How We Moved an In-Person Meeting Online and Kept It Interactive:
The Conservation Drainage Network Annual Meeting 2020

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1. Background and Goals

The Conservation Drainage Network promotes collaboration among researchers, agencies, industry and others to improve agricultural drainage practices and water quality. Meeting in person every year is important to the group, because the goal is not just to share information but also to develop partnerships and collaboration. In 2020, however, we were forced to hold the meeting virtually due to COVID-19 restrictions. The Organizing Committee worked to develop a meeting structure that would maintain the collaborative atmosphere and interactions normally found at the annual in-person meeting, while also sharing research, extension activities, agency strategies, industry activities, and ideas for moving forward in a format that would keep the audience engaged.

Participant comments made it clear that the meeting succeeded in its goals. They noted they appreciated opportunities for interactions while also learning about the latest research and how agencies and industry are moving the field of conservation drainage forward. Because many people asked about our strategies and tools so they could use them to run a similar virtual meeting, we decided to write this guide to what we did, so that others can select components that work for them. Therefore, **the goal of this report is to document the procedures so that others can use those that are helpful for their virtual meetings.** Documents used for planning, sent to presenters and participants, and some detailed processes are included in linked publications in the right column. Please let us know if you have questions or comments regarding this at committee@conservationdrainage.net.

Links to organization and meeting websites:

● [Conservation Drainage Network website](#)
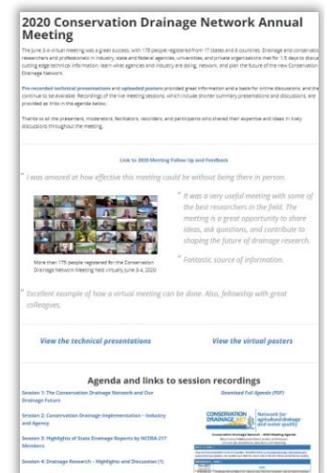
● [Virtual annual meeting webpage](#)

2. Meeting Overview and Agenda

● A key decision we made was that technical presentations would be recorded in advance and available for viewing and online discussion one week before the live meeting was scheduled. This process is documented in Section 4. This allowed the live meeting to prioritize questions and interactions, along with short presentations.

- The live meeting consisted of six sessions over two days, each around 1.5 hours in length. We had found in other online meetings that 1.5 hours is an appropriate time period for participants to stay focused and active. Most of our participants were in the central and eastern US time zones, so we started at 8 am CT, 9 am ET, and ended at 4 pm CT, 5 pm ET. Some participants from Europe and one from New Zealand joined when they were able. Breaks between sessions were at least 10 minutes, with a nearly 2-hour lunch break so that participants in various time zones could have lunch around the noon hour. The 2-hour lunch break also allowed participants the opportunity to respond to other business needs so they could stay more focused while the meeting was in session.

Meeting agenda

- Technical sessions consisted of 5-minute presentations in groups of three presenters, followed by 15-minute question and answer sessions using Slido, as described in Section 5. Three of these "panels" made up one session.

- Opening and closing sessions consisted of invited presentations and reflections, as well as breakout groups to network and generate ideas for moving conservation drainage and the network forward. These are described in Section 6. A prioritization process was also held asynchronously between the opening and closing sessions.

- One session that included invited agency and industry presentations followed a more typical conference agenda, with 10- to 15-minute presentations followed by a short question period for each presenter.

- We used the following technology platforms for the meeting: our WordPress website (conservationdrainage.net), Zoom, Slido (sli.do), Google Forms, Microsoft OneDrive, Camtasia, and YouTube.

3. Meeting Logistics

- **Registration**: Registration was free, using a simple Google form to collect contact information including organization, position, and email. We also asked which sessions they planned to attend, with the goal of encouraging them to think about the agenda a little more in advance and giving us a better idea of participation. We had 178 registered participants compared to our usual in-person attendance of 70 to 80, with an actual attendance of 165 over two days.

