



A ROAD MAP FOR THE DELAWARE

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THE WATER CENTER AT PENN

December 3, 2020

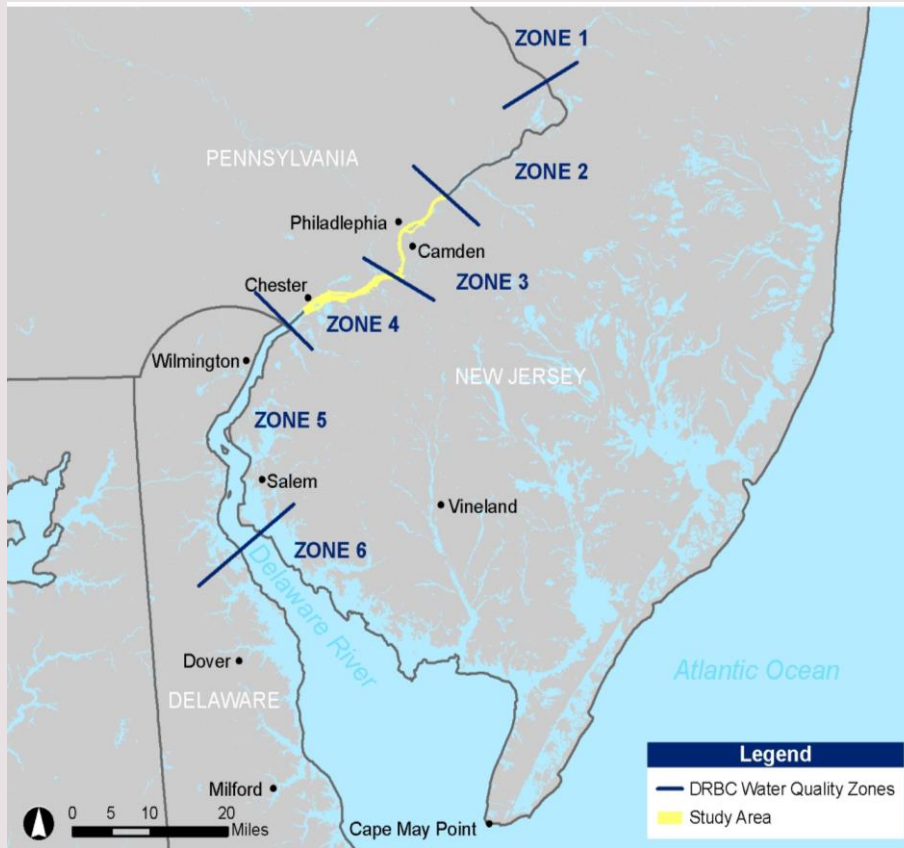
*Presented to an advisory committee of
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Project Overview

This study is:

