Welcome
Dianne shared her screen for a welcome message from David Brown (President, PA WEA)
Bob Dengler (President, West Section of PA WEA) welcomed participants and introduced Ms. Venner.

- Ifetayo Venner, WEF Vice President – WEF welcome. “The swag box was excellent and thank you for attending and to the WEF staff. We are ready to launch our strategic effort. Last major revision was 2011 and sent out an RFP for this. Big focus for us in our strategic plan is DE&I with a subcommittee and hiring a consultant. WEF treatment fundamentals 2 came out last month. Few more days for InFLOW applications, you have until 30 April and visit wef.org. Nominations for WEF Board are open. WEFT EC – we are planning an in-person event.”

- Steven Drangsholt – WEF House of Delegates, “Thank you. Nominations are open now and HOD committees. We encourage everyone to apply and increase our pool of delegates. Plug for Federal Advocacy, great day because it is earth day to take advantage of Fed. Programs which focus on infrastructure. Any changes to MA By-laws? The committee would like to know of those changes. Volunteers Service Recognition, if you have staff who you think should be nominated, please let me know. Look forward to seeing you in person in the Fall.”

- Mike Milius, WEF House of Delegates WEFMAX Committee Chair – welcome/program, “Welcome to the second WEFMAX of 2021 season. Many pivots but I think we’re getting better. Behind the scenes work. Thanks to WEFMAX subcommittee for moving this forward and thanks to the WEF staff. Sign up if you can for the remaining 2 WEFMAX’s on 06 & 27 May. Work has begun on the 2022 WEFMAX program. Hopeful to have them in-person. Thank you to the PA WEA for being hosts.”

Session I – Host Topic
Chat Moderator – Jim Degnan

PWEA’s Hybrid Operator Training – How WEF’s Grant Helped Fund a New Initiative
Pennsylvania WEA - Christine Volkay-Hilditch & Jim Kern P.E.

- WEF Announces Member Association Grant Program – PWEA formed a 10-person ad-hoc committee on submitting a grant application. Decision made to submit application for a $15,000 seed grant and provide matching funds to develop a training program.
- Grant Initiative: Strategic Planning, Support of WEF’s goal to provide range of professional contact and programming, provides for financial viability & operator training focus.
• Operator Training: Why reinvent the wheel? A better use of funds & curriculum development
Jim Kern (PA WEA) – PWEA’s Hybrid Operator Training – The grant provides us a book – go teach. Who is our target audience? The bulk of the people are not operators. They are people who want Professional development and continuing education (smallest group).

• Assumptions: There are community colleges offering intro. Wastewater training courses. Tough to recruit new students.

• Going Virtual: Made before the pandemic. We attracted in state and out of state students of PA. Able to attract retired & experienced instructors no matter where they reside. Reduced the cost of training (no rent of facilities).

• Hybrid Course (why)? Format is used extensively in post-secondary education. Virtual live instructor, students must provide responses during class. Homework assignments & live help via email throughout class. Written chapter exam at end of class/course.

• Wanted weekly 2-hour live seminar sections, 2-hour reading assignments, weekly test, written chapter exams, courses last no more than 2 mos.

• Course Breakdown: 8 courses operating on a rotating basis.

• Lessons learned: Limit the class size to 25. Choose your software wisely (we use AnyMeeting). You need a course moderator. Instructors must be proficient with the software.

• Virtual has a permanent place in our operator training toolbox.

Questions:
• How do students register for the course? It is at the PWEA website or via PWEA email blast.

• Has the training lead to any new certified operators? The course has helped them prepare for the exam.

• Would they take the course through PWEA, not through a college? Information and registration links for each course are on PWEA’s continuing education webpage. We also issue email blasts marketing a course that is open for registration.

Breakout Session Question: How has your MA adapted to operator training needs in the current environment and what challenges have you encountered along the way?

• Valerie Lucas (KY-TN): We are taking our webinars and transferring them to on-demand learning. We are getting more non-members taking the training.

• Scott Foley (MO WEA): MO DNR does the training for operators. We do not have the opportunity to be the sole source of training. They have been doing virtual training. We do, however, provide workshops for PDH’s.
• Leigh Blecki (VA WEA): We have a program with V-tech which is virtual. We have our annual meeting and there are operator tracks. People can do this virtually too. We had operator training over the summer; 1 day in June for in-person training and some online sessions.

