is fairly comparable from state to state. Ms. Beecher suggested that systems in the credit markets should have that data too.

Mr. Chapman noted the data are inconsistent as a result of accounting standards and practices. This data inconsistency, in his view, also relates to timeliness, uniformity, and transparency from one municipal entity to another, especially when compared to regulated private utility counterparts that are subject to relatively uniform standards. Investor-owned utilities account for a relatively small share of the population served for drinking water.

Ms. Beecher noted it may be much less than that. There are only about nine that are publicly traded companies. Ms. Beecher agreed it would be good to have a uniform system and more transparent reporting and better data collection. Ms. Beecher suggested EPA's Community Water Systems Survey is an ideal place to reform to start to get better data on some of the things Mr. Chapman is talking about. It is difficult because there are surveys year to year and concerns about inconsistency.

Mr. Hughes indicated that what Mr. Chapman is describing is done at a state level for about 15 states. EFCs collect findings similar to the EIA. It is done as an environmental finance goal with the interest that, if more information is presented in a certain way, it will show weaknesses in current revenue collection. This is done this way specifically to try to encourage more investment in the water and wastewater sector. Mr. Hughes believes a lot of the EFAB tasks are not about lowering costs of environmental protection; they are about the second part of our charter bullet. It says lowering costs and increasing investment in the area. Communities do not see the data gathering as lowering costs of environmental protection; they see it as raising the cost. EFCs would say it lowers the costs of getting your environmental protection goals out there. Mr. Hughes said it bothers him to have a driver of the Board's work to lower environmental protection cost. He thinks the Board knows what it means when it says that, but a lot of clients come to the Board, for example, to lower the cost of backhaul. However, the Board is not lowering the costs of backhaul for the consumer; the cost to the consumer is actually increasing.

Mr. Zimmer indicated that, as a SRF intimately familiar with and involved in lowering costs, there are two ways to do it. One is through efficiency. The other is through pricing. They do not control the markets, so they have to do it by lowering risk. He noted that, if the Board wants to focus on the first part of its charge, members should be thinking about how the Board can assist EPA in mandates which would lower risks on the ultimate projects or increase efficiencies. That is either through the delivery of the WIFIA or SRF programs or in helping the Board's subrecipients in their processes.

Mr. Anderson indicated this process excites him because it puts the Board in a different place than the Board is typically in. Typically, the Board is asked to fill in a tiny box that is in a mature process. The current discussion provides the Board with the chance to bring all the intellectual horsepower this Board has and define for itself some prospective ideas. The Board sees issues the Agency may or may not see. A lot of what the Board is faced with is trying to figure out how to take a regulatory scheme started 50 years ago in a different world, in a different time. We did not have corporate compliance; today, we have some corporations that are in many ways more difficult to deal with than EPA in terms of their compliance worldwide. There is capital attracted to these marketplaces from a technology standpoint that never existed before. There are impact funds attracted to this space that were never there before. There is all this expertise developed around infrastructure funding that has never been transferred to the regulatory and enforcement side. There is an enormous opportunity for leverage. We are faced with urbanization and the question of rural underfunded systems. We are faced with exponential technological changes. We will be faced with demographic displacement over the next 20 years which we have never seen before. As the Board thinks about these charges, Mr. Anderson posed the question of how to take and apply the capital expertise to make that happen. When the environmental protection story started, it was not particularly a capital constrained discussion. We decided to do something, had public money, and did it, or we forced somebody else to pay for it. The world is not that way. Mr. Anderson posed the question of how the Board figures out how to apply that capital structure to what happens. If the Board can devise some charges as to how to do that, the Board can bring up some of these issues we are going to be facing.

Mr. Willis requested another board member provide a suggested topic. He added the member should provide a short title to refer back to. He also indicated the Board needs to do a better job of articulating all the subcomponents of what the charge area of EFAB is. Mr. Willis has also started thinking about what a process could be that would make this conversation more efficient and more supported.

Ms. Throwe reminded board members that they can go beyond water.

Mr. Holland suggested the title for his idea be "Capitalization of O&M for Distributed Infrastructure." He has worked with a lot of different systems around the country and has done a lot of financial modeling for building out green and distributed infrastructure systems typically as part of a water quality mandate. If you build out a lot all at once, your O&M mandate over a long period of time typically exceeds your capital expenditure of those systems. A lot of systems are really reluctant to do anything big quickly. They wind up having programs rolling out these projects slowly over a long period of time so as not to assume that capital requirement on O&M or they shift the O&M requirement to private property owners and assume O&M will be done through some sort of fee rebate, which typically has challenges for a variety of different reasons. Mr. Holland wonders if there are ways to procure distributed infrastructure, whether on private or public property, in such a way to capitalize the O&M up front and effectively endow the project over some period of time. He asked if that was something that EFAB would want to take a look at.

Mr. Willis asked Mr. Holland, "Does EPA have authority or the ability to take action in this area? If yes, what does that look like?"

Mr. Meister asked if Mr. Holland is willing to expand it beyond water to land or ground. Mr. Meister thought what Mr. Holland is getting at is something which articulates the broad objectives Mr. Anderson articulated.

Mr. Willis indicated he would like to expand the topic beyond water for the purpose of experimenting with the discussion.

Mr. Holland noted EPA can make the capitalization of a long-term O&M fund a requirement under a permitting process. EPA could make it a requirement or a state regulator could do that. EPA could provide guidance through SRFs or through the WIFIA program on how to create financing structures that achieve this goal of making sure your O&M balance is never negative based on some standard projection that EPA could provide guidance on.

Ms. Daniel thought this topic went to the heart of some of the challenges she sees with her clients. It also invites a question about EFAB, EPA, and coordination with other federal departments, and the fact that EFAB and EPA have been siloed. One of the impediments she thinks will come up is tax-exempt financing and regulations around working capital and whether you can finance some type of escrow in a tax-exempt manner. She wondered if EFAB had the ability to recommend some change to another department to encourage this kind of work or is it something where EFAB could partner with another group.

Mr. Chu noted something could be included in the transmittal letter identifying other things that need to be done and EPA could engage other agencies. The first order is what EPA can do; if there are other things EPA could do with other federal agencies, that is a second order.

Mr. Holland stated the tax-exempt issue is currently being looked at and believed there is a bill in Congress providing some tax exemption to private property owners who receive grants or subsidies from local water utilities to host distributed infrastructure systems. There are two ways Mr. Holland has seen this play out. The first is that utilities create massive unfunded mandates. Otherwise, there has been a lot of interest from EPA in promoting pay-for-performance structures where you will get some form of endowment capitalized to a private operator but then you run into tax issues. If you are seeding a big payment up front to operate a system over some period of time, then you have to take a 30% haircut on that payment in addition to having to take some really massive long-term risk on O&M costs and you will limit who is likely to bid on that project.

Jeff Walker sought to clarify if Mr. Holland is referring to nongovernmental organizations and nonrevenue projects.

Mr. Holland believed so.

Mr. Walker said in Texas, the USDA Natural Resources Conservation Service (NRCS) built dam structures many years ago, turned them over to locals, and, 30 years later, the locals did not keep up with O&M so they are about to fail. Mr. Walker agreed something needs to be done. It is currently difficult to get systems to implement system rates to cut their O&M; now the discussion is to give them O&M upfront. Mr. Walker thought you could allow O&M costs as part of the SRF, but it is a bad idea. He sees a problem with putting distributed systems out there since they are not revenue generating, so the question remains of how to keep up with them. Mr. Walker recommended to Mr. Holland that the title for the topic include the word “distributed”, not just O&M overall.