- [Registration Form (in Google Forms)](#)

- **Meeting Platform**: Zoom was used as the meeting platform, with an account through Purdue University. Zoom's breakout rooms feature was key for the interactivity. Functionalities of the meeting we selected and tested prior to the meeting included the following:
  - Allowing participants to access the meeting by phone or web.
  - Including breakout rooms,
  - Restricting the ability for participants to share their screens, and
  - Allowing participants to private message within chat and use nonverbal features in the participants panel.

- [Zoom website](#)

- **Questions and Discussion**: Slido was used for live questions following short presentations.

- [Slido website](#)

- The advantage of Slido is that other participants can "upvote" questions they like, so that the most popular questions get asked in a limited time. The disadvantage is that participants must have another browser window or separate device (e.g., phone or tablet) for using Slido. But most participants felt the advantage outweighed this tradeoff.
- Slido offers two different views to the user. One view, "Popular" is dynamic, displaying the most popular questions at the top. This is an advantage to the moderator and presenter, who can respond to the most popular questions first. However, it is hard for the viewer since the display keeps changing as other participants vote for questions. Participants can use the "Recent" view to vote on questions as they are entered without the dynamic changes based on popularity.
- We also used Slido in an opening poll, in which participants were asked to share their location and a Word Cloud was generated. This was mainly a way to engage people and have them open Slido, but also see the geographic reach of the conference, which included a person in Spain, several in Canada, as well as many states of the U.S.

An opening poll in Slido, which allowed people to access the site and become comfortable before it was used for questions, is shown in the app (top left), in the Zoom screen (top right) and the resulting word cloud (bottom)

- At the time of the event, Slido offered free "Teacher" plans to people at universities. The Teacher plan allows question moderation, although we decided not to use it to make the question process faster. Moderation allows for pre-approval of live questions, but even without this feature inappropriate questions could be deleted by the moderator.

- Because we used Slido for questions, Zoom's Chat panel was available and well used for comments (such as "Thanks for the great presentation"), comments that did not require an answer, and links to related information that participants provided as they came up.

- **Meeting Roles**: Three leadership roles were held by separate individuals during the main part of the meeting. The moderator was different for each session, while the other roles were held by a single individual throughout the meeting.

  - The **moderator** started and ended the session, introduced presenters, read questions aloud and directed them to the correct presenter, and made any needed real-time decisions about session content.

  - A different person was **Zoom host** and provided support to those who had any Zoom issues (usually audio problems). The Zoom host assigned people to and managed breakout rooms and recorded the Zoom sessions. The Zoom host also provided backup support for Slido.

  - A third person was **presentation manager** and was the only person to share their screen. Presenters were asked to send slides in advance, and the presentation manager combined them all into one presentation for each session. This allowed the entire meeting to run smoothly, without the disruptions from screen-sharing switches but with the disadvantage of requiring presenters to give a verbal cue to advance the slides. The presentation manager also switched the screen to Slido during question periods.

  - For breakout groups, **facilitators** and **recorders** also provided leadership as described in Section 5.

- **Meeting Recordings**: The Zoom host recorded all sessions using the Zoom recording feature. We recorded to a local computer, as storage space for cloud recording was not adequate.

  Meeting recordings are available by session at the bottom of this web page:

  - [All meeting recordings](#)

  - New recordings were started for each session for more manageable file sizes. After stopping the recording, Zoom waits to start the rendering process until the meeting concludes, and downloads the meeting screen recording (.mp4 format), the audio file, and chat files from the Zoom host's computer.

  - Recordings were edited in Camtasia so that only presentation and discussion content was included and uploaded to the Conservation Drainage Network YouTube channel for viewing by participants and those with shared links. We set it to be "unlisted" so that anyone can view it with the URL, usually from our website, but it would not appear in a YouTube search.

  - Breakout groups were not recorded, as this would have required that each breakout group have a "co-host" with Zoom recording permission.

  - Chat files are saved in the Zoom recording, with "private chat" for the person recording included. These were edited out and then shared with participants.