• Dr. J. Retherford (CWP KY-TN) Told the group about a book titled, “Small Teachings”. Small Teaching Online by Darby & Lang is a good resource, easy to read, and could be useful to create good quality curriculum without earning a master’s degree in education!

Report Out

• Lou Storino (Central States WEA): NEWEA has a sister organization NEIWPCC that does operator training. They were able to pivot to provide all training online. Indiana WEA – Not able to get out to rural areas. Hoping virtual opportunities will reach them. On-line training draws 30-40 people. Illinois WEA – Had been planning on-line virtual for some time. The pandemic accelerated the schedule. IWEA was able to roll out its program with 20-30 in attendance.

• Laura Oakes (Chesapeake WEA) - virtual training session with w/ww operator organization. PWEA - in person training, limited attendance with larger rooms; like in-person training and minutes; low attendance at virtual plant tours; some virtual training courses that have been filling up; challenges to get certified credit hours for virtual courses has been difficult; not approving credits for the virtual plant tours. Kansas - talked about larger member cities hosting onsite at facilities and do virtual for smaller municipalities (hybrid); in-person conference in September; been more difficult to get CEUs virtual. FWQA - neighboring jurisdictions handle that; operate different in DC. Pacific NW - Virtual lunch and learns to connect vendors with operators; sponsored by vendors to cover expenses with some profit and offer CEUs to operators who need credit; 25-30 first and 50 second event; received good feedback; regulators have been easier to receive CEU’s. Atlantic Canada - 100% virtual; manufacturer reps, etc. provide training.

• Cheryl Paulin (Chesapeake, PA & VA WEA): - Virtual training and works with WWOA for training. Many had lack of experience with using the virtual software.

• Dale Miller (Atlantic Canada): Canada has partnered with training providers to offer training. Arizona has offered training at their virtual conference. Ohio offered almost too much virtual training and has now more focused their training.

• Stefanie Farrell (VA WEA) - organized through VT, moved to virtual platform.

• Doug Pike (PA WEA): Room 4 was mostly PWEA members. we got sidetracked to talking about what was needed to be an operator and what the job market was.

• Dale Miller (Atlantic Canada): Canada has partnered with training providers to offer training. Arizona has offered training at their virtual conference. Ohio offered almost too much virtual training and has now more focused their training.
• Cheryl Paulin (Chesapeake, PA & VA WEA): Nebraska - virtual conferences to reach all parts of the state. Kansas extended time frame for certifications. Helped with virtual training. Helped reduce pressure with training.

• Kim Furry (OH WEA): PA provided their information during the presentation; Ohio is planning to do in-person courses like PA starting this Fall using the WEF Fundamentals manuals; most everyone is doing quite a bit of virtual training still using webinars; NEWEA doesn't do operator certification training but does perform collection and lab volunteer certification and training.

• Jamie Eichenberger (Rocky Mountain WEA): We had a good mix of training between prerecorded and live session have been offered. PNCWA has had a bi-weekly seminar series worth 0.1 CEUs led by the manufacturing community within the MA. Sessions are sponsored to offset costs. Free for members or $25 for non-members. PWEA is offering online training with an upcoming lab-ethics training. The certification board is limiting sessions to 2hrs/day. CWEA is seeing an increasing need for operator training, although they have few operator members (opportunity!). Indiana leveraged their annual conference to provide content for 3 months after the event. Some attendees have gotten more than 24 hours of training! Some challenges are tracking CEEUs and differences between states/regions on what is acceptable. The idea of a "producer" to handle to technical parts of the presentation, letting the presenters focus on content.

• Kylee Daily (IN WEA): We talked about our conference and offered 3 mos. after the event and willing to talk about this after this event. Are we going to get enough attendees? You may want to cap how long an attendee has to watch an on-demand presentation.

• Robert Wither (NY WEA): Several have converted in-person programs to virtual programs that may have multiple sessions. Agreed that having MA staff able to handle the training platform, registration, etc. helped with the success of the virtual training. Alaska operators experiencing Zoom burnout. NY still offering some required operator certification training; however, class sizes are at 50% and significant backlog of operators trying to become certified. Difficulty with converting these class to a virtual format and obtain state approval.

