



Healthy Livestock, Healthy Streams

*Policy Actions to Promote
Livestock Stream Exclusion*



Chesapeake Bay
Commission
May 7, 2015

Major Policy Publications

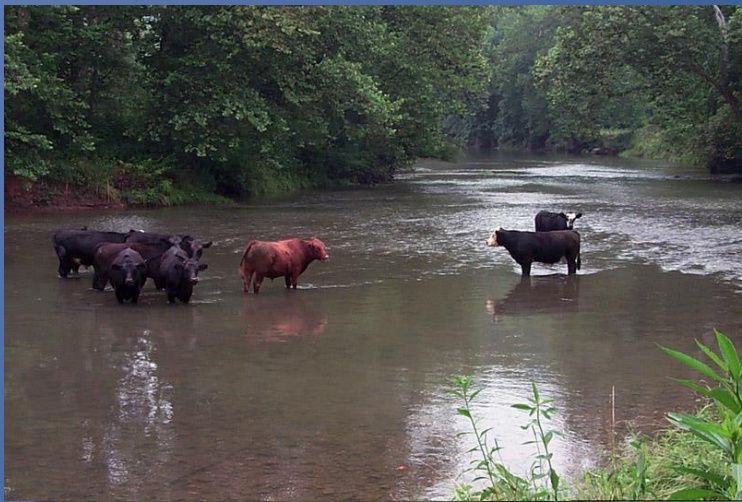
- Oil Spill Policy (1989)
- Environmental Education (1990)
- Genetic Analysis of Shad (1991)
- Rec. Boat Pollution (1991)
- Ballast Water (1995)
- Abandoned and Derelict Boats (1999)
- Forests for the Bay (2000)
- Land Preservation (2001, 2010)
- Cost of a Clean Bay (2003)
- Cost-Effective Strategies (2004)
- Blue Crab (2002,2003,2004,2005)
- Farm Bills (2002, 2008, 2014)
- Congressional Agenda (2008)
- Biofuels (2007, 2008, 2010)
- Manure to Energy (2012)
- Nutrient Credit Trading (2012)
- Crediting Land Conservation (2013)
- Livestock Stream Exclusion (2015)



What is Livestock?

Hooved animals such as...





**What's the
problem?...**



Risk Posed by Water

PONDS – MUDHOLES - POTHOLE

- Standing water concentrates exposure
- Increases spread of diseases within a herd
- Exposes cattle to colonization of bacteria

FLOWING WATER - STREAMS

- Possibly dilutes exposure
- Compromises farm biosecurity
- Increases exposure to deliberate contamination

*...Isn't it enough for you to drink
clear water for yourselves?
Must you also muddy the rest with your
feet?
Why must my flock eat what you have
trampled down and drink water
you have fouled?*

Ezekiel 34:18-19

bacteria, viruses, parasites, and in fungi

Helen Aceto, PhD, VDM, Uni. Penn.

Good Water = Good Productivity



Chicago Union Stockyards

- Bubbly Creek filtered water
- High bacteria counts
- Livestock not gaining weight

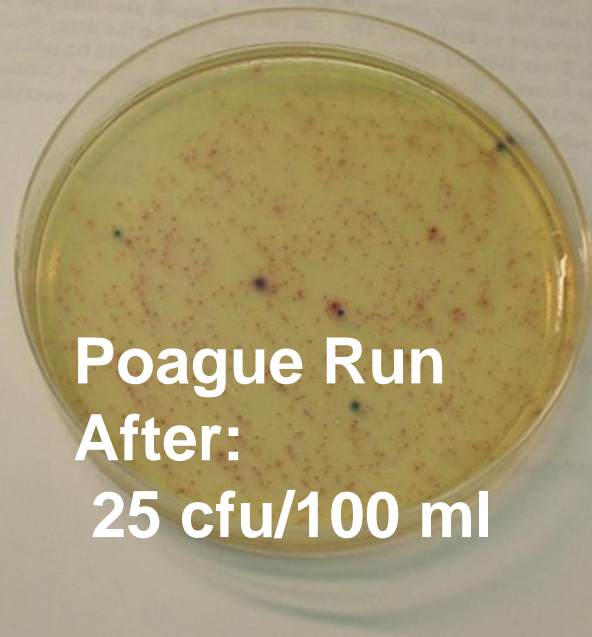
First U.S. chlorination system
The year was 1908

Virginia TMDL Story

Of 280 bacterial TMDLs completed
in



**Poague Run
Before:
3,850 cfu/100 ml**



**Poague Run
After:
25 cfu/100 ml**

Aquatic Health



INSTAR (VA)

INteractive **ST**ream Assessment Resource

MBSS (MD)

