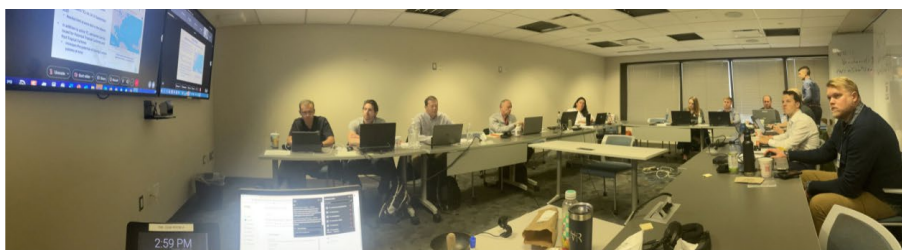


Best Practices for Virtual Engagement





INSTITUTE FOR WATER RESOURCES

The Institute for Water Resources (IWR) is a U.S. Army Corps of Engineers (USACE) Field Operating Agency with centers located in Alexandria, VA; Davis, CA; New Orleans, LA; Lakewood, CO; Pittsburgh, PA; and Louisville, KY. IWR was created in 1969 to analyze and anticipate changing water resources management conditions and develop methods and analytical tools to address economic, social, institutional, and environmental needs in water resources. Since its inception, IWR has been a leader in the development of strategies and tools for planning and executing USACE water resources and water management programs.

IWR strives to improve the performance of the USACE water resources program by examining water resources problems and offering practical solutions through a variety of technology transfer mechanisms. In addition to hosting and leading USACE participation in national forums, IWR produces and publishes white papers, technical reports, workshops, training courses, guidance, and manuals of practice. IWR works to develop new methodologies and tools in planning, socioeconomics, and risk-based decision-support, hydraulic and hydrologic engineering methods, and risk-based design and assessment of engineered works such as dams and levees. IWR also supports management of national waterborne commerce statistics and other Civil Works data information systems. IWR serves as the USACE expertise center for integrated water resources planning and management, dam and levee safety, hydraulic and hydrologic engineering, collaborative planning and conflict resolution, and waterborne commerce data and marine transportation systems.

The IWR mission is accomplished by recruiting and developing national thought leaders who can integrate data, best practices, and innovation from science, technology, and engineering. IWR's Water Resources Center (WRC), located in Alexandria, VA, supports project delivery teams focused on the Civil Works business lines of Navigation, Flood Risk Management, Natural Resource Management, Regulatory, Aquatic Ecosystem Restoration, and Water Supply. The Hydrologic Engineering Center (HEC), located in Davis, CA, specializes in the development, documentation, training, and application of hydraulics and hydrologic engineering models. IWR's Navigation and Civil Works Decision Support Center (NDC), located in Alexandria, VA, and Waterborne Commerce Statistical Center (WCSC) in New Orleans, LA, are the USACE data collection organizations for waterborne commerce, vessel characteristics, port facilities, dredging data, and information on navigation locks. The NDC also provides oversight of the Civil Works cloud computing framework known as Civil Works Business Intelligence (CWBI). IWR's Risk Management Center (RMC), co-located in Lakewood, CO; Pittsburgh, PA; and Louisville, KY, is a center of expertise for the management and assessment of risks for dams and levees, support for dam and levee safety activities, and development of policies, methods, tools, and systems to enhance these activities.

Other IWR enterprise centers include the International Center for Integrated Water Resources Management (ICIWaRM), established under the auspices of UNESCO. ICIWaRM is a distributed, intergovernmental center founded in partnership with various Universities and non-Government organizations. The Conflict Resolution and Public Participation Center of Expertise (CPCX) concentrates on the processes associated with conflict resolution and the integration of public participation techniques with decision support and technical modeling. IWR plays a prominent role within several of the USACE technical Communities of Practice (CoP), including the Economics and Planning CoPs.

Additional IWR information is available from <http://www.iwr.usace.army.mil>.

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Best Practices for Virtual Engagement

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Center of Expertise (CPCX)

USACE Institute for Water Resources

Disclaimer: The contents of this report have been developed and reviewed for factual accuracy, logic and clarity yet remain the authors' interpretations and views, and do not necessarily reflect the views of the U. S. Army Corps of Engineers, Institute for Water Resources, or any other agency or organization.

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Preface and Acknowledgements

In March 2020, the world was suddenly forced to figure out new ways of working because of the pandemic quarantines. In USACE, while in person meetings were still the norm, we were fortunate to have the tools to continue working and engaging with our communities remotely. Several staff become early adopters for navigating the options in different contexts, and we have captured their stories here along with their lessons learned and recommendations. This Best Practices for Virtual Engagement report serves as a resource document primarily for USACE, but is broadly applicable to any entity designing and executing public participation activities.

This guide was developed by CDM Smith under contract to Institute for Water Resources (IWR) and sponsored by the Collaboration and Public Participation Center of Expertise (CPCX). The lead author, Amy Livingston (CDM Smith) and her team worked collaboratively with CPCX to define and develop the content. Susan Durden (IWR) served as the project manager for the contract, and Stacy Langsdale (IWR) carried it through editorial review and publication steps.

The authors and IWR greatly appreciate the time and knowledge shared by all who were interviewed and contributed to the case studies, which served as the foundation for this document. Their real-life experiences illustrate the challenges and solutions in engaging with internal and external partners, particularly in the evolving virtual arena. USACE contributors included: Kendall Campbell, Leif Hammes, and Kelly Eldridge, Alaska District; Lynn Greer, Great Lakes and Ohio River Division; Amy Echols, Omaha District; Hunter Merritt, Yari Johnson, Kristine Des Champs, and Lindsay Floyd, Sacramento District; Marco Ciarla, Baltimore District; and William (Josh) Miller, Huntington District. Contributors from other agencies included: Christina Finch, FEMA; and Joy Riley, South Carolina Department of Transportation. Stacy Langsdale and Amy Livingston also contributed case studies.

Independent review of this report was overseen by the IWR Water Resources Center Editorial Board led by Paul Gagnon. We thank the anonymous reviewers for their contributions. Valerie Layne (IWR) made significant refinements to the text using her advanced editorial skills, and Brian Lee formatted the document for publication.

Section 1

Introduction

The U.S. Army Corps of Engineers (USACE) has a diverse set of missions which require active collaboration and participation across a diverse set of agencies, stakeholders, tribal nations, and the public. This participation and collaboration are integral to the USACE missions. Why? Effective collaboration and public participation provide for better outcomes, improved governance, and reduced time and expenditures (USACE 2016).

Web-based technologies are commonplace tools used in engagement and outreach on USACE projects, and virtual engagement was brought to a new level in 2020 when the COVID-19 pandemic shifted the face of public and stakeholder engagement. Within a two-week period, many agencies, including USACE, shifted all scheduled engagements from in-person to virtual-only in accordance with public health guidelines. For this report, virtual engagement is defined primarily, although not exclusively, as engagement conducted online.

Effective engagement of stakeholders, tribal nations, partners and the general public is crucial to large civil works programs and is a staple for those who plan and manage programs at USACE. The purpose of this report is to help planners choose and execute the best kind of engagement for their specific situation—virtual, in-person, or a combination of both—also known as “blended” or “hybrid” (the term “hybrid” is used throughout this document). We explain key points of effective engagement to support building a robust strategy, but we are not advocating for a certain technique or tool. To foster equity in engagement we outline strategies for reaching socially vulnerable populations, such as including those with disabilities, and complying with Section 508 of the Rehabilitation Act. We also discuss best management practices and specific collaborative tools for implementing successful virtual engagements.

The sudden onset of the COVID-19 pandemic provided practitioners with an unprecedented opportunity to identify the opportunities and challenges associated with virtual engagement. It also offered an opportunity to develop strategies and tactics to overcome barriers. This document comprises the real-life experiences of public involvement and collaboration specialists, both internal and external to USACE, and a literature review. Case studies demonstrating successful strategies are highlighted throughout the report with full case studies included in Appendix A. Lessons learned from these case studies form the basis of each recommendation. An annotated list of additional resources is found in Appendix B.

This report was written with the following guiding principles in mind. These principles hold true for all types of engagement, and you should consider them thoughtfully when planning your engagement strategy.

Why include the public and stakeholders in “technical” decisions?

- Increases public understanding of solutions
- Reduces controversy and litigation risks
- Builds trust and credibility
- Fosters transparency in the decision-making process
- Supports improved and sustainable decisions

Trust is at the core of effective engagement. To build trust, include the following characteristics in your engagements:

- customization – understand your audience first. What is important to them? What are their concerns?
- transparency – communicate openly
- interaction and engagement – recognize the value that others bring to the table and design activities to enable meaningful contributions.
- timeliness – share information and solicit input at appropriate times
- thoughtfulness – the engagement is well thought out
- accessibility – where and how does your audience get information? What are their limitations (technological or physical)?
- inclusivity – is everyone at the table who should be?

Effective virtual engagement incorporates the same guiding principles as in-person engagement. Effective engagement is effective engagement—whether in-person, virtual, or hybrid. You need to pay special attention to accessibility and inclusivity when crafting a virtual engagement strategy.

Every project or study is unique and will have its own set of requirements. Think about what needs to be accomplished during a meeting and combine that with an appropriate outreach strategy. Think about who should be at the table, what information should be provided to the audience, and what level or type of input you would like to receive from the audience—before determining your outreach strategy.

This document serves as a practical guide for USACE planners addressing:

- the foundations of any successful engagement ([Section 2](#))
- how to determine which type of engagement is right for your situation: in-person, virtual or hybrid? ([Section 3](#))
- best practices when planning your virtual engagement strategy ([Section 4](#))
- reaching socially vulnerable populations and planning for those with disabilities ([Section 5](#))
- common collaborative technology tools and features ([Section 6](#))
- case study examples of selected strategies for virtual and hybrid engagement (in all sections and Appendix A)

Section 2

Foundations of Successful Engagement

This section explores the foundations of successful engagement, and introduces the USACE Spectrum of Engagement tool, an important planning resource.

When building an engagement strategy, the first step is determining the goals of the engagement. What type of input is desired or needed from the audience? This can differ at various phases or milestones within the same project. In the beginning of a project, the engagement goal may be to inform, whereas in the middle of the project, the goal may be two-way communication.

The next step is understanding the audience and any limiting factors. Evaluate the audience and any external factors that could prevent them from engaging. Is there adequate internet access and sufficient bandwidth? Are there multiple languages that must be considered? Is this a rural environment or an urban environment with transit access?

Identify the Goals

Levels of engagement range from simply informing or educating the audience to collaborating with and empowering them. A key point to remember is that the level of engagement used may impact the outcome(s) of the project. Answering the following questions can help determine the goals, and the needed level of engagement: What are the current levels of controversy and trust related to the project? How much time is each audience willing and able to contribute to the effort? What audience input is needed at each stage to advance a study? What would you like audiences to know, and what would they like to know?

Spectrum of Engagement

Engaging the audience is often an evolving process. It typically begins at one level of engagement and then moves to another as input is gathered and the project progresses. Different milestones warrant different levels of engagement, so focusing on the goals of each individual engagement is critical.

USACE uses a Spectrum of Engagement chart (Figure 1), to assist planners in developing clear expectations regarding the intent of an engagement. This valuable tool can help you select from 5 levels of engagement (Inform, Elicit, Involve, Collaborate, Empower) based on the project's participation goal. The chart is organized so the level of engagement is tied directly to the level of potential influence the audience would have on the project. The Spectrum of Engagement also describes the objectives and the USACE commitment for each level of engagement, and provides examples of tools and techniques. This is an essential reference and an appropriate starting point for USACE staff embarking on engagement initiatives.

The level of engagement should be chosen based on the previously identified goals of the engagement. Note there is no optimal level for every project. Instead, the appropriate level will vary by the goals, context, audiences, and resources available. In practice, you may engage at different levels during different phases or milestones of a project or study. In the beginning you might consult through a preliminary scoping meeting. During alternatives generation, you might collaborate with participants in a design workshop. After a decision is made, you might present

and elicit feedback in a public hearing. Whatever level you choose, be sure to share it with your audiences at the outset of the project to establish appropriate expectations.

In the Sacramento Levee Upgrades Case Study (see text box below), the project's first public engagement was meant to inform and educate the public about the project. Due to COVID-19, the team provided the information to the public in a virtual format. Because the goal at this stage was one-way delivery of information, the virtual presentation format worked extremely well for the purpose of the engagement.

Case Study: Sacramento Levee Upgrades (American River Common Features Project)

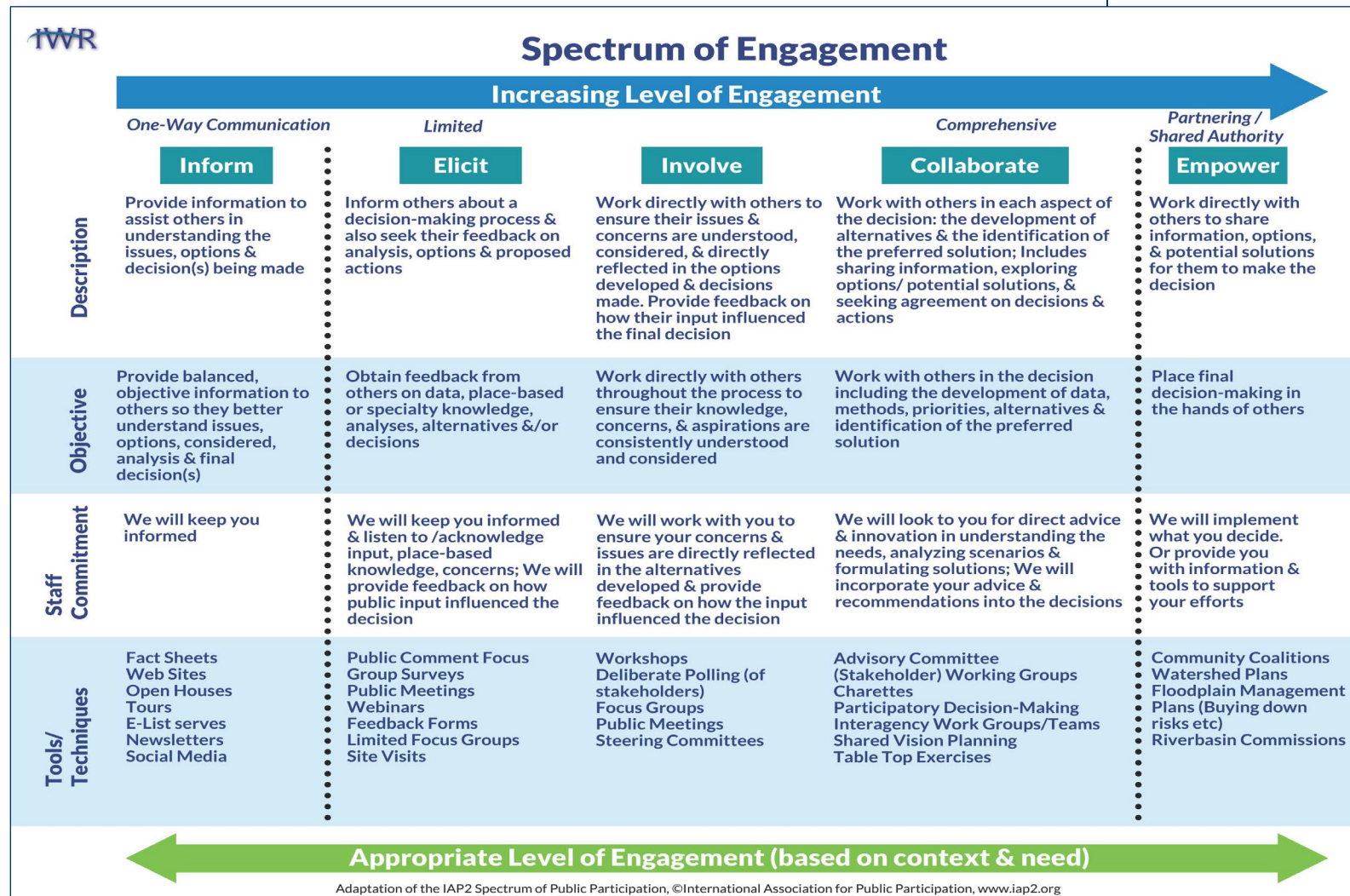
Highlight on: Levels of Engagement

For the American River Common Features (ARCF) Project, a March 2020 public meeting was planned not under the National Environmental Policy Act (NEPA), but instead was a commitment by USACE to inform the local community about construction details as soon as they were available.

Public engagement for the Sacramento River levee upgrade portion of the ARCF project transitioned from in-person to fully virtual before the first construction-phase public meeting due to public health concerns raised during the COVID-19 pandemic. Instead of an in-person meeting, the project team provided a narrative presentation that was later posted on YouTube.

By using the available resources, the project team was able to keep their commitment to the public by providing timely and comprehensive information about project construction. This format, limited to one-way communication, would not have been effective at another stage of this project.

Figure 1. USACE Spectrum of Engagement



Source: CDM Smith 2022a, adapted from IAP2 Spectrum of Public Participation

Determine Your Audience

After you determine the purpose and goals of your engagement, you need to identify and understand the audience. You should engage with different types of audiences—from internal project technical teams, to stakeholders, to the general public. These audiences will have different roles based on the goals of the engagement. Learn more about the role the audience plays in planning a virtual engagement in *Section 4: Virtual Engagement Best Practices*.

Determine Constraints: Budget & Time

Budget and time constraints are two fundamental components of a project that can determine which types of engagement are viable.

Budget

A tight budget can limit engagement options. When possible, budget for engagement before or at the beginning of the project to avoid surprises. Think about:

- project milestones that need engagement
- requirements in policy or law
- goals of the various engagements

Defining engagement milestones and the required level of effort can help set an appropriate budget and expectations at the beginning of a project.

Many articles suggest virtual engagement results in automatic cost savings. However, experience shows savings on travel expenses will likely be spent in other ways, including staff time, training, and software. Be very intentional with the funds available.

Recognize that each engagement sets a precedent. When planning an engagement, consider if you will be able to provide this level of effort or accommodations for all future engagements. For example, if your engagement includes translated materials, will the budget support translating all materials for future engagements (Echols 2020)? Is there a better, more cost-effective way to ensure meaningful engagement with this population? What type of engagement will get you the best “bang for your buck”? Revisit the goals of your project to select the most appropriate type of engagement based on available budget.

Time

Time is another constraint on engagement. If an engagement needs to take place relatively quickly, consider the types of engagement that can be planned most efficiently. Virtual engagement provides opportunities to connect quickly with an audience, but materials may take longer to develop. Collaborative technologies are ever-evolving as virtual engagement platforms introduce new tools and features at rapid speed. Online tools can offer relief from the time constraints of in-person engagements, but it is important to consider who is using them and how. Significant practice and planning may be needed to learn how to use the technology, and stay up to date with any changes to the features. You may find that virtual engagements require more time to plan effectively. Hybrid engagements take even more time to plan than only in-person or virtual, because materials and activities need to work in both formats. Finding which tools are best suited to achieve the specific goals of the engagement is key to maximizing time and getting the most out of the engagement.

In the Silver Jackets 2020 Watershed University Virtual SoCal Summit Case Study (see text box, below), the planning team had to pivot from an in-person event to a virtual format at the last minute because of the COVID-19 pandemic. The team had only one month and limited funds. With extensive coordination, creativity, and resourcefulness, they stayed within budget and planned a successful virtual event in a limited amount of time.

Case Study: Silver Jackets 2020 Watershed University Virtual SoCal Summit

Highlight on: Constraints

In April 2020, USACE and the California Department of Water Resources (CA DWR) co-hosted a two-day Watershed University event called the “SoCal Summit.” Due to public health concerns, the SoCal Summit was moved at the last minute to a virtual format using WebEx and AT&T Teleconference Services.

About one month before the scheduled event, the planning team had to decide whether to cancel or transition to a virtual format. The planning team had few remaining funds or time after having planned the engagement as an in-person event.

After deciding that moving to a virtual conference was feasible, the next crucial decision was which platform to use. At the time, CA DWR only had Skype for Business and Microsoft Teams. Additionally, defense agencies such as USACE were not allowed to use Zoom for security reasons. The team determined that USACE’s WebEx account was the best option and used CA DWR’s free Eventbrite account for registration. The planning team put in a tremendous effort, meeting (virtually) multiple times a week to plan the virtual components, and to provide opportunities for speakers to practice.