Mr. Holland agreed and thanked Mr. Walker for the clarification.

Mr. Anderson indicated the topic was interesting because it has applicability in so many other regulatory schemes. He stated he had run into this issue within privatization, redevelopment, and financial assurance.

Mr. Willis said that, at the end of the discussion, he will ask members for their feedback on this discussion process and how to make it more efficient.

Mr. Meister asked if there is a way to take the SRF model, the financial model, the annual grant-based capitalization, the delegation to the states and their independence, and apply it to air, land, or other problems. The subpoint would be that even the most sophisticated and developed SRFs across the country probably do not use the structure to its full potential. The question is why and what could be done to encourage states to use those structures to their full potential and then use state-based resources to support and integrate. The short version of the topic would be “Is the SRF model applicable to air or land or other water products?”

Mr. Willis asked how the topic fits with EPA since Mr. Meister framed it as a question of encouraging states to use it in a different way.

Mr. Meister said it was a question for EPA: "Is there a way to use this developed tool and use it for other problems?"

Jim McGoff said Indiana has tried to duplicate the SRF program for both air and land. One of them was trying to do a revolving fund for air-related activities. On the land side, Indiana has tried to incorporate brownfield remediation into the SRF program. Mr. McGoff manages Indiana's brownfield finance program. It frustrates Mr. McGoff that that particular program at EPA in essence competes with the states. On the water side with the SRF program, the cap grant is given to the states and the states manage the program. On the brownfield side, there are some funds that go to a state but then there are funds that go to the regions and Mr. McGoff sees direct competition between the state and the region on funding projects. He asked why states should be in competition with regional partners when they should be in partnership. This is an inefficiency Mr. McGoff sees directly.

Mr. Holland stated the New York Environmental Facilities Corporation which manages the New York SRF guaranteed a revenue bond which was issued and then given over to the New York State Energy Research and Development Authority for doing energy efficiency measures under the guise that energy efficiency measures decrease atmospheric deposition and thereby reduce surface water pollution. There is a case study of it on EPA's Water Finance Center's website.

Mr. Zimmer said it was important to go back to the CWA and SDWA. There has to be a water quality benefit if we are going to utilize SRFs. Otherwise, Congress would have to change the law. Everything has to be tied back to a water quality benefit or a public health need. In the CWA, outside of section 319, you are really limited to public entities. In the SDWA, you are limited to public entities or you have to be a distributor or treater of water. It limits who you can loan funds to. New Jersey does conduit loans for redevelopers and gives the money to the local government unit that then turns around and lends it for the section of the redevelopment project that is water quality based or public health based. However, that project takes on the risk of that redeveloper's limited liability company succeeding or not and these are public funds. As a steward of public funds, you have to be very sure the project will succeed and rates will be able to be taken off of it. This idea has limited applications given the types of constraints the law puts us under and the types of risks even when we find projects that fit within those constraints.

Mr. Weiss added SRFs do have guarantee authority. There are probably some states which take advantage of that and some that do not. Rhode Island created a new pooled loan program leveraging the Regional Greenhouse Gas Initiative and system benefit charge equity to fund alternative energy and energy efficiency projects. The state cross-collateralized them with a road and ridge pooled loan program which had leveraged other state money.

Mr. McGoff stated he did not think Mr. Meister's question was about taking SRF money and the SRF program and utilizing them in your state for creating purposes. He believed the question was "Should

EFAB take on a charge that would make a recommendation back to EPA to duplicate the SRF program in some of its in other programs?”

Mr. Meister agreed.

Mr. Willis considered the amount of participation and energy to mean that members found the discussion to be a positive experience and use of EFAB time. He thought the process would have been more efficient had members had something to react to on paper, like a one-pager the person presenting could refer to. Mr. Willis suggested members could work in pairs to create space for in-between meeting debates. At the EFAB meetings, time could be set aside to discuss the topics. There could be a request that responses be provided ahead of time and an EPA person related to the topic could be included at the meetings.

Mr. Anderson stated that, at a minimum, the process used to develop charges should be done consistently. He suggested time be set aside at each meeting to explore topic ideas.

Mr. Rothstein said he liked the idea of preparing advanced thinking on topics. It is important the Board is clear about starting assumptions, like what produces a reduction in overall costs. He indicated he was germinating an idea on how to promote equity and inclusion in the water sector. There are a variety of workforce issues and other aspects of water sector operations. EFAB and EPA's funding programs may have a significant potential contribution in that regard. The idea is predicated on the notion the sector will be advanced and will achieve long-term lower costs and a more equitable distribution of costs if it embraces the need to promote equity in the sector, in terms of workforce development or distribution of costs. That is Mr. Rothstein's starting assumption, but not everyone may share in that starting assumption.

Ms. Throwe reminded board members that many projects have been done in the past the Board could refer to, update, or use as the Board guides the process.

Mr. Willis asked if there were any final comments and there were none.

[Presentation to EFAB From EPA's Chief Financial Officer](#)

Mr. Chu welcomed *Holly Greaves*, EPA's CFO. The position is one of EPA's few presidentially-appointed and Senate confirmed positions. He noted Ms. Greaves was confirmed the day before she had her second child. Ms. Greaves is originally from Tennessee and was with KPMG International and Ernst & Young before she came to EPA. Ms. Greaves comes with significant experience with both public and private clients. She also lectures at George Washington University on accounting. Ms. Greaves manages several hundred people at EPA. She is in charge of EPA's financial integrity and the effective and efficient management of all of EPA's resources. Last year, Congress gave EPA a budget of close to \$9 billion. EFAB's work on lowering the cost of environmental protection and increasing capital investment is aligned with Ms. Greaves' work. Historically, this Board advised the Administration through the office of the CFO and a few years ago, that management changed. Ms. Greaves really wanted to have a conversation with the board members. Mr. Chu turned the floor over to Ms. Greaves.

Ms. Greaves thanked Mr. Chu and Ms. Throwe for having her. She stated that federal advisory boards are a very important asset the Agency has. EPA appreciates EFAB's input and feedback. This body in particular is in a very unique position to help EPA with some of the biggest challenges EPA faces today, from lowering environmental costs to a focus on increasing public and private partnerships, as well as strengthening coordination with state and local governments and tribal partners. On behalf of Administrator Wheeler, Deputy Administrator Darwin, and herself, Ms. Greaves thanked the board members for the time they give to serve EPA in this very valuable and important way. Ms. Greaves has started her third year at EPA and remarked that the Agency critically needs the advice and input of the Board particularly when it comes to lowering cost for environmental protection. As a group, we need to better understand and come up with a better answer for the "how to pay" question facing everyone at the federal and state government levels. Environmental needs and expectations continue to grow. The need for the Board's advice has never been greater. Ms. Greaves appreciates the Board's charter. The priorities of the Board align with Ms. Greaves' own and some of the initiatives being implemented at EPA. Some of those priorities are highlighted in EPA's strategic plan and budget.

EPA issued its strategic plan for FY 2018-2022. It lays out goals, objectives, and long-term performance measures by which EPA will measure its progress. The plan is not intended to be a full representation of all the work EPA does. It is intended to accelerate progress in areas identified as the highest priorities. The plan has three goals, focusing on: (1) EPA's core mission, (2) the partnerships EPA has with state, local, and tribal governments about shared accountability, and (3) improving mission support and a return to overall process. In core mission space, EPA focuses on identifying and accelerating progress across all programs. One area of focus is modernizing and upgrading the aging drinking water and stormwater infrastructure. EPA continues to leverage SRFs and appreciates the Board's ideas on how EPA can better use and manage SRFs. There is an emphasis on turning to the more modern WIFIA program to finance high priority water infrastructure. The second goal is geared around the idea that environmental protection should be a shared responsibility and making sure the right balance is achieved. As implementers of environmental programs, we have to work together at all levels. The third goal is focused on how EPA modernizes its internal processes. Where possible in the plan, EPA has identified its linkage with the President's Management Agenda. For EPA, that means taking advantage of shared services and shared solutions. EPA is one of the few government agencies that aligns its strategic planning with its budgeting process.

