

Pay-for-Success Opportunities in Chesapeake Agriculture

Kristin Fisher, PhD

Applied Agricultural Scientist

The Nature Conservancy MD/DC

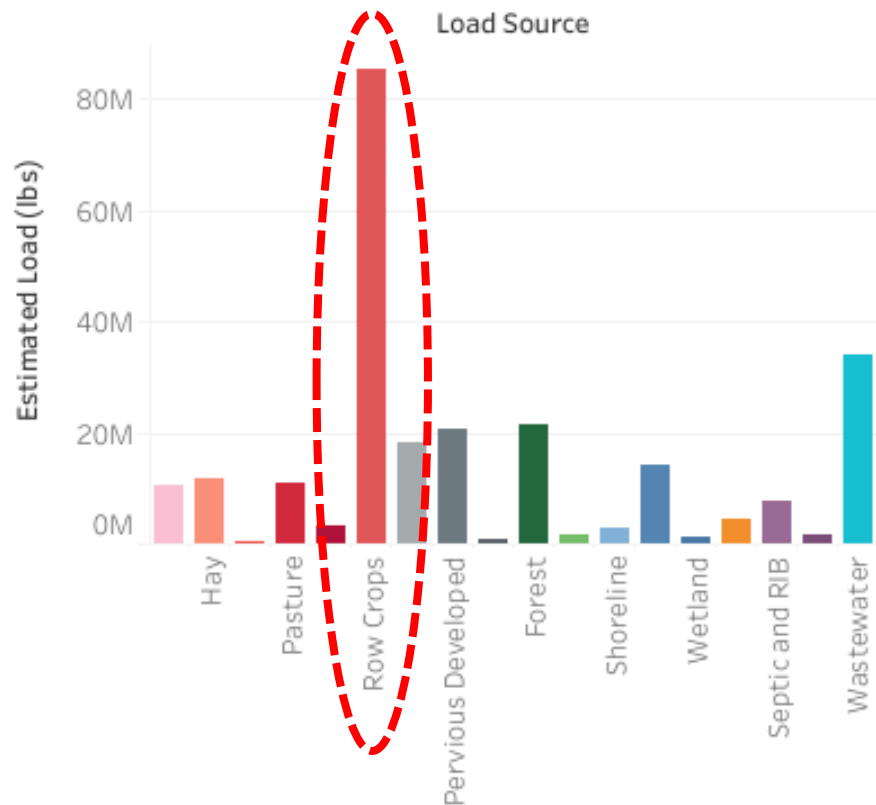


CHESAPEAKE BAY WATER QUALITY

Agriculture is the largest source of N to the Bay

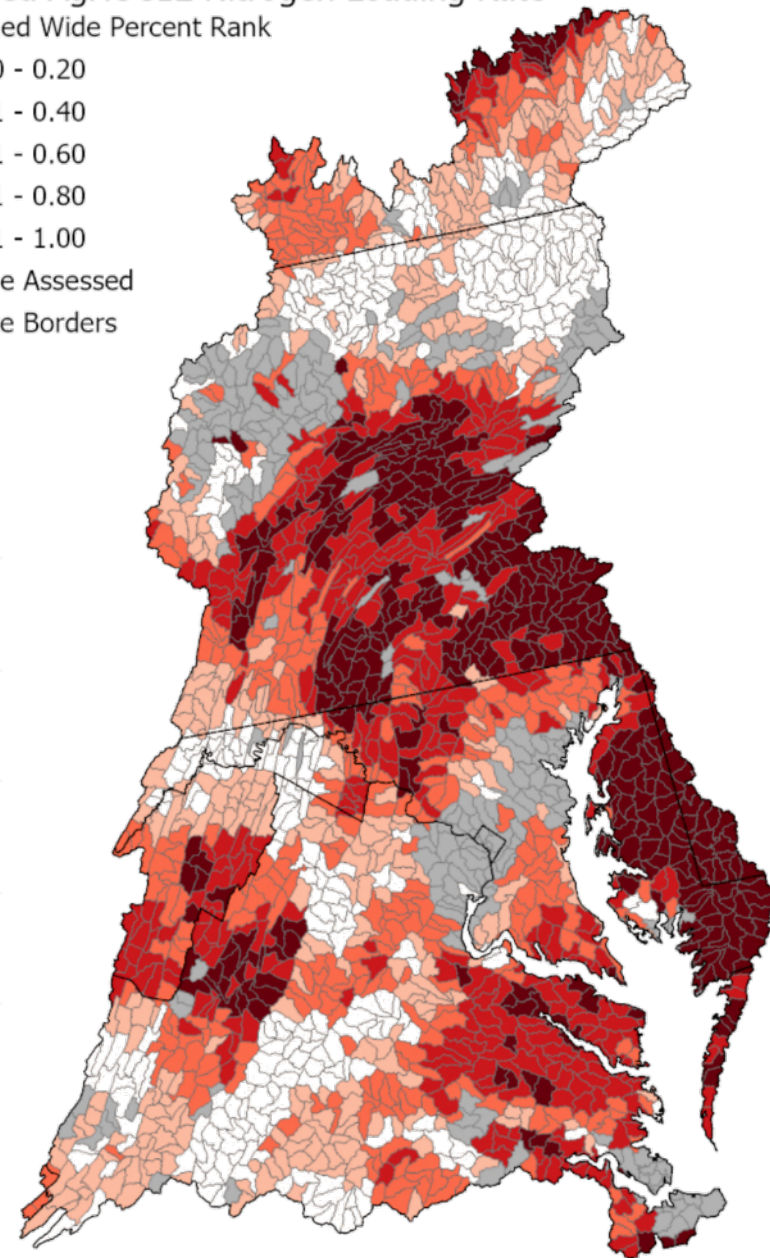
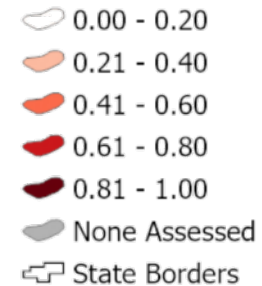
34% of the total N load comes from row crops

Dominated by annual decisions about practices



Delivered AgHUC12 Nitrogen Loading Rate


Watershed Wide Percent Rank



<https://gis.chesapeakebay.net/wip/dashboard/>

<https://data-chesbay.opendata.arcgis.com/documents/ChesBay::priority-agricultural-watersheds-4/explore>


IMPROVE EMPLOYEE PRODUCTIVITY

- **Strategy:** Pay for gym visits
- **Expectation:** Reduced stress, healthier, happier, more productive employees
- **Reality?** 



"How much does it cost to buy a membership then never use it?"

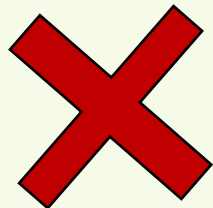
IMPROVE EMPLOYEE PRODUCTIVITY

- **Strategy:** **Fit Bit
step payments**
- **Expectation:**
Reduced stress,
healthier, happier,
more productive
employees