When the SoCal Summit was originally planned for in-person attendance limit was 100 participants. However, after the move to a virtual format, over 300 individuals registered for the Summit.

While the move from in-person to virtual was not easy, it advanced the Watershed University’s goal of providing education and collaboration opportunities to even more participants.

Summary

The foundations of successful engagement begin with determining the audience and goals of the engagement. *Figure 1. USACE Spectrum of Engagement*, can help you determine the level of engagement needed based on your goals. Then look at any other constraints, such as budget and time, that need to be considered as you begin to plan what type of engagement is right for your situation.

Section 3

What is Right for Your Situation: In-person, Virtual, or Hybrid Engagement?

In this section, we explore three types of engagements: in-person, virtual, and hybrid. There are opportunities and challenges associated with each. Engagements have varying degrees of participation. Exploring the ways to engage an audience, and understanding the nuances of each, will help you determine which type of engagement is best for your situation. *Figure 2. Types of Engagement* provides an overview of the three types of engagement.

Figure 2. Types of Engagement

Types of Engagement		
	Opportunities	Challenges
 In-person	• Focused environment • Less multi-tasking • Build trust more easily through eye-contact and body language • Hands-on activities	• Travel/transportation barriers • Timing & scheduling conflicts • Inclement weather disruptions • Public health concerns • Childcare considerations • Facility and equipment rentals
 Virtual	• Broader reach • No travel/transportation barriers • Accommodate overlapping schedules/child care needs • Tools for engaging remote activities • Safer during public health crisis	• Keeping audience engaged • Harder to build rapport/manage conflicts • Limited access to/familiarity with technology • Internet access/bandwidth • Visual & auditory requirements • Increased planning & coordination
 Hybrid	• Broadest reach • People participate how they are comfortable/it is convenient • Decreased travel burden • Creative tools for facilitation	All of the above plus: • Multiple audiences/platforms • Increased staffing requirements • Requires the most planning & coordination

Source: CDM Smith 2022b

In-person Engagement

In-person engagement means interacting with an audience that is physically together with presenters at the same location. In-person engagements take place face-to-face and range from meetings, presentations, charettes (design workshops), and more. This traditional type of engagement has many benefits.

Advantages

Depending on the context and goals of an engagement, the advantages described in this section could mean that conducting the engagement in-person is best for the situation.

In-person engagements provide better opportunities for trust-building, for reliable handling of conflicts, for hands-on experiences, and for relationship-building. People can be more focused in a face-to-face environment with fewer distractions (Corbin Ball 2020), and it is easier to obtain the audience's full attention. Whether the goal is to inform the participants or to solicit input, both you *and* the participants will get more out of the interaction when the audience is fully engaged.

Best Uses for In-Person Engagement

- Contentious projects
- Mediation
- Multi-day interagency workshops
- Tribal engagement
- Planning study meetings across small geographies
- Initial kick-off meetings

It is easier to build trust in person. Live presenters can tailor their delivery real-time by observing body language and non-verbal reactions. Addressing conflicts is easier when participants can fully observe body language and tone. These in-person cues also aid the facilitator in knowing the appropriate times to interject and how best to move forward (Kavanaugh 2020). For many cultures such as tribal communities, in-person interaction is central to building trust and conveying information (Campbell 2020). In contexts where trust in USACE is low, one option is to partner with a trusted entity, such as a local community group and have them host events. The partnership can enable USACE in more rapidly building rapport with the audience (Echols 2020). If the goal of an engagement is to build trust, or if there is a known conflict, in-person engagement may be the best option.

There is also value in the hands-on and visual elements of an in-person meeting. The ability to bring in large maps and physically place stickers and dots, and draw on large whiteboards, can encourage attendees to express themselves and communicate. The previous experiences of facilitators and the public may make it easier to implement dynamic activities that encourage participation from the group.

In-person engagements may have intangible benefits, especially for multi-agency, multi-day events. Many participants in events of this nature seek to broaden their network, and relationship-building occurs more naturally at in-person events, especially during breaks and side conversations (Greer 2020).

Challenges and Considerations

In-person engagements also come with challenges both for the hosts and for the intended attendees. You may need to address some of the challenges described in this section to achieve broad participation. When planning an in-person event, consider the barriers attendees may face:

- How long is their travel time to and from the meeting?
- Is the location easily accessible by public transportation or to those with disabilities?
- Will they need to take time off from work?
- Will they need childcare?

In-person engagements can be challenging when there is a large study area, a minimal transportation system, or even seasonal weather events. To minimize these barriers, learn about the audience and their limitations and needs. If there are multiple languages in the area, do you have translators available? Also consider the logistical challenges, such as space and equipment rentals, travel and accommodations for staff, and set-up time for the physical space.

Virtual Engagement

Virtual engagement means interacting with an audience that is predominantly online. Common platforms for web-based virtual engagements include various types of online meeting applications, websites, social media, and online comment tools. Some of these platforms share static content, while others share or create dynamic content based on user selections or participant interactions. “Non-wired” or “offline” engagement can supplement the online tools. Offline tools include telephone town halls, hotlines, texting, and phone interviews. Newsletters, paper comment forms, door hangers, flyers, and postcards are other methods of offline engagement.

Advantages

Virtual engagements can reach broader audiences and easily incorporate innovative new tools and technologies.

Virtual engagement may be an effective strategy when trying to reach a broader audience, especially from a larger geographic area. It can remove or reduce barriers that may keep people from attending in-person, such as distance, transportation, inclement weather, and limited road and travel infrastructure between locations. Virtual engagement can be tailored to remove other barriers to traditional, in-person engagement such as scheduling conflicts or childcare concerns by providing access to recordings and other materials online so it can be accessed whenever it is most convenient for the target audience.

Virtual tools and platforms can provide opportunities to mimic in-person engagement. If you typically conduct exercises on paper flip charts or poll participants by show of hands, you could

Best Contexts for Virtual Engagement

- Meetings across large geographies
- Public meetings where the community may have scheduling conflicts or transportation barriers
- Internal team meetings or public meetings with geographically dispersed participants
- When public health and safety concerns are present
- When in-person is not a viable option

use virtual whiteboards and polls. If you typically separate an in-person audience into small groups, you could use virtual breakout-rooms.

For on-demand engagements (those which audience members can visit on their own time) such as those using the GIS-based Crowdsourcing Reporter, virtualized meeting rooms, and YouTube, audio and video recordings can provide a personalized touch. Audio files can complement visuals to explain in plain terms what audiences see. Videos can show visuals that complement the audio and mimic the type of one-on-one conversation that might happen in an in-person meeting.

New virtual tools with advanced capabilities continue to enter the market. With some learning investment, you can use them to support virtual engagement in innovative and creative ways. It is essential to recognize the power and limitations of these tools to realize their potential—collaboration tools are only as collaborative as the user makes them (Local Government Commission 2020). Learn more about specific collaborative tools and their features in [**Section 6: Collaborative Technologies Tools.**](#)

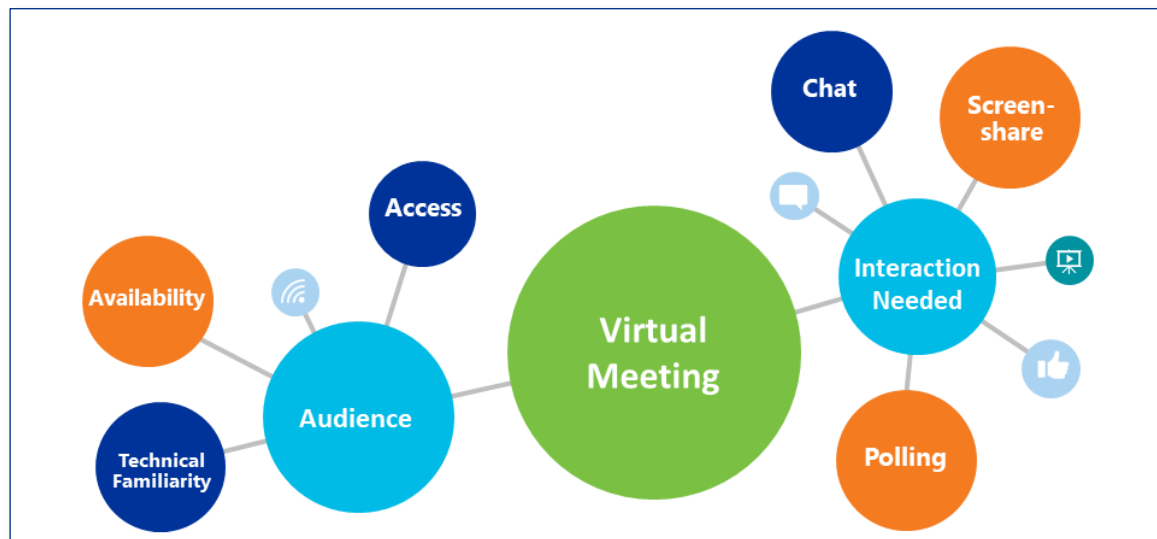
Challenges and Considerations

While virtual meetings can help you overcome barriers associated with traditional engagement, they can also create new barriers. Challenges during virtual engagements arise from using unfamiliar tools and platforms, keeping an audience engaged, addressing conflict, and ensuring the platform is accessible. You must consider and work to overcome these barriers.

Various tools and platforms, both proprietary and open-sourced, are used in virtual engagement. You must understand how to use these tools effectively, be mindful of privacy and access limitations, and weigh the associated benefits and challenges of each (American Planning Association 2021). The learning curve you and the public face when exploring new tools can be steep.

Choosing an appropriate platform should be based first on the ensuring participants have access to a particular tool; this includes the host and the attendees. Then balance the audience's needs with the goals of the interaction. Ensuring all relevant parties are included and prepared for successful participation may be the biggest challenge of virtual engagement. Key considerations are depicted in *Figure 3. Virtual meeting considerations*. The audience and the goals of the interaction are the two biggest considerations that must be balanced. As the diagram shows, audience considerations include access, availability, and technical familiarity. Considerations for interaction include the types of features and collaboration needed.

Figure 3. Virtual meeting considerations



Source: CDM Smith 2022c

Keeping an audience engaged in a virtual setting can be challenging. Attendance at a virtual session is often quite passive, and participants may multi-task instead of devoting their full attention to the presentation. You may need to restructure an engagement to be shorter than a typical in-person experience to encourage people to remain attentive (Local Government Commission 2020). Emerging best-practice research provides valuable information about virtual meeting lengths, attention spans, and how to structure breaks. Facilitation techniques and interactive elements, such as live polling, can draw the audience in and help overcome the challenge of keeping people engaged.

Another challenge is the potential for conflict during an engagement. It is more difficult to address conflicts in a virtual environment because building trust and rapport among attendees is hindered. It can also be more difficult for a facilitator to intervene (Kavanaugh 2020). Meeting virtually can be perceived as more formal than in-person meetings, in part because you lose the ability to talk casually at breaks. Consider conflict potential when planning a meeting for a contentious study, risk communications, or mediation across groups or agencies.

Virtual engagement should include all types of accessibility. Consider these elements:

- visual or auditory accommodations for those with disabilities or impairments (read more in Section 5)
- translating materials into other languages
- the technical complexity of the materials and its effect on comprehension
- access to a computer, mobile device, or the internet
- the technical experience required to participate

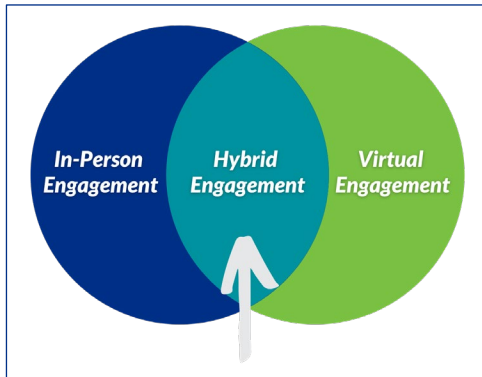
In addition to the need for internet access, you must consider the amount and quality of internet access needed for employing virtual engagement tools, which may have different bandwidth requirements. Section 4 provides recommendations for overcoming these challenges.

Hybrid Engagements

Combinations of in-person and virtual engagements, also known as hybrid engagements, blend in-person engagement at a physical location with an online or distanced component for remote attendees to access the same information (Corbin Ball 2020). These engagements, shown in *Figure 4. Hybrid engagements diagram*, typically happen concurrently but could also be held at separate times.

Advantages

Figure 4. Hybrid engagements diagram



Source: CDM Smith 2022d

the engagement will be more accessible, allowing you to share information with and solicit input from a broader audience.

The convenience and flexibility of hybrid engagements encourage participation. For example, when hosting a meeting across a large geographical area, a hybrid format allows distant participants to engage without the burden, time, or expense of travel.

Integrating in-person communication with virtual elements provides multiple ways to engage and can increase participation. This type of engagement ensures participants have the option to access the information and participate in a way they feel comfortable. When conducted well, everyone in the desired audience can participate successfully and meaningfully.

Many of the barriers discussed above can be removed when participants are offered multiple modes of engagement. When engagements are designed with a thorough understanding of the community or audience,

Hybrid engagements incorporate the best features from both virtual and in-person formats.

Challenges and Considerations

Hybrid engagements come with their own challenges. These include:

- balancing multiple audiences
- performing additional staff roles
- navigating tools and platforms
- scheduling multiple engagements
- conducting additional planning

Hybrid engagements require deliberate consideration of two audiences; there is an in-person audience and an online audience. Consider both audiences' needs and limitations. For instance, if you are facilitating a discussion in-person, ensure that the online audience has the ability to participate in the discussion. A hybrid format requires additional careful planning and coordination to ensure both the meeting structure and leadership allow equitable participation opportunities for

all attendees—whether they are commenting on or viewing materials (Campbell, Best Practices of Virtual Engagement Interview 2020).

New staff roles should be considered for the combination of engagements. More technical staff and facilitators may be needed to cover both in-person and virtual components. Furthermore, a liaison between those online and those in-person is a unique and critical role for hybrid engagements. This technical support should be in-person and connected on-line to ensure the interaction between the two platforms is seamless. This person will need to proactively ensure that online participants are aware of what is happening in-person and that their comments can be heard. The liaison may read aloud the comments participants type into a chat function, or facilitate the muting and unmuting of online participants' microphones.

Plan carefully when choosing the platform for the virtual audience. Consider the meeting goals and audience access. This includes thinking through how those online can participate as well as those in-person. Platform research and familiarity will be critical for technical staff. Additionally, sending instructions for technical support to the participants ahead of the meeting is a good practice.

A variation on the hybrid format is to split the in-person and virtual engagements and host them at different times. This option allows the hosts to give full attention to each audience; however, it limits the interaction between each group of participants.

Additional planning is required for hybrid engagements because multiple platforms are used. You can overcome the challenges outlined above with additional targeted planning.

Summary

Of the three types of engagement (in-person, virtual, and hybrid), each has a mix of advantages and challenges you need to understand before deciding which type is best for your situation. Use Figure 2 as a quick guide when considering the different formats. Remember, different situations require different types of engagement, and conditions and technology keep evolving, so it is crucial to tailor your design on the specific goals and conditions of each distinct engagement.

Section 4

Best Practices for Planning Virtual Engagements

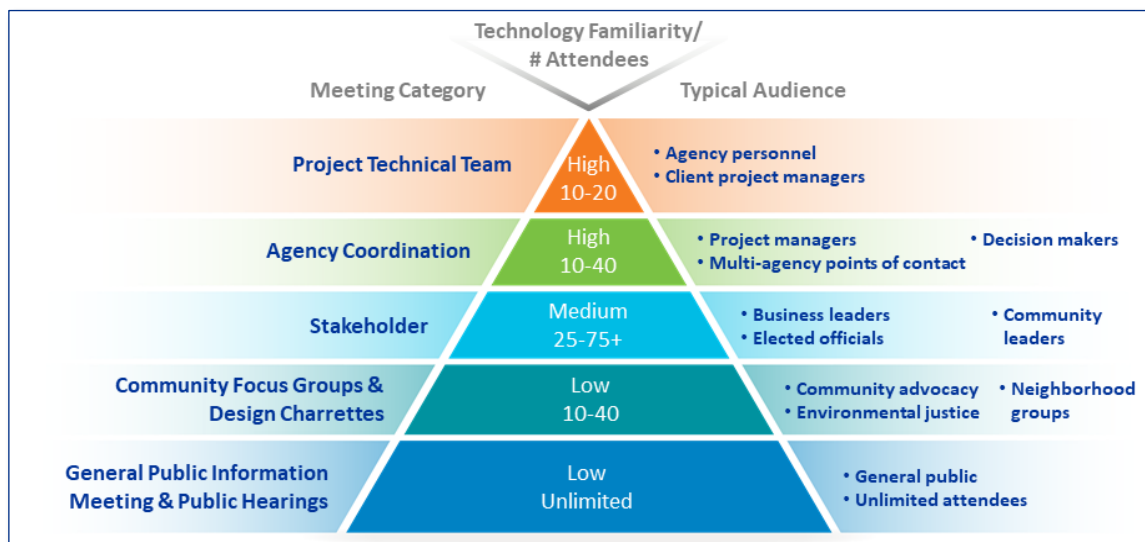
Now that we have explored the three types of engagement—in-person, virtual and hybrid—this section addresses best practices for designing for virtual engagement. Virtual engagement is ever evolving and integral to USACE’s collaborative processes. In 2020, all scheduled engagements were required to shift from in-person to virtual, in accordance with public health guidelines during the COVID-19 pandemic. As a result, the world of virtual engagement expanded while changes and innovations occurred at an unprecedented pace.

We interviewed public involvement and collaboration specialists, both internal and external to the Corps, and their real-life experiences and lessons-learned form the basis of this section on best practices of virtual engagement. This section describes how to harness the advantages and opportunities associated with virtual engagement, and how to overcome the previously identified challenges.

Know Your Audience

In addition to understanding the purpose and goals of an engagement, including the desired level of participation, you must understand the audience. While this is true for any type of engagement, it is especially important when developing virtual engagement plans since audiences will likely have varying levels of technical familiarity with collaboration technologies and varying levels of internet access. Figure 5 identifies the audience characteristics associated with different types of meetings; as the meeting categories become more specialized (“general public” versus “project technical team”) the number of attendees tends to decrease while the audiences’ technical familiarity tends to increase.

Figure 5. Meeting categories and audience characteristics



Source: CDM Smith 2022e

Because each audience possesses differing levels of technical familiarity, access to technology and the internet, and knowledge of the project, each audience may require distinct techniques for engagement.

How do you get to know your audience?

Tip: planning departments are a great place to start!

Assess the intended audience. Gather information to determine which types of engagement and techniques are feasible, accessible, and most appropriate for the circumstances. The Environmental Protection Agency's (EPA) *Public Participation Guide* (2018) recommends conducting a situation assessment that will help you understand who to engage, specific questions for which to involve the audience, and the constraints affecting participation. Your assessment should:

- clarify the problem or opportunity to be addressed and the decisions to be made
- define the sponsor agency's approach to public participation
- identify stakeholders and their concerns, including marginalized communities
- reveal information gaps or misunderstandings early enough so they can be addressed
- identify potential constraints on the public participation process
- identify issues for consideration in the decision process

Situation assessments include a community assessment. Start with a review of local demographic data to understand the cultural, generational, and educational makeup of your audience. The United States Census Bureau's *American Community Survey* data is generally a good starting point for this, but it should only be used for a high-level understanding. You may need additional tools, such as EPA's EJSCREEN, an environmental justice mapping and screening tool that provides a nationally consistent dataset and approach for combining environmental and demographic indicators. This tool relies on census data and can help you identify populations that may require additional consideration.

Interview community leaders and local government staff to validate your data and understand the community.

Your interview questions should include:

- Where and how does the community get their information?
- What types of engagements have worked in the past?
 - In-person?
 - Virtual?
 - What were the barriers to community involvement?
- Are there any previously scheduled events that should be considered when scheduling an engagement?

- Are there any nuances that should be known to avoid cultural missteps?
- Is there a large presence of residents who speak a language other than English?
- What is local sentiment toward the project or study?
 - Is there any historical information related to this ?

