Delaware Ocean and Bay Plan

Ocean Acidification Considerations

Mollie Yacano, Ph.D. – Research Coordinator & Environmental Scientist V

DNREC – Climate, Coastal and Energy

Delaware National Estuarine Research Reserve, Delaware Coastal Programs

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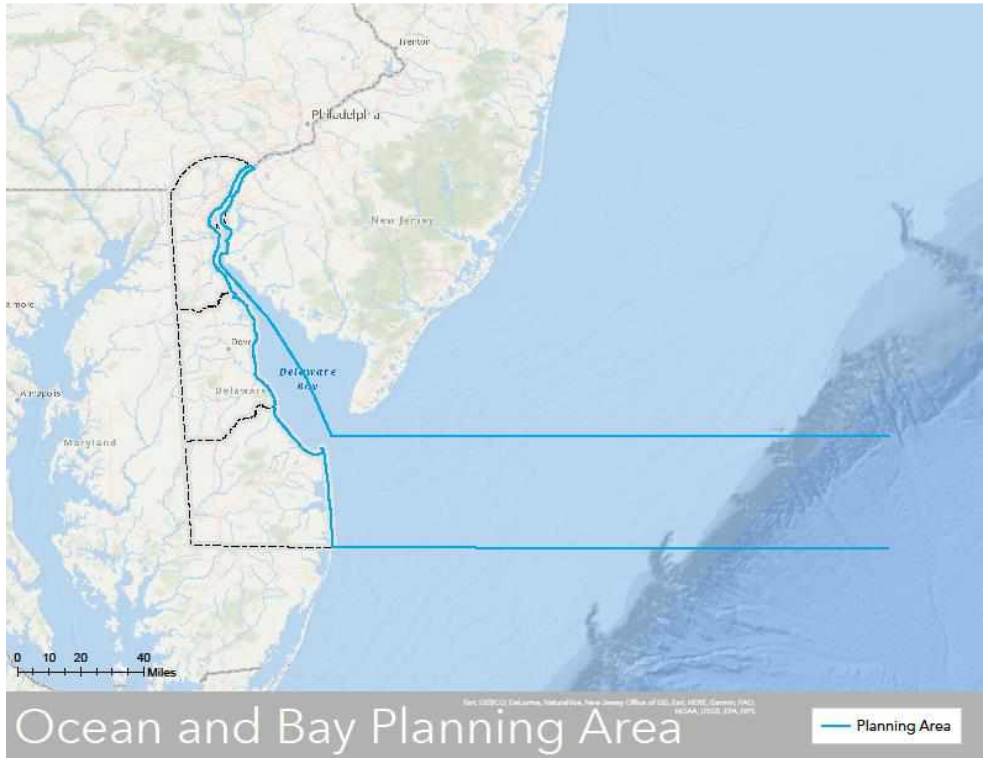
Plan Goals

- Understand interactions between marine uses and resources
- Consider strategies to balance and reduce conflict
- Explore impacts of climate change
- Identify gaps and needs in marine resource management