- **Meeting Instructions**: We provided instructions to registered participants in two ways: A document sent out before the meeting, and slides at the beginning of the live meeting. These instructions featured Zoom and Slido usage instructions (example below).
  - To facilitate networking, we asked all participants to use the "Rename" feature of Zoom to include their full name and organization. Zoom allows participants to right click on their name and use "Rename" to change their visible name in the Zoom session.. This "virtual nametag" helped with interactions and to see who was present, and their affiliation especially during breakout groups.
  - All participants were muted and were requested to unmute when speaking and turn on their video by using controls in the bottom toolbar or participants panel so others could see them.
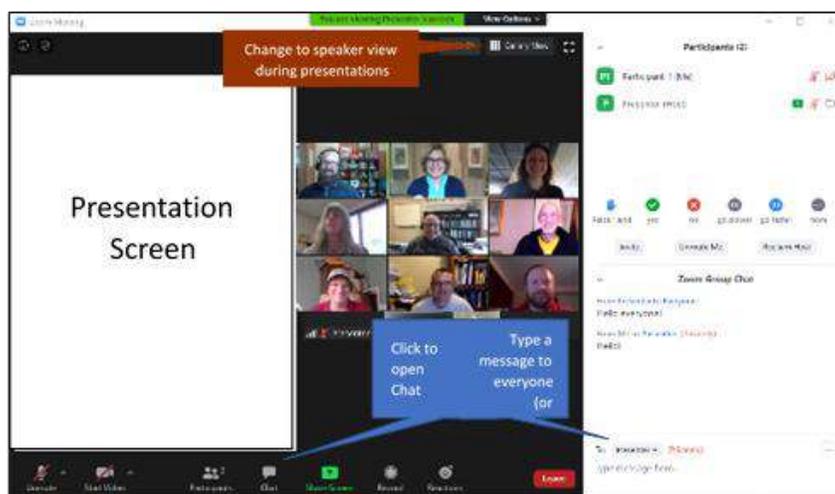
Example of instructions for Zoom provided to participants, showing how to change the view and open Chat.

4. Pre-Recorded Presentations: How the Meeting "Began" a Week Before it was Live

- **Goals**: We decided that our goal of interactivity and networking would be better met by using the live time for interaction, not presentations. Therefore, we required presenters to record their presentations and upload them one week in advance. Presenters were aware of this requirement from the Call for presentations (see link at right) and all complied. Poster presenters also uploaded their posters in advance.

- **Recorded presentation length**: We requested 15-minute presentations; the length actually submitted ranged from 8 minutes to 30 minutes. We decided to accept the length submitted, since viewers could watch less if they wished (an advantage over live presentations), but videos 15 minutes or less could encourage viewers to watch all before the live meeting.

- **Recorded presentation logistics**: Our instructions to presenters provided several options they could use to record their presentations, including scheduling a meeting to present over Zoom, recording on their own with Zoom or another screen recording software, or with PowerPoint. We provided a File Request site in Microsoft OneDrive for uploading files. Video files were uploaded as .mp4 files, or in some cases as PowerPoint recordings that could be converted to .mp4.

- **Posters:** Poster presenters were asked to prepare posters with dimensions 20 inches wide by 30 inches high. This size was selected to allow viewers to see the entire width of the poster without scrolling horizontally on most computer screens. Poster presenters uploaded their PDF files using the File Request feature in Microsoft OneDrive.

- **Web Publishing:** A web page for the meeting was created on the Conservation Drainage Network WordPress site to provide general meeting information (e.g., agenda) and links to all pre-recorded presentations and research posters.

  - WordPress "posts" were created for each pre-recorded presentation and poster, allowing participants to ask questions or provide comments to the presenters. The presenters then had the opportunity to respond to the questions. Posts (instead of "pages") were used because they provide the ability to categorize, tag, and sort each post.

