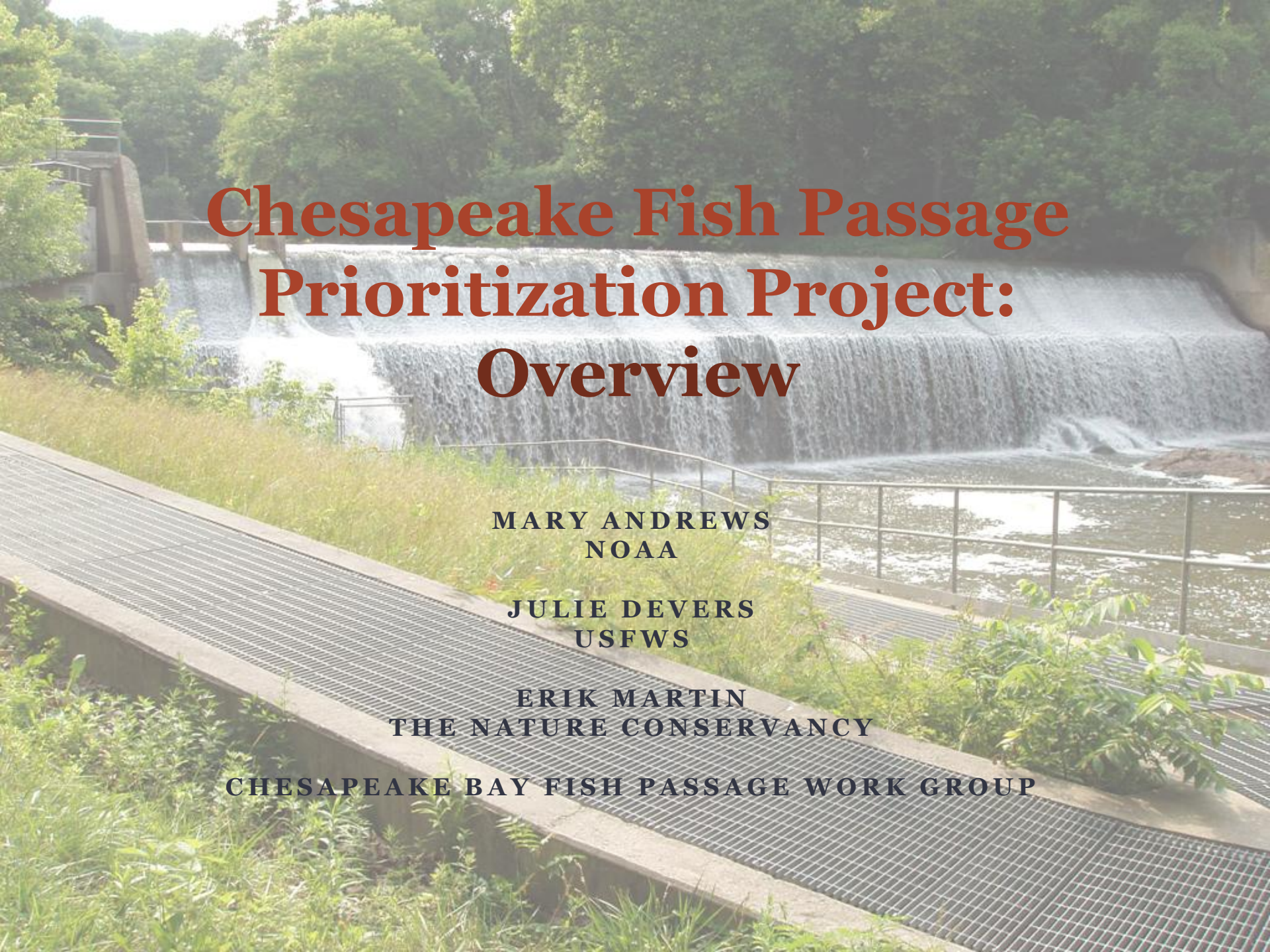

Chesapeake Fish Passage Prioritization Project: Overview

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CHESAPEAKE BAY FISH PASSAGE WORK GROUP