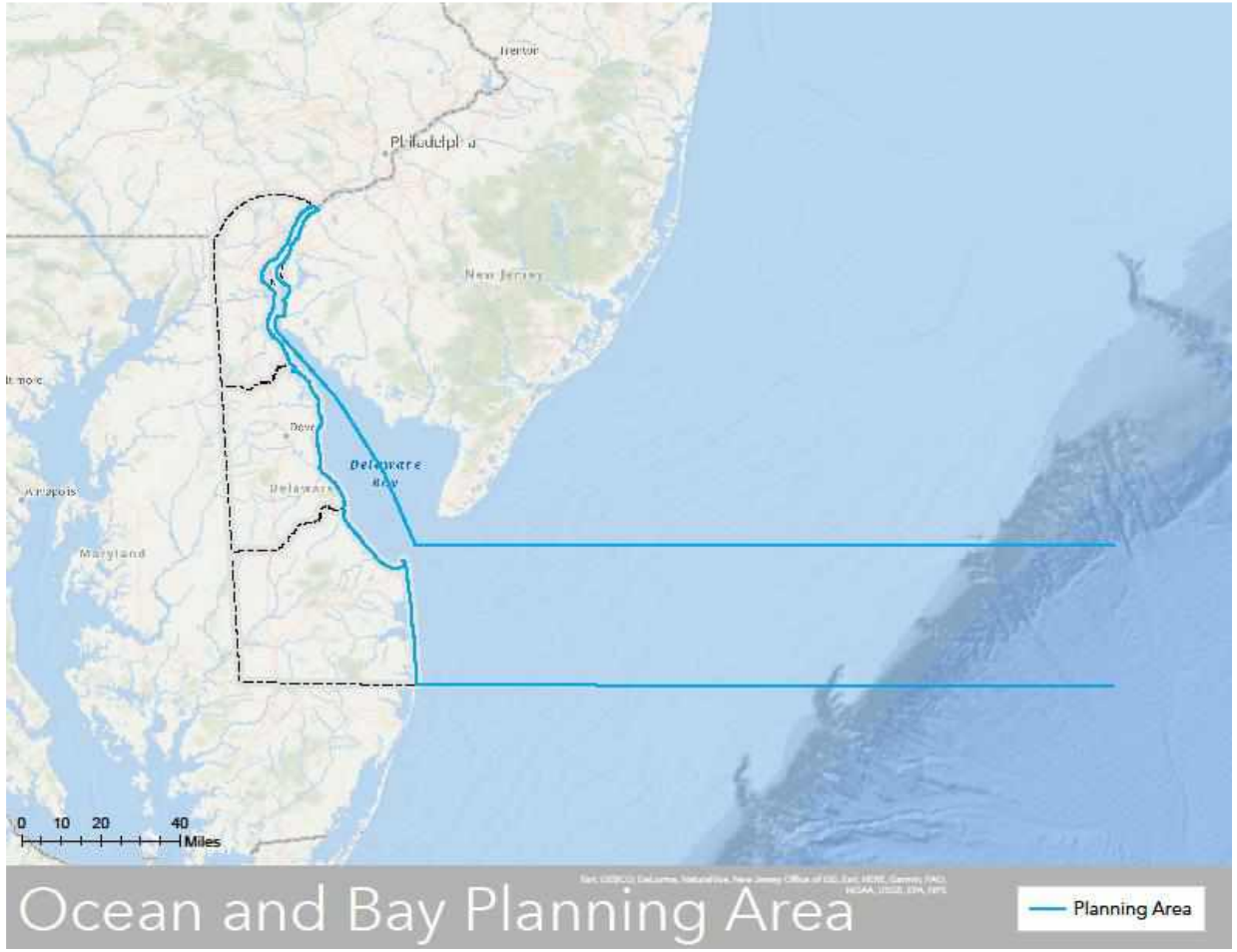
Components

- Reference Document (Plan)
  - Identify and characterize uses and resources
  - Characterize interactions between activities and marine resources
  - Describe current and projected climate change impacts on these resources
  - Identify gaps
  - Suggest best practices

- Visualization Tool



Planning Area



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Development Process

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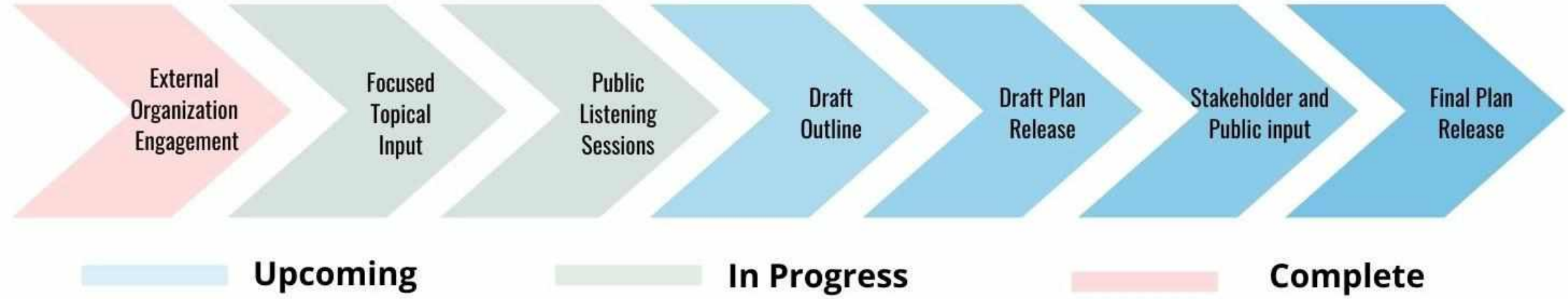

Ocean Acidification Considerations

- Will describe the process and impacts of acidification in Delaware's marine environment and demonstrate efforts underway to address ocean acidification.
  - Implications to shellfish industry and aquaculture in Delaware
- High-level strategies to address acidification in Delaware
  - Climate mitigation
    - Delaware Climate Action Plan
  - Research
  - Education

DEIJA Considerations

- DNREC initiatives
  - Environmental Justice coordinator – Dr. Katera Moore
- Delaware Coastal Programs helped fund a study conducted by Delaware State University, the only historically black university in the state, to assess DNREC's public engagement and recommend areas for improvement.
  - Best practices for engagement to include signage and webpage communications
- Ocean and Bay Plan listening session materials translated to Spanish and Haitian-Creole

Margaret A. Davidson Fellowship

Management Need:

Coastal acidification and hypoxia is an emerging concern and could have significant impacts on the ecosystems of Delaware Bay, but we have very little data which robustly monitors the carbonate chemistry and/or effects on Delaware's coastal environment. Therefore, we need research which can best categorize carbonate chemistry baselines, ranges, and variability at different timelines and/or localized ecosystem effects of coastal acidification.