At any given time, EPA can be working in three different budgets. EPA recently received its enacted budget for FY 2019. EPA just testified on its FY 2020 budget and, in the coming months, will be working on the next budget. The 2020 budget is a carry-forward of the priorities set forth in past budgets of this Administration. It reflects the President's priority of respecting the taxpayer and, at the same time, ensuring EPA is making critical investments in the nation's health and safety. It supports continued work at EPA to reduce identified unnecessary regulations and investment in areas demanding greater attention, such as protecting children from lead exposure. EPA's budget request provides critical support in the area of water quality protection. For example, EPA's requested incremental funding for the SRFs would again supplement the more than \$80 billion currently revolving at the state level. EPA also requested additional subsidy for the WIFIA program to continue momentum and accelerating progress. Ms. Greaves is most excited that, in 2018, Congress passed AWIA, which was needed bipartisan

legislation. Because of the timing of enactment and discussion surrounding the FY 2019 funding bill, there was not funding to implement this legislation. This year, the funding EPA proposed would allow EPA to start implementing some of these programs. The legislation includes five new grant programs, focused on lead testing in schools, drinking water fountain replacement, as well as water infrastructure workforce investment. Funding AWIA would provide EPA with the opportunity to touch even more communities in the water infrastructure space. Administrator Wheeler has recently said he believes water issues resulting from drinking water to marine litter to infrastructure are the largest and most important and immediate public health and environmental issues affecting the world today. He wants to make sure the public knows EPA will be there when they encounter environmental threats here at home and on the international scale as well. In closing, Ms. Greaves thanked the Board for giving her the chance to be here and sit in on some of the Board's comments. She noted she appreciated the Board's service. The Board does important and valuable work. She acknowledged board members have permanent jobs as well and extended thanks to the board members for taking the time to come to D.C. Ms. Greaves said she would be happy to take a few questions.

Mr. Chu thanked Ms. Greaves and asked if any members had comments or questions for her.

Discussion/Questions

Mr. Henifin asked where the Administration and EPA are on climate change. He noted it is a huge issue for Hampton Roads due to sea level rise and impacts all of the water issues going on.

Ms. Greaves noted that came up quite often in EPA's recent hearings on Capitol Hill. The Administrator understands the climate is changing. EPA is doing tremendous work and is continuing to make tremendous progress in the air and water space dealing with resiliency issues. EPA thinks it will continue to make progress in supporting continued air quality and water quality improvements. Ms. Greaves thinks those comments are absolutely relevant.

Ms. Beecher posed a question about workforce. There was a fairly substantial decline in the workforce at EPA. Ms. Beecher asked Ms. Greaves if she sees that stabilizing and her thoughts on maintaining professional capacity at the Agency which is so critical for the mission.

Ms. Greaves agreed workforce was critical. EPA has had a lot of conversations about workforce in the past couple of years. Based on enacted funding levels of the past two bills, EPA has been maintaining the same full-time equivalent level and that is where EPA would like to continue to stay but it all depends on the funding EPA receives. The Administrator just hired a new director of human resources. This person is not a political appointee; this is a career employee who has worked with several other federal agencies. The Administrator did the interviewing and hiring himself because he felt that it is such a critical position. For the Administrator, the most important thing is that EPA has the right people in the right places.

Ms. Daniel said it was refreshing and appreciated that EPA is here to recognize the Board. As a member of the Board for a long time, Ms. Daniel was curious to hear from Ms. Greaves' perspective, since she holds the pocket book and sees all the major issues at EPA, what areas of advice she would like to see this Board tackle.

Ms. Greaves said that, irrespective of the Presidents' budgets from Administration to Administration, when comparing the trend data for the past 10 years, she has noticed EPA's budget is either flat or declining but the cost per person of an employee at EPA continues to grow. To make sure EPA has a solid workforce at the funding levels EPA has, it is more important than ever to have new and innovative financial solutions to address our environmental problems. Based on the historical data, Ms. Greaves does not see the budget growing. In the past two years, the additional focus on infrastructure has been an increase for EPA. However, when looking at ongoing conversations about budget caps for nondiscretionary spending levels, it is hard to say whether EPA's budget will continue to grow despite knowing that we have other fixed costs which rise every year. Ms. Greaves said her number one priority for this group would be helping EPA identify ways EPA can use tools like WIFIA since that is a great program that has had a large impact with a smaller investment. The SRFs are incredibly important and the work EPA does in its other programs is incredibly important, but, to the extent EPA can modernize with some new and innovative ideas, EPA needs to continue to do that if the enacted funding level continues along the trend it has been.

Mr. Meister asked Ms. Greaves to give her high-level perspective of the role of the funding of the SRFs and capitalization grants. Mr. Meister believes that, under this Administration, funding levels have either stayed stable or slightly increased. He indicated Ms. Greaves may have a higher-level perspective on how the SRF structure fits within the larger goals and objectives of EPA.

Ms. Greaves remarked that, even though EPA has new tools like WIFIA, the SRFs still provide the bread-and-butter funding many states and tribes rely on. EPA would like more states and localities to take advantage of bundling to be able to access funding in new ways, such as through the WIFIA program. EPA continues to hear there is a big demand out there for keeping SRF levels stable. They pay for salaries and have set-asides for the small and rural communities that are very important. Stability in the SRF program has been the number one concern Ms. Greaves has heard.

Mr. Zimmer indicated he runs the New Jersey Infrastructure Bank which, among other things, administers the SRF program in New Jersey. He noted that, as a comment to Ms. Greaves and to EPA, the WIFIA program is great but it has limitations. Given WIFIA is 49% of the capital structure, it works very well for large projects that either the SRF cannot fund 100% or, if it is a private investor-owned utility, it is a cheaper source of funds for them. For local government units, the SRF is and will continue to be the cheapest source of funds. As Ms. Greaves looks at EPA's toolkit and what EPA is making available, Mr. Zimmer hoped Ms. Greaves understood there is a very big distinction in the types of projects that each of these financing programs fit nicely.

Ms. Greaves said she appreciated Mr. Zimmer's comments. She stated the complement of EPA's programs is what EPA is trying to do. One of EPA's long-term performance measures has been to try to identify the total leveraging capacity from complementing all of EPA's infrastructure measures, not just in the water space.

Mr. Zimmer noted there are a couple of SRFs represented on the panel and they would be happy to make themselves available to Ms. Greaves for conversations.

Ms. Throwe thanked Ms. Greaves for being here. It is important for the Board to hear every year what the priorities are and what the budget is looking like. Ms. Throwe encouraged the collaboration and communication between Mr. Chu and Ms. Greaves to continue so the Board can make sure it is doing the best work it can to help her move forward. Ms. Throwe and the rest of the Board thanked Ms. Greaves.

Ms. Throwe reminded members that, when sending her emails or updates on any of the projects, to copy EFAB@epa.gov.

Mr. Willis stated a senior EPA official had shared comments with the Board and he asked members how that might be done differently or better and how that experience could support EFAB in a different way.