- Procedures for web publishing and discussion features for presentations

  Published posts on WordPress webpage:

- Technical presentations

- Technical posters
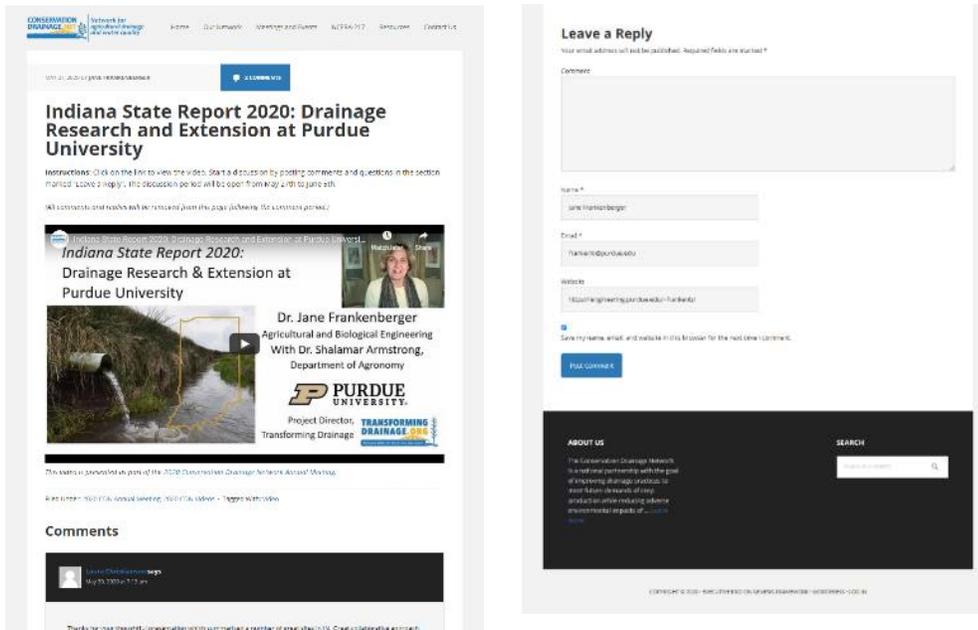
Example of a post for one presentation (divided into two columns for display here). The presentation is displayed along with comments submitted below (left). Viewers are encouraged to leave a comment or question using the Word Press features (right).

  - A page with all recorded presentations and another with all posters was created by categorizing posts as either "video" or "poster" allowing us to use the "Latest Posts" block within the editor to compile all posts of a given category onto a single page.
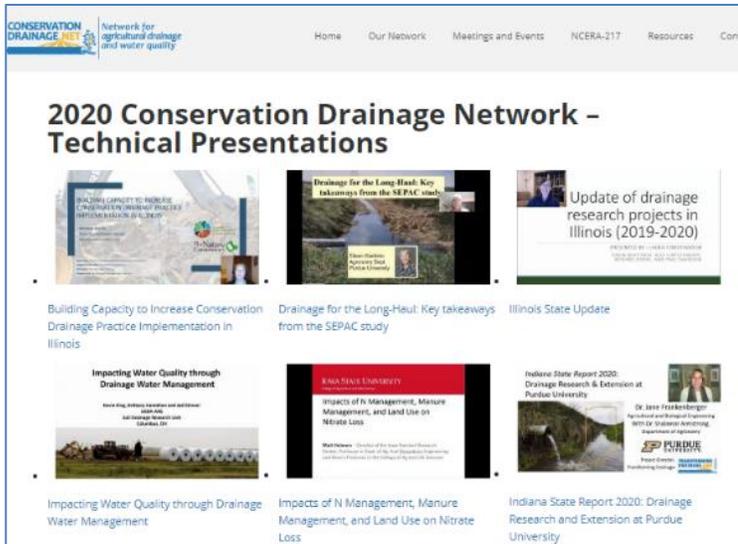
Excerpt from recorded presentations page (19 total)

- ○ All posts were published one week prior to the live meeting, and comments remained open through the week of the live meeting, to provide adequate time for online discussion.

