#### Why have a NMP?

- To know what nutrients crops actually need, avoiding nutrient over-application
- To use on-farm nutrients first, such as legume nitrogen and manure, before purchasing commercial fertilizers
- To save money and increase farm profitability by not over-purchasing commercial fertilizer
- To improve soil stability, structure, and water holding capacity
- To improve surface and groundwater water quality
- To enable participation in the Farmland Preservation Program to receive annual income tax credit
- To meet regulations under a county ordinance for manure storage or livestock siting or if under a DNR WPDES permit

#### How do I develop a **NMP?**

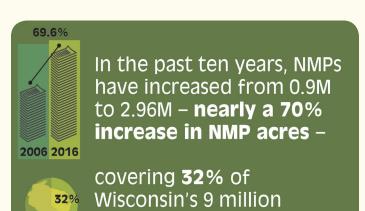
- Work with a local certified crop advisor
  - Find a NM planner near you: <u>datcp.wi.gov/</u> Documents/AvailableNMPlanners.xlsx
- Learn to write your own nutrient management plan for your farm by completing a DATCP-approved training course, once every four years. Contact your local Land Conservation Department for more info.
  - Find training courses on the SnapPlus website: snapplus.wisc.edu

## How often does a NMP need to be **updated**?

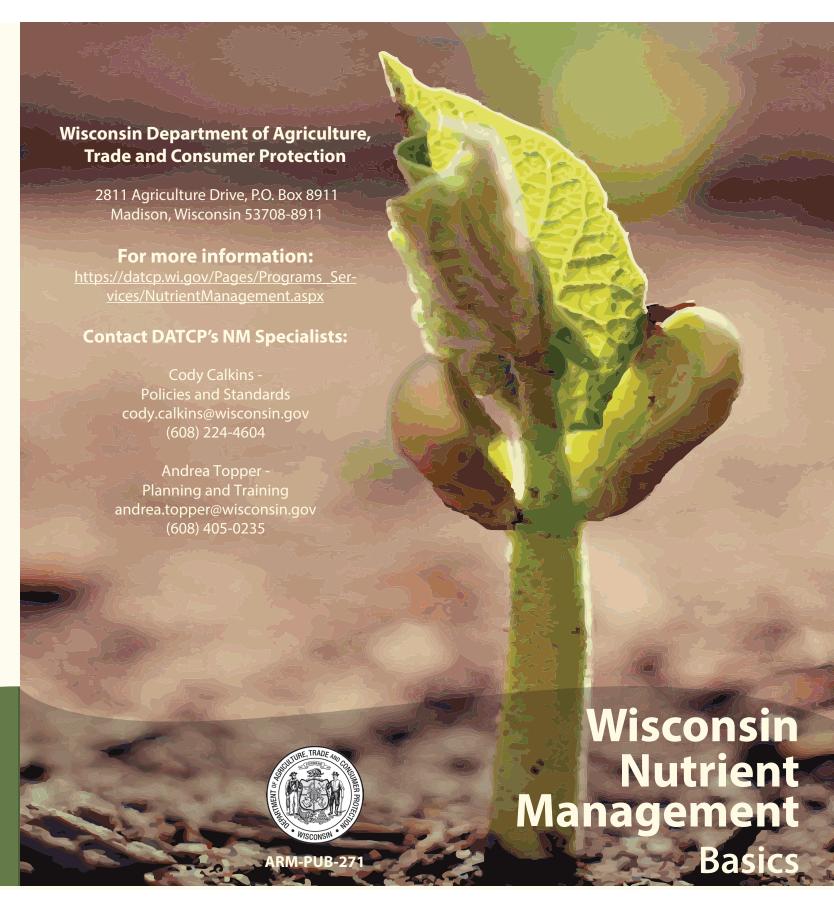
- Submit your NM Checklists annually to county/ DATCP to help us show the conservation efforts of WI farmers
- Sample soils every four years, one sample for every five acres
- Review and update your plan annually