Mr. Anderson noted Ms. Daniel brought up the question of what EFAB could help EPA with. He thought it might be helpful for the official to come prepared with EPA's priorities.

Mr. Willis asked the members what they thought about phasing and timing of bringing in an official and whether they thought it was something that should be done annually.

Ms. Sullivan stated the members need to step back and look at what the strategy of EFAB is and whether that can be tied in to the strategy of EPA. It may be helpful to have an annual session to examine what the top priorities are and identify the projects to address those priorities and put more structure around the charges put in place.

Mr. Willis summarized the reflections by saying the basic notion was that it was excellent to have someone at that level and from that perspective. The question about the top two or three ways EFAB can support the priorities of EPA is most germane to enabling substantive conversations about what the EFAB portfolio looks like.

Mr. Rothstein raised a concern about the comment about making sure the Board understands the Administration's priorities and tailoring the EFAB's work program to be complementary to that. He believes EFAB also has a role in bringing the country to the Administration. Mr. Rothstein spends most of his time in distressed communities where it feels like much of this Administrative policy is not tuned into many of the challenges and issues on the ground in places like Detroit or Guam. Part of what the Board should be talking about is how members, as people working in the field daily with communities and end users, communicate the realities we are facing to the Administration to help shape its policies.

Mr. Willis thanked everyone for their comments and indicated the Board would now pivot to close-out the backhaul, pre-disaster, and ASD projects.

Finalizing Work

Mr. Willis proposed showing a slide summarizing the conversation from yesterday for each project. He will summarize the slide and see if members have any additional feedback to that slide and then will call for a voice vote. Members will say their names, indicate if they concur, not concur, or concur with comments and provide a one-sentence explanation. Some projects have already gone out for

concurrence and members have provided their responses. For those who have not responded, they will still sign their concurrence on paper for record keeping purposes.

Mr. Willis first summarized the Alaska backhaul project conversation. EFAB members did not voice any red flag concerns. The following things were suggested and accepted as editorial changes: bolstering the executive summary, bolstering the conclusion, and exploring adding the comment regarding the permanent fund where appropriate. Mr. Willis asked for any amendments to the summary of the conversation.

Mr. Anderson noted the group talked about changing the word “business plan” to “cash-flow model.”

Ms. Throwe agreed and confirmed Ms. Lemoine had the change in her notes.

Mr. Willis asked for any questions or feedback for Ms. Throwe about the transmittal memo.

Ms. Throwe said the workgroup was going to have a call soon to touch base with the two co-chairs and make sure all the edits are in, the draft is finalized, and get the transmittal put together so it is hopefully completed by May.

Mr. Willis asked if anyone had suggestions for Ms. Throwe about what should be in transmittal memo.

Mr. Walker asked if there should be something to note that this problem is caused by the state’s failure and questioned why it was EPA’s role.

Ms. Throwe indicated she has heard Mr. Walker’s and Mr. Zimmer’s comments and the workgroup will highlight as much as it can. She said she will turn to those on the workgroup to help her reflect the comments in the transmittal letter.

Ms. Lemoine asked if something about the next step and ongoing work should be mentioned.

Ms. Throwe expressed a desire to hear how the conversation is going to go about new charges. She said she would rely on the workgroup co-chairs to help her with the letter.

Mr. Willis summarized that Mr. Walker and Mr. Zimmer provided the comments about recognizing the root cause and the state/EPA relationship and including in the transmittal letter that there may be more subsequent votes.

Mr. Chu called for a voice vote:

- Mr. Walker concurred with his comment that something needs to be said about root cause.
- Mr. Anderson concurred.
- Mr. Chow concurred.
- Mr. Chapman concurred.
- Ms. Sullivan concurred.
- Mr. Rothstein concurred.
- Mr. Stannard concurred.
- Ms. Lemoine concurred.
- Mr. Meister concurred with adding Mr. Walker’s comment.

- Ms. Throwe concurred.
- Mr. McGoff concurred.
- Ms. Beecher concurred.
- Mr. Kaplan concurred.
- Mr. Henifin concurred.
- Mr. Hughes concurred.
- Mr. Zimmer concurred with the comment about state/EPA relations.
- Mr. Crooks concurred.
- Ms. Daniel concurred.
- Mr. Holland concurred.
- Mr. Weiss concurred.

Mr. Willis congratulated everyone and indicated the same process will be used for the pre-disaster project. Yesterday, there was a call for red flag concerns and EFAB members did not raise concerns. There was a suggestion to add language on technical assistance for asset management and another suggestion to include language in the cover note about the relationship and impact of water quality as part of thinking about pre-disaster.

Ms. Throwe indicated she received a minor edit to remove a reference to a document attached since the document is not attached.

Mr. Chu called for a voice vote:

- Mr. Walker concurred.
- Mr. Anderson concurred.
- Mr. Chow concurred.
- Mr. Chapman concurred.
- Ms. Sullivan concurred.
- Mr. Rothstein concurred and submitted comments earlier.
- Mr. Stannard concurred.
- Ms. Lemoine concurred.
- Mr. Meister concurred.
- Ms. Throwe concurred.
- Mr. McGoff concurred.
- Ms. Beecher concurred.
- Mr. Weiss concurred.
- Mr. Kaplan concurred.
- Mr. Henifin concurred.
- Mr. Hughes concurred.
- Mr. Zimmer concurred.
- Mr. Crooks concurred.
- Ms. Daniel concurred.
- Mr. Holland concurred.

Mr. Chu thanked everyone.

Mr. Willis congratulated everyone and indicated he would follow the same process for the alternate delivery project. Yesterday, EFAB members did not raise red flag concerns. There were suggestions for language changes. There was discretion granted to the workgroup and chairs to make a statement on timing, but not timeframes, and bolster the conclusion to include some comments on next steps. There was a request that EPA improve the visual layout of the document. Mr. Willis noted there was an expression made for an additional shorter takeaway product, but was not sure what to do with that comment. Lastly, in the transmittal memo, the Board thought it was important to explicitly indicate the relationship of the guide to the technical module.

Mr. Meister suggested granting discretion to the workgroup chairs to address the comment about having a shorter takeaway product.

Ms. Lemoine suggested having a one-page executive summary could address that comment.

Ms. Daniel noted there was a transmittal letter which was excluded from the package. It articulates that the guide was not determinative or prescriptive but rather the intent was to help the decision-makers determine an optimal approach and it says it is designed to harmonize with and be used in coordination with EPA's materials which are being developed. The letter mentions there is a deeper dive EPA is working on that the guide goes in tandem with. The workgroup is also working on some language akin to "upon completion of the steps, the decision-maker should be better informed as to whether ASD is a potential value-added possibility for project delivery and, through the process, will have established a supportive framework to embark upon the next steps to proceed with the process". At the conclusion of the 10 steps, you will have your consultants and they will most likely have already prescribed a calendar of events to keep you on your way. The workgroup needs to take time for, and perhaps work with EPA staff on, formulating some sort of short summary, flow chart, visual, or bulleted list to capture the content.

Mr. Willis summarized what Ms. Daniel said by stating the comment about inclusion of a comment in the transmittal memo is complete as is the comment about bolstering the conclusion. The visual layout and takeaway flow-chart product will be developed with EPA staff. Mr. Willis asked for any other amendments and there were none.

Mr. Chu called for a voice vote:

- Mr. Walker concurred.
- Mr. Anderson concurred.
- Mr. Chow concurred. He said he would appreciate the short summary if that is easy to follow the guide.
- Mr. Chapman concurred. He provided kudos the chairs.
- Ms. Sullivan concurred with the amendments as stated.
- Mr. Rothstein concurred with comments submitted earlier.
- Mr. Stannard concurred.
- Ms. Lemoine concurred.