- **Participant Review**: Participants were generally pleased with this format of hosting pre-recorded presentations prior to the meeting and live meeting sessions summarizing the presentations.

  - ○ *"Loved that summaries and presentations are available online so we all can dive in more when we have time. And it can be in the middle of the night - which is when many of us have a few minutes!"*

5. Live Meeting - Technical Sessions

Our goal in developing the live session format was to build on the recorded presentations that had been available for a week by focusing on interaction during the live session. Therefore, live presentations were limited to 5-minute "highlights" followed by questions.

- **Speaker Panels**: The 1.5 hour technical sessions each had three "panels" of three presenters, followed by 15 minutes of questions directed to any of the three. These three presentations were not necessarily related; this was instead based on time and flow considerations and worked well.

  - ○ Presenters uploaded PowerPoint slides for a 5-minute summary using the same file transfer site as the recorded presentations. Presenters were asked to limit their slide set to no more than 4 or 5 slides total to encourage presenters to stay within their allotted 5-minute time slot. The presentation manager displayed all presentations by screen sharing in Zoom.

  - ○ Limiting speakers to 5 minutes was a concern, since methods typically used in live meetings such as holding a sign with time remaining or standing up would not work. We came up with two methods:

Recordings of meeting sessions show how the 3 speakers followed by questions in Slido worked:

- Session 3
- Session 4, discussion at 15:03 and 47:25
- Session 5, discussion at 21:25 and 50:15

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- A cellphone timer function was used to sound a chime with 30 seconds remaining. The chime was tested to figure out an appropriate volume that the speaker could hear but would not be disruptive. The Zoom host held the cellphone near a microphone.
- If the speaker had not stopped 30 seconds after the ending time, the presentation manager simply advanced to the next presentation or to a slide that noted a break.
    - For these and other live presentations, the Zoom host highlighted the speaker using Zoom's spotlight video feature. By limiting the distraction of other participants video for all participants (since many might otherwise be in gallery view within Zoom), this improved both the live experience and the recording, as participants could focus more on the content presented.

