IOWA NUTRIENT REDUCTION STRATEGY

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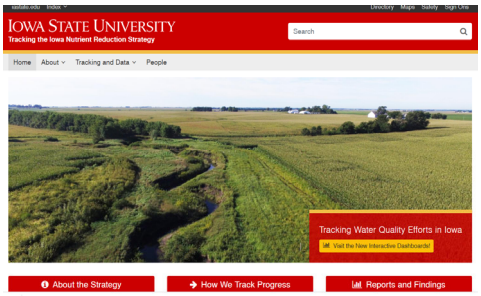
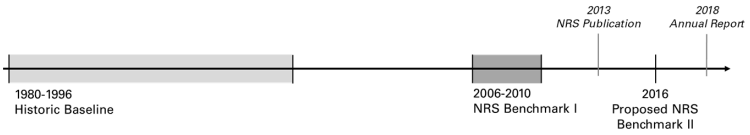
WQI Update & Background

- Strategy Released in 2013
  - Collaborative, science-based assessment
- Iowa Legislature established Water Quality Initiative
  - Leveraging resources (RCPP, MRBI, private $, other federal funding, and landowners)
- Engage partners, build capacity and overcome barriers to scale-up
- Accountability and tracking – Logic Model (https://nrstracking.cals.iastate.edu/)
- 2018 Legislative Session passes longer-term sustainable funding.
  - $15M annually for NPS to advance Iowa NRS.
  - 2021 extends sustainable funding to 2039



Updated Baseline Assessment

- NPS
- Historical progress on P loss from cropland
- Nitrogen needs more emphasis

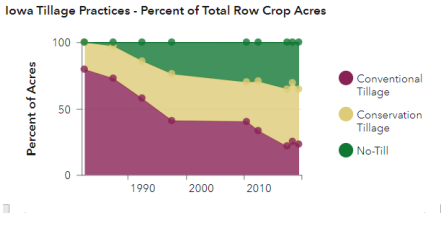


		1980-96 Baseline Load (tons)	2006-10 Benchmark Load (tons)	Change, 1980-96 to 2006-10		Major cause of change
Nitrogen	NPS	278,852*	293,395	5.2%	Increase	Land use change
	PS	13,170	14,054	6.7%	Increase	Flow increase
	Total	**292,022**	**307,449**	**5.3%**	**Increase**	
Phosphorus	NPS	21,436	16,800	21.6%	Decrease	Reduced tillage and soil test P
	PS	2,386	2,623	9.9%	Increase	Flow increase
	Total	**23,822**	**19,423**	**18.5%**	**Decrease**	

*The method used to derive the total nitrogen estimate of 292,022 tons indirectly reflected the point source contributions.

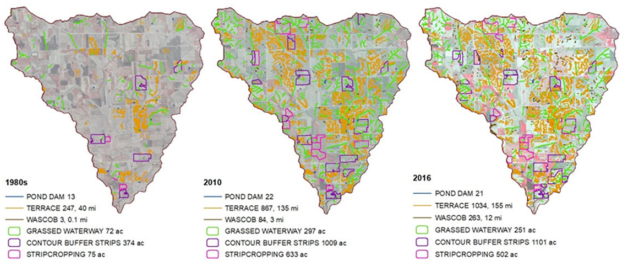
BMP Mapping - Land

- Select BMPs identifiable w/ available data
- 2007-2010 Benchmark
- Documentation
- Historical
- WS Modeling



Statewide Practice Summary			
Pond Dams (number)	Grassed waterways (ac)	Terraces (ft)	WASCOBs (number)
114,423	327,904	469,257,556	246,139

Estimated >$6B in investment based on today's costs.