Our fellow

Elizabeth Whitney,
Davidson Fellow, PhD Candidate

Delaware National Estuarine Research Reserve

University of Delaware

Award NA22NOS4200045

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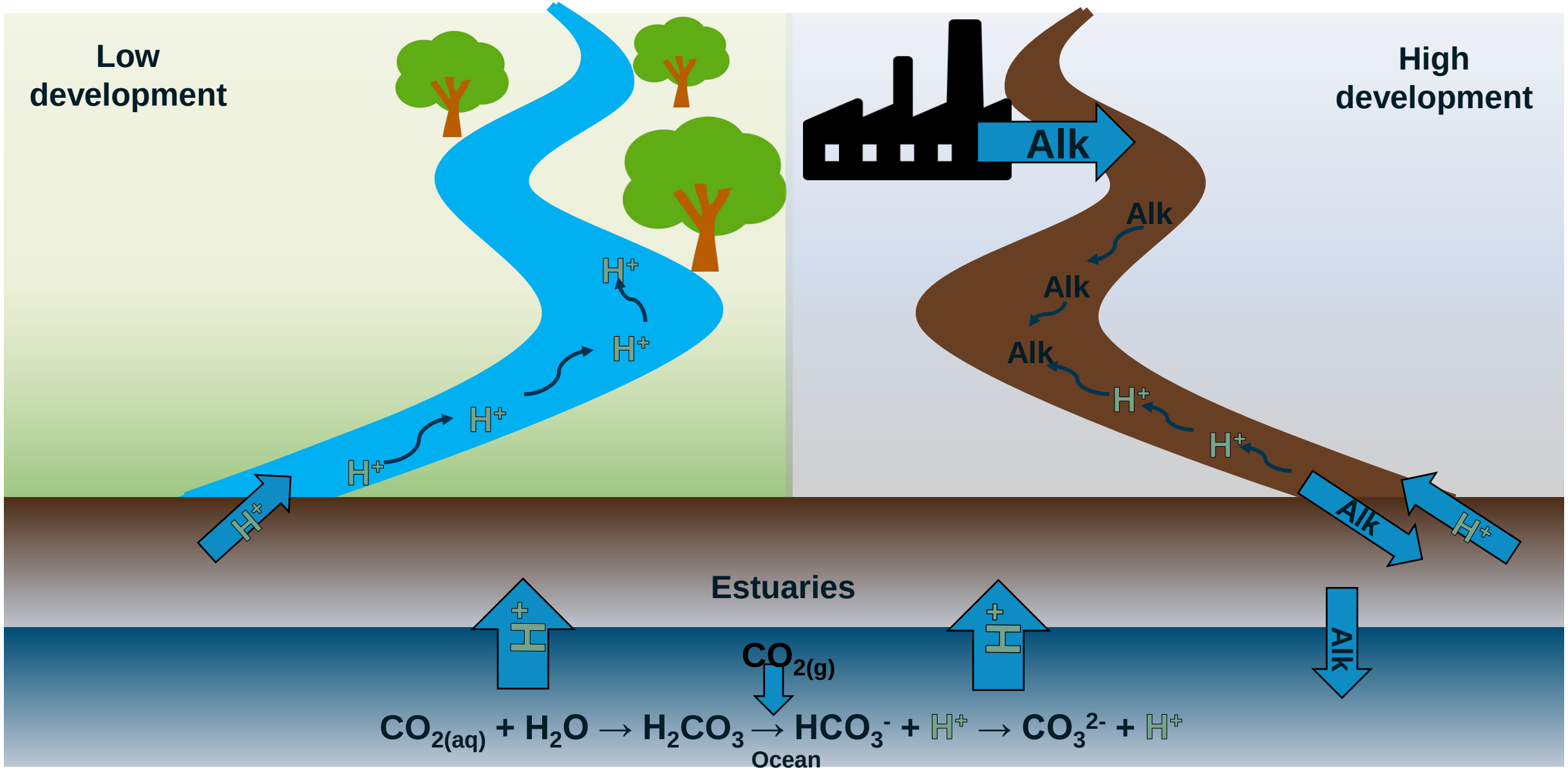