Overview

KEY DRIVERS

REGIONAL PRIORITIZATION EXERCISES

CHESAPEAKE BAY FISH PASSAGE PRIORITIZATION PROJECT

DECISION SUPPORT TOOL / WEB MAP APPLICATION

Key Drivers

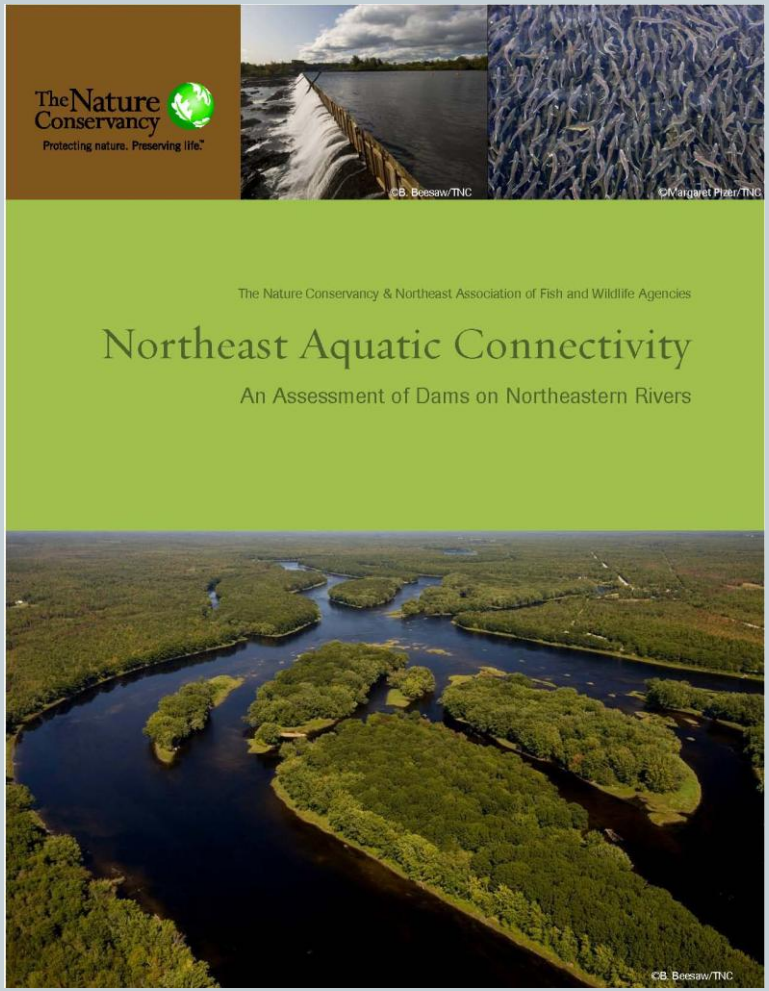
AGENCIES SHIFT TOWARD TARGETED RESTORATION

- To target high priority dam removals and fish blockages based on our collective priorities
- To have a consistent voice (Federal, State, local and non-profits) when advocating for bay-wide priority dam removals/passage projects
- To justify additional funding

BEAN COUNTING

- To act as a database for dam information, mileage opened and spatial tool to highlight our progress

NAC Report



1. Executive Summary
2. Background, Approach & Outcomes
3. Data Collection, Data Preprocessing & Data Gaps
4. Methods and Software Developed
5. Assessment Results
6. Northeast Aquatic Connectivity Strategy
7. Conclusion
8. References
9. Appendices

http://rcngrants.org/content/northeast-aquatic-connectivity

Anadromous fish weighting scenario

Results tiered into 5% bins-- the precise order isn't as meaningful as the broad order