Community Assessment Tools

U.S. Census Bureau, American Community Survey provides detailed community-level population and housing information throughout the U.S.

<https://www.census.gov/programs-surveys/acs>

EPA EJSCREEN is an environmental justice mapping and screening tool that provides a nationally consistent dataset and approach for combining environmental and demographic indicators. <https://www.epa.gov/ejscreen>

Key Questions

Answering the following questions can help you determine the appropriate type and level of engagement for your situation. These key questions lead to more inclusive, successful engagement because they help you thoroughly consider the goals, participation, audience, barriers, and metrics.

What are the purpose and goal(s) of the engagement?

Revisit the “big picture” purpose and goals of the engagement. Think about why the engagement is needed and what you want to get out of it (Creighton 2003). Identify clear goals first, then select your tools (EPA 2018).

What level of participation is needed for the project?

Consider the *Spectrum of Engagement* when conducting in-person, virtual, and hybrid engagements. Start with the end goal of the engagement before deciding on a type. It is not necessary or appropriate for every engagement to be at the “collaborative” or “empowerment” level. You must determine what is appropriate for the project and community based on the project’s purpose and goal(s), and the projects current stage.

How will the audience participate and engage?

After determining the level of participation needed, decide how best to inform, consult, involve, collaborate, or empower the audience. Match the engagement plan with the level of participation.

What barriers may affect participation?

Considering the intended audience, are there barriers like geography, language, internet access and bandwidth, or scheduling, that may affect participation?

How can the barriers be overcome?

Barriers exist for all types of engagements with all types of audiences, but almost any barrier can be overcome through thoughtful planning. If the barriers for in-person engagements are due to scheduling or timing, explore web-based technologies such as websites, visualizations, and online comment tools. If the intended audience has limited internet access and the engagement is an online meeting, consider choosing a technology with a call-in only option, opening a hotline, or hosting a telephone town hall.

What are the metrics of success?

Specify how success will be measured before the engagement takes place. Metrics can include: general participation numbers; participation numbers from a specified community, such as a socially vulnerable community; and the value or quality of the input received.

How will you close the loop when the engagement is finished?

Show participants their voices are valued by following-up with a meeting summary and telling them how their feedback will be used. Adding a personal touch with a thank you call, email, or letter makes people feel appreciated and will likely make them more willing to participate in the future (Bonnemann 2021).

Overcoming Challenges to Virtual Engagement

What can you do to overcome common challenges associated with virtual engagement? The following paragraphs focus on best practices related to planning, maximizing accessibility, reducing technology barriers, keeping the audience engaged, and building trust.

Planning Virtual Engagements

Success is determined by how well you plan your engagement. Setting the purpose and goals of the engagement and understanding the audience are the first steps. Then determine the level of engagement needed, define any constraints or barriers to public participation, and plan how to overcome them.

Allow ample time to plan. Begin planning your virtual meeting at least two months in advance. You may need more time, depending on the audience and type of virtual meeting. Identify who should be involved in the planning process. Consider your staffing needs, as virtual engagements require sufficient staff to perform multiple roles and responsibilities (e.g., taking notes, managing the virtual chat box, facilitating the conversation, assisting with technology). Anyone who will be actively supporting the virtual meeting should likely have some role in the planning process (Campbell 2020).

Create a formal meeting plan with all information housed in one place. A meeting plan is a living document you will update throughout the planning process. Your meeting plan should include:

- Date, platform(s) of engagement, log in credentials
- Description of the intended audience, identifying any special populations that should be considered

- Description of technology assistance for participants
- Facilitation plan, including a backup facilitator
- Description of how the meeting will be documented
- Materials to be used
- Staffing, roles and responsibilities
- “Day-of” checklist of materials and actions
- Advertising strategies
- Schedule
- Backup plan

Expect the unexpected and assume something will go wrong. Virtual engagement technology can be powerful, but it is not always seamless. To help technical problems during your meeting:

- Identify a backup facilitator in case the facilitator’s microphone or internet stops working.
- Establish an alternative means of communication for the team leading the meeting.
- Make sure all team members know where materials are stored and how to access the meeting.

There is no such thing as overplanning when it comes to virtual engagement!

If you are conducting a live virtual meeting, hold at least one dress rehearsal. While many people have become adept at conducting internal team meetings day-to-day, hosting a virtual meeting with stakeholders, tribal nations, the public, or multiple agencies, requires preparation and coordination. Even if you are familiar with the platform, it is always a good idea to have all participants practice their roles within the proposed platform before the virtual meeting. Practice sessions build confidence, increase the efficiency of transitions, form cohesive teams, and create useful redundancies. They also give you an opportunity to hone your skills, as the platform software may have been updated since the last time you used it.

If you are conducting an on-demand meeting via website or video, have the meeting materials reviewed by colleagues who are removed from the work to confirm the materials are easy to understand and navigate. You will also need to verify that the materials will work on various types of devices including: desktop computer, mobile phone, and tablet.

Create an advertising plan. It is hard to stand out in the virtual world. Emails get lost and require very short yet catchy calls to action in the subject line (Echols 2020). Postcards or flyers may work better, depending on the audience and budget constraints. Thoughtfully consider how to get participants to the engagement. Advertising your event could be as simple as sending an email, calendar invitation, or mailed letter. Consider how far in advance an audience needs to know about the engagement when setting the date and platform.

For a public meeting, plan how to draw participants. Get creative. How do places of worship and other community groups communicate with their members? Ask if it would be effective or helpful

to attend a community group or service to provide flyers. Alternatively, ask if they are willing to add information to their website or social media, or if they are willing to distribute flyers electronically. Provide community groups the information they need in their requested format, to make it as easy as possible for them to share the information.

See the I-526 Lowcountry Corridor WEST Public Hearing Case Study (adjacent text box and Appendix A) for a varied and comprehensive list of advertising methods.

Case Study: I-526 Lowcountry Corridor WEST Public Hearing

Highlight on: Advertising

South Carolina Department of Transportation (SCDOT) advertised extensively when soliciting participation for the I-526 Lowcountry Corridor (LCC) WEST Public Hearing.

Advertising methods included:

- newspaper advertisements in English and Spanish publications
- mailers sent to potentially impacted communities
- flyers in boxes placed around the potentially impacted communities
- physical road signs from the South Carolina Department of Transportation
- project e-blasts
- social media
- project website
- bus advertisements
- billboards
- digital display advertisements
- radio ads
- streaming audio
- virtual media day

Between November 12, 2020 and January 15, 2021, interested people submitted 235 comments, and 8,176 visitors (over 9,500 views) viewed the public hearing webpage. Thirteen one-on-one appointments were held with the target audience in-person during November and December at the project's community office. These meetings included residents or property owners with potentially impacted properties. Forty people participated in the live virtual comment session and two verbal comments were received.

Read more about the I-526 LCC WEST Public Hearing in the Case Study in Appendix A.

Create a workback schedule. Start backwards from the meeting date and identify the individual tasks that need to be completed to ensure a successful virtual engagement. Identify each person responsible for each task along with task status, and the associated review time. Special software is not required—you can use a simple table or chart in a document or a detailed spreadsheet.

Asking the following questions can ensure your workback schedule is as up-to-date and inclusive as possible:

- Do materials need be mailed before the meeting?
 - How long will that take?
- Do other parties need time to review materials?
- Are there any legally required notice periods?

Accessibility

The term “accessibility” can have multiple definitions when it comes to virtual engagement. These range from compliance with Section 508 of the Rehabilitation Act, to making the user experience as inviting and easy as possible. When thinking about accessibility, consider the end-user’s experience. What might prevent the intended audience from participating? Can that agency use this software platform? Does this require too much bandwidth? Does the software require a password or username that might be cumbersome? Can someone who cannot see or hear still participate?

There may be a demographic or generational spectrum that should be accounted for in planning, but there is also a spectrum of access to technology, internet, or bandwidth. How can you make the meeting as accessible as possible to everyone? Provide clear instructions and a dial-in option for those joining remotely. Remember that rotary dial phones can complicate password entry. Consider holding an instructional meeting before the actual engagement to help participants understand how to use the collaborative technology. Always include a phone number participants can call or text for technical support if they have trouble accessing the meeting. Other suggestions:

- Include a script or closed-captioning in video recordings.
- Provide clear descriptions of what is being shown on the screen for those unable to log in or view.
- Read aloud questions and answers from the virtual chat box, and allow time for phone-in participants to ask questions.

For additional ways to ensure those with disabilities have access, see [**Section 5: Socially Vulnerable Populations**](#).

Merging a virtual engagement with another type of engagement to create a hybrid engagement opportunity can increase accessibility. This additional engagement opportunity could be in-person, such as holding office-hours, or remote, such as holding a telephone town hall. Consider the audience and their needs. Ask community leaders what types of engagement would attract members of their community. Then, build the engagement strategy around their accessibility needs. Read more about ensuring accessible engagements and how USACE combined engagement strategies to reach remote tribal communities in Alaska in the Archaeological Investigations at Chernofski Harbor Case Study (see adjacent text box and Appendix A).

Case Study: Archaeological Investigations at Chernofski Harbor

Highlight on: Accessibility

Engagement with communities in this remote area of Alaska was especially challenging due to limited internet bandwidth, limited cell phone service, and the need for boat or airplane transportation when meeting in-person. To engage virtually with the local tribal communities, USACE worked with a local TV station to live-broadcast a WebEx meeting. The tribal nation recommended and facilitated this strategy. Soliciting input from tribal leaders was necessary to ensure the planned outreach met the engagement objectives. A call-in number was provided before and during the broadcast so participants could call-in to the meeting if necessary. The presentation slides were emailed as a reduced-size PDF in advance to all community members who had expressed interest in attending the meeting, in case their internet connections facilitated audio but not visual interaction with the WebEx platform.

Read more about this Case Study in Appendix A.

Technology

Virtual participants must have access to the internet and sufficient bandwidth to participate. Even homes with sufficient internet access under normal circumstances may find themselves unable to participate if all household members are drawing on this resource at the same time, or if the connection fails. Thus, it is important to minimize this barrier by providing alternative and easier ways to access the event and contents by:

- making meeting materials available on-demand (provide handouts in advance; record the meeting and share it after)
- choosing collaboration tools that do not require working internet (telephone call-in or radio broadcast)
- employing tools that do not require any downloads

Keeping the Audience Engaged

Keeping the audience engaged through effective facilitation becomes even more important in virtual engagement (Bonnemann 2021) since participants are more likely to multi-task during virtual engagements. Use interactive engagement tools, such as polls and input forms, to keep the audience engaged throughout your meeting. Consider the timing and duration of the meeting as well. Virtual engagements may need to be shorter than in-person engagements to keep the audience's attention (Local Government Commission 2020). If the goal is two-way communication, make sure the schedule allows time for the audience to communicate.

When facilitating discussion, allow for more silence between questions than you would during in-person meetings. While it might only take someone a few seconds to respond to something in-person, it can take much longer for people to respond in a virtual setting. People need time to unmute themselves, and there can be hesitancy to speak up with the lack of non-verbal cues as well as some delay in the sound system. Plan for introverted attendees in the virtual environment who will not speak up immediately. A best practice is to let the silence go on, even if it feels uncomfortable (or if appropriate, to call on specific individuals). This helps encourage people to communicate (Merritt 2020). Verbal cues such as stating “passing the microphone” or “handing it

over” can be helpful to keep the dialogue going in a virtual environment where facial expressions and body language are not as obvious, or may not be present at all (Greer 2020).

Consider how to best moderate a meeting if the audience is using different platforms, such as telephone and computer. If hosting a call-in-only option, consider how to manage interaction with participants on the phone when they do not have the ability to virtually “raise their hands.” For example, when participants call-in, you may need to segment participants and open the phone line to one segment at a time so everyone is not speaking over one another. Another strategy might be to break participants into groups and call on them one by one within each group. This can work well for moderating agency coordination meetings. Learn how the virtual facilitation and moderation was planned for and executed in the Bluestone Dam Case Study highlighted in the following text box. In this example, multiple planning sessions helped ensure successful facilitation.

Case Study: Bluestone Dam in Summer County, West Virginia

Highlight on: Moderation and facilitation

USACE organized a two-day hybrid in-person and virtual meeting. On each day there were morning and afternoon sessions, with a midday break. Virtual participation was hosted on WebEx. Two facilitators from USACE coordinated the meeting. The facilitators held several planning sessions before the meeting, with the leads of the three different groups involved in the meeting. These sessions helped form a clear, organized agenda that provided timing estimates, and ensured that responsible parties were aware of their roles.

During the meeting, one facilitator served as a moderator while the other served as a notetaker. The moderator ensured all individuals had an opportunity to share their thoughts, while the notetaker took notes viewable in real-time. At the end of each day, the facilitators led a recap of the day’s events, which included creating a list of action items, and confirming the accurate capture of information. The project manager played a crucial role as the liaison between the online and in-person participants. The project engineer focused on coordinating and leading the in-person discussion.

Read more about this Case Study in Appendix A.

Building Trust

Building trust can be challenging in a virtual environment. With traditional in-person engagements, it is easier to build personal relationships, which then leads to trust. The lack of a human element can be a barrier in virtual engagement that you must overcome to build trust. One way to humanize the project team is to use video cameras or show candid photos of the team in the presentation (Campbell 2020). Another way to build trust is to share personal information, such as about family, hobbies, or pets at the beginning of the engagement and ask others to do so as well. Consider cultural differences and expectations when thinking about building trust, as USACE did for the Archaeological Investigations at Chernofski Harbor. Read more about how the project team focused on building trust in a virtual environment in the case study below.

Case Study: Archaeological Investigations at Chernofski Harbor

Highlight on: Building trust

Public engagements in rural Alaska always include tribal nations. For Alaska natives, it is important that the project team see, experience, and understand the tribe's landscape. Mutual understanding and collaborative communication are important, and both USACE and Alaska native communities rely on in-person experiences to build trust. However, in-person experiences are not always an option, such as during a pandemic or during inclement weather.

Understanding the importance of face-to-face interactions in building trust with tribes, the project teams focused on “humanizing” themselves during the virtual engagement by including personal background information and candid photos.

Read more about this case study in Appendix A.

Summary

Careful planning, based on best practices, can help you be successful in all types of engagements. Virtual engagement is dynamic. Therefore, you must stay informed of changing best practices, technology, and tools. Figure 6 summarizes best practices for different types of virtual engagements.

Figure 6. Virtual engagement tips and considerations

Virtual Engagements: Tips and Considerations				
	Lead Time	Notice	Planning Document	Technology Features
 Public Meetings/ Hearings	2 Months MINIMUM	Full advertising strategy based on target audience	Meeting plan with staffing, logistics, materials & a detailed workback schedule	Chat, polling, videos, captioning, interactive mapping, comment forms Host a dry run!
 Community Groups/ Charrettes	1.5 - 2 Months MINIMUM	Public - advertising strategy based on target audience; Closed - series of emails or targeted communications	Meeting plan with staffing, logistics, materials & a detailed workback schedule	Chat, whiteboards, polling, breakout rooms, comment forms Host a dry run!
 Stakeholder Meetings	1 Months MINIMUM	Email blasts, individual emails or phone call reminders	Agenda; Consider mailing meeting materials to stakeholders in advance	Chat, whiteboards, polling Host a dry run!
 Agency Coordination	1 Month	Calendar invite, email reminders	Agenda; Consider emailing meeting materials in advance	Chat, whiteboards, polling
 Project Technical Team	1 Week - 1 Month	Calendar invite, email reminders	Agenda; Consider emailing meeting materials in advance	Chat, whiteboards, polling

Source: CDM Smith 2022f

Section 5

Socially Vulnerable Populations

USACE strives to create engagement strategies that are both inclusive and equitable. However, virtual engagements can present unique challenges in this area. This section explores methods for reaching and including socially vulnerable populations, with specific focus on those with disabilities. We discuss special considerations and key questions you should ask when planning engagements for socially vulnerable populations, and includes discussion of compliance with Section 508 of the Rehabilitation Act.

Socially vulnerable populations are groups who have the fewest resources, live in high-risk locations, occupy substandard housing, lack social and political connections, or have limited access to information. Typically, the characteristics of vulnerable populations include:

- age (the elderly and very young)
- low income
- language other than English spoken at home
- limited access to transportation
- inadequate housing or shelter
- low educational attainment
- ethnic minority status
- physically and/or mentally challenged

As stated in *Identification and Engagement of Socially Vulnerable Populations in the USACE Decision Making Process* (Baker, et. al. 2016), social vulnerability is not a new concept for USACE. However, it warrants greater attention when it comes to meaningful engagement, because USACE's actions and decisions impact the safety and well-being of these populations.

"The importance of considering socially vulnerable populations in the planning process fits within a broader need for well-conceived communication and public involvement." - Chris Baker

Special Considerations and Key Questions

Effective engagement with socially vulnerable populations requires special consideration when conducting virtual meetings. Often this warrants adaptations to typical virtual approaches. The push to virtual engagement has, in some respects, redefined what is considered a socially vulnerable population. Now, many with limited or no internet access are socially vulnerable because they do not have access to certain resources (Campbell 2020). Providing information using several different technologies in a hybrid fashion can increase your reach and provide access to those who otherwise may not be able to participate.

The project team for the Barrow Alaska Coastal Erosion project used multiple platforms to make a hybrid-format charette as accessible as possible for the community in the case study below.

Case Study: Barrow Alaska Coastal Erosion

Highlight on: Engagement with a socially vulnerable population

Virtual engagement in a remote rural area requires creativity when it comes to moderating and keeping the audience engaged.

The project team held a hybrid charette to hear community-wide concerns and opinions during the design-phase of a project in the remote City of Utqiagvik (formerly known as Barrow) in Alaska. They combined a call-in option with a WebEx meeting to make the meeting as accessible as possible to all participants. One portion of the charette was also broadcast over a local radio station. Instead of a two-day charette, the project team split the charette over 4 half-days so that the community members would have ample time each day to meet their other responsibilities and to alleviate virtual engagement fatigue.

The charette was designed to be discussion-driven instead of visual so that participants who could only join over the phone would receive the same information as everyone else. This virtual “hybrid” design worked exceedingly well for this project. The split in the number of call-in participants versus participants who joined through the WebEx platform was roughly equal, and there was good interaction from both participant types.

Read more about this case study in Appendix A.

Key questions to ask when developing an engagement strategy to reach socially vulnerable populations:

What is the age of the population?

Aging populations may have more varied experience using technologies and accessing virtual materials. For virtual engagements, provide very clear, simple instructions for accessing the meeting or engagement, using images where applicable. All instructions should have a phone number to call for technical assistance. Should you host a practice session for participants, so they have an opportunity to become familiar with the platform and address questions ahead of time? Other options include providing additional methods for accessing materials, such as by mail, phone, or an accompanying in-person opportunity.

Will there be language barriers?

Determine the level of need and appropriate response. Consider translated closed-captioning (live and recorded), having a translator on site, or providing informational materials in multiple languages. Live closed-captioning with translation can be a very complex and expensive task. Given the speed needed, mistranslation is a risk since there is no time for review. Alternatives to live captioning include providing a recording with translated captions or with a script containing multiple languages. Think about the expectations you may be setting regarding access to various

languages for the duration of the project. Does this require a translation team? Remember, providing information in additional languages requires more time for development and quality assurance.

What is the audience's level of education?

Make sure presentations and materials are appropriate for the audience. Avoid jargon and simplify as much as possible. Use images to explain complex concepts. Have someone not as familiar with the project or study review the materials to see if they are easily understood. If using a chat box, read aloud the questions and comments, and allow for verbal questions and comments when working with populations that may not be as accustomed to typing.

How will access to this information for the deaf and blind be provided? What about other types of disabilities?

Making materials accessible to those with disabilities is the right thing to do, and is required of all federal agencies under Section 508 of the Rehabilitation Act (29 U.S.C. § 794d), as amended in 1999. If creating a website, consider including audio files for those who are blind, and confirm that a screen reader can successfully read the site. If using videos or a live virtual meeting, include closed-captioning for those who have hearing disabilities. Read more about 508 compliance in the next section.

Does the population have limited or no internet access?

Ensure your virtual engagement has non-virtual options. For example, include a telephone call-in number for participants. Provide a paper copy or thumb drive before the meeting by mail or another method to help participants follow along better. If distributing materials virtually, limit graphics on the presentation slides and in files to reduce the bandwidth needed to download and view. Consider on-demand methods such as websites or ArcGIS tools, such as Crowdsourcing Reporter, that do not require downloads. Include other ways to amplify online meetings such as broadcasting to television or radio.