- **Questions**: All questions for presenters were asked in Slido. Participants were asked to address their question to a specific speaker because there were three speakers in a panel. Others quickly began to upvote questions, so the moderator generally asked the question at the top. Once answered, the Zoom host archived the questions.
    - Slido polls and questions were integrated with slides by opening PowerPoint slides, then opening the Slido app, logging into the Slido account, and adding a placeholder slide into the correct order.
    - During each session, the presentation manager moved to the placeholder slide, and the app opened the poll or question to populate results in real time.
    - After the questions were answered, the presentation manager moved onto the next slide and the Zoom host marked the question answered in Slido. If the question was not answered it was archived. All questions, whether answered or not, were displayed in the archive tab for sharing with presenters for further answers.
    - Participant Review: *"I liked how Slido interfaced with Zoom, allowing participants to see questions being entered and upvoted in real time…Great work finding a cool solution!"*
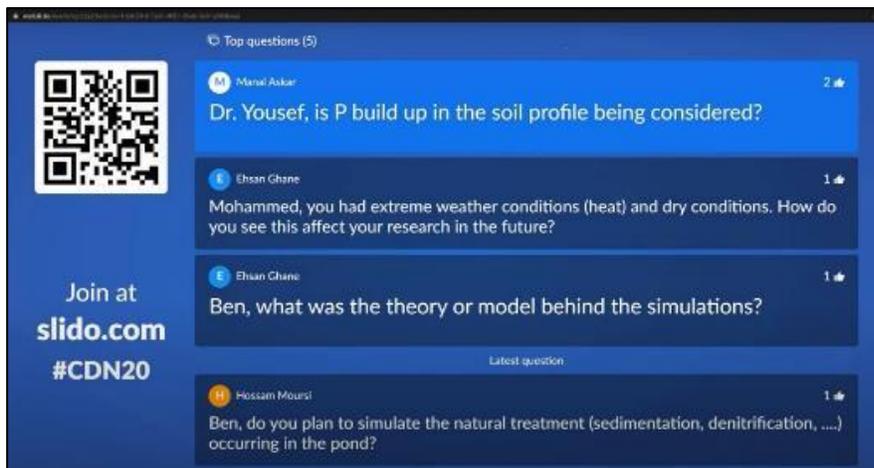
Slido participant view of highlighted questions during Q&A section
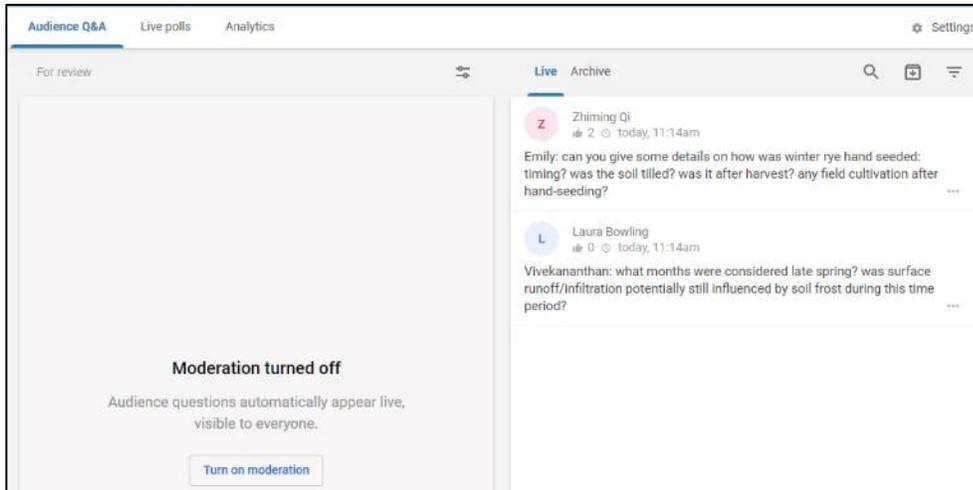
Slido administrator view, with moderation panel (left) and Live Q&A questions (right).

6. Live Meeting - Breakout Groups and Prioritization

- **Purpose:** Breakout groups were a key component of the meeting. To achieve our main goals of advancing the networking power while also collecting group ideas and buy-in from new members to the Network, we organized breakout groups by dividing the large group of about 120 people into small groups of 10-12 people.

- **Facilitator and Recorders:** Each breakout groups had a facilitator who led discussions and a recorder who noted group responses in a Google form.

  Breakout group instructions:

  - Instructions for Facilitators and Recorders

  - We invited potential facilitators and recorders from those who had registered; once confirmed we sent them detailed instructions and also asked them to attend a "run-through" Zoom session in advance of the live meeting to receive instructions, experience how breakout rooms worked, and ensure recorders could access their Google Docs document with provided discussion questions.

  - During each breakout session, recorders shared their screen as they took notes in their Google document of the group's ideas. Facilitators led the discussion through the given questions and kept the group on track with time.

  - A small number of the facilitators were chosen prior to the meeting to share, in a few minutes, highlights after the breakout groups ended. This allowed for a quick report back the full meeting room to give a flavor of the small group discussions without taking the time to hear from every small group.

- **Assigning groups:** We used Zoom's automatic Breakout room assignment feature. In order to facilitate assigning one facilitator and one recorder to each Breakout group, we asked the people serving in these capacities to use the "Rename" feature in Zoom to add either Facilitator or Recorder before their name. (i.e., "Recorder-Jane Smith"). This was effective at allowing the Zoom manager to assign one to each of the 12 groups.