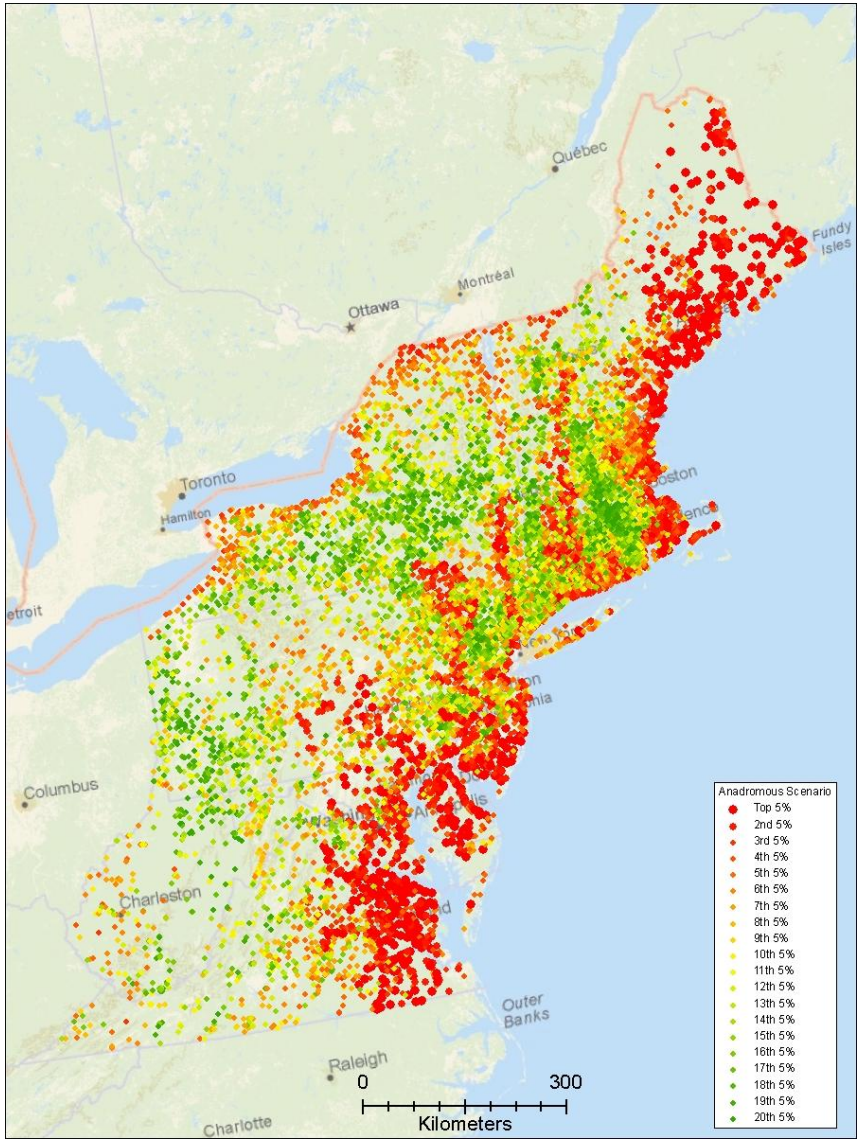
Results are a direct product of metric weights:

Presence of anadromous fish

# of Downstream impassable dams

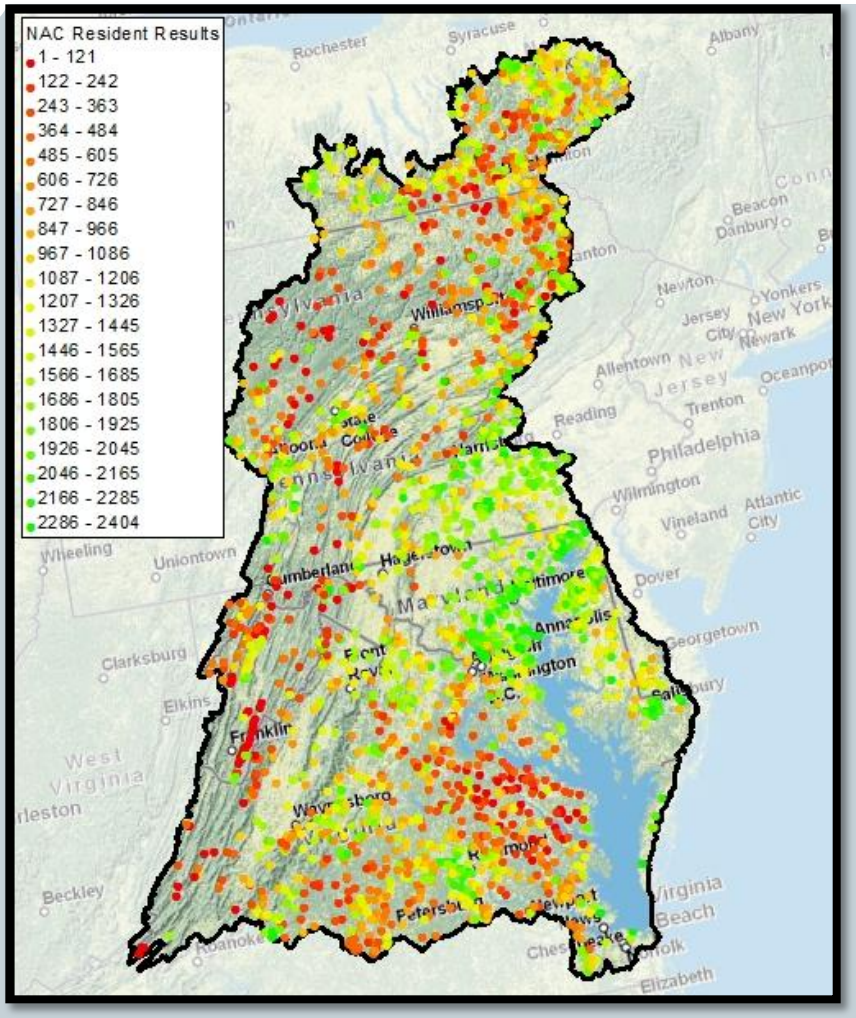
Length of upstream network

...13 more...



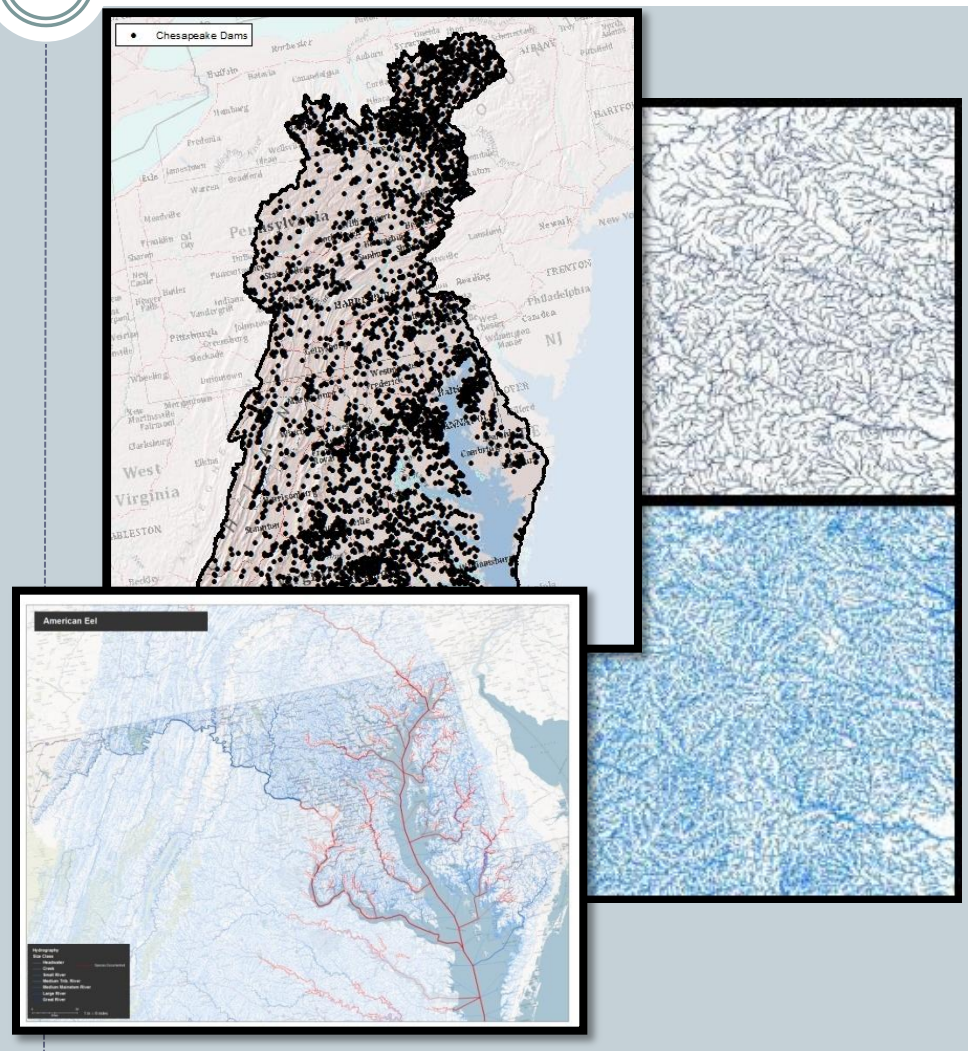
Chesapeake Bay Watershed: Anadromous Scenario