To help reach socially vulnerable populations:

- Use phone-based meetings to avoid low bandwidth issues
- Provide a notice and telephone number for participants to call if they need special accommodations
- Make paper copies of meeting materials available at libraries to complement the online materials
- Make resources available online that do not require a download--this is helpful for those with bandwidth issues
- Consider mailing thumb drives or printed materials to those with limited internet data plans
- Include closed-captioning in videos and online meetings
- Record live meetings and post online afterward

How does information travel in the community? Who are the people in the community that are trusted and can help deliver information?

Partner with trusted local organizations or individuals to reach socially vulnerable groups. Look for people who are rooted in the community and representative of populations you are trying to reach (Greater Portland Council of Governments, 2020). If sending materials to a remote area, this liaison can ensure the materials have reached their destination and have been distributed.

Local radio and TV stations are smart and easy ways to get out the news. Consider issuing a press release or purchasing advertisements, to help spread the message. Targeted advertisements can be based on the population you are trying to reach. For example, place an ad in Spanish in a Spanish-language newspaper describing an upcoming engagement opportunity that will include translations.

Is there a community hub where you should send information, such as a school, library, post office or grocery store?

Think about using community resources to share information. Where are people in the community visiting regularly and will those places share information on their website, social media, email lists or bulletin boards? Perhaps they would allow you to install a flyer stand of information or pass along meeting packets. If unsure of locations, reach out to your local liaison.

Are there any cultural practices or events that may preclude people from participating?

Consider recording live presentations and meetings and making them available afterward so those unable to attend can view the materials. Alternatively, provide on-demand access to the materials online. If you need audience input, consider shifting the engagement period to after the cultural practice is over, or extending the comment period.

Disabilities, Inclusion, Section 508 of the Rehabilitation Act

A main consideration when thinking about socially vulnerable populations, is those with disabilities. The U.S. Department of Defense is committed to making its electronic and information technologies accessible to individuals with disabilities in accordance with Section 508 of the Rehabilitation Act (29 U.S.C. § 794d), as amended in 1999 (US Department of Defense, 2021).

What does Compliance with Section 508 of the Rehabilitation Act mean?

Section 508 of the Rehabilitation Act requires federal agencies to provide individuals with disabilities access to, and use of, information and data that is comparable to that provided to the public who are not individuals with disabilities, unless an undue burden would be imposed on the agency.

Section 508 requires that all external public-facing content, and non-public-facing official agency communications, be accessible. This includes websites, applications, software, emails, PDF's, Microsoft Office documents, social media, surveys, forms, educational and training materials, and more.

When it comes to making virtual engagement materials accessible in accordance with Section 508, some important considerations include:

- **Color contrast for color blind accessibility**
 - Use patterns and words along with color to make sure a distinction is made for the visually impaired. Note that red and green can be indistinguishable for someone with red-green color blindness, the most common form.
 - Ensure the colors have enough contrast from each other so that text is legible for those with visual impairments. There are free tools that will check your images for contrast (see Additional Resources below).

- **Screen reader and keyboard accessibility**

- Screen readers “read aloud” the content on the screen for people who are visually impaired and cannot access digital content.
- People use keyboard commands to tab through the content, so it is important to check that the site can be fully accessed using only the keyboard. Being able to tab through content is also important for those with physical disabilities that limit their ability to use a mouse or perform other more complex movements. There are free tools available to check for keyboard accessibility.
- Alternative text, or alt text, is used to describe images, making them accessible to the visually impaired. All images need to have well-written, clear descriptive text.

- **Voiceover for visual impairments**

- An alternative to alt text might be to provide an audio file to fully explain the visual items on a webpage, a handout or other materials.

- **Closed-captioning or scripts for auditory impairments**

- Whenever audio is needed, include a transcript or closed-captions that can assist someone who is deaf or has hearing impairments.

- **Accessible PDFs**

- If materials are provided as PDF's, ensure that they are properly tagged with alt text and that all text is readable. Do not include scanned text or images. Microsoft Office products have built-in accessibility checkers.

Reviewing meeting materials to ensure compliance with Section 508 can take additional time, and that time should be planned for at the beginning of the project. It is much easier to plan for accessibility in the beginning than to add it on at the end of the project.

Additional resources and checklists for Section 508 Compliance:

- **U.S. Department of Health & Human Services Accessibility Compliance Checklists:** <https://www.hhs.gov/web/section-508/accessibility-checklists/index.html>.
- **U.S. General Services Administration Government-wide IT Accessibility Program:** <https://www.section508.gov/>
- **Compliance Contrast Checker:** <https://adasitecompliance.com/ada-color-contrast-checker/>
- **How to Use NVDA for Windows Screen Reader:** <https://webaim.org/articles/nvda/>
- **How to Use Voiceover for Mac Screen Reader:** <https://webaim.org/articles/voiceover/>

Summary

The term “socially vulnerable” can refer to many populations, but one significant group is those with disabilities. Plan for accessibility from the start of your project. The resources in the preceding paragraphs include good questions to ask, checklists to inspect, and compliance tests to assist you with this effort.

Section 6

Collaborative Technology Tools

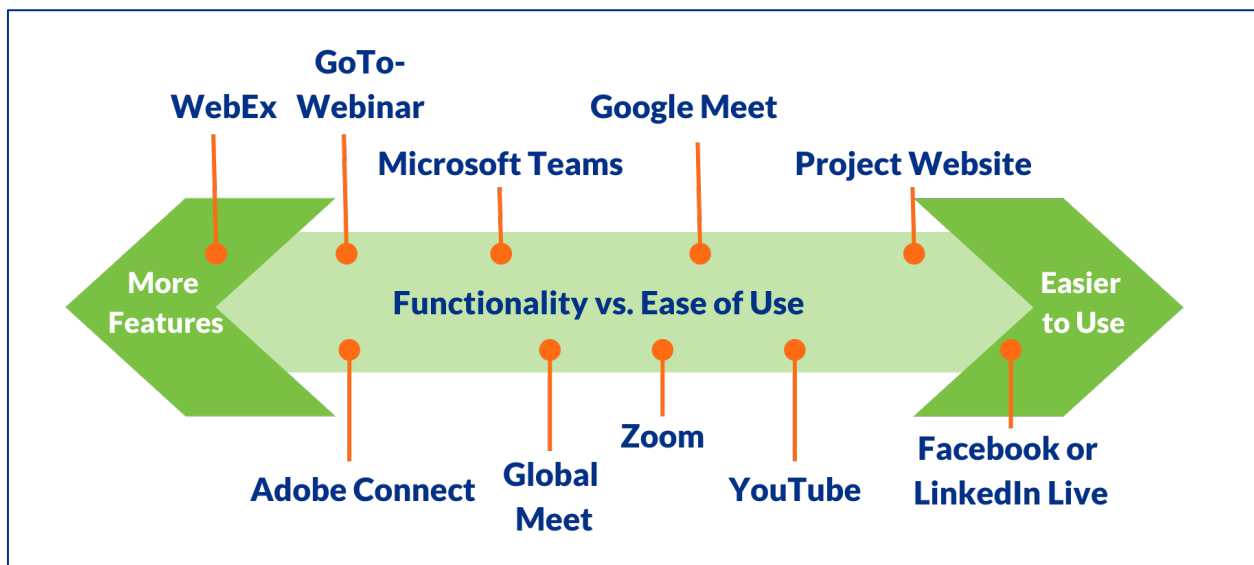
In this time of increased virtual engagements, collaborative technologies are evolving rapidly. New tools and platforms, coupled with a skilled facilitator, can bring creative solutions for virtual engagements. What makes a platform collaborative is the way people use it to engage audiences. In this section we examine different types of collaborative technologies and tools and introduce USACE's *Collaborative Technologies Query Tool*.

You should become familiar with how to use collaborative technologies and tools, including their privacy and access limitations, and the associated tradeoffs with each. This means staying abreast of technological changes and understanding that, although a feature may not be available now on a particular platform, it might become available in the future.

Online engagements can take as much or more effort and time to plan as in-person engagements in part because of technology barriers and the associated learning curves. Additional time may be needed to prepare materials, learn the technologies, and practice the virtual meeting. Collaborative tools are evolving every day and can help save time if you are familiar with their functionality and best uses.

When choosing a collaborative tool, you need to balance the engagement needs with the audience's technical familiarity. Understand which functionalities are needed first, then understand the audience's limitations and preferences, and then choose the best platform that balances those factors. Tools with advanced features and functionality may be more difficult for participants to use and may require more preparation and study. Figure 7 shows the spectrum of functionality versus ease of use across common collaborative tools.

Figure 7. Technology tools: functionality vs ease of use



Source: CDM Smith 2022g

Collaborative Technologies Query Tool

The *Collaborative Technologies Query Tool* (CTQT) was designed by USACE public involvement specialists for USACE staff to identify available collaborative technologies. The CTQT can help you discern the best technology for your situation. The CTQT includes technology descriptions, available features, access instructions, and whether the technology can be used to communicate with the public or is restricted to government agencies.

You can perform a custom search, entering information about the intended audience and the features they may need. The CTQT will display all results that include at least one of the identified features. shows the custom search function.

Figure 8. Collaborative Technologies Query Tool

The screenshot shows the CTQT search interface. It includes a text input field for a descriptive title, a section for selecting collaboration partners (USACE, DOD, Government, Public), a text input for additional points of contact (POCs), and a grid of checkboxes for various features like Break-Out Groups, Calendar Sharing, Conference Call, etc.

Descriptive Title for Search *

Some users may want to create multiple searches for different projects or organizations; use this descriptive title field to help you identify your individual searches.

With whom will you be collaborating? * ☐ USACE ☐ DOD ☐ Government ☐ Public

Additional POCs to Include

These additional POCs will be copied on e-mails containing any results from this individual search effort.

What features will you need?

☐ Break-Out Groups	☐ Calendar Sharing	☐ Conference Call	☐ Create Events
☐ Create Survey/Polls	☐ Crowdsourcing	☐ Document Editing	☐ Document/File Sharing
☐ Forum/Blog	☐ Free	☐ Group Chat	☐ Live Chat
☐ Mapping Features	☐ Mobile Friendly	☐ Notifications	☐ Recording
☐ Screen Sharing	☐ Task Assignments	☐ Video Chat	

Source: Langsdale 2022, screenshot from <https://apps.usace.army.mil/sites/CTQT/Pages/Welcome.aspx>

Common Collaborative Technology Features and Use Cases

Video Conferencing

Video conferencing is a live, video-based engagement useful for large or small groups. Many video-based platforms are easy to use for both planners and participants. Video is a mainstream form of communication for a variety of situations, such as internal team meetings, stakeholder meetings, webinars, live streaming events, and more. Video conferencing can be coupled with other technologies in this list to create a more interactive experience.

Breakout Rooms

Breakout rooms are sessions within a virtual meeting that are split-off from the main meeting. Breakout rooms allow participants to disperse into smaller groups with separate audio and video from the main meeting. Use cases may include discussion or reflection after a presentation or brainstorming. They are useful for small-group collaboration and discussion.

Polling

Online polls can be incorporated into a live meeting or administered independently through a website, email, social media, etc. Live polling is used to engage the audience during a presentation, ask for feedback on content, and track responses in real time. Responses can be reported out to the group during the meeting or used for internal purposes. Integrating polls into a live meeting provides dynamic interaction. When using live polls in a virtual presentation, poll the audience every 7 to 10 minutes to recapture their attention (Holub 2021). Polls break up the meeting and can facilitate discussion. Give a brief introduction to the live polling process and explain how participants can answer the poll. Start with a “warm-up” poll that is very easy and takes little thought. Give careful thought to the polling questions—do not make them too long or difficult. If results are shown at the end of the poll, speak to the results and encourage the audience to give their insights. Facilitating conversations about the results is a main reason to include them.

General Technology Best Practices

- Create a meeting plan and schedule in preparation for any virtual engagement.
- Identify which tools are available based on the type of engagement needed.
- Think about the potential technology glitches and prepare backup plans.
- Focus on how to facilitate the meeting to get the most out of the engagement based on the goals.
- Set ground rules for how participants should or should not engage virtually.
- Practice and hold a dry-run with all team members involved.
- Hold a practice session for participants to log in to the meeting and become familiar with the technology.
- Include a phone number participants can call or text if they have technology trouble.
- Provide clear guidance for how to log-in and participate in the meeting, including using platform features like “raise hand,” chatting in the chat box, and muting and unmuting microphones.
- Be aware of security issues with different platforms—some agencies may not be allowed to use commonly available platforms due to cyber security concerns.

Other types of polls and input forms can be incorporated on websites, in social media, and within email to capture feedback from participants on their own time. This form of virtual engagement is extremely useful when trying to gather feedback from a large group or from a group that is widely dispersed geographically. There are many platforms (free and paid) that offer feedback and polling tools. Design the input form so it is easy to understand and takes no longer than 5-10 minutes for the general public to complete (University of Iowa 2019). Be aware of other requests for input that may have been put out to avoid “feedback fatigue.” Always test input forms and polls before administering them.

Whiteboards

A virtual whiteboard is just like a physical version, but online. This tool works well for collaboration and brainstorming because everyone can see the board and update it in real time. Participants can collaborate by writing on sticky notes, drawing diagrams, typing, or adding photos and charts. Virtual whiteboards can be used to conduct a virtual dot democracy exercise (where participants mark preferred options), or other planning activities. Use a virtual whiteboard in your virtual meeting anytime a physical whiteboard would normally be used for a group activity in an in-person meeting.

Live Chat

With live chat, website visitors can get immediate support or information through a chat window. The participant types a question or comment into the chat box, and the project team members can respond. This can be useful for virtual project office hours or to communicate with team members during a virtual presentation.

Crowdsourcing

“Crowdsourcing” is a virtual engagement technique that can help empower participants to send their observations and ideas through an online form or application. A group of people is invited to participate in a reporting task, such as newsgathering, data collection, or analysis. Crowdsourcing can be used for voting on priorities, sharing personal experiences or observations, or contributing ideas. Using crowdsourcing applications enables you to track, analyze, and publish the feedback received.

Dashboards

Online dashboards are a popular engagement tool. A dashboard consolidates complex data into a simple display to help people absorb the information. Dashboards can vary in scale and can help summarize and convey complicated concepts and data. They are useful when showing geographic data, processes, and summary statistics.

General Technology Best Practices, continued...

- Make sure the project team can remove or mute a participant’s microphone, if needed.
- Store documents in a centrally located place.
- Pre-assign co-hosts and backup facilitators so someone can step-in for a speaker if a technology glitch occurs.
- Implement a back-channel of communication for the internal team for any problems or questions that arise.
- Identify other tools or ways to help the audience engage.
- Send meeting materials to participants before the meeting.
- Monitor the virtual engagement—do not run it on autopilot.

The following case study, *Silver Jackets 2020 Watershed University Virtual SoCal Summit*, describes how multiple tools were used to ensure good interaction and engagement. The planning team got creative, maximizing technology, to drive collaboration.

Case Study: Silver Jackets 2020 Watershed University Virtual SoCal Summit

Highlight on: Collaborative Tools

The planning team purposefully incorporated engagement activities throughout the Summit to achieve as much collaboration as possible.

In April 2020, USACE and the California Department of Water Resources (CA DWR) partnered to host a two-day Watershed University event called the “SoCal Summit.” Due to public health concerns, the SoCal Summit was moved at the last minute to a virtual format using WebEx and AT&T Teleconference Services. Although the team did not yet have access to some of the WebEx engagement features that are now available, such as breakout rooms, the planning team was still able to integrate other technologies in very innovative ways to host a successful event—pivoting the multi-year planned, in-person event to a virtual format within one month.

With more than 300 participants registered for the virtual events and a maximum capacity of 250 participants in the WebEx meeting, the team needed to provide a “backup room” for the additional Summit participants. The main meeting was held in WebEx, and then team members could share the WebEx meeting with participants connecting through AT&T Teleconference Services by sharing their screens. The facilitation team also created interactive virtual networking opportunities between panel discussions to increase engagement and break up the agenda. These activities incorporated the use of annotation tools such as whiteboard writing and doodling, voting, and more. An additional notable engagement tactic was a trivia game “Watershed Jeopardy” that was created and conducted using the Quiz Show feature on Flippity (<https://flippity.net>).

Summary

Planning for virtual engagements requires knowledge of multiple tools and best practices. Technologies are evolving every day, so planners must keep up with virtual engagement best practices and tools. Remember that a tool is only as collaborative as the users make it. Technique and user creativity drive collaboration.

Section 7

Conclusion

While the need for virtual engagement currently outpaces other forms of engagement due to public health and safety concerns surrounding COVID-19, it is not likely to disappear after the pandemic's end. We expect a cultural shift where virtual, in-person, and hybrid engagements work seamlessly together as tools for USACE. Technology is advancing daily, so planners must stay well-versed in technologies and best practices.

This document is a practical guide to help planners: (1) choose the best engagement strategy for a project and (2) to help them successfully execute that strategy from initial planning phases to completed engagement by following best practices and tips gleaned from others' experience. Although we focus primarily on virtual engagement, many of the principles and suggestions hold true regardless of the type of engagement. We identify the various steps and questions to build a successful engagement strategy based on the specific purpose and goals of an engagement. Establishing the goals of the engagement is the first step and priority, and you should always revisit those goals when making subsequent decisions.

Case studies throughout this report highlight the first-hand experiences of practicing engagement specialists. These case studies demonstrate how practitioners creatively and resourcefully conduct successful virtual engagements. Additional case studies of recent virtual engagements are located in Appendix A. An annotated list of additional practical resources is in Appendix B. Next time you are planning an engagement, look to this report to learn from experts in the field of virtual engagement.

Section 8

References

- American Planning Association. 2021. *Online Public Engagement*.
<https://www.planning.org/knowledgebase/onlineengagement/>
- Baker, Chris, Seth Cohen, Gigi Coulson, Susan Durden, and Ed Rossman. n.d. *Identification and Engagement of Socially Vulnerable Populations in the USACE Decision Making Process*. Institute for Water Resources.
https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/Identifying_and_Engaging_Socially_Vulnerable_Populations_%20IWRv2_08_01_2016.pdf?ver=2016-08-11-125141-427
- Bonnemann, Tim, interview by Amy Livingston. 2021. *Best Practices of Virtual Engagement Interview* (March 22).
- Campbell, Kendall, interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement Interview* (December).
- CDM Smith. 2022a. *Figure 1. Collaborative Technologies Query Tool*. Adapted from IAP2 Spectrum of Public Participation. <https://www.iap2.org>
- . 2022b. *Figure 2. Types of engagement*.
- . 2022c. *Figure 3. Virtual meeting considerations*.
- . 2022d. *Figure 4. Hybrid engagement diagram*.
- . 2022e. *Figure 5. Meeting categories and audience characteristics*.
- . 2022f. *Figure 6. Virtual engagement tips and considerations*.
- . 2022g. *Figure 7. Technology tools: functionality vs ease of use*.
- Corbin Ball, CMP, CSP, DES. 2020. *Face-to-Face vs. Virtual Meetings: Which is Better?*
<https://corbinball.com/article/44-virtual-meetings-web-meetings-video-and-collaboration/273-f2f-vs-virtual>
- Creighton, James L. 2003. *Cybermeeting*. Xlibris Corp.
- Echols, Amy interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement Interview* (December).
- Greater Portland Council of Governments. 2020. *INCLUSIVE & ACCESSIBLE VIRTUAL ENGAGEMENT: Portland: Greater Portland Council of Governments*.
https://www.gpcog.org/DocumentCenter/View/1375/GPCOG_Virtual-Engagement-White-Paper_Final_91620
- Greer, Lynn interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement Interview* (December).