- Mr. Meister concurred with the amendment.
- Ms. Throwe concurred.
- Mr. McGoff concurred.
- Ms. Beecher concurred.
- Mr. Weiss concurred.
- Mr. Kaplan concurred.
- Mr. Henifin concurred.
- Mr. Hughes concurred.
- Mr. Zimmer concurred.
- Mr. Crooks concurred.
- Ms. Daniel concurred.
- Mr. Holland concurred.

Mr. Chu thanked everyone.

The Board broke for lunch and reconvened at 12:41 pm.

Establishing Standard Operating Procedures

Ms. Throwe welcomed everyone back and indicated the Board will now discuss establishing SOPs. A lot of good information has been collected from board members and there is interest in making suggested changes and setting up a process. The process is important for utilizing the expertise of board members. There is an opportunity to set up a document which could be used as a guiding document. The SOPs are based on the Board's input. In about a month, she and Mr. Chu will have a draft that Mr. Willis will establish. Then, it will be probably another month for Ms. Throwe and Mr. Chu to finesse it and get it back out to board members. So, in two months, board members will have something to react to. At that point, the board members will provide comments and indicate if feedback was captured accurately. The document will then be put in place, knowing it could be adapted. The Board will try it for a year and then assess if it is working and if adjustments need to be made. From there, hopefully the Board will be much more effective moving forward on some of these charges.

Mr. Chu added the reason the document will be tried for a year is because it will be continually improved upon. In two months, board members will be asked for feedback, but they will not be asked to agree in whole with the document or take a vote. As board members meet in the task force, workgroups, or fall meeting, Mr. Chu noted he was sure there will be continuous improvements. When the Board reconvenes next spring, there will be another session to get feedback from members if the document is working or not. The document will not be codified in any way.

Ms. Beecher suggested, earlier rather than later, it may be helpful to have input from an attorney with an administrative law perspective to make sure the Board is getting good guidance. They often have insights that can be so helpful in developing something like this.

Ms. Throwe responded that was perfect and acknowledged Mr. Chu has been speaking with other DFOs to compare notes and get input to guide the Board's process.

Mr. Willis said he took the results from yesterday's polls and his notes and compiled them into a spreadsheet. There were 198 comments. Mr. Willis went through each comment and asked himself two questions:

1. Does this comment relate to and need to be part of an SOP?
 - a. He then made a note about which SOP it would be.
2. If it is part of an SOP, does it relate to anything else EFAB might want to do?
 - a. He looked for clusters of ideas and derived a potential set of products that could be related to the SOPs.

Mr. Willis framed two SOPs, one for concurrence and one for charge development and acceptance. He identified a potential framework for the Board's SOPs with five main areas:

1. Topic Identification and Vetting. Mr. Willis asked, "What is the process by which EFAB identifies and vets topics?" Mr. Willis sees this as a screening process. The output of this is a list of potential topics for EFAB charge development.
2. Charge Development and Acceptance. Mr. Willis noted there is going to be a set of topics that might be of interest for EFAB but needs to align with whether the Board has capacity and capability, whether the timing works, and whether there is a client willing to support that work. The Board has the ability to weigh in on charges and decide whether to accept them or not. The output of the second SOP is a completed and actionable charge.
3. EFAB and Workgroup Operations and Deliberations. Mr. Willis said this includes things such as how workgroups are established, how membership is established, how workgroups are related to the charge and supported, and what modes of operation are used. This process leads to a product the Board must concur with and transmit.
4. Concurrence and Transmittal.
5. Post-Transmittal EPA and Stakeholder Engagement.

Mr. Willis identified a set of documents that need to underpin the SOPs. One idea was to establish a mode of operations indicating how individuals bringing a charge to EFAB can anticipate the Board interacting with them. Mr. Willis also heard the Board probably needs to codify member roles and responsibilities, including the role of the DFO and the client. There were a lot of comments from members about guidelines for product development which includes the notion that, if research needs to be done, it is additive not redundant. Mr. Willis also suggested a set of templates could be developed, such as to support charge development or a project plan.

Mr. Willis asked members if what he described as the types of SOPs make sense to them.

Mr. Anderson thought what Mr. Willis presented was great. He added it was great the Board is seen fit to explore the process for making the Board more efficient and more thoughtful. He expressed appreciation for the Board's support and Mr. Willis' efforts. Mr. Anderson suggested thinking about a two-step process wherein the first step is topical acceptance and seeing if an idea fits within the Board's topics. The second step is thinking about the resource plan, including schedule and deliverables along the way. Those are items that need to be sorted out as part of accepting a charge. Other things that

came to mind were the independence of the Board, making sure the Board's role is not lost when accepting charges, the clarity of the purpose, and clarity of the output. Those are things that probably need to be a part of the Board's decision to accept or not accept the charge. That way the Board knows the available resources, the Board's role, and client wants so there is a good plan for going forward.

Mr. Crooks said he likes what Mr. Willis presented but wanted to make sure if the Board winds up with a charge not geared toward writing a report, but rather geared towards playing a consultative role with EPA staff, this SOP would allow and support that type of approach.

Mr. Chu noted the Board has a responsibility for the Board to be very transparent and this is a public forum. The SOP to be worked on over the next year should work for every circumstance; that is what the Board is striving towards. If a member or two provide advice to EPA, that cannot be under the auspices of the Board. The workgroups are not providing advice to EPA; the Board is. The workgroup product goes through the Board, then to EPA as a transmittal. Individual members can advise EPA, but they cannot represent that the advice is coming from EFAB because the Board is not given the opportunity to daylight the issue. Representing the Board is different than members individually advising staff.

Mr. Willis provide the example that if the Alaska backhaul charge goes forward, the charge is asking for structured time to engage the EFAB members on questions, but a report is not being produced. He asked Mr. Chu if that type of engagement is allowable and what would it look like. Mr. Willis thought it would be allowable, provided that it is with the full Board, not only a subset of the Board.

Mr. Crooks thought that was a great example. He suggested in that situation there would be back and forth with a subset of the Board, but the full Board would get to see a summary of the discussion and would give concurrence.

Mr. Chu noted such a process would meet the test. In FACA regulations, subgroups are allowed because it is more efficient to work in that capacity but at the end of the day, the Board makes the full decisions about the work products transmitted to the client. Mr. Chu mentioned the parallel with the task force discussed yesterday. The Board is the task force, but there will be a subgroup working on the majority of the work that will be done. Another aspect Mr. Chu mentioned is that if you do have full Board participation, you have to have public meetings. That is why the efficiency of having workgroups is good for the Board's functioning. At the end of the day, those on the Board have decided if something represents the work of the Board.

Ms. Daniel remarked Mr. Crooks articulated a situation wherein a workgroup would have an exchange, for example with Alaska backhaul contacts, and document that and it would come to the Board for concurrence. However, at that point the conversations have already happened, so Ms. Daniel asked what would happen if the Board didn't concur.

Mr. Chu noted that was what Ms. Carvalho and Mr. Hamlin proposed, but the process may not actually work that way; that was the first proposal. During breaks, many members expressed concerns about what that would look like. Mr. Chu did not want to consider what was proposed as a done deal.

