Morning Sessions:

Recreational Waters Manager Training
This session will provide information for anyone new to the field. The session will provide the background on the risks posed to people using a waterbody for swimming and other recreational activities. There will also be a discussion of tools to assess and address risk: basic information on monitoring for fecal indicator bacteria and harmful algal blooms (HABs), locating sources through sanitary surveys, communicating to and notifying the public and remediating to restore waterbodies.

Field trip(s)
For those not attending the training session, a field trip(s) will be offered. The field trip(s) will depend on weather conditions and availability. Currently, local recreational water bodies are being considered to demonstrate monitoring techniques, remediation efforts and the soon-to-be-released EPA Sanitary Survey App.

Afternoon Sessions:
Plenary Speaker and Introductions (TBD)

Risks to Recreation
There will be a discussion of current risks from fecal contamination and cyantoxins (as a result of harmful algal blooms, HABs). There will be a discussion of recent EPA water quality criteria and tools for recreational waters, state programs, CDC HAB reporting system and trends in recreational water quality. This session may also include a case study on an impacted recreational waterbody and the community.

Wednesday April 22, 2020

Morning Sessions:
Advances in Monitoring, Approaches and Technology
The goal of this session is to discuss implementation of current methods as well as highlight new approaches and technologies to improve the capability of programs to detect HABs, their toxins and fecal contamination. One session may focus on new monitoring methods such as DNA-based methods. A second session will focus on remote sensing and other technologies.

Afternoon Sessions:
Notification and Risk communication
This session will discuss approaches to communicating with the public the economic and health risks from contaminated recreational waters. It will also discuss the actions a waterbody manager can take to close or post a notification as well as lift a closure or notification. There are many new communication tools using social media and other apps. Examples of communication planning and implementation will be provided.

Evening Poster Session:
Anyone is encouraged to submit a poster abstract describing research, or projects related to recreational waterbody management, remediation, notification, monitoring or stewardship.

Thursday April 23, 2020

Morning Sessions:
Using Source Information to Return Waters to Recreational Use
This session will focus on tools (e.g., quantitative microbial risk assessment, microbial source tracking and sanitary surveys) to inform any remediation effort in waters that are fecally or HAB contaminated as well as enlisting support from the public.

**Returning waters to Recreational Use**
This session will include remediation success stories and lessons learned. Topics will include preventing or reducing nutrients and blooms, identifying sources of sewage and other sources of fecal contamination, identifying and reducing agricultural and wildlife impacts; and using tools to pursue water quality improvements.

**Afternoon Sessions:**
**Building Partnerships in Recreational Water Monitoring and Remediation**
This session aims to highlight collaborative monitoring efforts and emphasize the benefit of collaborations between academia, state and national agencies, tribal governments, and citizen science groups. There will be a discussion of the US EPA Citizen Science Vision and quality assurance template for citizen scientists as well as examples of successful partnerships to monitor, communicate and reduce the impact of HABs and fecal contamination.

**Stakeholder Break Out Groups**
If there is interest (sign up will be requested during registration), the workshop will provide an opportunity for stakeholder groups (e.g., citizen science, BEACH Act programs, and tribes) or topics (e.g., sand and users of DNA-based monitoring techniques) to meet separately.

**Friday April 24, 2020**
**What’s Next? Emerging Concerns**
Speakers will discuss the emerging issues of concern in recreational waters. Topics may include: coliphage as a viral fecal indicator, antimicrobial resistant pathogens, extreme weather event impact on water quality, and occurrence of vibrio in new locations.

**Wrap Up**
Final discussion of the conference.

Conference will end by noon.