

Examples of responses to Icebreaker question: what keeps you up at night when it comes to climate change?

Captured some names/organizations in terms of responses

- Compounding impacts of SLR, drought, increasing precipitation, extreme storms, etc. (Julia R.)
- Salinity (Anika Atkinson)
- Flooding/extreme precipitation, rising water levels (Sarah Bersky, NPS)
- Localized flooding and riverine flooding from extreme storms (Sunah B.)
- Rising water temperatures; increased land development and land use changes and how all of that plays into flooding, water temps, etc. (Donna Kohut, PennFuture)
- Keeping critical services going despite flooding and other difficult weather patterns (Skelly H, WRA DRB)
- Flooding (Ellen McCray, NOAA)
- Water temperature and impacts to ecological systems and local habitat (Emily Goldstein)
- Flooding/storms (Haley)
- Drought conditions and contaminants that would foul water treatment system (Jessica Hartley, Vicinity Energy)
- Uncertainty and non-stationarity (Howard Neukrug, Penn Water Center)
- Uncertainty and unpredictability (Kathy Klein, PDE)
- Changing precipitation patterns – hydrology and flow management impacts, snowpack, seasonality of flows (Kristen Kavanaugh, DRBC)
- Flooding (Ellen K., Penn Water Center)
- Cost of mitigation (Nicole Lick, EPA)
- Addressing funding of climate-resilient solutions, especially in terms of conveying increasing stormwater volumes (Lindsay Sigmund, NJ Future)
- Flooding and rising water levels (Martha Maxwell Doyle, PDE)
- Flooding; how best to communicate on impacts, the why, what and actionable steps (Emily Douglas, SEA Grant)
- Water/land interface and combined systems; rising rivers and ecological stressors (Frank McGlaughlin, NJDEP)
- Flooding and extreme heat events (Zach Nemock)
- Combined flooding and SLR (Scott Northy)
- Extreme heat – the climate outcome that kills the most people (Patty Elkis, DVRPC)
- Flooding (Ray Kruslow, NWS)
- Flooding and required funding for preparedness (Renee Weber)
- Community engagement and doing it more effectively (Richard Johnson)
- Flooding and funding connection (Shawn Rodier)
- Interplay w/sprawling development and exacerbation of impacts from storms (Todd Sampsell)
- Disadvantaged communities and ability to respond to heating and flooding events (Drew Shaw)
- Flooding and flow rates; heat events and community safety; worker safety (Tom Reeber)
- Protecting communities from flooding and rising temperatures (Olivia Wilson)
- Flooding; points of connection w/infrastructure and waterfront and ability to convey flow appropriately to the river given what we're seeing with SLR, storm surge and elevated flows (Marc C., PWD)
- Water and infrastructure connection and impacts; education's role in resiliency and personal impacts (Kim Long)

- Equity in terms of funding (Sarah Crothers Bach)

Background: Setting the Water Table – the Goal (KA)

- Funding from WPF to explore goal of Water Table by bringing 3 sectors together: non-profit conservation organizations, water users (utility and governments), regulatory agencies
- Goals: open doors, get to know more water colleagues, move the needle on improving WQ
- Phase 1: DVRPC was PM
- Phase 2: PDE is PM

Takeaways from interviewees in Phase 1

Biggest hurdles toward improving WQ

- Appreciation (lack of engagement, sense of urgency, representation, understanding the value)
- Funding (aging infrastructure, SW mgmt., CSOs)
- Collaboration (polarization, silos, lack of cross-sector relationships)
- Knowledge (climate change, emerging contaminants, staff turnover and retirements)
- DEIJ (equitable access to the river, EJ, inclusive career opportunities, lack of compassion)
- Regulations (ineffective, enforcement, fractured)
- Miscellaneous (fracking, brownfields, plastics and trash, salt use for de-icing, drought, detachment to river due to perception of its pollution)

Why are cross-sectoral partnerships not more common?

- Time: emphasis on efficiency leads to not wanting to develop partnerships; everyone not on same page and can be too time-consuming to sort out
- Funding: no one wants to pay for collaboration, only for projects
- Relationships: easier to stick to relationships one has than build new; learned biases, fear of getting burned, don't know who is doing what and what can bring to table, and tendency to stick to own circles due to mistrust
- Leadership: need champions to corral and convene people; can require identifying feasible projects to attract others

Phase 2

- Secured 2 additional years of funding with hope of identifying actionable projects (including leveraging funding from EPA – CCMP)
- PDE: climate change and EJ are 2 primary drivers of work right now. Spending infrastructure funding/federal dollars through climate and equity lens
- Shared priorities for which the multi-stakeholder group should take a leading and coordinating role:
 - o Coordinating existing and/or new sources of funding to increase impact on WQ
 - o Designing a shared regional identity/story
 - o Climate change
 - o Workforce development for the next generation of water professionals from diverse backgrounds

Guiding questions for climate subcommittee to consider

1. **What geography would we like to focus on?**
 - a. Originally focused on DVRPC's 5-county planning region

- Alex Cupo: What happens in Philly doesn't happen in a vacuum – we need a regional approach. Mentioned downstream flooding caused by upstream impacts/heavy rain
- Donna K.: agree w/watershed-wide approach (*JR was kicked off call here and may have missed some comments*)
- Kristen K.: watershed-wide approach makes sense, and is same approach employed by DRBC ACCC; impacts presented aren't geographic-specific

2. Are there existing examples or case studies we should consider?

- a. KA mentioned DRBC ACCC, WUCA
- b. EJ activities (Jessica H.)

3. Would a clearinghouse be helpful?

- a. Jessica H. agrees sharing lessons learned would be helpful (to planners in other counties)
- b. Ellen K: clarified timeline (2 years) and the need to define what the ultimate goal is. What do we want to achieve on watershed-wide scale? What can we focus on in 2 years that can lead to something actionable?
- c. Seung B: from county standpoint, Chester developed climate action plan that contains actionable items. Projecting out to 2045
- d. Scott N. (Chemours company): SEC disclosures are an emphasis, and biodiversity disclosures. Don't know if this work is leverageable, but would be interesting to look into
- e. JR: mentioned bringing back WUCA information and resources to this group; WUCA and CCAP involved in tracking, understanding, keeping up with the evolving information/climate science

4. Other comments

- a. Ellen M. (NOAA): Third party climate information – sort out how that looks. Small group in NOAA working on this [actionable science?], including Ellen. What are our struggles? NOAA wants to understand this info
- b. It came up that Ellen has been working for years on effort to make the case/prioritize the updating of NOAA Atlas 14. NOAA Atlas 15 is in the works. This is an example of bridging the gap between climate service providers and practitioners.
- c. Alex Cupo: collaborative approach, addressing growing climate concerns through more holistic approach
- d. Marc C: how do we bring national, international info to this big stakeholder group? How do we collectively take what we know and what we're seeing to regional scale? Take advantage of expertise and roles? How do we use the talent in this region to mitigate effects of climate change?