Mr. Crooks referred back to a project he and Ms. Daniel were involved in when they first joined the Board, which was a series of workshops. Mr. Crooks participated in those before he joined the Board, with a small number of EFAB members and EPA staff. Notes were taken that were put into a report which, later as an EFAB member, he worked on. There seems to be some precedent for interaction of smaller groups with EPA and with outsiders so hopefully there is a mechanism the Board can use and stay within the rule of law.

Ms. Throwe remembered the workshops as being well done. It was an opportunity to not simply work on a report. Ms. Throwe thought that what is being proposed for Alaska backhaul part two is that there does not have to be such a lengthy report. There is a way to have productive calls and webinars and document the conversations and bring them to others.

Mr. Meister posed the hypothetical if there is a workgroup dealing with Alaska backhaul focused more on consulting than report writing and the head of the workgroup produces a one-page report saying what the workgroup did or did not do. Mr. Meister suggested that gets put up for concurrence. If there are five members of that workgroup and there is one of them that EPA Region 10 people really need, they are free to establish contact with that person outside of EFAB.

Mr. Chu emphasized the workgroups are created to improve workflow and getting the job done. They are not created as a subgroup to be a subgroup. There is a lot of learning back and forth between the workgroup members and the client; that is not prohibited. However, if there is a decision or recommendation that needs to be made, it cannot be done in the workgroup. If there is a deliverable that needs to be approved by the Board, it cannot be done in an informal process. If a member provides advice, they cannot provide advice representing the Board without the Board.

Mr. Willis indicated he had developed the high-level framework for operating procedures for charge development and acceptance. He heard there are five steps:

1. Select the topics to have a draft charge developed;
2. Develop the draft charge;
3. Vet the charge with EFAB and iterate;
4. Select the charge; and,
5. Put the mechanism in place so the work can happen.

Mr. Willis focused on step 2. He proposed making sure all issues discussed are daylighted, e.g., asking if the charge is consistent with the way EFAB wants to operate and with the way EFAB can operate, how the charge questions are established so EFAB develops an outcome that is desired, and that the draft charge is developed by EPA but EFAB staff and one member volunteer to develop the draft charge with the hope it results in a product that is closer than if the charge came from the outside and dropped on the Board. Mr. Willis suggested the standard information that could be required for a charge, such as a problem statement, a description of the outcome, the mode of engagement, roles and responsibilities for all parties, resource and support plan, and high-level timeline. That is the content Mr. Willis heard yesterday the Board is asking for in order to be able to make a decision. The idea is once a topic is

selected, the Board asks the EPA client, a staff member, and one member to work on the draft charge before it comes to the full EFAB.

Mr. Holland noted several people have expressed concern about a commitment from the client to provide dedicated resources and the authority of the person who is providing those resources to be able to provide them from their superior as part of a requirement of the Board engaging in a charge. Mr. Holland was involved in a project where he had multiple clients over the course of time and it never felt like there was another person on the other end from which to expect a timely response if there was a challenge. Mr. Holland suggested having some sort of written commitment, like an MOU.

Mr. Willis indicated he framed what Mr. Holland described as part of the resource and support plan, described as the commitment of resources and ability to direct the charge. Mr. Willis proposed a step after a charge is selected which would be the development of a project plan. Many members expressed an interest in knowing the start and finish, milestones, and responsibility across those milestones so they have the information to know whether to participate in the charge.

Mr. Anderson clarified if what was being discussed was part of the charging process and the Board has not accepted the charge yet.

Mr. Willis said yes.

Mr. Anderson also clarified if the expectation is that when staff, the proponent, and EFAB member come back, the Board has scope schedule, budget, who is responsible, and the commitment letter as the plan.

Mr. Willis confirmed that was correct.

Ms. Throwe referenced the example of the lead charge. When EPA said it was committed and board members wanted to engage, the Board started by Ms. Throwe drafting the initial charge. Ms. Throwe had a sense she was creating something in a vacuum her colleagues may not agree with. When asking one member to draft a charge, it is a lot of responsibility and the process has to involve a lot of people giving their feedback.

Mr. Willis asked how the board members thought that should be addressed.

Mr. Anderson has seen over the years that the people who bring the charges have not really formed in their minds what they would like, so the Board spends a lot of time honing that. The responsibility for most of these charges lies with the parties who ask the questions, though the Board may guide them along the way.

Mr. Chu asked how the situation of a non-EPA person bringing up a charge would fit into the process. He also indicated that sometimes an EPA client knows what he or she needs but does not know the expertise of the Board at a given point in time and how the group can help with his or her need. Mr. Chu noted the Board will try to use this method to try to bring another charge to the group in September and that will require some engagement up front.

Ms. Daniel said she remembered a couple years ago the Board had a charge topic issue but could not find an EPA sponsor. She asked where to fit in the sponsor partnership as part of charge development.

Mr. Willis proposed that a charge not be developed unless an EPA client is identified, since EFAB responsibility is to provide EPA advice.

Ms. Daniel noted the issue of independence. EFAB is an advisory Board and if it thinks EPA should address a topic and there is no sponsor, it is almost as if EPA has the ability to say that EFAB should not talk about it.

Mr. Chu noted that in other groups he has participated in, there is a process for that situation, but the Board has to discuss it. It is a big deal to not have a need identified by the client. The way Ms. Throwe described the lead project is that the idea was developed within the Board and it was shopped around until an EPA client was found. However, there are instances where EPA cannot see everything going on. The situation of a board member identifying one of those topics does not quite fit into this. Mr. Chu said he did not have an answer but was inclined to say that, based on the EFAB charter, the Board is providing advice to the Administrator. By extension, the way the Board has been operating is under the assumption EPA should need it and can act on it. Mr. Chu reiterated he did not think the Board had an answer and he was not inclined to offer one.

Ms. Throwe acknowledged Ms. Daniel's comment and indicated she has struggled with this issue of EPA not taking what the Board wants to propose too. At the same time, it is so much work to coordinate the Board's response. If the Board works on it and sends a letter, the response back might be "Thank you very much. Appreciate it." Ms. Throwe asked what the next step at that point would be.

Ms. Daniel clarified she was not talking about after the Board has completed the charge, but about getting to the charge. For example, the green bonds project was one where the Board talked about it for six months or so, but there was no one at the EPA level who wanted the Board to take it on, so the Board dropped it before it became a charge.

Mr. Chu noted the three ideas suggested by board members earlier did not have EPA clients yet. The process that will be tested is that the charge will be developed without someone at EPA. Once the charge is drafted, the Board can discuss a decision point of what to do then. Mr. Chu noted the resources available to the Board are extremely limited. To support a project, like the EPA Office of Water is committed to doing for the task force, is pretty substantial. Mr. Chu proposed working on a charge but acknowledged that the time it is developed may not be the right time for EPA to engage on it. If the green bonds charge had been developed, it could be pulled out now and perhaps the resources and client would exist a year or two after it was first proposed.

Mr. Willis said he would work with Mr. Chu and Ms. Throwe over the next month to parse out the issue.

Mr. Anderson noted the discussion gets to the question of EFAB's internal authority. He posed the question of whether the Board had to have EPA sponsorship or an ask from another entity.

Mr. Chu noted the charter does not say specifically how the scoping works out. The Board is providing advice to EPA and the EPA Administrator, but that does not preclude the Board from talking about other issues.

Mr. Holland posed a question about what would happen if the charge has been developed and the client is onboard, but then midway through the process, you realize the charge needs to be modified.

Mr. Willis responded that his understanding was, at the end of the second step in the charge development process, there is a charge to share broadly. The thinking behind the charge happens before engaging the full group.

Mr. Holland clarified he was referring to after the charge is signed off and you get into the research and realize what you thought you should be delivering is not what you actually want to deliver.