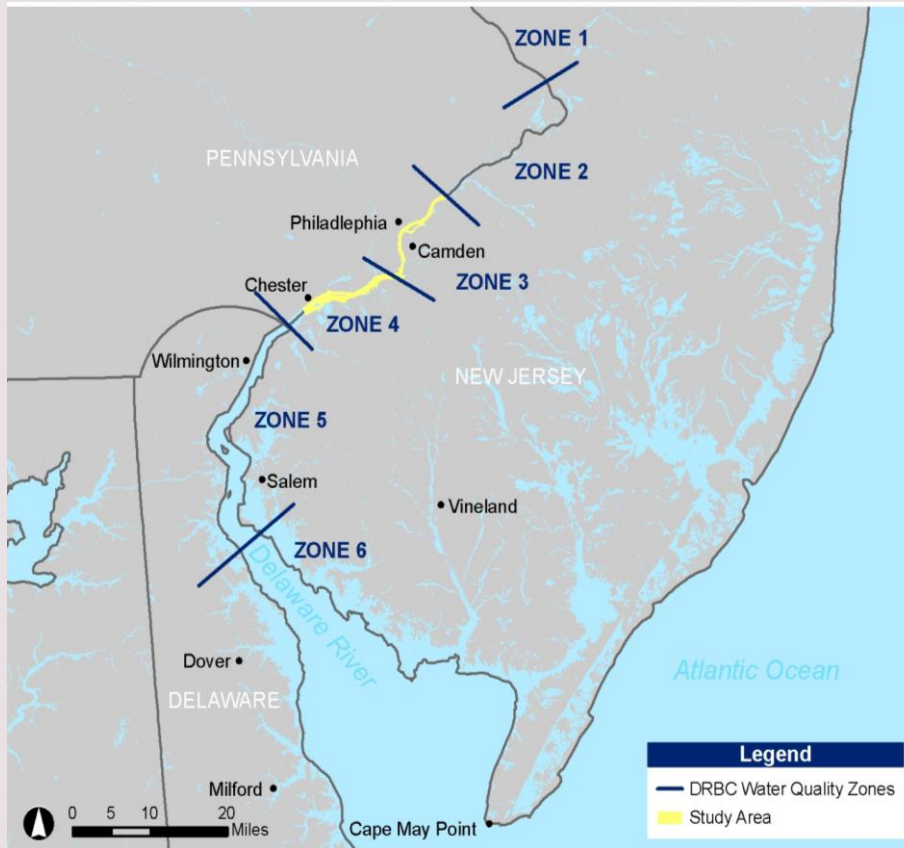
An independent, science-based feasibility study on improving water quality to achieve swimmable waters for a 27-mile stretch of the Delaware River at Philadelphia, Camden, and Chester.

Funding provided by the William Penn Foundation.



Project Team

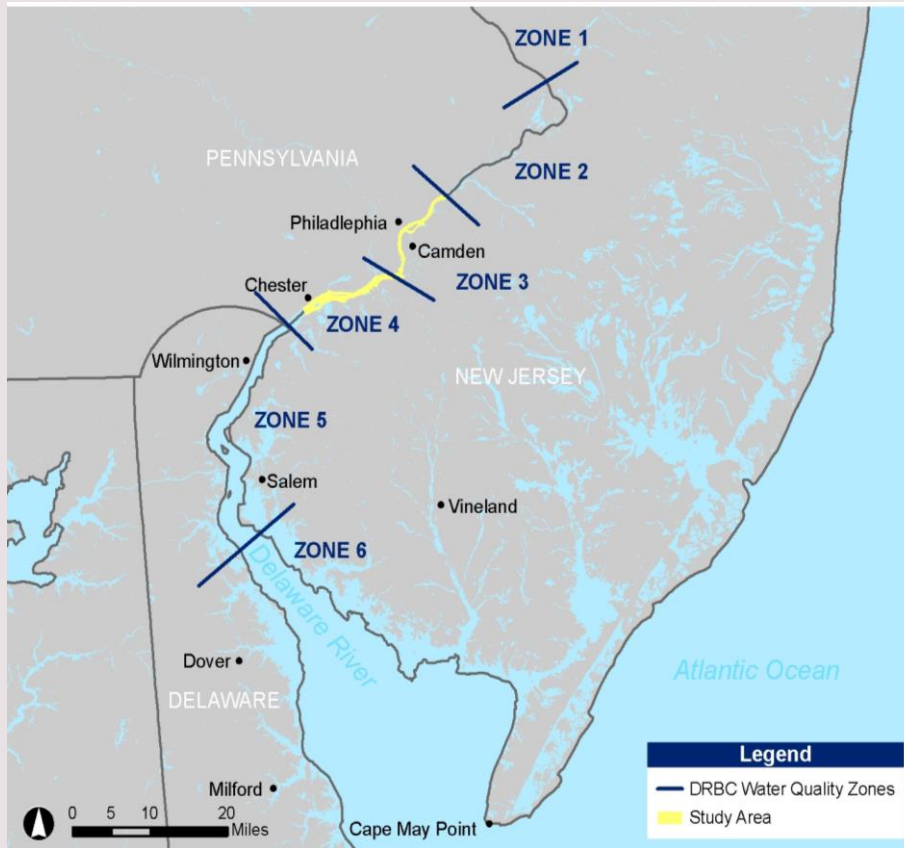
- Led by *The Water Center at Penn*
- Support from *Michael Baker International* and specialized individual team members
- Advisory Panel includes participants from other local academic and research institutions
- *Ongoing interaction with utilities, DRBC, municipalities, NGO's, and other stakeholders*