- **Reality?** 



IMPROVE ENVIRONMENTAL OUTCOMES

- **Strategy:** Pay for a “4R” practice
- **Expectation:** More N taken up by crop, less N loss to environment
- **Reality?**



IMPROVE ENVIRONMENTAL OUTCOMES

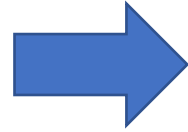
- **Strategy:** Pay for nutrient use efficiency
- **Expectation:** More N taken up by crop, less N loss to environment
- **Reality?** ✓



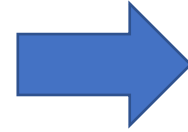
Paying for Assumed Outcome



"How much does it cost to buy a membership then never use it?"



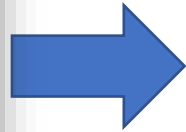
Paying for Measured Outcome



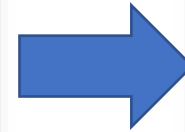
Ultimate Outcome: Healthy Individual



Paying for Assumed Outcome



Paying for Measured Outcome



Ultimate Outcome: Healthy Bay, Healthy Agriculture



TNC-Led RCPP: \$21.7 Million - **Awarded**

Scaling the Adoption of Adaptive Nitrogen Management
Using Low-Cost Cover Crop Imaging and Nitrogen
Crediting Technology

TNC-Led CIG: \$2.2 Million - Pending

Empowering Farmer Innovation to Advance Nutrient
Management in the Chesapeake Bay Watershed