Mr. Chu stated there is no pressure release valve for any of the projects the Board works on and sometimes things go wrong. The Board has not really discussed that yet, but Mr. Chu suggested to Mr. Willis it is put on the table. Beyond changing the charge, there may be points when the Board realized it made a mistake. He posed the question of whether the Board will be making those types of decision too.

Mr. Willis clarified if what Mr. Holland was referring to was essentially buyer's remorse.

Mr. Holland noted pulling the plug is an extreme case, but the Board may come across instances of needing to modify the charge, such as to break it into smaller pieces or change the focus.

Mr. Zimmer remarked in the statute for the New Jersey Infrastructure Bank, as a state government agency, if the agency is not explicitly precluded from doing something, the agency either sets up regulations in its program to do it or the Board adopts a policy. He asked if the Board's charge does not specifically prohibit something, why does the Board not have the authority to self-appoint that authority.

Mr. Chu stated many of the board members have had different DFOs, and there were policies and procedures that were put in place which is what Mr. Zimmer is describing. There is a lot of flexibility in the Board's responsibility and what it is authorized to do. The Board has procedures, such as the fact every member must serve on a workgroup. That is not in the charter; it was to improve the functioning and workings of the Board.

Mr. Meister noted state entities have broad powers and can read statutory language broadly. He also added it was important to recognize EPA has limited powers. There is an inherent limitation which may not be fully internalized. The inherent power of the federal advisory committee is the collective. The way to fully exercise the power of the collective is to increase the ability of the federal advisory committee to interact. In times of tight resources with a volunteer group, Mr. Meister thinks it is good to be clear on notice, minutes, and agenda so the Board can vote by phone and if there is buyer's remorse, the Board is not waiting until the next meeting. Board members can join a call and identify themselves and there will be meeting minutes. Mr. Meister thinks the Board needs a between-meeting telephonic mechanism. Mr. Meister mentioned the process of using the deliberations, decisions, and work products of EFAB as a way of daylighting issues. The Board has an opportunity to do that with the Alaska backhaul project. For the lead project, Mr. Meister believes it was ultimately helpful for EPA decision-makers to have something in writing about lead pipes. Mr. Meister noted that, even though the Board needs to recognize the clear restrictions and delineations of FACA and federal law, the language is broad enough

to account for a scenario in which the chair, DFO, and collective of the EFAB members feel strongly about a charge. Mr. Meister thinks the Board can and should pursue such charges.

Mr. Willis showed an example of a RACI matrix and then began talking through the SOP he framed for concurrence. As he thought about it, he asked himself two questions:

1. Are we solving the right problem?
2. Is it the minimum set of process to solve that problem?

He noted the problem needing to be solved is the work that is happening in the subgroups needs to be tied to the Board so the Board has the right information when it makes a decision. Mr. Willis also considered how to avoid coming to the Board to ask for concurrence with a product that has not had enough connection with the Board. Mr. Willis developed five steps for the SOP:

1. Regular engagement with the full Board on progress.
2. Pre-Concurrence Formal Request for Feedback. This would be the place to ask for red flags. The process for concurrence does not ask for red flags; if a product gets to concurrence and there is a red flag, the members do not concur. Mr. Willis said that, in proposing this, he wanted to avoid a constant back and forth.
3. Process on Concurrence.
4. Transmittal.
5. "Exit Interviews" with chairs. This step is to understand how the previous steps went to make continual improvement.

Mr. Willis asked what the members thought about the process and no comments were provided.

Mr. Willis then provided additional detail on step 2. He thought there should be something more formal with the group to identify red flags so it was on the record. He struggled with the notion of which point in the process that should happen, such as at 50% or 75% completion mark of the product. Mr. Willis thought there should be no editorial comments at this step; the comments should be for content and direction. There could be template for feedback and provide a mechanism to prevent the process from being onerous.

Mr. Zimmer thought this would be a great opportunity for chair involvement. All charges are different; the pace and content are going to be different. We can all set up metrics and deliverable depending on what the charge is. Mr. Zimmer thought it would be in large part the responsibility of the subgroup co-chairs to help make and vet those and then they sit with EFAB chair to figure out at which point the project is complete enough for review.

Ms. Thrope responded it was a great suggestion and she would be happy to do that.

Ms. Sullivan noted what really helped the workgroup on the regionalization project is it got to a point of doing an outline. There might be another step to take the outline approach before a workgroup goes too far to ask if the group is on the right track and have a robust conversation with the Board about that.

Ms. Thrope asked to confirm if Ms. Sullivan was indicating to share the final outline.

Ms. Sullivan responded yes.

Mr. Willis noted that might be step 1. He indicated he still had questions about what regular updates and engagement with the Board look like.

Ms. Throwe stated if a board member does not respond to an outline or a partially completed draft, it will be considered concurrence so the process does not get delayed too long.

Mr. Chapman noted that, in his project, he should have been more engaged with the client. He thought that was a significant input into determining if a project is on the right path. Mr. Chapman thought that should be a part of the consideration to determine if a project is at the step of receiving red flags or fatal flaws.

Ms. Throwe added the client has to be willing to engage regularly. There has to be an upfront mutual agreement of how often there will be dialogue.

Mr. Anderson noted there has not been much discussion about what a red flag is. He asked if it is comment and direction at an extreme degree. He suggested Mr. Willis add it to his list to define. Mr. Anderson also suggested including a red flag analysis in the charge acceptance process.

Mr. Crooks agreed with Mr. Anderson and said he liked the outline idea. Based on his work, he believes it is important to populate an outline before getting into the core of the work. It is important for the Board to understand what process and resources are being followed to get to the conclusion, such as what the workgroup is looking at, its thinking, its analytical approach, and who it is talking to. Adding that type of context around the outline is important.

Mr. Meister referenced Ms. Throwe's comment about not getting a response from board members. Mr. Meister indicated he would not use the concept of presumed consent; he would go with a waiver, not voting, or not participating as long as there was quorum to meet and vote. He noted all board members have private and professional lives. He added all board members have bosses and, depending on what the charge or issue is, it might not be advisable for one of the board members to participate or even be shown to be voting. A recusal or abstention option might be preferable.

Ms. Throwe noted that made sense. She asked what would happen if a board member does not participate when the opportunity for red flags comes up but raises a red flag once the project is far along.

Mr. Meister responded the board member has waived it. He wanted to avoid presumed consent because that could place a volunteer member at risk, in conflicts, or perceived conflicts.

Ms. Throwe thanked him for clarifying.

Mr. Holland asked if anyone on the Board been in a position like the one Mr. Meister described. He noted that members operate on this Board in their personal capacity. The written charges coming out of this Board are not necessarily an endorsement by the organizations and companies members work for. He understood that there could be a perceived conflict of interest. He asked if the Board has dealt with that before.

Mr. Chu noted there has been an accepted practice with the Board. Based on his conversations with other DFOs, Mr. Chu stated the voting and the concurrence processes are a big deal because it is a public board. It is something the Board has to think about internally. Other boards across the federal government have a different set of bylaws, some very restrictive and some less restrictive. EFAB is on the less restrictive side. The most restrictive Mr. Chu has seen is that you cannot vote unless you are present, no proxy votes allowed. EFAB has been running a process where members can vote and concur without having to come to a meeting. There is not a regulatory fix to this issue. There needs to be a conversation based on the constraints of the board members.

Mr. Hughes noted that issues around red flags, officially concurring, and wanting to just talk about something have all come up with different charges. He was not sure if he was understanding where the concerns are. There has not been as big of an emphasis on concurrence in the past. He asked if it was possible for the Board to have a quorum of concurrence and then four or five members that do not respond or have the option to waive.