- 2406 dams (that fall on 1:100k NHDPlus hydrography)
- 412 dams in top 10% of regional results
- All have at least 1 anadromous species in downstream network
- Driven by high quality land cover, network length



Chesapeake Fish Passage Prioritization Project (CFPPP)

- Uses 1:24k high-resolution National Hydrography Dataset
  - ~50% of dams fall on 1:100k hydrography
  - ~90% fall on 1:24k hydrography
- Improved diadromous fish data
- Ability to use tool for data management
  - Calculating miles opened
  - Map making
- Ability to make changes to the prioritization
  - Select other ways to prioritize



CFPPP Metrics

Connectivity Status

- *Index of culverts as blockages (exact metric TBD)*
- *Number of dams downstream to river mouth*
- *Number of downstream fish passage facilities*

Connectivity Improvement

- *Upstream functional network size.*

Watershed and Local Condition Metric

- *Percent Impervious Surface in ARA of Upstream Functional Network*
- *Percent Natural LC in ARA of Upstream Functional Network*
- *Percent forested land cover in ARA of functional network (brook trout scenario)*
- *Percent Impervious Surface in Contributing Watershed (potential)*

Ecological Metrics

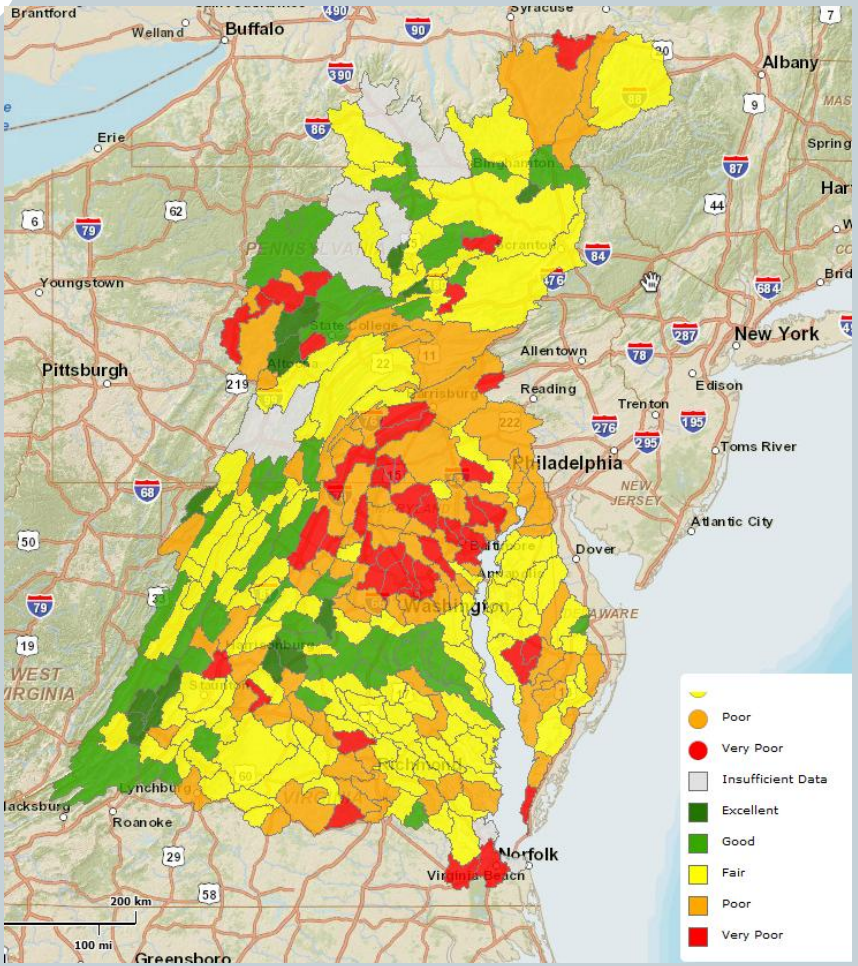
- *Number of anadromous species present downstream*
- *American eel presence metric or American eel absence metric (exact metric TBD)*
- *Stream Health*