Project Overview

Three "Basic" Steps:

- 1) Understand the current state of knowledge in the study area, identify significant gaps
- 2) Understand (to the extent possible) the likely timing and extent of improvements from large ongoing investments by utilities
- 3) Identify opportunities (and associated costs) for additional targeted WQ improvements, and equitable access



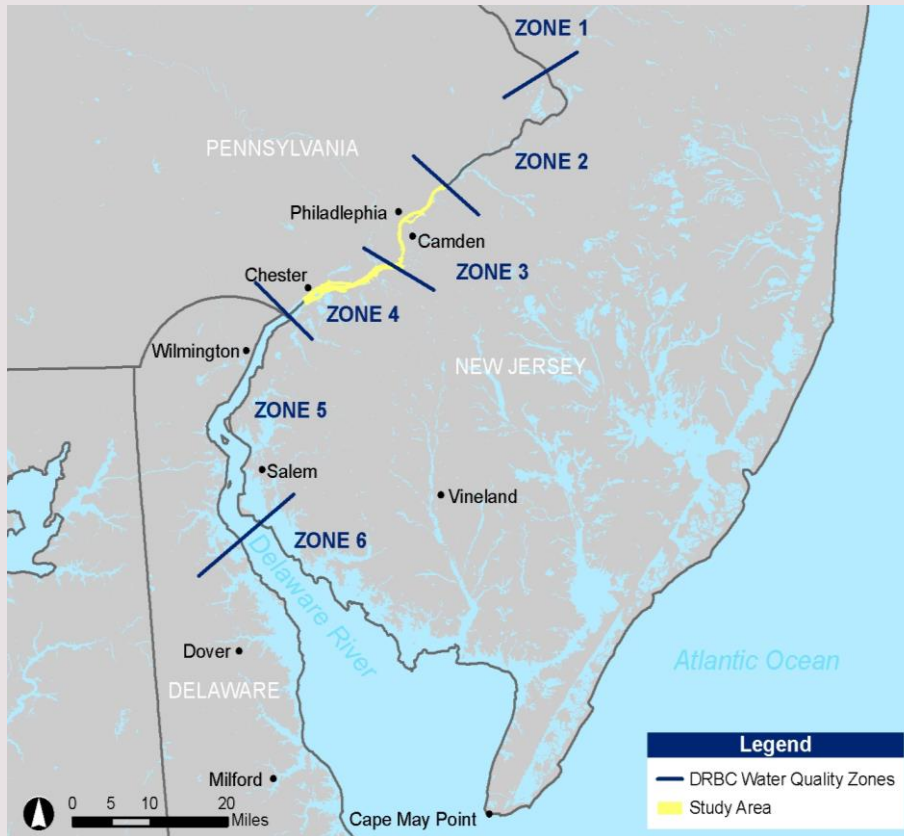
This study will not:

- Advocate for a specific path forward (aside from filling key data gaps)
- Advocate for specific policy or regulatory changes
- Extrapolate conclusions beyond what the data shows