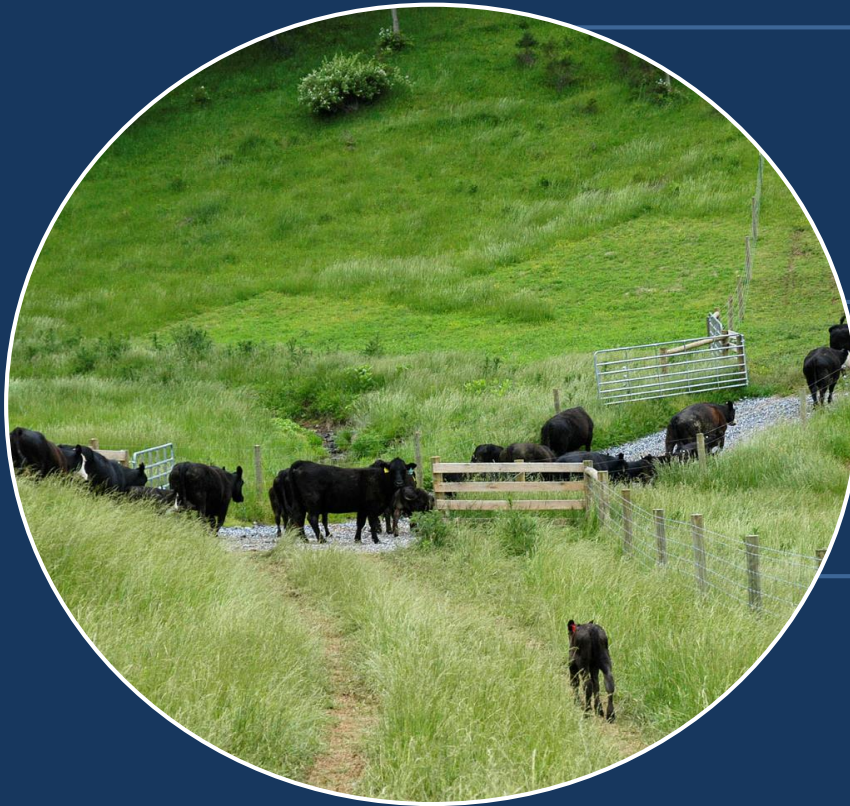
Maryland **B**iological Stream Survey

MAIS (PA)

Macroinvertebrate **A**ggregated **I**ndex for **S**trams



What is Livestock Exclusion...



Fence



Water



**Riparian
Buffer**



Agriculture Sector Reductions contributed by WIP Livestock Exclusion Practices

	Nitrogen	Phosphorus	Sediment
Pennsylvania	3		
Maryland			9
Virginia		14	24

Fencing = Assurance

	Nitrogen	Phosphorus	Sediment
Stream Access Control with Fencing (grass buffer)	13-46%	30-45%	40-60%
Alternative Watering Facility	5%	8%	10%

Leading Federal Programs

Regulatory

- EPA-Clean Water Act CAFO Program
- EPA-Clean Water Act TMDL Program



Incentive

- USDA, FSA/NRCS
Conservation Reserve Enhancement Program
- USDA, NRCS
Environmental Quality Incentives Program



State	Mandates	Results
Maryland	Agricultural Nutrient Management Program	\$2,500 & ≥ 8 cattle; no fence required
	Critical Area Act	No fence required; min. 25' ungrazed buffer
Pennsylvania	Clean Streams Law	Forbids requiring pasture exclusion fence
	Manure Management Manual	Confinement area exclusion
Virginia	Concentrated Animal Feeding Operations	Only large operation confinement areas
	Agricultural Stewardship Act	Complaint driven

	Ag BMP Incentives			
State	CREP	State Cost-Share	Tax Credits	Low Interest Loans
Maryland	✓	✓		✓
Pennsylvania	✓		✓	
Virginia	✓	✓	✓	✓

Policy Opportunities

State	CREP acres	State Cost-Share	Tax Credits	Low Interest Loans
Maryland	66,000 of 100,000	Favor exclusion fencing	Create tax credit program	
Pennsylvania	138,000 of 220,000	Dedicated funding & favor exclusion		Create loan program
Virginia	21,000 of 25,000	Fund 100% backlog		

Recommended Actions

State-level working group:

1. Match incentive program to needs
2. Increase resources for incentive programs
3. Explore conservation compliance concepts
4. Address absentee landlord/tenant farmer issues
5. Repeal, modify stream fencing policies
6. Keep it simple