- **Logistics**: Each breakout session had 20-30 minutes to meet their group and discuss provided questions. The Zoom host sent broadcast messages to alert the groups when 5 minutes and 3 minutes remained. We utilized the Zoom timer in
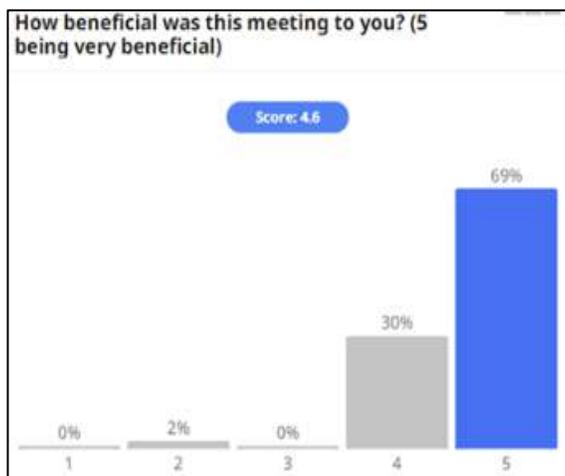
breakout room settings to close rooms after a 1 minute countdown. The Zoom host remained in the main session to respond to any issues and move from breakout groups to assist if needed. Participants have an "ask for help" button to request help from the host.
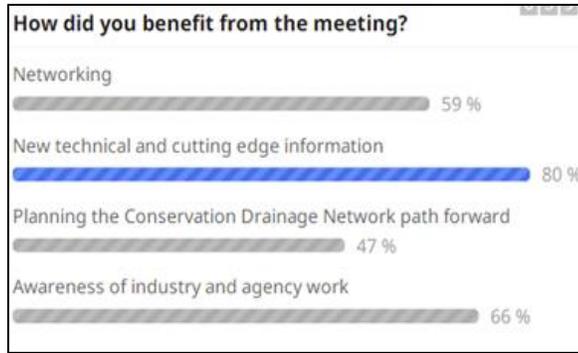
- **Participant review***: This was my first experience with a Zoom breakout, and it was seamless! I think the breakouts were probably the big networking piece of the event, and I would recommend retaining.*

- **Prioritization process**: One of the overall meeting goals was to move the new Network forward by identifying key action steps. In the opening session Breakout groups, we brainstormed potential actions, and wanted participants to prioritize these before the final session. In a live meeting, this would often be done by placing colored stickers on a flipchart.

  - We decided to use Slido for the prioritization activity since people would already be using the app. The Zoom host entered each suggestion from the opening session brainstorming as a "question" in Slido, and we asked participants to upvote 5 to 10 suggestions that they viewed as highest priority.

  - To separate these questions from those being used in the session, we created a different Slido "Event". (With a higher level paid plan, this could have been done using multiple rooms.) Switching between the two events was confusing for some, but most people completed the prioritization.

7. Evaluation and Follow Up

- **Methods of receiving feedback:** We invited feedback in three ways: Using Slido at the end of the meeting, a formal Qualtrics survey, and informal feedback orally or by email.

- **Slido Feedback**: Toward the end of the closing session we conducted a survey with three short live polls to gain feedback before people left the meeting. We used a rating question, select stars for "how beneficial was this meeting to you?", multiple choice for them to select among potential benefits, and an open-ended question "What was the most beneficial aspect of the meeting?".

- [Complete results of Slido polls conducted at the end of the meeting](#)

How did you benefit from the meeting?

Networking — 59 %
New technical and cutting edge information — 80 %
Planning the Conservation Drainage Network path forward — 47 %
Awareness of industry and agency work — 66 %

Open-ended responses about the most beneficial aspect of the meeting included:

- o *"I was amazed at how effective this meeting could be without being there in person. Networking was great with those with cameras."*

- o *"Excellent example of how a virtual meeting can be done. Also, fellowship with great colleagues."*

- o *Getting to interact with others across the region*

- **Qualtrics Feedback**: After the meeting we sent all participants a Qualtrics survey, rating their experience using the various platforms, the format of presentations (both pre-recorded and live), breakout groups, and any additional comments.

  - o When asked "How would you rate your experience with Zoom, including breakouts, in this meeting?", 97% responded that they were either extremely satisfied (76%) or Somewhat satisfied (21%).