- Holub, Juraj. 2021. How to Facilitate Live Polls in a Presentation: The Complete Guide. February 25. <https://blog.sli.do/how-to-use-live-polling-in-a-presentation/>
- Kavanaugh, Stef, interview by Amy Livingston. 2020. *Best Practices for Virtual Engagement* (December).
- Langsdale, Stacy. 2022. *Figure 8. Collaborative Technologies Query Tool*.
- Local Government Commission. 2020. *Best Practices for Virtual Engagement*. <https://www.lgc.org/wordpress/wp-content/uploads/2020/05/LGC-Virtual-Engagement-Best-Practices-Guide.pdf>
- Merritt, Hunter, interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement* (December).
- United States Army Corps of Engineers (USACE). 2016. *Collaboration and Public Participation Center of Expertise (CPCX)* [Fact Sheet]. U. S. Army Corps of Engineers Institute for Water Resources. May. <https://www.iwr.usace.army.mil/Portals/70/docs/cpc/Added%202016/PI%20specialists.Fact%20Sheet%20Summer%202016.pdf?ver=2016-07-20-144453-433>
- United States Department of Defense (DOD). 2021. US Department of Defense Section 508. <https://dodcio.defense.gov/dodsection508.aspx>
- United States Environmental Protection Agency (EPA). 2018. Public Participation Guide: Situation Assessments. February. <https://www.epa.gov/international-cooperation/public-participation-guide-situation-assessments>
- University of Iowa. 2019. *Online Survey Best Practices*. July 16. <https://its.uiowa.edu/support/article/385>

Appendix A

Case Studies

Case Study: Archaeological Investigations at Chernofski Harbor, and Cleanup Work at Formerly Used Defense Sites on Unalaska Island and Surrounding Areas

Case Study Highlights

- As part of the Formerly Used Defense Sites Program (FUDS), the U.S. Army Corps of Engineers (USACE) is performing archaeological mitigation tasks at the Chernofski village site on the northwest side of Unalaska Island in Alaska.
- Engagement with communities in this remote area of Alaska is challenging due to limited internet, bandwidth/and cell phone service and the need for boat or airplane transportation when meeting in-person.
- For a public meeting, USACE worked with a local TV station to live-broadcast a WebEx meeting during prime-time television hours.

KEYWORDS

- Limited internet
- Tribal
- Remote
- Barrier to in-person
- WebEx
- TV station

Background Summary of the Project

USACE executes the FUDS Program to investigate and remove potential contamination or munitions remaining on properties previously used by the Department of Defense (USACE n.d.). As part of the FUDS Program, USACE has been conducting cleanup efforts in the Chernofski Harbor area at the remains of a World War II-era military transshipment facility on the northwest side of Unalaska Island, Alaska (Campbell 2020). In addition to the World War II cultural resources, Chernofski Harbor is also the location of Chernofski Village, an Unangax archaeological village site. As of January 2021, the project was still in the archaeological research stage (Kucb 2020).

Because of the villages historical cultural significance, USACE is conducting archaeological research before beginning the cleanup work.

Challenge

One of the biggest challenges to many projects is how best to communicate with local stakeholders. This project provides an additional challenge in that the interested communities are extremely remote. The communities are not on a road system and can only be accessed by boat or airplane. Despite the distance, these communities are tight-knit and invested in communicating their opinions and concerns on projects—often traveling extensively to participate in in-person

meetings. Another byproduct of the geography of the study area is that internet connectivity issues make traditional virtual engagement difficult.

Additionally, in rural Alaska, public engagements always include tribal engagement. For Alaska natives, it is important that the project team see, experience, and understand the tribe's landscape. Mutual understanding and collaborative communication are important, and both USACE and Alaska Native communities rely on in-person experiences to build trust. However, in-person experiences are not always an option, such as during the COVID-19 pandemic or during adverse weather (Campbell 2020).

Approach

To engage “virtually” with the local tribal communities regarding the work underway, USACE worked with a local TV station to live broadcast a WebEx meeting. This strategy was recommended and facilitated by the federally recognized tribe. Soliciting input from tribal leaders is necessary to ensure the planned outreach will meet the engagement objectives (Campbell 2020).

Community members who were able to sign on to the WebEx meeting could directly ask the team questions. A call-in number was also provided before and during the broadcast so participants could call into the meeting if they were unable to use the WebEx live chat feature to ask the team questions. Before the public meeting, the presentation slides were sent out via email as a reduced-size PDF to all community members who had expressed an interest in attending, in case their internet connection allowed for audio but not visual interaction with the WebEx platform.

The hour-long presentation aired on prime-time television (at 6:00 PM) and had four presenters (AlaskaCorps 2020). USACE invited the Mayor of Unalaska, who is also a tribal elder, to open the meeting. The Mayor opened with a discussion of the FUDS projects and the importance of continuing engagement with the descendant communities impacted by USACE actions (Campbell 2020). A recording of the presentation is available on the USACE Alaska District YouTube channel here: <https://youtu.be/0VhYolR8Gec> (AlaskaCorps 2020). This link was provided via email to community members who had expressed an interest in attending the meeting but were ultimately not able to attend.

Understanding the importance of face-to-face interactions in building trust with tribes, the project teams focused on “humanizing” themselves during the virtual engagement by including personal background information and candid photos of themselves (Campbell 2020).

Results

Over the course of the WebEx meeting, there were at least 35 individuals or groups signed-in from throughout the region. For most of the meeting, the presentation ran seamlessly, and the public was able to ask great questions as a result (Campbell 2020). The participants could hear the questions and answers at the same time, ensuring the same information was shared without the burden of time and cost of traveling to remote Alaska to attend multiple meetings (AlaskaCorps 2020). When the WebEx presentation began to have technical difficulties towards the end of the meeting, including the loss of audio for some attendees, USACE used the chat box to indicate that additional questions or concerns would be welcomed by the presenters, who had all provided contact their contact information earlier on during the presentation.

Tips for Replicating

- Find a local liaison in each community that the project impacts. This person can provide insight into how the community gets their information and can guide the best outreach and advertising methods. the liaison can confirm whether materials have, in fact, reached the community.
- Learn about potential cultural practices or events happening which may prevent your audience from receiving or reviewing the materials.
- Create an equal opportunity for engagement for each type of participant – whether they are joining online or on the phone. This requires advanced planning.
- Diversify project materials and how they are shared. Consider potential weather or other challenges that can arise in remote areas, such as low bandwidth, and send materials a few weeks in advance of meetings. Send project materials using multiple delivery methods such as online, or a physical mail system (such as USPS), or drop them off at a regional location where goods and services are centralized.
- Take into account the timing of physical mail systems if you are using them to distribute materials.
- Provide a phone number for the public to call or text if they are having trouble accessing the virtual meeting.
- Provide clear guidelines to participants on how to ask questions during the meeting to avoid callers speaking at once.
- Enable the project team to mute all participants immediately.
- Pay attention to the presentation cadence and pace., especially when a presentation is given in a language that may not be the first language of many listeners. (Campbell 2020).

References

- AlaskaCorps. 2020. *Archaeological Investigations at Chernofski Harbor Public Meeting*. Directed by AlaskaCorps. <https://youtu.be/0VhYolR8Gec>
- Campbell, Kendall, interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement Interview* (December).
- kucb. 2020. *Archaeological Investigations at Chernofski Harbor*. December 2. <http://archive.kucb.org/community/events/archaeological-investigations-at-chernofski-harbor/>
- United States Army Corps of Engineers (USACE). n.d. *Formerly Used Defense Sites*. Accessed 2021. <https://www.usace.army.mil/missions/environmental/formerly-used-defense-sites/>

Case Study: Barrow Alaska Coastal Erosion

Case Study Highlights

- Known formerly as Barrow, the remote City of Utqiagvik in Alaska is threatened by coastal storms that cause flooding and erosion.
- Predominately Alaska Native, the community relies on access to the ocean for subsistence whaling. Erosion control measures may limit access to the shoreline.
- The project team held a hybrid call-in/WebEx charette to hear community-wide concerns and opinions during the design-phase of the project. One portion of the charette was also broadcast over a local radio station.

KEYWORDS

- Rural/Remote
- Tribal
- USACE
- WebEx
- Local radio

Background Summary of the Project

The remote City of Utqiagvik, Alaska—previously known as, and referred to herein as, Barrow—is the northernmost community in the United States. Barrow is the political and economic hub of the Northern Slope Borough (NSB) and provides important services to the communities in Northern Alaska. Recently, coastal storms increasingly threaten the community through flooding and erosion due to the delayed formation of pack ice that protects the shoreline during the fall and winter storm seasons.

To address flooding and erosion, a Civil Works project began in 2017 with the NSB as the project sponsor. At the request of the community, the U.S. Army Corps of Engineers (USACE) was brought in as a Federal partner. As of January 2021, the three-phase project (feasibility, design, and construction) was in phase 2. The feasibility stage identified a rock revetment, berm, and the raising and revetting of a local street as the recommended erosion control measures (US Army Corps of Engineers Alaska District 2019).

A charette was organized at the start of the design phase to address three main challenges: utilities, drainage, and access points. This last challenge is particularly unique to the community in Barrow. The traditional whaling community relies on access to the ocean in the spring and fall for subsistence whaling. The whalers need shore space to harvest a whale. The whalers also need an “escape route” to get away from polar bears that may interrupt the harvest (Campbell 2021).

Challenge

The project team decided to hold the early design-phase charette virtually. The NSB wanted to provide a public engagement opportunity during the design-phase charette because of community-wide concerns and opinions. However, **virtual engagement in remote rural areas requires creativity**. Many community members do not have reliable internet access, which can make it difficult to equitably share information.

The traditional timeframe of a two-day charrette was not appropriate for this project. Most people play multiple roles in the Barrow community and therefore could not devote two full days to a virtual engagement. Virtual engagement also poses fatigue issues that are not experienced as significantly with in-person engagements (Campbell 2021).

Approach

To best accommodate as many community members as possible, the project team hosted the charrette as a “hybrid” meeting. This hybrid format incorporated call-in participants along with those joining via the WebEx platform. The call-in participants included both individuals and groups. Presentation materials on the key discussion topics were sent to the NSB and key project participants. These important stakeholders were instructed to share the information with the rest of the community.

The charrette was designed to be discussion driven and less visual to make sure all participants would receive the same information. To track responses and provide some level of visualization for those joining through WebEx, the project team used Google Earth. This allowed the team to place pins, take notes in one location, and show the relationship of the landscape during the largely location-based discussion. The Google Earth screen was shared over WebEx, and there was a continuous narration to keep the call-in participants aware of what was being shown. At the end of the day, the file that was put together on Google Earth was emailed to all participants.

Instead of a two-day charrette, the project team split the charrette over four half-days so community members could balance their other responsibilities. Creating flexibility in the charrette schedule allowed for participants to actively engage during the meeting times.

The third day of the charrette was an open house format. At the start of the open house, charrette participants provided a recap of the first two days of discussion in both English and the native Iñupiaq language. Callers and WebEx participants were invited to provide comments or prepared statements, and the charrette team answered questions as they arose (Campbell 2021).

Results

The hybrid design worked exceedingly well for this project. The split in the number of call-in participants versus participants who joined through WebEx was fairly equal, and there was good interaction from both participant types. There was not a point during the charrette where participant numbers dropped or where participants stopped engaging with the project team. Attendees indicated their satisfaction with the level of participation afforded to them, as well as satisfaction with the timing of the events.

A local radio station connected to the WebEx and broadcast the meeting for the surrounding communities.

Success with the local radio broadcast was evident in the number of call-ins received from rural residents outside of Barrow. Some radio callers expressed frustration about how to join the charrette, indicating the “word-of-mouth” advertising didn’t reach as far as the project team had hoped; however, it also highlighted the success with the local radio broadcast.

While the team started with general rules and a limited talking time of three minutes per participant, they did not end up needing to enforce these rules. The community desired interaction with the project team, and therefore “policed” themselves. Further, the active participation of community leaders also helped keep the meeting on track.

After the Mayor of the NSB opened Day 3 of the charette with a translated recap of the first two days, the project team realized that they should incorporate more translations into the public engagement (Campbell 2021).

Tips for Replicating

- Ensure all project participants and facilitators are aware of how to access the engagement event. Ensure those that are public facing, such as radio stations, have clear instructions on how the public may engage.
 - People who heard the radio broadcast called the radio station for information on how to join the project charette, but the radio station could only tell them how the station joined the broadcast.
- Take proactive responsibility in advertising.
 - Empower local people to use their network, but also make sure there is a reliable, key contact that can be held accountable in disseminating project information.
- Repeat joining instructions frequently.
 - During a live broadcast, repeat how participants can join. A reminder every half hour worked well in this case.
- Have a backup plan, such as a mass email list, ready if there are difficulties with the phone, internet, or engagement platform.
- Sometimes accessibility is more important than statistical results. You may need to let go of knowing exactly how many people are participating.
 - In this case, some callers had multiple individuals in a room together. However, the call-in option gave many more individuals an opportunity to be involved in the charette.
- Enlist community leaders to help keep the meeting on track. Community leaders can set the tone of the meeting and help move an agenda forward.
- Engage all participants. Do not disproportionately focus engagement towards one participant type, such as those from one platform or another. While engagement may not ever be equal, strive to get as close to equal as possible.
- Clearly label project materials so everyone is on the same page.
 - Provide titles and slide numbers on all documents so everyone can keep pace with the conversation and can direct questions by referencing the slide number. Clearly labeled drawings are also important so participants can properly orient themselves (Campbell 2021).

References

Campbell, Kendall, interview by Miranda Smeck. 2021. *Best Practices of Virtual Engagement* (February).

US Army Corps of Engineers Alaska District. 2019. "Feasibility Report: Barrow Alaska Coastal Erosion; Barrow, Alaska."
<https://www.poa.usace.army.mil/Portals/34/docs/civilworks/publicreview/Barrow/BarrowAlaskaCoastFinalFeasibilityReportsigned.pdf?ver=2020-02-14-191257-430>

Case Study: Bluestone Dam

Case Study Highlights

- Bluestone Dam in Summer County, West Virginia reduces flood risks throughout the New, Kanawha, and Ohio River valleys.
- The Dam Safety Assurance (DSA) work by the United States Army Corps of Engineers (USACE) began in 1998, and an additional phase was added in 2019.
- The USACE Dam Safety Modification Mandatory Center of Expertise (DSMMCX) was established in 2012, and many Huntington District (District) employees previously involved with the Bluestone Dam moved into roles with the DSMMCX. The launch of Phase 5 of the DSA, as well as some new hires, created the need and opportunity to clarify roles and responsibilities of all internal USACE staff involved in Bluestone, including those on the field site, in the District office, and in the DSMMCX.
- A two-day hybrid virtual and in-person meeting was held in November 2020 to clarify roles within USACE before meeting with the Phase 5 contractors. The meeting was organized and moderated remotely by two USACE employees not involved with the Bluestone Dam or Huntington District.

KEYWORDS

- Hybrid meeting
- Meeting moderation
- WebEx
- Long-term project
- Staffing changes

Background Summary of the Project

Bluestone Dam is a high visibility project within the United States Army Corps of Engineers (USACE) portfolio. Located in Summer County, West Virginia, the dam began operating in 1949 primarily to reduce flood risks throughout the New, Kanawha, and Ohio River valleys. It is a challenging and rewarding project that is an honor and privilege for those who work on it.

A Dam Safety Assurance (DSA) report, approved in 1998, recommended 4 phases of DSA work to address deficiencies. Phase 5 addresses a concern raised after the 1998 study was completed (U.S. Army Corps of Engineers n.d.b.). Thus, the dam has been under active construction for over twenty years.

A meeting was held in November of 2020 to clarify roles and responsibilities of the USACE employees for the 8 to 10-year contract for Phase 5 of the Bluestone Dam DSA (Langsdale 2021).

Challenge

In 2012, USACE established the Dam Safety Modification Mandatory Center of Expertise (DSMMCX) to provide, “technical advice, oversight, review and production capability for all aspects of dam modification projects across USACE” (U.S. Army Corps of Engineers n.d.a.). Many individuals who had been a part of Huntington District’s Bluestone Dam project moved into new roles in the new DSMMCX, and the District hired new staff to fill those vacancies. This created a need to clearly outline responsibilities among all the project staff when Phase 5 was added to the

Bluestone Dam project in 2019. The individuals who moved into the DSMMCX positions had history, passion, and personal investments in the Bluestone Dam project. Their previous District roles were filled with new individuals who were also eager to be a part of the project. To clarify roles and responsibilities, the team leads decided to recruit third party support to facilitate a meeting. However, in Fall 2020, large-scale meetings were difficult to organize due to public health concerns during the COVID-19 pandemic (Langsdale 2021).

Approach

A two-day hybrid in-person and virtual meeting was organized with an optional third day. The meeting space was rented for three days, but all discussions that included the full project team were completed as scheduled on days 1 and 2. On each of these days there was a morning and an afternoon session, with a midday break in between. Virtual participation was hosted on WebEx. While most participants joined in-person, the facilitators and some Bluestone Dam staff participated online.

To coordinate the meeting, two facilitators were identified from within USACE. Prior to the meeting, the facilitators held several planning sessions with the task leaders of the various groups that would be involved in the hybrid meeting. These sessions helped define a clear, organized agenda, provided timing estimates, and ensured responsible parties were aware of their roles.

During the meeting, one facilitator served as a moderator while the other served as a notetaker. The moderator ensured that all individuals had an opportunity to share their thoughts, while the notetaker took notes in real-time. The notes were shared through the WebEx platform and displayed on a screen in-person so participants online and in-person could see them simultaneously. The project leads—who had met with the facilitators several times prior to the meeting—helped keep the meeting flowing through the agenda. The project manager played a crucial role as the liaison between the online and in-person participants, supporting the facilitators in tracking what was happening. This liaison clarified the names of participants talking in the room and ensured those who typed questions or concerns in the chat box were heard. The project engineer focused on leading and coordinating the in-person discussion. This was important as participants were asked to turn off their cameras to conserve bandwidth. These two in-person individuals were able to be the “eyes” for the virtual facilitators by recognizing the visual cues. The in-person dialogue was captured with one or two centrally located conference speakerphones to prevent audio feedback and to reduce the number of lines since bandwidth was limited. At the end of each day, the facilitators recapped the day’s events, which included creating a list of action items as well as confirming the accurate capture of information (Langsdale 2021).

Results

The efforts put into pre-planning the meeting paid dividends. The detailed agenda guided the meeting flow and the time allotted for each topic was appropriate for the discussion. The time spent in pre-meetings building rapport and planning with the two in-person leaders was critical to managing the meeting flow. There was dynamic dialogue among the meeting participants. Of the eight major agenda items, most topics were covered over the 2 days, and remaining topics were set aside to be discussed at a later time. Ultimately, the project team that organized the meeting was satisfied with its outcome (Langsdale 2021).

Tips for Replicating

- Do the pre-work. Spend time with each key meeting participant in advance to identify the goals of the meeting and any potential areas of contention. Set a realistic agenda that outlines the amount of time dedicated for each item and the discussion leader or presenter for each topic.
- Plan for more time than might be needed. It is difficult to predict how long a group will need to address each topic, so err on the side of caution and allow for additional time.
- Accommodate new conversation topics that arise from the primary discussion.
- Identify an individual participating in-person to serve as the liaison between those participating in-person and online. They work with the moderator to ensure balances participation across platforms. A remote facilitator may not be able to read the audience or interject as easily. The facilitator needs to work with the liaison to read the room.
- Dedicate a communication channel between the facilitator and liaison, such as a one-on-one chat in the virtual platform, so they can communicate without disturbing the meeting flow.
- Spend time in advance with any in-person liaisons to ensure facilitators and liaisons are on the same page for meeting flow and outcomes.
- Ensure that the notetaker is able to easily distinguish who is talking, if it is important to document who is saying what during the discussion.
 - If using a virtual platform, try to have each speaker in their own space and make sure that the name visible to everyone else is accurate.
- Be considerate of audio and bandwidth issues with a hybrid meeting. There may be a desire to have all participants join the via the virtual platform even when they are in the same space; however, this can lead to audio or bandwidth issues.
 - Consider a centralized microphone and ask that speakers first state their name before they begin their comment. If physical distancing does not allow for a centralized microphone, consider having speakers move in-turn to the microphone to speak (Langsdale 2021).