Size Metric

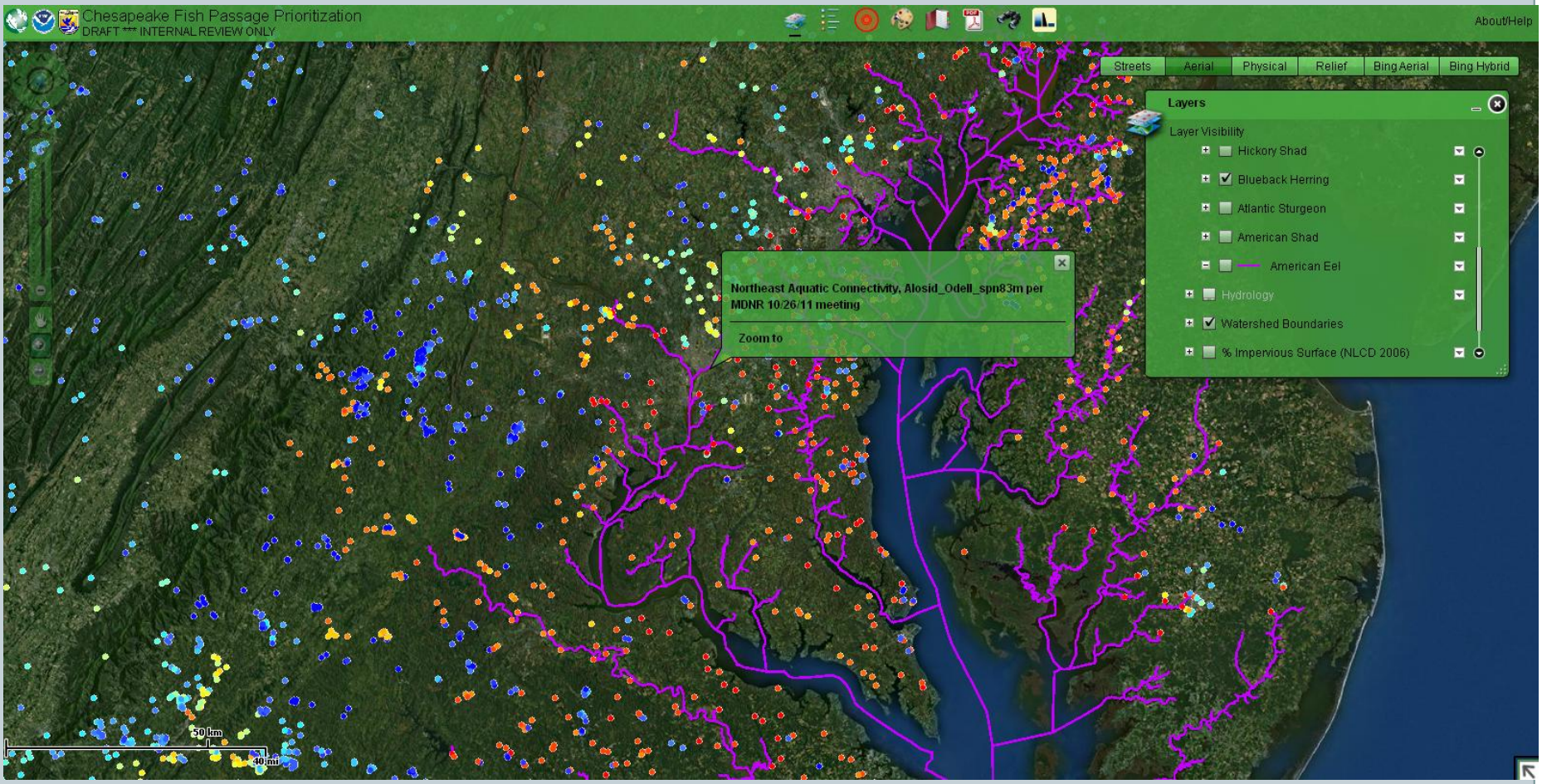
- *Number of upstream size classes >0.5 miles gained by removal*
- *Small streams that connect directly to marine / estuarine habitat*

Stream Health Data

- Use Chesapeake Bay Program Stream Health data for watershed-wide or other interstate analyses
- State-Specific data also included for use in intrastate analyses
  - MBSS BIBI, FIBI, CIBI
  - INSTAR
  - PA (need to calculate from sample points)



Diadromous Fish Layers



Decision Support Tool

- Web map application
  - Shows the overall Chesapeake Bay Fish Passage Prioritization – displays the consensus based ranking upfront
  - Query results and view in the context of other relevant data
  - Allow user to work at a different scale(subwatershed, state, etc)
  - Allow user to create custom weight scenarios