  - o A broader question about the overall format of the meeting showed that 86% of respondents were satisfied with it (below).

- [Complete results of Qualtrics survey conducted after the meeting](#)
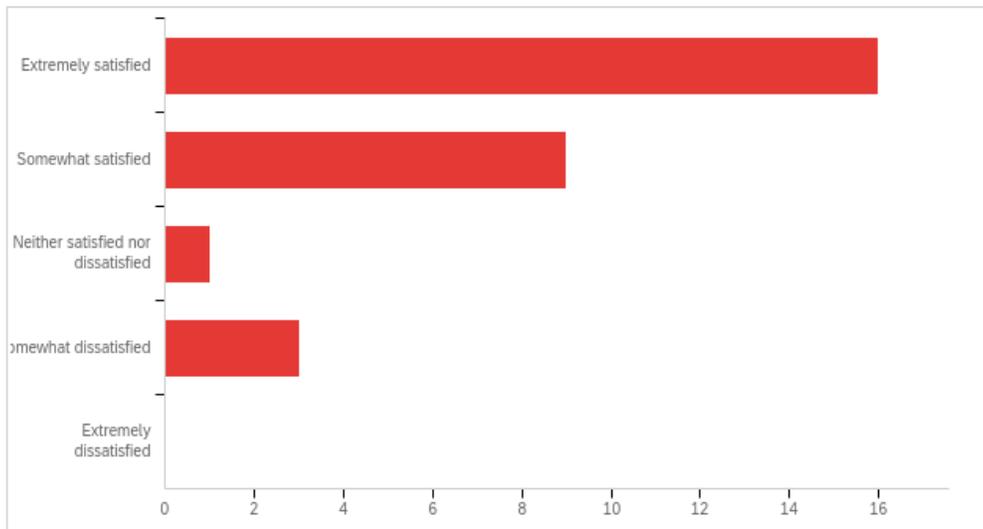
Responses for " What did you think of the format for presentations that consisted of (1) recorded presentations (2) short "highlights" presentation, and (3) questions and discussion using Slido?"

- The open-ended question about this format resulted in a variety of perspectives. The response below weighs the pros and cons, but most were very positive.

  "I think being able to pre-record presentations and to be able to ask questions was beneficial, and in the future it will allow people who cannot be present to be able to contribute to the conversation. Drawback is, you do have to watch the recorded presentations in advance to get the most out of the opportunity. Advantages outweigh this though: (1) leaves more time for the very valuable discussions (2) the recording exists for followup viewing (3) allows viewers to skip through portions of a talk where the presenter has gone off on a tangent or is taking too long (4) allows viewers to develop their questions in advance, maximizing the opportunity to share ideas."

- We had also asked if this format should be used in a future in-person meeting when that becomes possible again. Here 69% said yes or probably yes, but others pointed out the disadvantage – and most look forward to a return to more traditional in-person meetings.

  "I think it worked well under the circumstances, but I think the benefits of in-person presentations (engagement with audience, freshly delivered content, well-informed questions) are significant enough to warrant a more traditional method for in-person meetings."

- **Meeting follow up documentation**: All feedback documentation from Slido and Qualtrics, including that describe above, can be found in the follow up and feedback form linked at right, and we invite readers to review detailed feedback there.

  - [2020 meeting follow up – all results](#)

Appendix- Meeting timeline

Activity	Date
Decision to hold meeting virtually on June 3-4, the originally scheduled dates (after attempts to reschedule in late 2020 or early 2021)	April 8
Call for presentations sent out	April 23
Abstract due date	May 1
15-min recorded presentation or poster upload due	May 26
Participant registration deadline	May 27
Online, asynchronous portion of meeting started, with recorded presentations and posters available for viewing and commenting	May 27
Upload due for 5-min highlights presentations or 1-slide poster summary, for use during live meeting	June 2
Live meeting	June 3-4