References

- Langsdale, Stacy, interview by Amy Livingston. 2021. *Best Practices of Virtual Engagement* (February)
- U.S. Army Corps of Engineers. n.d.a. *About the Dam Safety Modification Mandatory Center of Expertise (DSMMCX)*. <https://www.lrh.usace.army.mil/Missions/DSMMCX/>
- . n.d.b. *Bluestone Dam, Dam Safety Assurance Mega-Project*. <https://www.lrh.usace.army.mil/Missions/Civil-Works/Current-Projects/Bluestone-DSA/>

Case Study: Cleveland Harbor Dredge Material Management Plan

Case Study Highlights

- In June 2020, the U.S. Army Corps of Engineers (USACE) began a formal scoping process as required under the National Environmental Policy Act (NEPA) on a 20-year dredged material management plan (DMMP) for Cleveland Harbor in Cleveland, OH.
- Public engagement for the NEPA scoping process needed to be fully virtual due to public health concerns raised during the COVID-19 pandemic.
- In addition to the COVID-19 pandemic, the project team also had to navigate challenges arising from civil unrest in Cleveland during the project timeline.
- The project team used the ArcGIS application Crowdsource Reporter to provide an interactive, low bandwidth engagement opportunity for the public.

KEYWORDS

- Innovative technology
- NEPA
- Media timing
- Crowdsource Reporter

Background Summary of the Project

Cleveland Harbor, located on the south shore of Lake Erie in Cleveland, Ohio, is a leading U.S. port based on the amount of material shipped and received (U.S. Army Corps of Engineers 2018) (USACE 2020). To maintain and improve the Nation's navigation system, U.S. ports, harbors, and waterways must be dredged of sediment. Cleveland Harbor is typically dredged twice a year when funds are available: once in the spring and once in the fall. However, in June 2020, the U.S. Army Corps of Engineers (USACE) began a formal scoping process to assess and identify sediment placement alternatives for a 20-year dredged material management plan (DMMP) for Cleveland Harbor (USACE 2020). The scoping process is required under the National Environmental Policy Act (NEPA).

Challenge

USACE has a strong history of public and interagency engagements regarding Cleveland Harbor and has held many dredging summits in the area. When opportunities for in-person meetings were eliminated because of public health concerns during the COVID-19 pandemic, the project team needed to identify a way to continue providing interactive engagement opportunities. Innovation was difficult, as there was a steep learning curve and a need for top-down guidance from USACE headquarters on appropriate virtual engagement practices consistent with NEPA.

The timing was challenging. The project team had scheduled an editorial review board meeting in June 2020, which usually results in a front-page cover story of the USACE project. However, a high-profile event occurred at the end of May 2020 that brought civil unrest to many cities, including Cleveland, and the project team was apprehensive about drawing focus away from that news (Greer 2021).

Approach

To fill the need for interactive engagement, the project team turned to the ArcGIS application Crowdsource Reporter. This tool uses little bandwidth and does not require any downloads to participate, therefore removing barriers of many virtual platforms. Crowdsource Reporter also allows participants to submit comments anonymously using their zip code instead of requiring a name or contact information. This anonymity could make some individuals more willing to submit honest feedback. The user-friendly platform also allowed the project story to be told in an aesthetically pleasing way. There had been long-term interest in and support for the use of Crowdsource Reporter within the project team; however, there was concern that it might not qualify as an official comment method within the NEPA process. NEPA guidance issued in September 2020 stressed engagement and stated that comments on all platforms were considered part of the official record.

The project partners decided not to host an editorial review board meeting in consideration of the civil unrest in the area. Instead of the typical full-page cover story, the project team ran a smaller newspaper advertisement, in addition to mail and email outreach (Greer 2021).

Results

The USACE team gained partner approval by tackling the virtual engagement challenge for the Cleveland Harbor DMMP. The agency showed a significant level of effort to engage the community, and their efforts were noticed and applauded by their partners, including the City of Cleveland.

This virtual engagement was a learning experience for the USACE team. It proved they could provide interactive engagement online and set them up to continue using Crowdsource Reporter for future engagements. It also illuminated the need to provide an alternative method for those who are unable to connect online. They already had a robust mail and digital distribution list due to their previous extensive outreach efforts in the area. But, because many local public spaces, such as libraries, were closed during the pandemic, it was difficult to make paper copies available. The project team recognized this gap in their NEPA scoping outreach, even though they did not receive any feedback regarding inability to access project information (Greer 2021).

Tips for Replicating

- Start with the end engagement in mind before moving into a plan.
 - Is it face-to-face or virtual?
 - Are you choosing to inform the audience, or do you need to make space for them to chime in?
- It takes as much work, if not more, to implement virtual engagement than it does in-person engagement.
 - There can be a steep learning curve for the project team and the public when introducing a new tool. Leave ample time for planning and experimenting when using a new tool.
 - Have team members review and test the new tool to ensure it is easy to navigate and works across devices.

- The labor-intensive nature of virtual engagement can make it just as expensive as in-person engagement.
- Be considerate of the public's focus.
 - Timing can impact both level of engagement and the public's perception of a project.
- To help reach socially vulnerable populations:
 - Make resources available online that don't require a download.
 - Make paper copies available at public spaces such as libraries to complement online materials.
 - Allow for different times to engage for live meetings.
 - Consider a phone-based meeting.
 - Record live meetings.
- Anticipate the need to manage two audiences: in-person and virtual.
 - As the public and USACE employees grow more accustomed to online engagement, there will likely be an expectation of this type of engagement in the future. Think about how you can provide an equitable opportunity for both audiences to learn and provide feedback.
- Don't judge success solely by numbers.
 - Each engagement should have its own goal.
 - Other types of metrics should be considered including the quality of comments and qualitative statements about the engagement. Success could also be measured by developing more efficient processes, providing more equal access to socially vulnerable populations, or strengthening community relationships (Greer 2021).

References

- Greer, Lynn, interview by Amy Livingston. 2021. Best Practices of Virtual Engagement (March).
- United States Army Corps of Engineers (USACE). 2020. Interim Dredged Material Management Plan 2023-2027, Cleveland Harbor, Cleveland Ohio, dated 2023, Appendix C.
- . 2018. Waterborne tonnage for principal U. S. ports and all 50 states and U. S. territories; Waterborne tonnages for domestic, foreign, imports, exports and intra-state waterborne traffic. <https://usace.contentdm.oclc.org/digital/collection/p16021coll2/id/1474>

Case Study: Columbia River System Operations

Environmental Impact Statement

Case Study Highlights

- The Columbia River System Operations Environmental Impact Statement process had scheduled extensive engagement for the public comment period when Covid-19 disrupted plans.
- The project team used multiple types of engagement throughout the project, including in-person meetings, hybrid in-person and virtual meetings using the WebEx platform, and fully virtual meetings using the AT&T Executive Audio & Web Conferencing platform.
- The project team repurposed an existing resource to quickly create a successful virtual engagement while maintaining the project schedule.

KEYWORDS

- Multi-state
- Multi-agency
- NEPA
- Telephone Public Hearing (AT&T)
- Hybrid in-person and virtual meetings
- Sparsely populated

Background Summary of the Project

The Columbia River System Operations (CRSO) Environmental Impact Statement (EIS) was prepared by the United States Army Corps of Engineers (USACE), the United States Bureau of Reclamation (Reclamation), and the Bonneville Power Administration (BPA) to document the review and disclose the environmental effects of implementing the Selected Alternative, which provides a balanced approach to operations, maintenance, and configuration of the Columbia River System.

The Columbia River System comprises 14 federal dam and reservoir projects in the Columbia River Basin, which covers portions of Idaho, Montana, Oregon, and Washington. USACE was authorized by Congress to construct, operate, and maintain 12 of the 14 locations along the Columbia and Snake Rivers for flood risk management, navigation, power generation, fish and wildlife conservation, recreation, and municipal and industrial water supply purposes (Figure A-1).

Congress authorized Reclamation to construct, operate, and maintain the other two projects (Hungry Horse and Grand Coulee) for irrigation, flood risk management, power generation, and navigation. The BPA is responsible for marketing and transmitting the power generated by all the dams in the system.

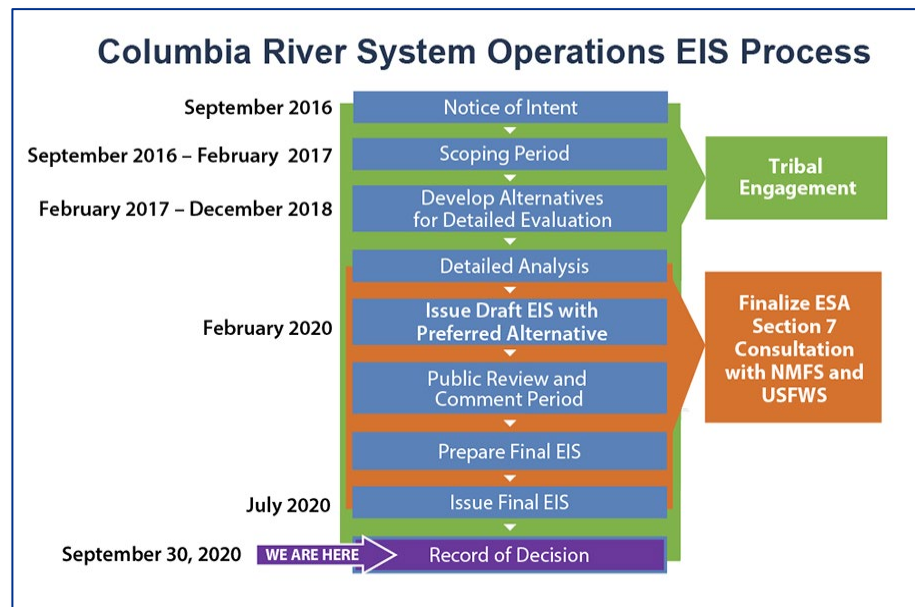
Figure A-1. CRSO project map screenshot



Source: <https://www.nwd.usace.army.mil/CRSO/Project-Locations/>

The EIS development included two public comment periods required under the National Environmental Policy Act (NEPA)—one on project scoping, and the other a review of the Draft EIS (Figure A-2). Project updates and other public outreach events allowed the public to interact with the project team. Communication avenues throughout the EIS process included email, phone calls, webinars, the project website, and more (USACE n.d.).

Figure A-2. CRSO EIS process and timeline



Source: <https://www.nwd.usace.army.mil/CRSO/>

Challenge

A key challenge of this project was informing and seeking input from the public and tribes across four states—particularly in largely rural areas.

For the project scoping, the team held in-person meetings across 16 locations and hosted two webinars for difficult-to-reach regions. During this phase, the team also received email comments. The email system was overwhelmed by public input, and an innovative approach for online comments was required moving forward.

For the Draft EIS comment period, the team planned six in-person public meetings and five tribal comment meetings in key project locations. During these meetings, the public and tribes could provide formal comment by:

- verbally stating their comment in a hearing-style setting, with comments transcribed by a court reporter
- verbally, but privately, stating their comment to a court reporter for transcription
- submitting an online comment into a database on available laptops (with staff assistance if needed)
- submitting comments on paper

Comments and supporting attachments were also accepted through the mail, as well as through a new online comment system. No email comments were accepted during this comment period (Echols 2020).

The project team shifted all in-person meetings to virtual events because of increasing public health concerns related to the COVID-19 pandemic. This change was made eight days before the scheduled public and tribal meetings in Seattle. At this point: paid ads were running, media outreach was underway, and the venue contracts had been signed. The project team had to find an alternative way to ensure timely and meaningful opportunities to listen to the public and tribes and accept their verbal comments within the limits of the 45-day comment period (Echols 2020).

Approach

During the first project update public meetings, the team used a hybrid model to engage the public—using the WebEx platform alongside in-person meetings. The WebEx platform allowed the project team to reach a large, geographically diverse population while remaining on schedule. The in-person meeting was broadcast online with the help of an audio-visual company contracted through the event venue. Individuals using the call-in option could see and hear the meeting room and could type questions into the chat feature and receive real-time responses (Echols 2020).

When shifting the agencies' verbal comment opportunities to a virtual-only format, the first step was to identify the tools available that would provide a call-in option for participants with limited—or no—access to the internet. The team used the AT&T Executive Audio & Web Conferencing service available through an existing USACE information technology contract to host multiple teleconference meetings (Echols 2020).

AT&T Executive Audio & Web Conferencing provided operators to manage participants' microphones. This allowed the team to use a more traditional public hearing approach, in which callers were notified when it was their turn to speak and their microphones were muted at the three-minute time limit, if necessary. Each teleconference was open for four hours, during which the public could join or leave as desired. To ensure newer participants were aware of the meeting protocols and the comments process, an agency "hearings officer" frequently repeated a welcome and process statement (Echols 2020).

Results

The team held 11 meetings in three weeks using the AT&T Executive Audio & Web Conferencing platform. There were 550 callers across the six public meetings, during which 203 callers provided comments. The five tribal meetings were not as well attended; in these meetings, there was a total of 80 callers, and only six left comments.

Most of the feedback received was positive, describing the verbal comment platform as fair and efficient. There was some negative feedback about not expanding the comment period or postponing the comment period until meetings could be held in-person (Echols 2020).

About 60,000 comments were received in total during the Draft EIS comment period. Of these comments, roughly 55,000 were collected through the new online comment submittal system (Echols 2020).

Tips for Replicating

The CRSO EIS project team was innovative in the implementation of the AT&T Executive Audio & Web Conferencing platform. When they needed to make a quick decision to move the public meetings fully virtual, the team paired their previous experience with an existing service to maximize the opportunities in a short period of time.

The team noted that for a project of this scale, clearly defined roles and responsibilities are critical. The assigned roles should include:

Agency Staffing

- Lead Information Technology and AT&T Point of Contact: Liaison for all technical orders; event host with calendar control for all supporting and live events, including full technical dry runs; backup to Facilitator
- Facilitator: As “hearings officer,” manage the flow of the meetings, time comments, cue the operator for opening and closing phone lines, notify the public on the next few commenters in the queue; backup for the meeting Lead or Host
- Leadership or Speaker Panel: As agency representatives on the listening panel, introduce themselves as part of the decision-making team, provide a brief overview, and speak up occasionally to demonstrate engagement

AT&T Team

- Offline Specialist: Manage call entry, enter caller names for commenting queue, enter commenters into the queue
- Operator: Main moderating role to greet callers, manage the opening/closing of commenters’ lines, call up commenters to speak from queue
- Communications Line Specialist: Main thread between teams, troubleshooter

The project team recognized 3 key points for successful virtual engagement:

- Build redundancy – Share all important information with all team members; keep all numbers recorded in case of internet failure or VPN timeouts
- Work from a tested outline and script – Create a precise, timed script that clearly defines roles, meeting guidelines, and includes frequent breaks to welcome new callers
- Practice – Invite participants to a “dry run” that includes all technical support roles (including at least one AT&T team member) to review platform, run through the outline or script, and review the comment and timing process to build staff and leadership comfort and confidence (Echols 2020).

References

- CDM Smith. 2022h. *Figure A-1. CRSO project map screenshot*.
<https://www.nwd.usace.army.mil/CRSO/Project-Locations/>
- . 2022i. *Figure A-2. CRSO IES process and timeline screenshot*.
<https://www.nwd.usace.army.mil/CRSO/>
- Echols, Amy, interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement Interview* (December).
- . 2020. "Changing Horses Mid-Rodeo." May 21.
- U.S. Army Corps of Engineers (USACE). n.d. *Columbia River System Operations EIS*. Accessed 2021.
<https://www.nwd.usace.army.mil/CRSO/>.

Case Study: I-526 Lowcountry Corridor WEST

Case Study Highlights

- This interstate improvement project spans over 10 miles and could have large impacts to the surrounding communities, including 92 potential residential relocations from four environmental justice communities.
- This project was scheduled for a public hearing in November 2020 under the National Environmental Policy Act process for an Environmental Impact Statement.
- Understanding public health concerns during the COVID-19 pandemic, the project team used a multi-tiered approach to public engagement. This included a virtual public hearing room, a live, online verbal comment session, and in-person meetings at the project's community office. Additional engagement opportunities were provided for the potentially impacted communities, including smaller-scale community drop-in meetings in the four neighborhoods.
- The project team solicited participation by advertising extensively, especially within the environmental justice communities.

KEYWORDS

- Public hearing
- 360° virtual room
- Live virtual comment session
- PublicInput.com
- NEPA
- Socially vulnerable populations

Background Summary of the Project

The I-526 Lowcountry Corridor WEST (I-526 LCC WEST) project aims to increase capacity and improve traffic operations at the I-526/I-26 interchange and along I-526 between Paul Cantrell Boulevard and Virginia Avenue in Charleston, South Carolina. The I-526/I-26 interchange is a major source of congestion for the corridor, and the segment of I-526 between I-26 and Virginia Avenue has been identified by the South Carolina Department of Transportation (SCDOT) as the most congested segment of interstate highway in the state.

Spanning over 10 miles, this interstate improvement project could have large impacts to the surrounding communities, including 92 potential residential relocations from four environmental justice communities. To ensure meaningful engagement from these communities and residents throughout the tri-county region, the project team created a multi-tiered approach to public engagement consisting of virtual and limited in-person opportunities (SCDOT n.d.).

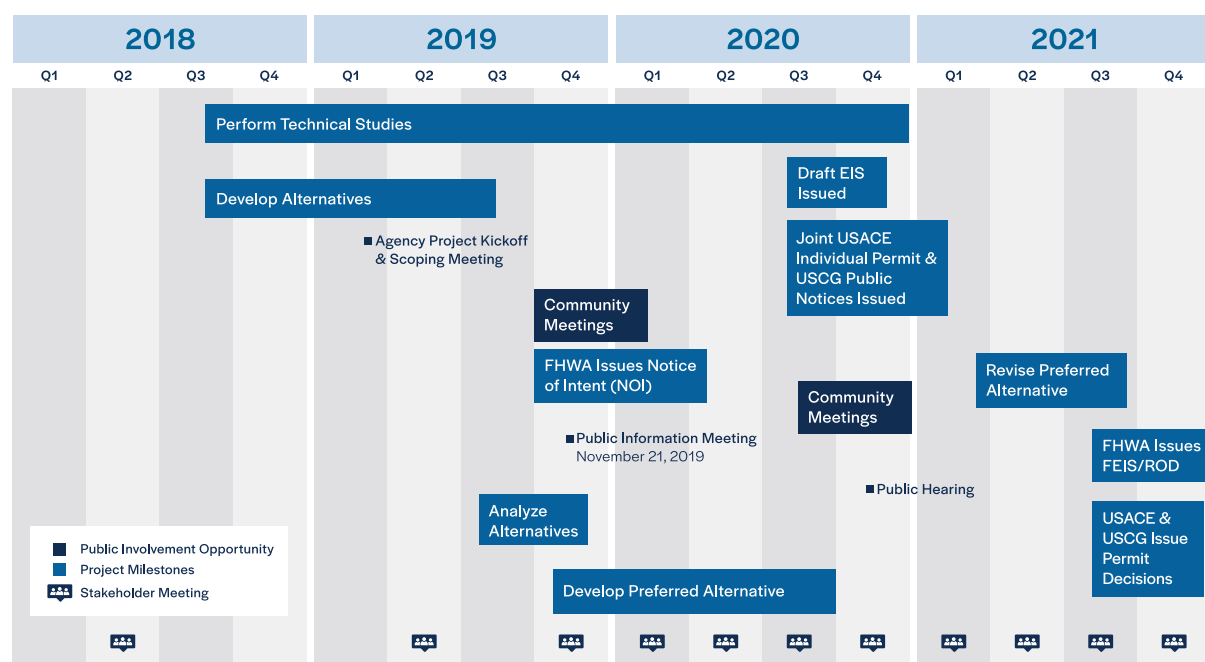
Challenge

Public involvement is an integral part of this project, given the large regional significance of the corridor, and the unprecedented level of potential impacts on the surrounding communities. Strategies were needed to reach the general public and potentially impacted, low-income, minority communities. Some community members only spoke Spanish. Between SCDOT's move to virtual events in March 2020 and the start of the public hearing comment period in November 2020, the

project team needed to organize multiple outreach efforts to reach these constituencies. Figure A-3 shows the project timeline.

Outreach strategies for environmental justice or socially vulnerable populations typically rely on face-to-face, “high-touch” interactions. In-person engagements held within a community can help build trust by leveraging the host’s familiarity and social capital, while providing opportunities to answer questions and concerns in a simplified manner. Outreach specialists can read the body language and any frustration or confusion and answer accordingly. However, the current public health concerns associated with COVID-19 during the fall of 2020 left many traditional strategies off the table. While in-person, appointment-only opportunities were provided for the official public hearing, most engagement was conducted virtually (Livingston 2021).