• Mike Welke (OH WEA): We are working with AWWA and trying to work with a good balance regarding virtual v in-person to not shortchange the operators.

• Jim Degnan (PA WEA) thanked the sponsors.
Session II - WEFMAX MA Topic
Chat Moderator: Megan Fenstem

- **MA Engagement with Academic Institutions**
  Learn How CWP-KT is Engaging Students and Academics

  Clean Water Professionals – KT – Stefanie Farrell & Dr. Jenny Retherford

- **Stephanie Farrell (CWP KY-TN):** Engagement Achievements in TN: Clean water starts with us. WEF estimates 220,000 water job openings every year from now until 2026. WERF projects 1/3 of current water workers will be seeking retirement in next 10 years. Only 15% of workforce are women.

- **Dr. Jenny Retherford (CWP KY-TN):** Existing Structure, intentional collaboration reflects well-articulated goals, integration into existing programming, champions (well established group of people supporting these goals.)

- Offering mentorship is our goal (encouragement and excitement). The students engaged with each other and they shared experiences as others in the MA may not be able to do with the students. They come and are asked to take notes and the legacy teams makes observations. Involvement in the annual conference is important and mentorship is gained, and students participate in student design competition.

- Dr. Retherford (CWP KY-TN) shared a video of student testimonials. We have had teams since 2017.

Questions:

- **From Mike Milius (Nebraska WEA):** From a Professors standpoint, what is the key things you need from your MA? Need someone/staff to be engaged on a regular basis. Sue even gave her cell number to students, for example. Be thoughtful in emails, etc.

- **Susan Boynton (PA WEA):** How many WEF textbooks have been shipped to hybrid course registrants? 100 books have been shipped to date with another 25-30 expected to be shipped in the next month.

- **From Michael Sedon (PA WEA):** How does an MA find a champion for such a program? Faculty have energy but little time. Find a professor who is responsible and how is mid-career and already tenured and has the time to do outreach and have the time to volunteer. The fit needs to be doing something on their side which fits well with the goal.

- **From Mike Welke (OH WEA):** How many students do you see going through the student design program? Between 4-6.

- **From Tom Galeziewski (AZ Water):** How is the legacy team selected for the Student Design Competition? Dr. Retherford pics her own team and nudges them. The students are required to travel in the Fall, work on their project for a year, travel I the summer for the annual conference
and then to WEFTEC in the Fall. They need to commit. 80% students are looking for a career to connect at the state level and they move into a career in water as well as joining CWP.

**MA Engagement with Academic Institutions Breakout Session Question:** How is your MA engaging students/faculty through student activities and student chapters?

**Report Out:**

- **Brandon Fox (OH WEA):** We are trying to get the young students interested. Need a champion who can lead. We have not found it at the state level yet.

- **Mike Milius (Nebraska WEA):** None of our universities are involved in the SDC.

- **Tom Galeziewski (AZ Water):** We have 3 major state universities which compete to be the rep for SDC at WEFTEC. We had a team in 2019. The winning team last year decided to not go virtual. In Jan we have a research seminar where we solicit papers from Universities which gives us contact with staff and students working on research. At the annual conference, we have a poster competition. The winner goes to WEFTEC. Also, one advantage of virtual, is you can get non-local speakers.

- **Leigh Blecki (VA WEA):** We have six chapters and mentors for each chapter. We have had our SDC and not sure how many students participated due to COVID-19. At the State annual meeting, we have a poster competition and the digital knowledge competition. The digital knowledge competition – one min video showed at the annual MA conference. We participate in the SJWP at the HS level.

- **Jessica Shiao (Chesapeake WEA):** I am part of CWEA in Maryland. We have typically had teams compete from only one local university consistently, but we are working on networking with professors at other universities to try to increase participation and competition.

- **Brandon Fox (OH WEA):** We need to get face-to-face. However, the tools/tech. today allow us to do things we have never done before.