Ms. Thrope noted form options are concur, concur with comments, and do not concur.

Mr. Hughes noted there are cases where members engage substantively during concurrence, perhaps because they had not read it up until that point. He suggested the Board may want to have the opportunity for members to waive their ability to concur and they do not say whether that was because they have been laggards or because their bosses say they cannot weigh in.

Mr. Chu highlighted the pre-concurrence step Mr. Willis put forth and indicated the Board is trying this out to see if it works. If a board member waives, then they do not vote. It is an informal agreement because Mr. Chu does not believe there is a way to prevent someone from voting. All board members are agreeing to a process. He posed the question of how seriously the Board will test the processes.

Mr. Holland remarked a member could say "I concur in my personal capacity for what is written in this charge with a comment the organization or company I work for does not."

Mr. Chu noted members are not on the Board representing their companies. There might be a constraint individual members have, but, from the Board's perspective, members are voting on their own behalf. Mr. Chu acknowledged members might have unwritten constraints, but he was not sure there should be a process to figure out every release. He thought the Board had the right three voting categories but is seeking to avoid getting to the last meeting and not being able to move forward.

Mr. Henifin remarked that, during project development, a lot of things can come up. He noted the Board needs to avoid painting itself in a corner just because a red flag was not brought up in the outline phase without all the details. A lot of things can come up between that point and the end of the project. The Board needs to figure a way to leave some room for later comments.

Mr. Rothstein addressed post-transmittal EPA engagement. He said he hopes the Board engages not only with EPA, but other stakeholders.

Ms. Beecher suggested the EFCs be looked to as a resource, especially when EPA is choosing consultants. She would like to know if they have resources or expertise that can be tapped into. EFAB

has a great working relationship with the EFCs, they understand EFAB, and they have the resources and skill mix.

Ms. Throwe agreed.

Mr. Hughes noted there is some question regarding resources with EPA funding the EFCs. In the past, EFCs were getting \$250,000 to provide services. Last year, it was very reduced. We have to have realistic expectations. It is not clear if the Agency will fund the EFCs in a standing way. That has evolved over time. Many EFCs have other funding sources. The resource connection is between the Agency and the EFCs is different than it was when the EFCs started.

Ms. Beecher responded that Mr. Hughes made a serious point and that maybe the Board needs a charge to address it. Ms. Beecher noted the mention of outside consultants on the stormwater project, but she thinks that should come only from an operating presumption that the EFCs cannot provide that assistance. Ms. Beecher acknowledged there might still be a need for technical expertise, but she thought the EFCs should be turned to first and supported.

Mr. Chu indicated that is a conversation which will have to happen internally. There is a firewall between the EFCs and the Board. Mr. Chu believed it was a relationship that needs to have a firewall, just like with any other groups outside the Board. He noted the question about how EPA works with the EFCs to support EFAB is another question EPA staff will look into.

Ms. Daniel indicated the Board needs to make sure that, if it is using outside consultants or the EFCs, the Board needs to have the opportunity to review the scope of services before they start their work, so the Board knows it is going down the correct path with research development.

Mr. Chu wanted to make sure Mr. Willis captures that comment because it is part of the workgroup process. Regarding the task force, some members had questions about EPA contracting to do data collection and how would the task force affirm or validate the work. One way to do that is to review their statement of work, but Mr. Chu thought there were contractual issues to be worked out.

Ms. Daniel raised a point about the Board having access to those consultants if it needs them.

Ms. Throwe reminded members Mr. Willis will provide an SOP draft to Mr. Chu and herself within a month. Ms. Throwe and Mr. Chu will work closely with Mr. Willis to fine tune it and take in the background information that members gave through the polls. Within two months, the Board will have the document to review. Ms. Throwe hopes the Board can start using it as soon as it is final and put into practice as the next meeting, which is anticipated to be in mid-September.

Mr. Chu noted it was time for public comment. He welcomed Chuck Job, instructed him to introduce himself, and informed him he has three minutes for comment.

Public Comment

The public comment period was opened at 2:02 pm.

Chuck Job introduced himself and said he was with the National Ground Water Association (NGWA). The Association represents 10,000 members who are groundwater scientists and engineers, manufacturers and suppliers of equipment, and service contractors. The mission is the responsible development, management, and use of groundwater. Mr. Job complimented and thanked the board members for their thoughtful consideration of regionalization and stormwater financing. Mr. Job also complimented the Board on the range of regionalization options that were considered. The Association members may be adversely affected by the implementation of regionalization depending on how it is carried out. One of the concerns the Association had relative to the report was that the public comment perspective was not obvious in its development. There also did not seem to be a consideration of the Water Supply Cost Savings Act in terms of alternatives local water systems consider that might be cost effective.

In a larger context, the options regionalization represents are on a continuum. The context really starts with the water system and solutions at the water system first which are cost effective. In considering that, if there are no cost-effective solutions, then you need to move on to something like regionalization. Technology at small system scales is advancing and it is important to consider that. Relative to stormwater financing, the Association is concerned about the infiltration of stormwater's poor water quality; potentially shifting contaminants from one water source to another water source is a concern. EPA's research on stormwater infiltration has been limited and not very timely. This whole process of stormwater infiltration as an alternative to dealing with contaminants in surface waters started 40 years ago or longer. The issue is now research has been somewhat limited; they wanted to do 10 sites, but they really only did three sites. They are really interested in doing more. Mr. Job noted the Association had a group of members do an editorial on stormwater infiltration considerations. He suggested the Board could use it in its deliberations on stormwater. Mr. Job wished the Board well because it is an important issue. There is a lot of water that needs to be managed and we need to find good solutions for it. Mr. Job encouraged the Board to do that. EPA did a state of the science review on this topic. It was written last year on the influence of green infrastructure practice on groundwater quality. It was really on stormwater. Mr. Job believed the Board would find that useful in its deliberations. He thanked the Board for the opportunity to address it and wished the Board well.

Mr. Chu thanked Mr. Job and indicated he was welcome to submit any written comments for the record and for the public.

Mr. Job asked what time period the comments had to be submitted within.

Mr. Chu said the comments will always be posted on EPA's website once they are sent.

Next Steps and Meeting Wrap-Up

Ed Chu

Joanne Throwe

Mr. Willis posed two final poll questions to the members:

1. After this meeting I hope that...

2. Reflections and feedback on the meeting

Ms. Throwe thanked board members for hanging in there and for being vocal about the process. She thought the Board got to where it needed to be. This is not the end; it is the beginning. The Board will hear from Ms. Throwe and Mr. Chu with follow-up and they look forward to working with members very closely in preparation for the next meeting. Ms. Throwe requested Mr. Chu mention he will be reaching out to EPA colleagues around the country about potential charges. Ms. Throwe hopes to discuss those at the next meeting.

Mr. Chu thanked everyone and echoed what Ms. Greaves said about how important the EFAB's work is and its contributions. He hopes all the process work done during the meeting will pay off for the Board with less time spent on process on the future. Mr. Chu expressed appreciation for everyone engaging on that discussion and for the energy they brought over the last day and a half. The next meeting will be away from D.C. Mr. Chu encouraged board members to show appreciation to the EPA staff who put the meeting together. He thanked everyone for coming and wished everyone safe travels home.

Ms. Throwe and Mr. Chu thanked Mr. Willis, as did the board members.

[Adjourn](#)

Ed Chu

The meeting adjourned at 2:16 pm.