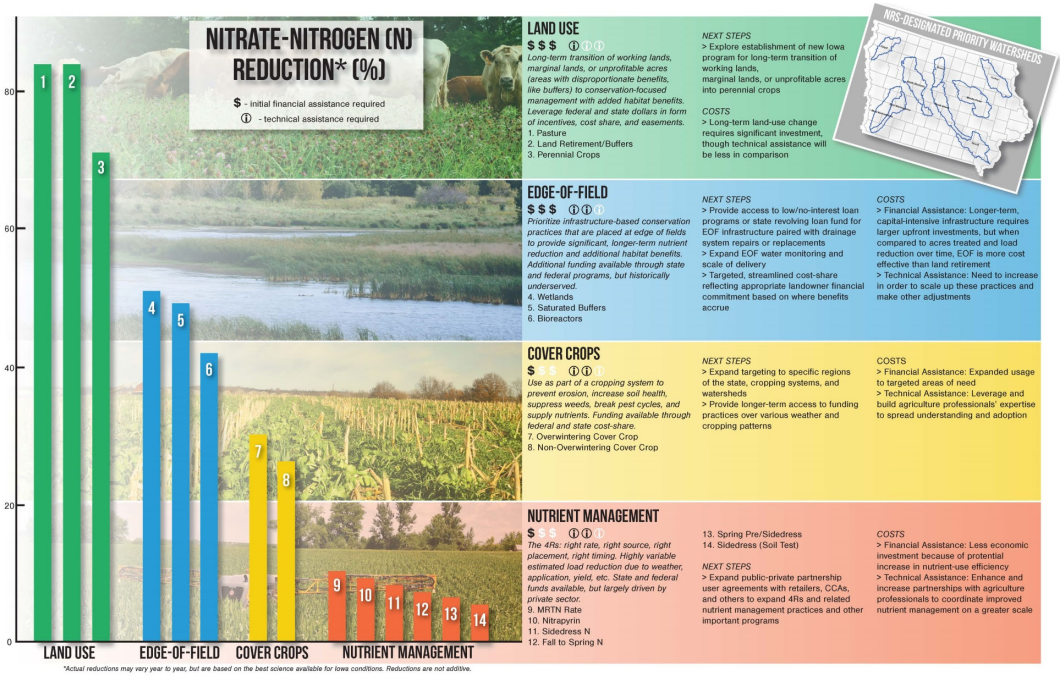


Learn more at
https://www.gis.iastate.edu/gisf/projects/conservation-practices

Water Quality Initiative
highlights

- **Increasing the scale to address the goals of the NRS**
  - Traditionally soil conservation, livestock and in-field nutrient management based
  - Advance understanding and critical practices and delivery of practices focusing on addressing nutrient reduction
  - **Leverage and expand state and farmer resources**

- **Tracking and documenting progress**
  - Collective effort of management and practice installation
  - ISU established measurement coordinator in 2015
  - **Utilize information to inform progress, but also inform/prioritize resources**



Leveraging Federal Funding Sources
Iowa Nutrient Reduction Strategy

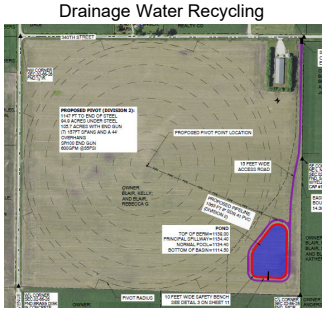
- Regional Conservation Partnership Program (RCPP) projects:
  - Expand technical capacity: Conservation planning services to leverage state and federal funding
  - Increase available funding: State+Private investments provides more leverage for RCPP
  - Direct/prioritize geographies, practices, etc.

- 16 individual RCPPs
- 7 led by IDALS
- 14 “Classic” RCPPs
- 2 “Alternative Funding Arrangements”
- Over $84M awarded.

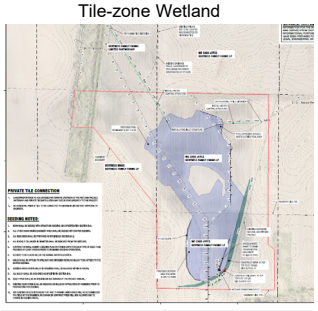
Leveraging Federal Funding Sources
Iowa Nutrient Reduction Strategy

- EPA-Gulf of Mexico (GOM) – Farmer to Farmer projects:
  - Demonstrate and deploy new(er) practice concepts/methods.
  - Expand opportunities and learn from processes to adapt to future efforts.
  - 3 Current Projects over $3M awarded by EPA-GOM

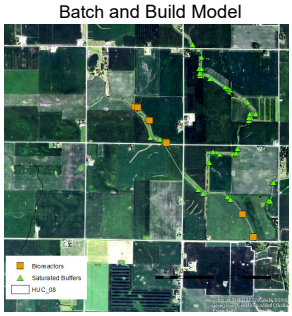
Drainage Water Recycling



Tile-zone Wetland



Batch and Build Model



Leveraging Federal Funding Sources
Iowa Nutrient Reduction Strategy

- America's Rescue Plan (ARP) projects:
  - Just announced – Iowa Governor Reynolds announced $100M investment in WQ - $25M to IDALS for practice implementation in support of the INRS.
  - Focus will be on priority practices and watersheds
  - Leverage and expand state resources for infrastructure-based practice installation