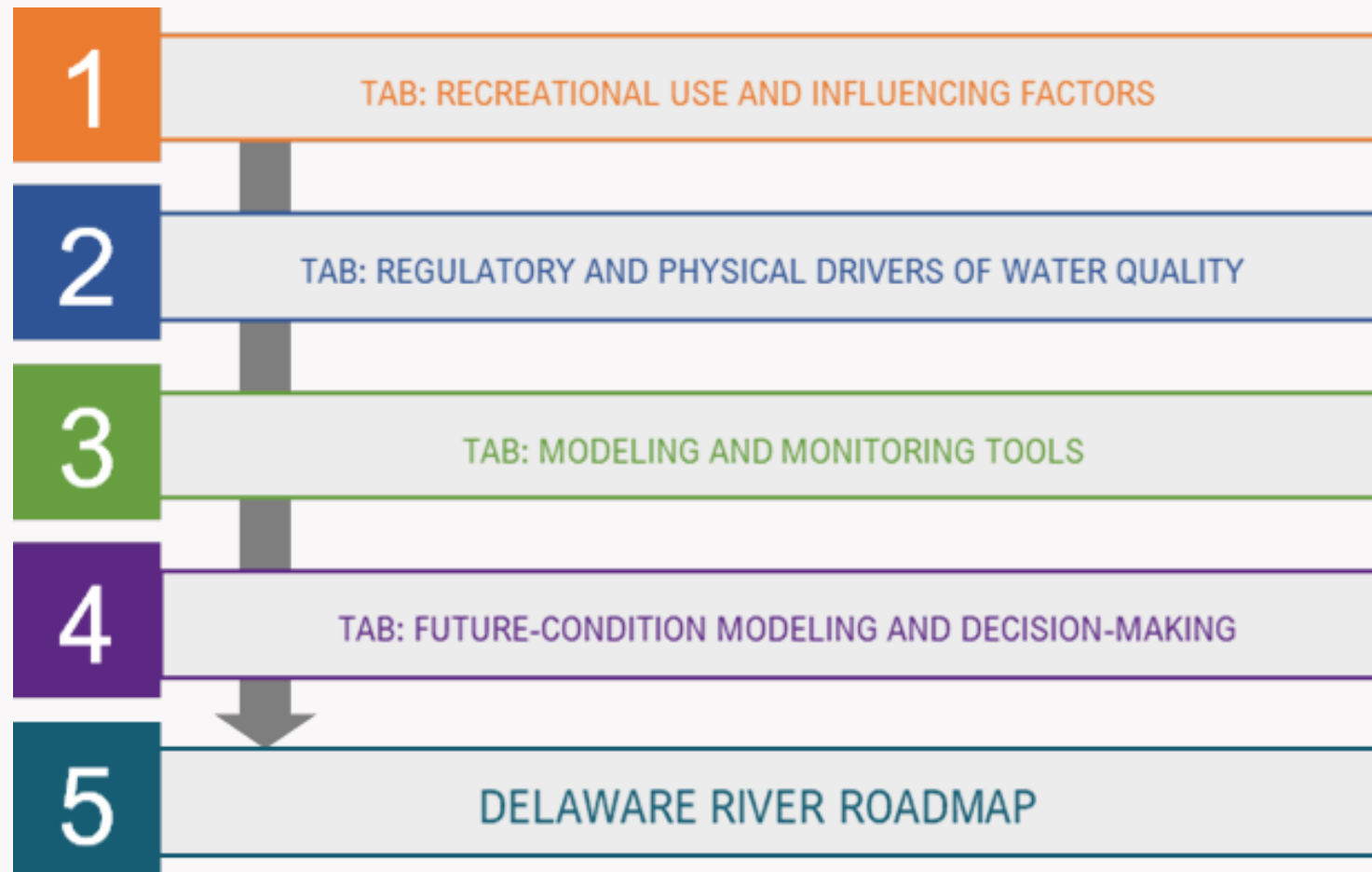
Describe do not
Prescribe

Maintain Neutrality

Stick to the Facts

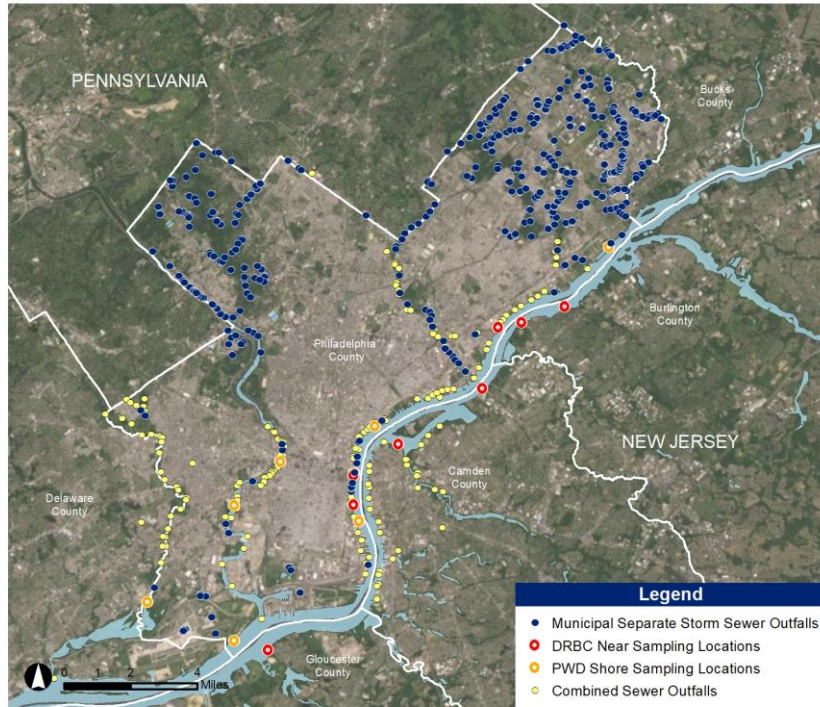


Project Outline



Key Challenges:

- Geographically Discrete data
- Complexity of bacterial data- Fecal Coliform vs. Enterococci vs E coli, analytical variability, mixing, fate of transport etc.
- Dozens of intermittent sources- mainstem CSO outfalls, tributaries, others - into a complex tidal system
- Near shore vs. center channel data
- Data sharing and coordination (we are getting cooperation- but 2020's been a challenge)