- **Laura Oakes (Chesapeake WEA) - Board Meetings at Universities; 2 student chapter Ohio - 4 sections; Northeast - 4th year; up to 4 schools - started with small school and encouraged larger schools to also compete; very successful; multiple teams from each school; half who compete go on into the water world. Illinois - student design competition 2nd year; 4 teams both years; 2 dropped out this year; new student chapter starting up in Chicago; rough year for organizing school events; few teams lined up for next year; In-flow program along with WEFs - contact universities to invite students to the conference; attendance up due to virtual; no overlapping tracks more seasoned professionals are attending and interacting with students. PWEA - Have in person board meetings at university in middle of the state; participate in Stockholm water prize; annual conference in person sometimes held at Penn State (70% of time) and will present.

- **Doug Pike (PA WEA):** A rivalry between two schools, took advantage of student chapters and teamed with ASCE.
Peter Garvey (NEWEA) to Everyone: Indiana – YP committee, leadership development institute, free registration to annual conference (lowish turnout)
NEWEA – student poster, committees encouraged to reach outreach, MWEA – limited outreach to academia. Transportation side of engineering tends to get more traction.
All agree – need to do more, we are the ‘invisible infrastructure’ – makes it harder. What about the pipeline of operators – can be even harder. Get access to student before they even get to college – or they may go to the transportation side. Municipalities bringing in student interns – get them interested, make them aware, inform them. Consider virtual tours for students using drone and 4D tours. More outreach to guidance counsellors – informs them, that there are real career opportunities available.

Stefanie Farrell (CWP KY-TN) shared Chesapeake WEA - YP Committee conducted a student Mixer which allowed students to engage and ask questions of professionals. Ohio WEA - send student team to WEFTEC to compete, looking to expand to new universities, YP/Student Mixer to expand to include collection system, treatment plant, and engineering over 100 participants. Faculty is difficult to engage. Chesapeake has Student Liaison to help keep communication channels open. Invite Faculty to meetings.

Scott Foley (Missouri WEA): Finding the right sponsor in University, that has passion.

Christina Smith (NEWEA): New England YP Summit is annual as is the design presentation and a networking after hour session.

Recruiting and Maintaining Members
Learn How NEWEA is Using Innovation to Engage New Members
Presenters: James Barsanti & Peter Garvey (NEWEA WEF Delegates)

• NEWEA founded in 1929, Reps. Six states with 2,500 members.
• Boston is the annual conference.
• Spring meeting rotates amongst six member States.
• Additional specialty conferences (6/year)
• Over 40 Active Committees
• We have a council director overseeing the Committees.

Slide Presentation: Merger & innovation to keep/engage the member.

• NEWEA & NEWIN Merger finalized in Jan. 2020. Innovation Merger was created due to EPA’s water clusters est. a few years ago.
• Water Cluster of 300 companies
• Working on new ways to bring diverse stakeholders together (regulators, startups, utilities, consultants & equipment providers)
• Symbiotic Relationship between NEWIN & NEWEA – Natural Fit.
• We have an innovation pavilion modeled like WEF. Been active since 2019. We ask, “What are the challenges of innovation adoption?”
• Innovation means “new”. What new things can we (NEWEA) be doing? We have pitch nights, Reverse Pitch Webinars and established an Innovation Council (IC) and an IC director.
• Workforce Development: DE&I committee established in 2020. Sponsored webinar on workforce development—Reaching underserved communities. The committee has been extremely active, and the makeup represents the cross-section of our society. We have had a webinar to reach out to others about who/what we are and to involve them in our industry.

• Water professionals are essential employees who also serve as first responders.

Media: Pete Garvey shared a video

Questions:
• How does innovation affect growth? The software companies should be able to exhibit in our exhibit hall/innovation pavilion.

• Michael Sedon (PA WEA); what is the main barrier to growth? Our membership has been growing especially with YP’s. We have had luck with the Students and Universities. But barriers might be with identifying new stakeholders and acquiring more volunteers by reaching out to new segments of society.

• Scott Foley (Missouri WEA): Added, “We always need new blood and to ask, ‘what benefits do I get by joining?’”

• Mary Barry (NEWEA): Barriers to new members is recognition of this being an industry which will not ship jobs abroad, you will have a career, advancement, and we are very proactive about getting this message out. Getting people to understand this is a profession is crucial.