Figure A- 3. Project timeline



Source: <https://www.526lowcountrycorridor.com/west/>

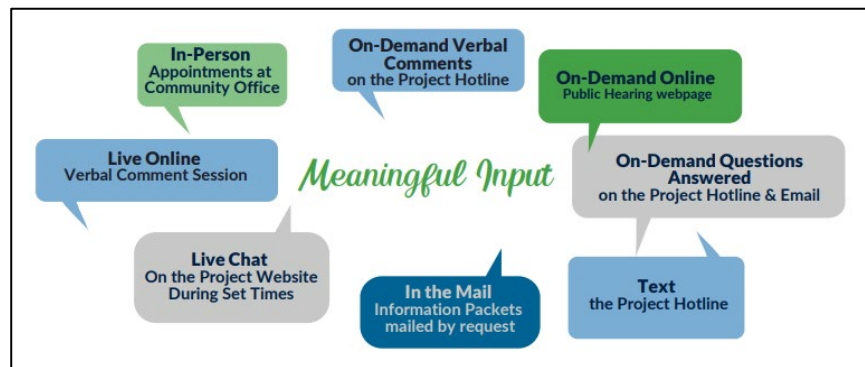
Approach

A variety of engagement opportunities were developed and advertised to provide the public hearing materials in a safe, comfortable, and accessible manner (Figure A-4). A central webpage was created that included details and links for all the ways to engage. This included online options in addition to in-person, phone or mail options.

To mimic an in-person meeting, a virtualized public hearing room was created so the public could access the materials on demand (Figure A-5). This 360-degree meeting room featured project boards, videos, and links to useful materials, such as handouts and a map to search for property impacts. Boards included audio files to replicate the type of conversation that might happen in-person—further explaining the board contents and offering an

audio option for those with visual impairments. The space was personalized by including a rendered version of the project manager along with a welcome message video. To accommodate Spanish speakers, a version of the virtual room was created with all materials in Spanish.

Figure A- 4. Meaningful input methods



Source: I-526 LCC Outreach Team

Figure A- 5. Virtualized public hearing room



Source: <https://gather.cdmsmith.com/v/v8jkyRoO149>

Since the virtual room was a new concept, the project team wanted to ensure anyone with difficulties navigating this new experience had an alternative. A second website was developed

following a more traditional approach, and included many features focused on accessibility such as text to describe all images, closed captioning for all videos (also available in the virtual room), and easy keyboard navigation.

A live verbal comment session was held online using PublicInput.com. During this session, participants could join through a website link or by calling a phone number. Those wishing to comment on the project could call-in and record a message. Participants were limited to three minutes for their comments, as per SCDOT policy. Following a short video presentation, the verbal comments were played for other participants to hear. As with all public hearings, there was no question-and-answer section. A recording of the live online verbal comment session can be viewed here (click the underlined text): <https://youtu.be/9uN8yuvjQjk>.

To accommodate individuals without internet access or who would prefer to speak with members of the project team in-person, a community office was opened within the project area. The community office was staffed with members of the project team and was open Monday-Friday with additional hours, including weekend availability, offered by appointment. Three smaller-scale community drop-in meetings were held within the potentially impacted communities as a way to engage people and gather input. These meetings were held under open-air tents, with a drive-up option also available.

The project team had to be creative in letting the public know about the virtual meetings. Billboards and signs were supplemented with digital display ads, streaming audio ads, and Facebook live streams on a local Hispanic Facebook page just to name a few examples. Additional efforts were focused primarily to reach minority, low-income populations including bus advertisements, radio ads, and flyers. Advertisements and flyers were available in English and Spanish and messaging also included non-virtual ways to engage for those without internet access.

Advertisement efforts included traditional and non-traditional methods in both English and Spanish (Table 1). Advertising within the environmental justice neighborhoods was focused on safe, high-touch outreach methods, including door-to-door canvassing, postcards, and distributing information through local businesses and stores that residents frequent. Not only were all materials developed in English and Spanish, a local Hispanic outreach group was brought in to help distribute materials and talk with Spanish-speaking residents about the project. These additional high-touch, creative advertising methods helped ensure word got out about the public hearing and the team received meaningful input (Livingston 2021).

Table 1. Advertising methods

Advertising Methods	
Newspaper Advertisements	Media Day Outreach
Mailers	Bus Advertisements
Flyers in Flyer Boxes	Billboards
SCDOT Road Signs	Digital Display Advertisements
Project E-Blasts	Radio
Social Media	Streaming Audio
Project Website	Yard Signs
Door-to-door Canvassing	Churches/local businesses

Source: CDM Smith 2022I

Results

Between November 12, 2020 and January 15, 2021, 234 comments were received, and 8,176 visitors (over 9,500 views) viewed the public hearing webpage. Additionally, 13 one-on-one appointments were held in-person during November and December at the project's community office. Most appointments were with the target audience—residents or property owners with potentially impacted properties. Forty people participated in the live virtual comment session and two verbal comments were received (Livingston 2021).

Tips for Replicating

- Evaluate using a hybrid approach to engagement when a large portion of the target audience is low-income and may have limited internet access.
- When scheduling in-person appointments, consider the schedules of those in your target demographic. Include variable days and hours, including weekends.
 - Saturday was the most popular day for appointments, with all appointments being filled.
- Consider those with varying degrees of disabilities when creating materials.
 - For those with visual disabilities, ensure sufficient contrast in materials. Other tools to consider include audio files explaining the visuals or having text that summarizes each graphic that can be read by a screen reader.
 - For those with audio challenges, think about providing closed captioning or a script of any videos or audio messages.
- Do a community assessment first to determine if materials should be provided in another language or if you should have a translator on standby. Translating can be a significant undertaking, so proper time management is essential.

- Get creative with your advertising. Consider other groups in the community who are reaching your target audience and ask to partner. Think about where your target audience may be getting their essentials (Livingston 2021).

References

CDM Smith. 2022j. *Figure A-3. Project timeline*. <https://www.526lowcountrycorridor.com/west/>

—. 2022k.. *Figure A-5. Virtualized public hearing room*. Screenshot.
<https://gather.cdmsmith.com/v/v8jkyRo0149>

—. 2022 l. *Table 1. Advertising methods*.

I-526 LCC Outreach Team. 2022. *Figure A-4. Meaningful input methods*.

Livingston, Amy, interview by Miranda Smeck. 2021. *Best Practices for Virtual Engagement* (February).

South Carolina Department of Transportation (SCDOT). n.d. *I-526 Lowcountry Corridor WEST*.
<https://www.526lowcountrycorridor.com/west/>.

Case Study: Isabella Lake Dam Safety Project

Case Study Highlights

- The Isabella Reservoir (CA) consists of earth-fill main and auxiliary dams that were completed in 1953.
- Since 2013, the U.S. Army Corps of Engineers (USACE) has been working on a project to address seismic, hydrologic and seepage issues at the dams and relocate U.S. Forest Service (USFS) buildings in the excavation footprint of the updated dams.
- After delaying the project scoping meeting for the Supplemental Environmental Assessment (SEA) #8 due to public health concerns during the COVID-19 pandemic, the project team held a virtual meeting using WebEx.

KEYWORDS

- Supplemental EA
- Custom URL
- “Hottest Question”
- Remove technology barriers
- Comprehensive website
- Survey123 for ArcGIS

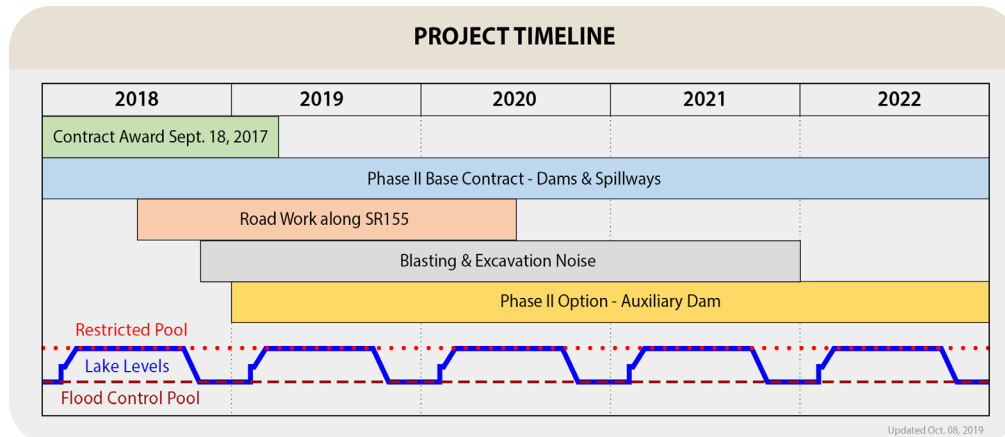
Background Summary of the Project

The Isabella Reservoir is located in the Kern River Valley of California, five hours south of the USACE Sacramento District office. The reservoir consists of an earth-fill main dam and an earth-fill auxiliary dam. Completed in 1953 under the Flood Control Act of 1944, the reservoir provides flood-risk management, irrigation, and recreational benefits. In 2006, the USACE began a dam modification study to address seismic, hydrologic and seepage issues. The study was completed, solutions were implemented, and an operating restriction was put in place to limit the lake’s normal storage capacity and reduce the risk of seepage and seismic concerns.

The Record of Decision from the dam modification study was signed in 2012, and from 2013 to 2016, the USACE began Phase I of the project. Phase I focused on design improvements to the existing dams and the relocation of U.S. Forest Service (USFS) buildings from the excavation footprint. Construction of the new buildings was completed in 2017. The project timeline is shown in Figure A-6. Phase II dams and spillway modifications are expected to be complete in 2022 (USACE n.d.a.).

This case study focuses on public engagement related to the Supplemental Environmental Assessment (SEA) #8 which analyzed alternatives for the construction of a USFS visitor center. Note, at the time of the project scoping meeting, the alternatives analysis for the construction of a USFS visitor center was referred to as SEA #7 (USACE 2020).

Figure A- 6. Project timeline



Source:

[https://www.spk.usace.army.mil/Portals/12/documents/civil_works/Isabella/Graphics/191008_Isabella_DSMP_timeline\(Draft\).png](https://www.spk.usace.army.mil/Portals/12/documents/civil_works/Isabella/Graphics/191008_Isabella_DSMP_timeline(Draft).png)

Challenge

A key challenge was building trust with the local community. The community had concerns with this project being overseen by a non-local entity who may not understand the local context. There are also challenges in communicating frequently and effectively with a community that is five hours away from the district office.

The project scoping meeting for SEA #8 was originally scheduled for March 2020. However, due to public health concerns during the COVID-19 pandemic, the project team decided to delay the meeting and move it to a virtual format (USACE 2020).

Approach

To build trust, the project team focused efforts on advertising and updating the project website to provide up-to-date information to proactively address the public's questions and concerns. For easier access, the team created a vanity URL ([Bit.ly/isabelladam](https://bit.ly/isabelladam)) which could be shared across materials. To keep the public engaged and informed, the project team worked with the Public Affairs Office to create a section on the project website entitled, "Ask a Dam Question." Here, the team highlighted and responded to the "hottest question at the moment." The team did not limit these questions to "easy" questions, but instead focused on the true concerns they were hearing from the public. A separate "Frequently Asked Questions" section provided a comprehensive list of questions received along with their answers. This also ensured all community members received the same answers to their questions (USACE n.d.).

To keep the public engaged and informed, the project team worked with the Public Affairs Office to create a section on the project website entitled, "Ask a Dam Question."

On June 4, 2020, the project team held a [virtual project scoping](#) (click the underlined text to follow the link) meeting using WebEx. The meeting materials and instructions on how to use the platform (by web or phone) were posted on the project website before the meeting. During the meeting, the team discussed the site selection process for the USFS visitor center and outlined the methods

through which the public could engage as the project moved forward. The team also provided a question or comment and response period at the end of the meeting. During this time, the team unmuted all participants to give anyone with difficulties un-muting themselves an opportunity to speak up. The meeting was recorded and posted to YouTube, with a link on the project website for direct access (USACE 2020).

During the public comment period, the project team received feedback using Survey123 for ArcGIS. This feedback tool included an interactive map outlining each area in consideration for the relocation of the USFS visitor center. On the interactive map, the public could zoom in to see what lay within each proposed area (USACE n.d.b.).

Results

The project website became a hub of information that was easily accessible to the public. The public recognized they were able to ask their questions and be heard, and more importantly, they could see the types of questions their neighbors were asking in a time when they were unable to get together in person (USACE n.d.a.).

The virtual public scoping meeting was successful. Many individuals spoke up who had previously not done so despite being asked multiple times. This proved the project team's hypothesis that it important to remove any barriers to participation, especially any technology barriers. In this case, the team did not run into issues with background noises when all participants were un-muted (USACE 2020).

While it was a risk, the un-muting of all participants during the question-and-answer segment of the meeting resulted in additional comments and meaningful engagement.

The Survey123 format was convenient for the public and provided a downloadable file in an easy-to-organize format for the project team. The project team received a total of 33 responses. Of these responses, 28 were submitted online. The open-ended questions allowed respondents to explain their reasoning and helped the project team learn that the feelings in the community regarding the project were much more complex than they initially appeared (Merritt 2020).

Tips for Replicating

The importance of having a comprehensive project website that is easily accessible increases when engagement becomes fully virtual.

- Provide a customized, easy-to-remember project website or vanity URL.
- Be proactive and provide information the public truly wants.
- Do not be afraid to address challenging topics directly.
- Work within your existing tools to identify new ways to provide the desired information.

Technology platforms only become collaborative when the facilitator uses them effectively to engage with the audience.

- When holding a virtual public meeting, include a “platform orientation” on the project website prior to the meeting. This should include instructions on all the ways to participate within the chosen platform.
- Provide alternative ways to participate such as by internet or phone.
- Remove technology barriers. Many individuals are hesitant to speak up in a virtual setting with the additional barrier of having to un-mute oneself. Consider providing a short timeframe where all participants are un-muted to remove this barrier. If there is a lot of background noise, or people speak over each other at this point, re-mute everyone and address the individuals speaking in-turn.
- Remember that it may take people longer to respond in a virtual setting. Be alright with longer periods of silence (Merritt 2020).

References

CDM Smith. 2022m. Figure A-6. Project timeline.

[https://www.spk.usace.army.mil/Portals/12/documents/civil_works/Isabella/Graphics/191008_Isabella_DSMP_timeline\(Draft\).png](https://www.spk.usace.army.mil/Portals/12/documents/civil_works/Isabella/Graphics/191008_Isabella_DSMP_timeline(Draft).png)

Merritt, Hunter, interview by Amy Livingston. 2020. Best Practices of Virtual Engagement (December).

United States Army Corps of Engineers (USACE) Sacramento District. 2020. Isabella Visitor Center Virtual Public Meeting – June 4, 2020. Performed by Sacramento District.

<https://youtu.be/27KA1BKJyaU>

—. n.d.a. Isabella Lake Dam Safety Modification Project. Accessed 2021.

<https://www.spk.usace.army.mil/Missions/Civil-Works/Isabella-Dam/>

—. n.d.b. USFS Visitors Center (Lake Isabella) Public Comment. Accessed 2021.

<https://arcg.is/0q0my0>

Case Study: Sacramento Levee Upgrades (American River Common Features Project)

Case Study Highlights

- Located at the confluence of the Sacramento and American Rivers, the Greater Sacramento area in California is often considered to be the most at-risk region in America for catastrophic flooding.
- The U.S. Army Corps of Engineers (USACE) received funding through the 2018 Bipartisan Budget Act to modernize Sacramento's flood infrastructure. This funding put the project on an accelerated schedule.
- Public engagement for the Sacramento River levee upgrade portion of this project moved fully virtual prior to the first construction-phase public meeting due to public health concerns raised by the COVID-19 pandemic.

KEYWORDS

- Accelerated schedules
- YouTube
- Inform
- Narrated presentation

Background Summary of the Project

Located at the confluence of the Sacramento and American Rivers, the Greater Sacramento, area of California is often considered to be the most at-risk region in America for catastrophic flooding. To reduce this risk, the Sacramento area relies on a system of levees, weirs, bypasses, and dams.

Despite tremendous progress in the reduction of flood risk made by USACE, the Central Valley Flood Protection Board, the California Department of Water Resources, and the Sacramento Area Flood Control Agency, more work remains to modernize the aging flood infrastructure. USACE has received full funding through the Bipartisan Budget Act to implement nearly \$1.8 billion in additional upgrades as the American River Common Features project. Authorized work includes up to 13 miles of seepage cutoff walls; 21 miles of bank protection; 5 miles of levee stabilization; 5 miles of levee raises; and widening the Sacramento Weir and bypass (USACE n.d.).

Improvements made under the American River Common Features project are being completed in separate construction packages. The three main parts include the lower American River levees, the Sacramento River east levee, and the Sacramento Weir and bypass. Public engagement for this project has been extensive. Notable engagements for the Sacramento River levee upgrade include a narrated presentation on YouTube. The associated webinars either contained a public comments segment during the webinar or included a comment and response period following the webinar (SREL 2020).

Challenge

As a fully funded project from the 2018 Bipartisan Budget Act, the American River Common Features project is on an accelerated schedule, and the team was tasked with cutting the project timeline in half (SREL 2020).

The first construction-phase public meeting for the project was scheduled for March 12, 2020. The purpose of the meeting was to inform the public of the construction anticipated to begin April 1 and the nearing date could not be changed. The meeting format was changed from in-person to virtual because of public health concerns associated with the COVID-19 pandemic (Merritt 2020).

Approach

The planned public meeting was a commitment to inform the local community about construction details as soon as they became available (it was not required under the National Environmental Policy Act). The project team provided a narrated presentation that was later posted on YouTube. The project is located in the middle of a highly urbanized area with property fence lines as close as 10 feet to the construction site, so it was particularly important to keep this commitment to the public because many residents close to the construction site had begun working or schooling from home as a result of the pandemic.

Do you have a video presentation and are you concerned about Section 508 compliance?

- ✓ Write a script and read it for the video. The script can be provided to download along with the video.
- ✓ External services can create closed captions at affordable rates. These closed captions can be uploaded to video hosting sites like YouTube. For instance, Rev Captioning can cost \$1 per minute. They also offer translation materials for an additional charge.

Source: Richardson et. al. n.d.

The meeting's purpose was to inform and educate the public regarding what to expect during construction; it was not to create a two-way dialogue (Merritt 2020). The virtual public meeting was held in a narrated presentation format with no comment period or question and answer session. This virtual public meeting was recorded and made available to the public after the meeting on the project's dedicated website, sacleveupgrades.com (SREL 2020). Other dialogues were and are promoted, including monthly situation reports and a project email response line (Merritt 2020).

Results

The project team was able to keep their commitment to the public to provide timely, comprehensive information regarding the construction, by using resources already available. Proactively informing a community and keeping commitments is critical to building long-term trust. This is especially important for USACE in a community that has substantial infrastructure needs. Also, getting ahead of the construction and providing this information will cut down on the amount of questions received (Merritt 2020).

Tips for Replicating

One of the very first steps in organizing public engagement, whether virtual or in-person, is considering what kind of meeting or communication is necessary. Every meeting is not the same and sometimes a meeting may not be the best means of communicating.

- Consult with the USACE Spectrum of Engagement (Figure 1, found in Section 2) to determine the type of engagement appropriate for your situation. For instance, do you want to give the public an opportunity to speak?
- Ensure your audience has access to the proposed virtual platform. This is the first step in choosing a platform.
- Consider how those with various disabilities will be able to engage. Be aware of Section 508 of the Rehabilitation Act (see adjacent box on Section 508 compliance).
- Keep in mind that what makes platforms collaborative is the way people use them creatively to engage audiences. Consider how resources already available could be used in a slightly different ways to accomplish various tasks (EPA 2020).