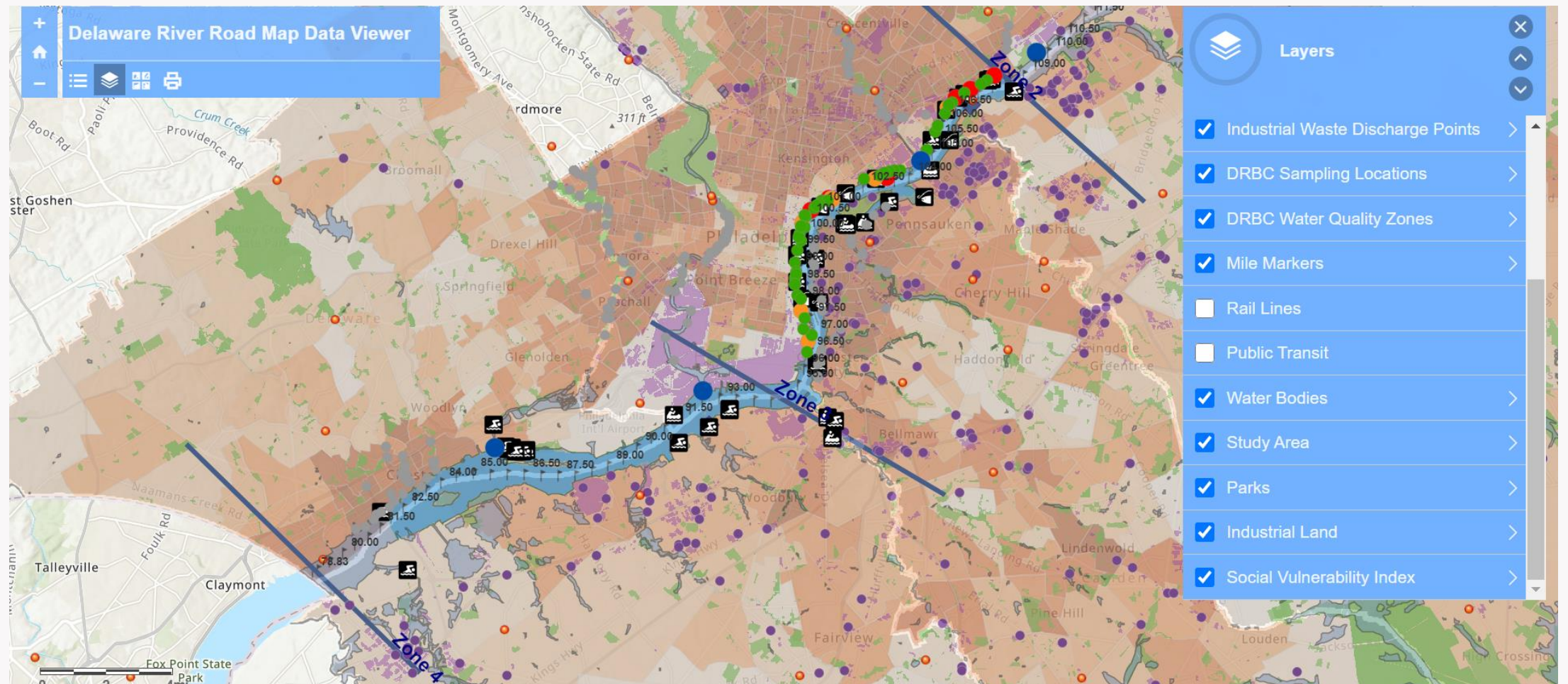
- **Overlaying geospatial data from multiple sources to understand where efforts may be best targeted (e.g., overlay of WQ data, social vulnerability index and current/planned access)**
- **Understanding trends and correlations, identifying key data gaps, model limitations, etc.**
- **Identifying technically feasible opportunities for better water quality (and better monitoring and modeling tools), sooner, in more places**
- ***This is a water quality study*, but other factors (e.g. physical hazards, access) will inform where more intensive WQ investigation might be best directed**



Developing a broadly accepted fact set.

...and providing stakeholders with options for discussion

In Progress: Interactive Data Viewer



Returning to the River

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Starting Point

- This section of the River has greatly improved due to the combination of federal, state and local regulatory, public utility and citizen action to reduce pollution.
- Many believe that additional action can be taken in the near future to improve water quality with the associated societal and economic benefits.
- While it is important to support safe and healthy activities on all sections of the River, we believe that it is especially important in this region which includes economically disadvantaged neighborhoods and areas with newly developed opportunities for recreational enjoyment and economic growth.
- Develop a strategy for reducing bacteria related pollution, working with people representing all aspects of its use, to increase opportunities for swimming and paddling in the Philadelphia/Camden/Chester areas of the Delaware River.

Goal

Promote fair and equitable opportunities to get more people, more often, in more places swimming, fishing, paddling and enjoying the 27 mile stretch of the Delaware River flowing past Philadelphia, Camden and Chester.

Stakeholder Engagement



Streamline messaging on information being produced by the RoadMap Team at WCP



Develop an engagement strategy at each stage



Invite additional stakeholder groups (beyond Advisory Committee) to participate in review and provide feedback



Approach

- Listen – respect the river users, communities as “experts”
- Identify and connect stakeholders around each stage
- Provide “space” to provide additional input and insights to WCP & feedback to stakeholders
- Build relationships to support/carry forward additional information development and implementation

