

Improving Conservation Infrastructure Requires **Collaboration, Continuous Improvement & Sustained Effort**

Research & Development Leads to Solutions:

- Gulf Hypoxia Action Plan developed
- Leads to awareness building across the nation

Iowa Leads:

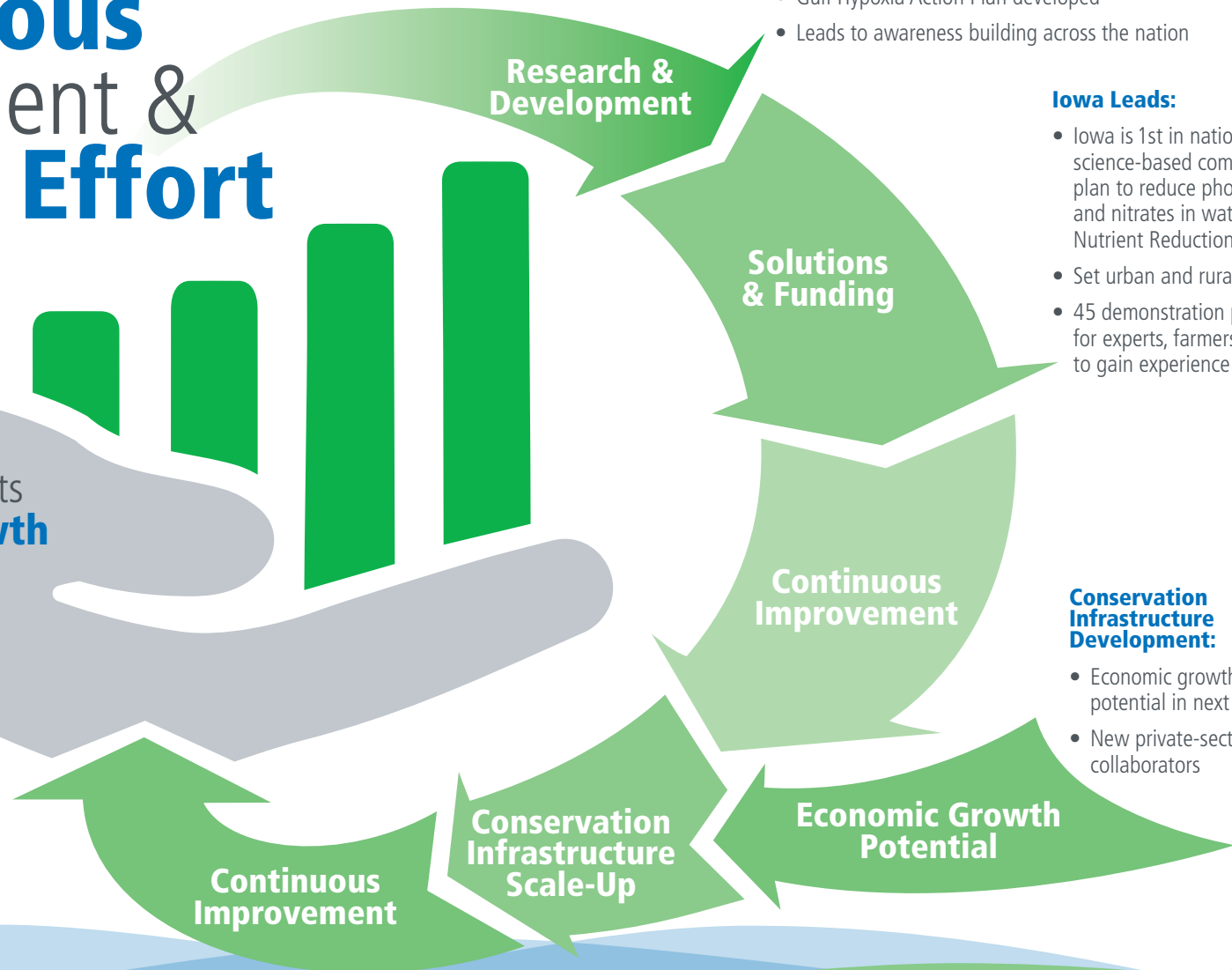
- Iowa is 1st in nation with a science-based comprehensive plan to reduce phosphorus and nitrates in water (Iowa Nutrient Reduction Strategy)
- Set urban and rural goals
- 45 demonstration projects for experts, farmers and cities to gain experience

Conservation Infrastructure Development:

- Economic growth potential in next steps
- New private-sector collaborators

Our water quality **challenge** represents an **economic growth** opportunity.

*See back for more information



Our water quality challenge represents an economic development opportunity. Iowa's 88,000 farmers managing 23M acres on 12 different major soil types are facing severe weather events and water quality challenges. The science-based Iowa Nutrient Reduction Strategy offers a suite of practices that can help reduce phosphorus and nitrate in water. The estimated opportunity for two of these practices – cover crops and bioreactors – is representative of other possibilities for economic growth and innovation as we continue working toward improved water quality.

Solution: Cover Crops



Need: 12-17M acres

Current status: ~500K acres

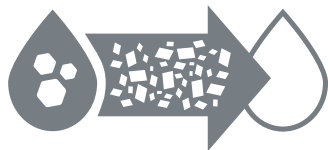
Future opportunities:

- 300,000 acres of seed production
- 300 aerial seed applicators
- Special planters
- Seed cleaners
- 17,000 semis to transport seed

Expertise necessary:

- Agronomists
- More research

Solution: Bioreactors*



Need: 100,000 - 140,000 across state

Current status: ~60 completed

Future opportunities:

- Enough wood chips to fill 109,000 rail train cars, which would equal the distance from Des Moines to Boston
- ~120,000 site plans
- ~240,000 site investigations
- ~180,000 water control structures

Expertise necessary:

- Engineering and soil science
- Construction contractors
- Monitoring/Data interpretation
- Management/Maintenance

*Saturated buffers may be used at some locations



No-Till/Strip-Till



Saturated Buffer



Grassed Waterway



Nutrient Management Practices



Stream Buffers



Water & Sediment Control Basins



Extended Crop Rotation



Prairie STRIPS



Terraces



Drainage Water Management



Constructed Wetland



Watershed Planning

For more information see: www.iowaagwateralliance.com

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