Breakout Question: Recruiting and Maintaining Members Breakout Session Question: What is your MA doing to maintain and increase membership?

• Laura Oakes (Chesapeake WEA): We are actively on social media, showing volunteer member spotlights (FB, etc.). Keeping ourselves in front of people. Once we get the CWA “out there” more often, we will see a difference, but it’s too early to tell.

• Mike Welke (OH WEA): in 2008 we have had a small drop but since then, we have maintained our numbers. Our virtual events/On Demand has kept operators interested. Offer free student memberships for 50 students.

• Haley Falconer (Pacific NW CWA): We have not seen a drop. Growth has not been the target this year, we are solvent, and we will make it though. We focus on our committees. We are interested in students and a push for the work force and looking for ways to double down on our conference and attract other groups involvement.

• Hannah Fodor (Rocky Mountain WEA): Since last year, our membership numbers were starting to drop faster than historically. Membership numbers are cyclic, but it is alarming. We are at 1,200 members and were at 1,400. We have a membership committee which focuses well on YP’s and students, but we need to look at who we have lost via a root cause analysis.

• Lisa Webb (PA WEA): Our membership is holding at 1,500. We would like to have a larger social media presence.
Report Out:

- From Laura Oakes (Chesapeake WEA) - virtual content, social meeting, member spotlights, stay in front of people. Ohio - Small drop, members solid, drop a few at beginning year, virtual events keep frontline operators as members; 50 free student memberships, paying for student design comp membership; trying to maintain retirees.

- Pacific NCWA – We have not seen a drop in membership; growth is not the goal this year; focus on committees and waning participation and engagements; push on students and workforce; bring in new groups to conference credits for legal; large companies doing water work. Rocky Mountain - since last year before COVID membership rates started to drop; have seen historic cycles in membership; now 1200 were 1400; would like to make membership a focus - committee focuses on students and YP’s; need to do a root cause analysis.

- PWEA - membership is holding; would like to push a social media presence.

- From Christina Smith: (Chesapeake) CWEA - Membership numbers are successful when the conference is annual. There are events at the beach to help create an environment that is light, casual, and fun. Not many suits presenting. It encourages people to join as members. Keeping engagement with happy hours with trivia night. The board and especially the executive board reach out to different committees to make sure experiences are shared and events online to share activities. It worked, not the same. Operating procedure committees took time this year to work on things there is never time to do normally. They requested skills of members to help with tasks. Texas – Reach out to utilities to offer membership discounts to utilities. Heavily pushing workforce development program. New England – kept the ball rolling with specialty conferences. Merger brought in different members from the private sectors. Vendors and new products are encouraged. YP service projects in the spring meeting the first week of June.

- From Peter Cavagnaro (Michigan WEA): Breakout Room 9 - Covid has had an impact over the past year. Providing networking opportunities are important, economic factors (employer support), and topics of current interest.

- From Christina Smith (Chesapeake WEA): New England – kept the ball rolling with specialty conferences. Merger brought in different members from the private sectors. Vendors and new products are encouraged. YP service projects in the spring meeting the first week of June. They are a HUGE part of the organization. PAWEA: Newsletter created to engage membership. Executive board and committee chairs (25-30 people) Asked that each person engage with a young person to draw in new members. Reaching out to the students via the universities and colleges. Rivers clean up engages the community and can glean members.

- From Ellen Frketic (Chesapeake WEA): One of our members is a member of ASCE - she mentioned they have a program to "Ask a Friend" to attend meetings with them. People are more inclined to participate if they are asked and know someone there.

- Dr. Jenny Retherford (CWP KY-TN): Mentorship is valuable. Having someone who can mentor & introduce you to the group is important to have in the workplace.
• Linda Leopold: How to get students engaged; Use social media for networking; Find ways to appeal to people to get engaged in the profession

• Megan Fenstemaker (MI WEA): Get involved in the WEF Service Project program – big draw for students.

• Dr. Jenny Retherford (CWP KY-TN): Get workplace management support to be engaged in a professional organization.

**David Brown** (PWEA President): Thank you for joining and please join the next WEFMAX May 6, 2021. Please stick around for BINGO!