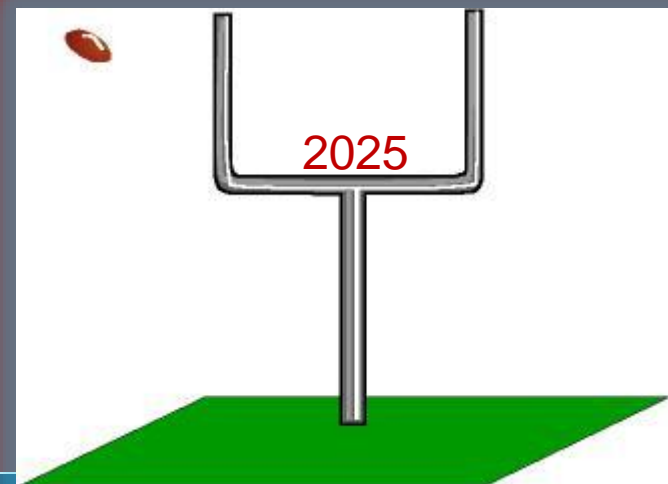
Next Steps: Bay Program & Federal

Coordinate with NRCS & FSA on incentives

Fix Bay Program reporting & crediting by 2017

Clarify WIP reliance on federal programs

2019 Farm Bill needs
justification package



Healthy Livestock, Healthy Streams

Livestock do not belong in streams

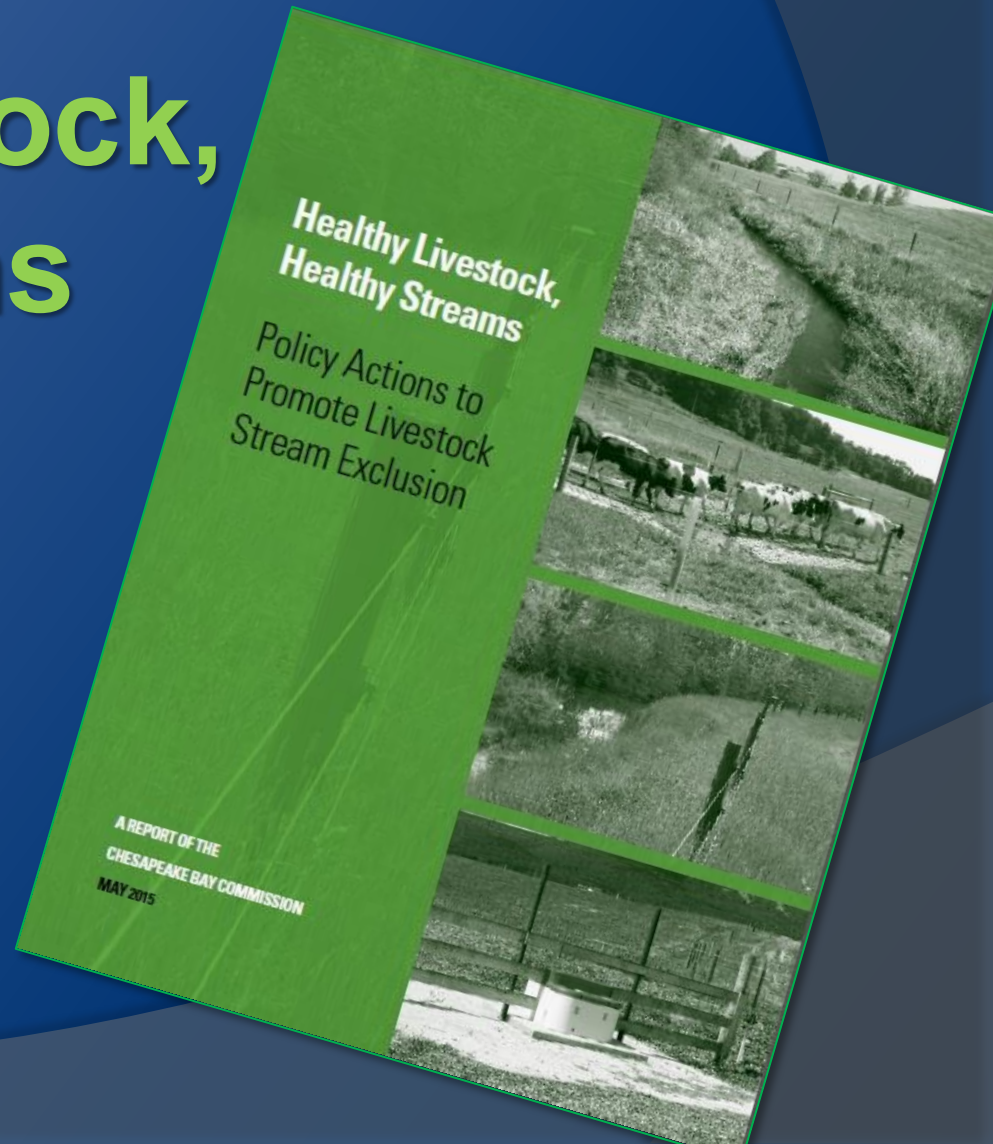
Our Tradition



Our Future



Healthy Livestock, Healthy Streams



Healthy Livestock, Healthy Streams

Policy Actions to Promote Livestock Stream Exclusion

A REPORT OF THE
CHESAPEAKE BAY COMMISSION
MAY 2015