



WETLANDS IMPLEMENTATION

Exploring Iowa's Vibrant and Vital Wetland Ecosystems

WHAT ARE WETLANDS?

Wetlands go by a variety of different names...

- ▶ SWAMP
- ▶ MARSH
- ▶ BOG
- ▶ SLOUGH
- ▶ PRAIRIE POTHOLE



Transition zones where the **LAND MEETS THE WATER**, wetlands are diverse ecosystems that are wet for at least part of the year.

A CHANGING LANDSCAPE

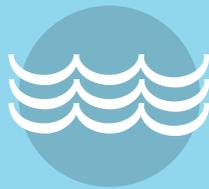
Iowa was once covered with extensive wetlands dotting the vast prairie...

as many as **200 WETLANDS PER SQUARE MILE**

90+% OF IOWA'S WETLANDS have been drained or destroyed.



WHAT MAKES WETLANDS UNIQUE?



HYDROLOGY

Presence of water (can be above ground standing water OR below ground)



SOILS

Wet, water-logged hydric soils



VEGETATION

Plants that thrive in wet environments (submergent & emergent)

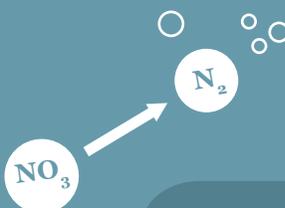
WETLANDS AND WATER QUALITY

The Iowa Nutrient Reduction Strategy calls for a



NITROGEN AND PHOSPHORUS LOADS leaving our state.

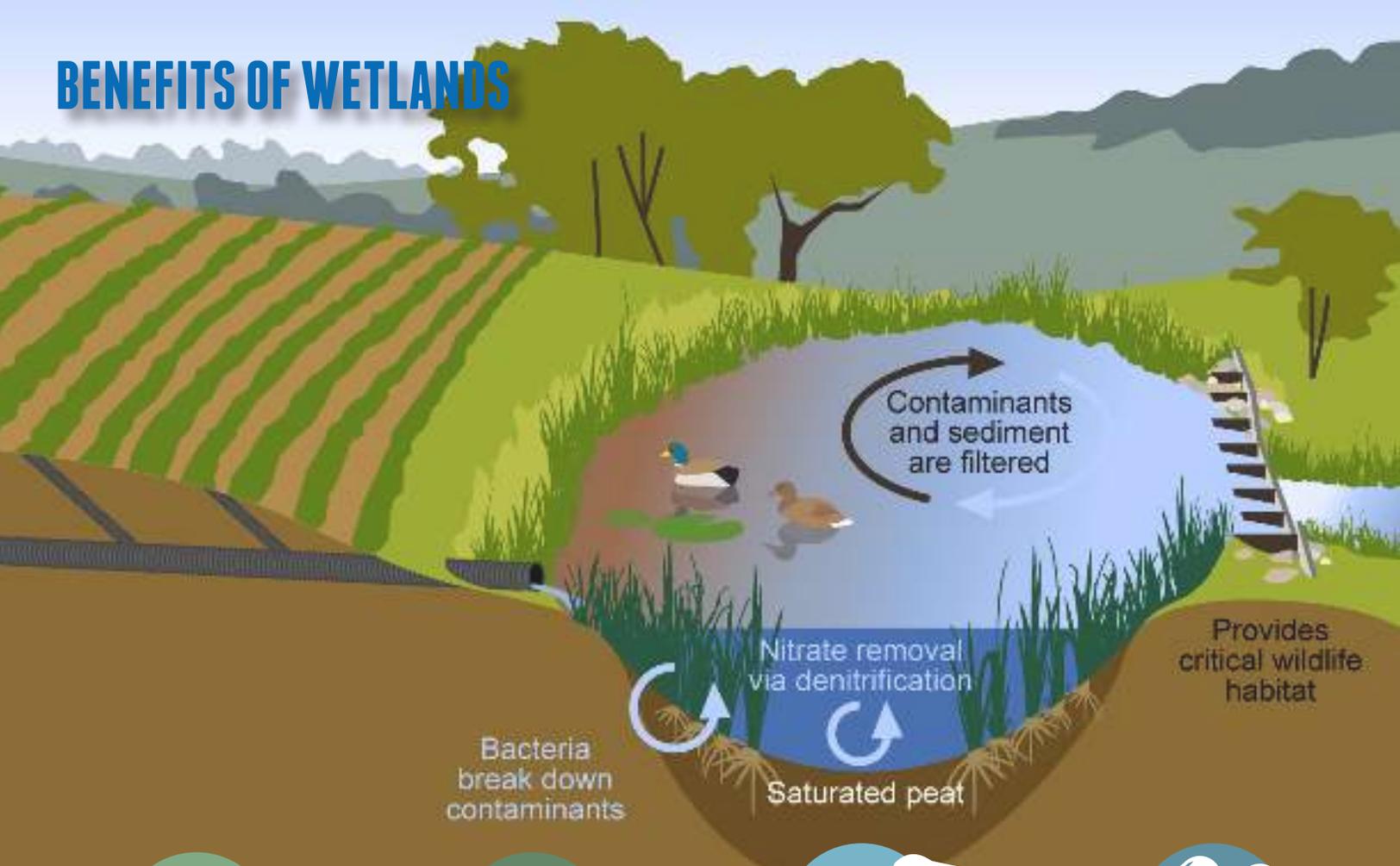
When strategically placed to intercept tile drainage water, wetlands can reduce nitrate loads by **40-70% THROUGH DENITRIFICATION.**



Microorganisms in the wetland transform nitrate (NO_3) to inert nitrogen gas (N_2), yielding cleaner water here as well as downstream.

Iowa's Nutrient Reduction Strategy calls for **~7600** nutrient reduction wetlands, like those in the Conservation Reserve Enhancement Program.

BENEFITS OF WETLANDS



WATER PURIFICATION

Wetlands slow the flow of water, capturing soil particles moving with the water. When strategically placed for nutrient removal, wetlands can reduce nitrogen export by 40-70% thanks to the microbial process of denitrification.



WATER STORAGE

Wetlands act much like a sponge, serving as a storage basin for water out on the landscape. This can help to mitigate flood damage after heavy rains, and in dry spells, wetlands slowly release water back to the surrounding environment.



WILDLIFE HABITAT

50% of all migratory bird species depend on wetlands for their survival. Iowa's wetlands are a critical stopping point along the journey.



RECREATION

Wetlands add great aesthetic beauty to the landscape, as well as opportunities for outdoor recreation and rejuvenation.

FINANCIAL ASSISTANCE PROGRAMS

Numerous federal and state programs offer financial assistance for wetlands restoration and enhancement. Contact your local USDA-NRCS and/or USDA-FSA office to determine eligibility.

FOR MORE INFORMATION

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"Iowa has already lost somewhere between 90-99% of its wetlands. In my view, whether it's a recreated wetland, if it's a restored wetland, or if it's a constructed wetland, that's still a positive move."

REBECCA CHRISTOFFEL
SNAKE CONSERVATION SOCIETY