References

- Merritt, Hunter, interview by Amy Livingston. 2020. *Best Practices of Virtual Engagement* (December).
- Richardson, L. and Fernandez, P. n.d. "508 Compliance: Understanding its implementation in AFPIIMS."
- SREL Contract 1 Construction Information* (2020). [Motion Picture]. Retrieved from <https://youtu.be/0NHNJZwlaBE>
- United States Army Corps of Engineers (USACE) Sacramento District. 2020. *SREL Contract 1 Construction Information*. Performed by Sacramento District. <https://youtu.be/0NHNJZwlaBE>.
- . n.d. *Reducing flood risk in Sacramento*. <https://www.spk.usace.army.mil/Missions/Civil-Works/Sacramento-Levee-Upgrades/>.
- United States Environmental Protection Agency (EPA). 2020. *What is Section 508?* November 18. <https://www.epa.gov/accessibility/what-section-508>.

Case Study: Silver Jackets 2020 Watershed

University Virtual SoCal Summit

Case Study Highlights

- The California Silver Jackets, a team of federal, state, and regional or local agencies, leads a cooperative effort called Watershed University (WU) each year. WU provides free educational and networking opportunities for professionals in floodplain management, water management, emergency management and related fields.
- In April 2020, the U.S. Army Corps of Engineers (USACE) and the California Department of Water Resources (CA DWR) partnered to host a two-day WU event. Titled the “SoCal Summit,” this free event focused on flood and related hazards relevant to the southern California region.
- Because of public health concerns during the COVID-19 pandemic, the SoCal Summit was moved to a virtual format using WebEx and AT&T Teleconference Services. The planning team incorporated engagement activities such as using annotation tools and “Watershed Jeopardy.”

KEYWORDS

- Engagement activities
- Silver Jackets
- Interagency collaboration
- Overflow participants
- WebEx
- AT&T TeleConference Services

Background Summary of the Project

Silver Jackets are state-led teams of federal, state, and regional or local agencies that collaborate on solutions to state flood risk priorities (Silver Jackets n.d.). The California Silver Jackets team is led by the CA DWR with support from the USACE and participating federal, state, and regional/local agencies (Silver Jackets n.d.). The California Silver Jackets lead a cooperative effort called Watershed University (WU) that provides free educational and networking opportunities for professionals in floodplain management, water management, emergency management and related fields. A primary goal of this effort is to facilitate interagency sharing of knowledge (Silver Jackets n.d.).

In April 2020, the USACE and the CA DWR partnered to host a two-day WU event. Entitled the “SoCal Summit,” this free event focused on flood and related hazards relevant to the southern California region (Silver Jackets n.d.).

Challenge

The WU SoCal Summit (Summit), originally intended to be held in 2018, had been planned over the course of 2 years as an in-person event (Merritt et. al. 2020). With approximately one month until the event, discussions began as to whether the event should be cancelled or moved to a virtual format as a result of mounting public health concerns during the COVID-19 pandemic. It did not seem wise to have speakers and attendees travel from various locations to convene with each other in-person (Merritt 2020).

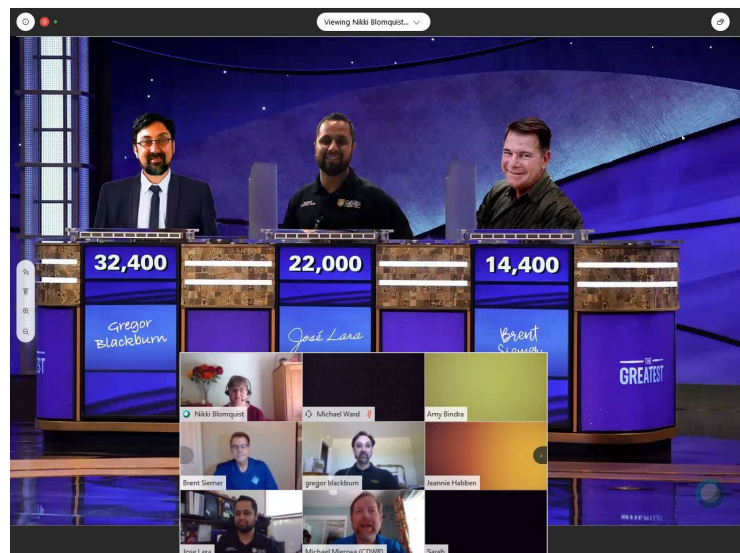
Approach

The planning team decided a month before the meeting, that transitioning from an in-person event to a virtual conference was feasible because the established agenda was a series of keynote speakers. The crucial next step was to decide which platform to use. At the time, CA DWR only had access to Skype for Business and Microsoft Teams. Additionally, the governments did not allow the use of Zoom for security reasons. As this was a free event, there was no budget to invest in additional technologies. USACE's existing WebEx account was determined to be the best option and CA DWR's free Eventbrite account was used for registration. The planning team met virtually multiple times a week through March and April to brainstorm and plan the virtual component, as well as to provide practice opportunities for speakers. This was a tremendous amount of effort for a quickly approaching deadline. Preparation included hosting weekly "coffee clinics" to provide the more than 20 speakers with practice time to become comfortable on the virtual platform and work through the mechanics of the presenting strategy (Merritt 2020).

With more than 300 participants registered for the virtual events and a maximum capacity of 250 participants in the WebEx meeting, the team needed to provide a "backup room" for the additional Summit participants. The planning team used USACE's contract for AT&T TeleConference Services. The main meeting was held in WebEx, and team members shared the WebEx meeting with the participants connecting through the AT&T Teleconference Services by sharing their screens

The team uploaded PDF presentation slides into WebEx prior to the start of the Summit. This allowed participants to have independent control of how the presentation appeared on their screens. Participants could select "Synchronize My Display" to see the current slide being shown by the presenter. The facilitation team created interactive virtual networking opportunities between panels to increase engagement and break up the agenda. These activities incorporated annotation tools such as whiteboard writing and doodling, voting, and more. An additional notable engagement tactic was playing a trivia game, "Watershed Jeopardy" (Figure A-7) that was created and conducted using the Quiz Show feature on Flippity (<https://flippity.net/>).

Figure A- 7. "Watershed Jeopardy!" Contestants pictured (left to right): Gregor Blackburn (FEMA IX), Jose Lara (CA OES), and Brent Siermer (Simi Valley). Moderator: Michael Mierzwa (CA DWR).



Source: Hunter Merritt

All presentations, including examples of the engagement opportunities, are available online for review. Transcripts of the presentations are available as well (Silver Jackets n.d.).

Results

When the Summit was originally planned, the in-person attendance limit was 100 participants. With the move to a virtual format, over 300 individuals were able to register for the Summit. While

the move was not easy, it helped further the goal of the Watershed University by providing a space for more individuals to participate in the education and collaboration opportunities (Silver Jackets n.d.). Despite planning for a participant amount that exceeded the allowed number in WebEx, the backup connection through AT&T TeleConference Services was ultimately not needed, as the limit was never met in the WebEx meeting (Merritt 2020).

Although the team did not yet have access to some of the WebEx engagement features that are now available, such as breakout rooms, the planning team was still able to integrate other technologies in very innovative ways to host a successful event—pivoting the multi-year planned, in-person event to a virtual format within one month. The planning team purposefully incorporated engagement activities throughout the Summit to achieve as much collaboration as possible. The positive experience of this event prompted the Floodplain Management Association to feel comfortable moving their September 2020 conference fully virtual as well (Merritt 2020) (Floodplain Management Association n.d.).

Tips for Replicating

An event of this kind requires very thorough planning and coordination with your partners. This can mean focused efforts for many individuals over a long course of time. Rehearsals and “dry runs” are critical to ensure the meeting runs smoothly. They allow presenters the opportunity to become comfortable with the platform and to work out the presentation mechanics and speaker transitions. More tips:

- Identify the type of engagement needed before selecting the platform for engagement.
- Determine what tools are available to you *and* your partners. Think outside of just one organization. Access for the audience and the hosts will drive the platform selection.
- Identify the constraints of your platform(s) and think creatively about other tools you may have access to that can help you overcome those constraints.
- Focus on facilitation skills. Facilitation is more important than technology. Facilitation skills are universal regardless of how technology evolves.
- Assess if there are unintended benefits you could harness as a result of your meeting method, such as increasing your reach.
- Focus on the functional. Engagement does not have to be complicated; it just needs to be functional.
- Explore the chosen platform to identify additional tools that may help the audience better engage. For WebEx, uploading a PDF of the presentation ahead of time allowed the audience to advance the slides independently, if desired (Merritt 2020).

References

- Floodplain Management Association. n.d. *2020 FMA Conference Presentations*.
<https://floodplain.org/page/2020presentations>
- Merritt, Hunter. n.d. *Figure A-7. "Watershed Jeopardy!" Contestants pictured (left to right): Gregor Blackburn (FEMA IX), Jose Lara (CA OES), and Brent Siermer (Simi Valley). Moderator: Michael Mierzwa (CA DWR).*
- Merritt, Floyd, and Olsen. 2020. "Watershed University: The Little Summit that Could." *FRM Buzz Newsletter*, September: 15. <https://operations.erdc.dren.mil/Flood/pdfs/FRM-2009.pdf>
- Merritt, Hunter, interview by Amy Livingston. *2020 Best Practices of Virtual Engagement* (December).
- Silver Jackets: Many Partners, One Team. n.d. *2020 Watershed University Summit*.
<https://silverjackets.nfrmp.us/State-Teams/California/2020-Watershed-University-Summit>

Appendix B

Annotated List of References

Federal Resources

Environmental Protection Agency (EPA): Public Participation Guide

<https://www.epa.gov/international-cooperation/public-participation-guide>

Designed with government agencies in mind, this guide provides a primer in understanding, planning, and implementing a public participation program. Included within this guide are basic information, ideas, and useful links to web content to help design and implement meaningful programs for all people regardless of race, color, national origin, sexual orientation or income.

Federal Highway Administration (FHWA) Every Day Counts: Virtual Public Involvement: A Collection of Tools, Techniques, and Examples

https://www.fhwa.dot.gov/planning/public_involvement/vpi/fact_sheets/vpi_booklet_final.pdf

As part of the “Every Day Counts” FHWA program to help state departments of transportation, metropolitan planning organizations, and local public agencies advance practice-ready innovations into everyday use, this booklet is a compilation of eight fact sheets on virtual public involvement tools and techniques. The eight topics covered are: mobile applications, project visualizations, do-it-yourself videos, crowdsourcing tools, virtual town halls, mapping tools, all-in-one tools, and digital tools to enhance in-person events.

Federal Highway Administration (FHWA) Every Day Counts: Virtual Public Involvement Factsheet

https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/docs/VPI-factsheet.pdf

This Virtual Public Involvement Factsheet builds on the argument that virtual public involvement can help agencies engage the public more effectively. It outlines benefits of virtual public involvement and provides specific examples to show the state of the practice. This factsheet also provides a resource link and contact information for multiple FHWA planners.

National Oceanic and Atmospheric Administration (NOAA): Virtual Meeting Engagement Quick References

<https://coast.noaa.gov/digitalcoast/training/virtual-meetings.html>

NOAA has organized three separate training quick references for virtual meeting engagement. These include Tips and Tricks for Planning Virtual Meetings, Techniques for Facilitating Virtual Meetings, and Tips and Tricks for Participating in Virtual Meetings.

U.S. Army: Public Involvement Toolbox

<https://www.asaie.army.mil/Public/IE/Toolbox/default.html>

Full of practical tools, methods, and examples related to environmental public involvement, the U.S. Army Public Involvement Toolbox can be used as a resource for functional, proven techniques and

information. Organized in an easy-to-use manner, this web site also provides links and references to other public involvement resources to help find information and develop plans and programs that meet local needs and issues.

U.S. Army Corps of Engineers (USACE) Institute for Water Resources (IWR): Identification and Engagement of Socially Vulnerable Populations in the USACE Decision Making Process

https://www.iwr.usace.army.mil/Portals/70/docs/iwrreports/Identifying_and_Engaging_Socially_Vulnerable_Populations_%20IWRv2_08_01_2016.pdf?ver=2016-08-11-125141-427

A result of the “Actions for Change” USACE initiative, this primer fills a critical role in helping train in public involvement, risk communication, and working with socially vulnerable communities. This primer defines socially vulnerable populations as those effected by social, cultural, economic, and physical factors that make them more vulnerable to floods and other environmental hazards. It provides strategies, tools, and examples on how to identify and work with these populations, in addition to describing how their inclusion can impact and improve the formulation of alternatives and decision-making processes.

U.S. Forest Service: A Reference Guide to Forest Service Public Engagement in a Virtual Environment

<https://www.fs.usda.gov/sites/default/files/Public-Engagement-In-Virtual-Environment-RG.pdf>

The U.S. Forest Service has put together a reference guide that outlines the steps to organizing a public engagement in a virtual environment. Step one utilizes an adapted version of the IAP2 Spectrum of Public Participation, and the second step refers to a pro/con table of various online platforms that can be used to meet public engagement goals and outcomes. This guide also includes contacts as well as a list of additional resources.

Non-Federal Resources

Faith E. Fletcher et al. 2020: COVID-19's Impact on the African American Community: A Stakeholder Engagement Approach to Increase Public Awareness Through Virtual Town Halls

<https://www.liebertpub.com/doi/full/10.1089/heq.2020.0029>

By showcasing a Virtual Town Hall event convened by the University of Alabama at Birmingham School of Public Health and the Housing Association of the Birmingham District, this article describes a successful approach to virtual public engagement with a traditionally socially vulnerable population.

Governing: Online Community Engagement: Connecting Government Organizations to Community

<https://www.governing.com/archive/Online-community-engagement-connecting-government-organizations-to-community.html>

This online article addresses the question, “What is online community engagement and why is it important?” It provides a thorough explanation of the IAP2’s Public Participation Spectrum and how it supports the role of the public in planning and decision making. Additionally, this article covers how online engagement facilitates online conversation, and how that conversation can connect agencies to a community.

International Association for Public Participation (IAP2): COVID-19 Public Participation Resources

<https://iap2usa.org/COVID-19-P2-Resources>

In response to the COVID-19 pandemic, IAP2 has compiled multiple online resources on overcoming challenges during the COVID-19 pandemic. Resources are categorized under Virtual Work and the “New Normal,” Online Meetings, Online Public Engagement Tools, Resources to help you stay Connected, You can also join some of our colleagues as they share their knowledge, and Resources Regarding Health and the Pandemic.

National Cooperative Highway Research Program (NCHRP): Practical Approaches for Involving Traditionally Underserved Populations in Transportation Decisionmaking

https://www.fdot.gov/docs/default-source/environment/pubs/sce/nchrp_rpt_710.pdf

This report is an extensive resource for state departments of transportation, metropolitan planning organizations, and other transportation agencies looking for practical and effective tools, techniques, and approaches for identifying and connecting with populations that have traditionally been underserved and underrepresented in transportation decision making.

Non-Profit Quarterly (NPQ): Organizational Culture & Its Drivers: Considerations on Bringing Virtual Stakeholder Dialogue into Organizations

<https://nonprofitquarterly.org/considerations-bringing-virtual-stakeholder-dialogue-organizations-2/>

To internally coordinate on matters such as the intensity and diversity of stakeholder issues emerging from the virtual stakeholder dialogue, this article proposes four organizational structures for stakeholder integration. While organizational change can be a challenge, this article argues that, “Without suitable coordination mechanisms, engaging in virtual stakeholder dialogue is a superficial attempt to present a favorable appearance.”

Regional Risk Communication and Community Engagement (RCCE) Working Group: COVID-19: How to include marginalized and vulnerable people in risk communication and community engagement

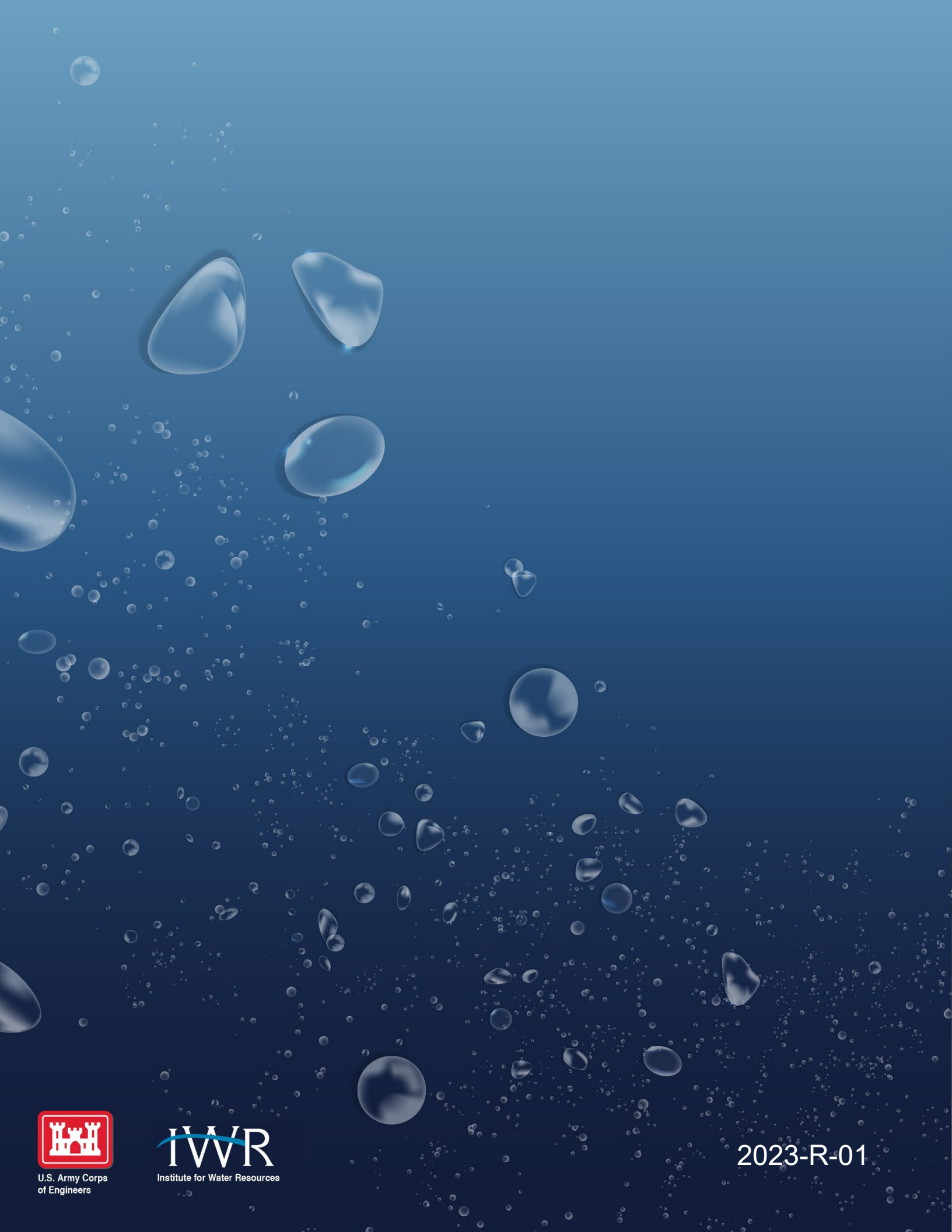
https://reliefweb.int/sites/reliefweb.int/files/resources/COVID-19_CommunityEngagement_130320.pdf

Established to provide technical support on risk communication and community engagement to COVID-19 preparedness and response in Asia and the Pacific, the RCCE Working Group is an inter-agency coordination platform of RCCE experts and specialists from organizations including United Nations agencies, Red Cross and Red Crescent Societies, international non-governmental organizations and non-governmental organizations from the region. This report by the RCCE Working group addresses the questions, “Why include a protection, gender, and inclusion lens in risk communication and community engagement?” and “What have we learned about protection, gender, inclusion, and risk communication and community engagement in other epidemics?”. The report also provides key protection, gender, and inclusion actions for risk communications and community engagement.

Salt Lake City Civic Engagement Team: Practices for Engagement in the Time of COVID

<https://www.slc.gov/can/wp-content/uploads/sites/8/2020/04/Final-Best-Practices-for-Engagement-During-COVID-19-V2.pdf>

The Salt Lake City Civic Engagement Team has organized a Guide of Best Practices for Engagement in the Time of COVID-19 that includes resources for online and traditional (but adapted) engagement. This guide organizes best practices on online engagement, online meetings, presentations, and webinars, equity and accessibility, online outreach platforms and methods, traditional engagement, resources to bridge the digital divide, and COVID-19 resources.



U.S. Army Corps
of Engineers

IWR

Institute for Water Resources

2023-R-01