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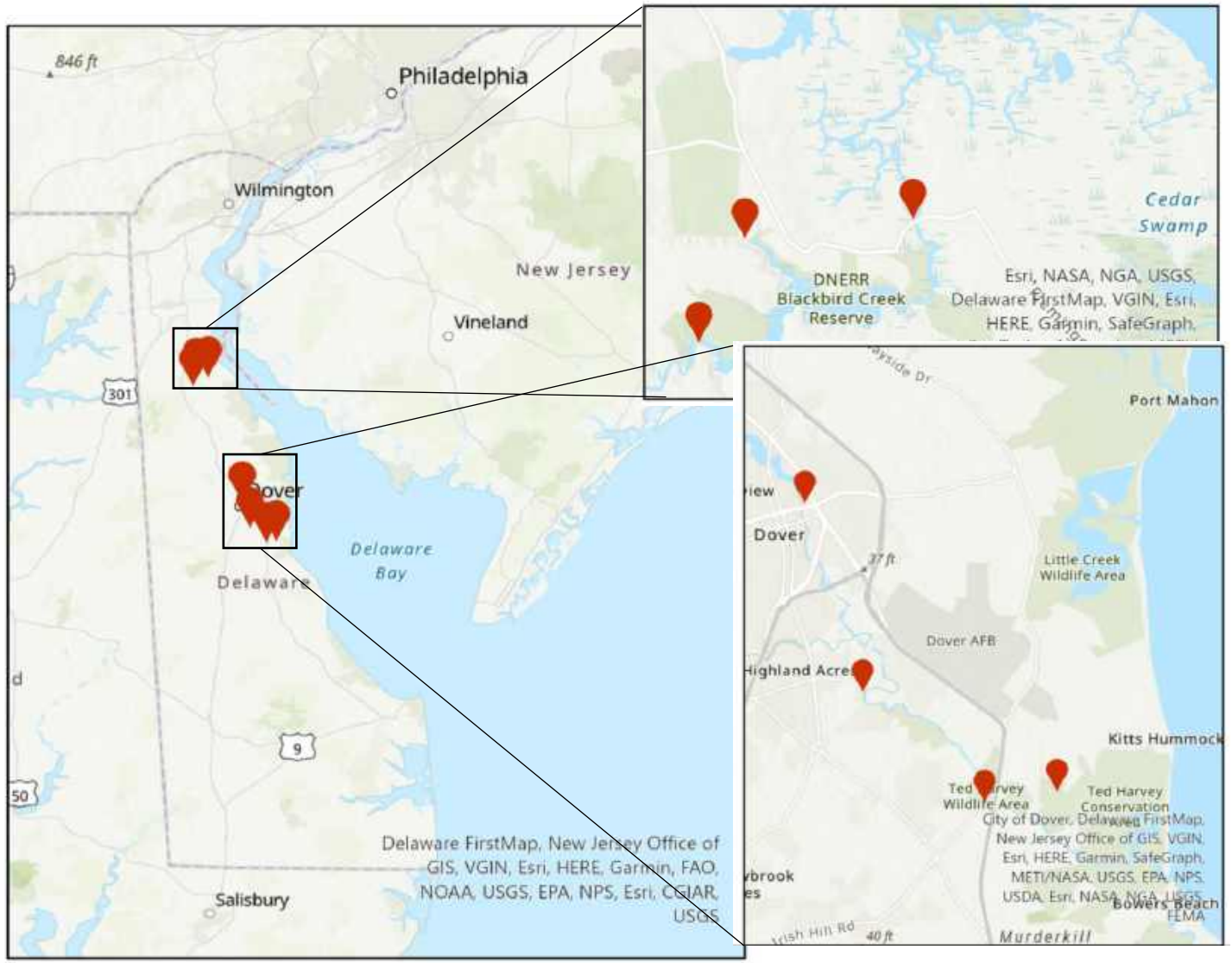
Research Plan

- Collect samples at DNERR Station-Wide Monitoring Program stations monthly
  - Blackbird Creek (low development)
  - St Jones River (high development)
- Determine total alkalinity
- Future plan
  - Develop a state-wide citizen science monitoring program for high school students



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Future Needs

- More information on how ocean acidification will impact Delaware's environment and economy
  - Form Delaware Acidification Workgroup
  - Define specific questions and priorities
- Continue to advance equitable and inclusive, coastal and ocean-based strategies to address warming climate
- Identify gaps in policy or regulations addressing acidification causing factors
- Coordinate with other mid-Atlantic states

Questions?

mollie.yacano@delaware.gov