## Crop **management strategies** to reduce erosion and nutrient losses

- Farm on the contour
- Use low-disturbance manure injection
- Try no-till or minimal tillage and reduce the number of passes across the field
- Install conservation buffers
- Install and maintain grassed waterways where needed
- Leave crop residues on fields after harvest, or plant cover crops with least tillage possible
- Plant grass or woody buffer areas to stop field runoff from entering streams, ditches, lakes, etc.
- Maintain pastures to limit erosion from livestock trails, feeding areas and watering areas
- Use SnapPlus to know your erosion rates and nutrient balances for the practices on your fields.



cropland acres.



### Wisconsin Nutrient Management 101

Implementing a **nutrient management plan (NMP)** is one of the best practices farmers can use to protect their soil and water resources and farm profitability. NMPs account for all Nitrogen, Phosphorus and Potassium (N-P-K) nutrients that you apply, and plan to apply to fields over the entire crop rotation. This includes manure and fertilizer, so every type of operation should have a NMP regardless of whether or not they have animals on the farm. NMPs are unique to each farm. They include special considerations for when farmers may need to adjust nutrient application timing, rates, or application methods. For instance, field applications near conduits to groundwater such as wells or sinkholes, and near lakes and streams have winter restrictions to minimize the risk of losing nutrients to surface and groundwater.

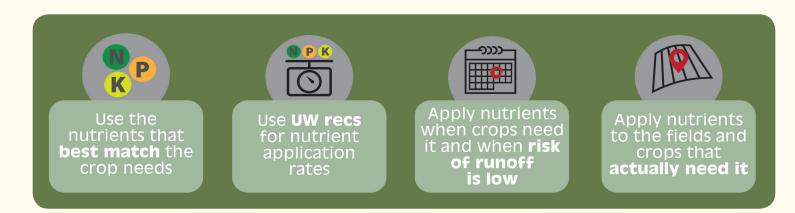
NMPs are also cropping practice records that are reviewed annually and updated when crop management deviates from the plan. NMPs help farmers get a handle on their farm's soil fertility so they know where they do and do not need to apply nutrients. This way, farmers apply nutrients economically, while also ensuring they are not over-applying nutrients, which could cause negative water quality impacts. A NMP is considered compliant with federal, state, and local programs when it follows the Natural Resources Conservation Service (NRCS) 590 Nutrient Management Standard and is prepared by a qualified planner, which may be a certified crop adviser or the farmers themselves, if they take a DATCP-certified training course.

#### **Tolerable Soil Loss = "T"**

Tolerable soil loss (T) is the amount of annual erosion that can occur on a field without losing crop productivity and profitability.

#### What's in a NM Plan?

A 590 NMP follows the requirements of the NRCS WI NM 590 Standard and UW fertilizer recommendations found in *UWEX Pub. A2809: Nutrient application guidelines for field, vegetable, and fruit crops in Wisconsin* to apply plant nutrients at economic optimum rates and reduce nutrient losses to the environment.



#### **A 590** NMP:

- Protects farm profitability, water, and soil
- Describes ALL N-P-K nutrient applications for the crop rotation
  - Nutrients shall not run off the field during or immediately after application
  - Annually update NMP when crops, nutrients, and tillage methods change
- Requires soil testing; one sample for every 5 acres every 4 years, using a DATCP-certified laboratory
- Identifies setbacks and considerations for nutrient application rates, timing and methods near water bodies, conduits to groundwater and where sensitive landscape features exist
- Is often created using the free SnapPlus nutrient management planning software
  - SnapPlus helps farmers make the best use of their on-farm nutrients, as well as make informed and economical commercial fertilizer purchases.
  - Visit: snapplus.wisc.edu

#### Who **needs a NMP**?

- All farms! All landowners must have and follow a NMP when applying nutrients to any field, including pastures if:
  - Offered cost-share for developing a NMP, or
  - Accepting manure storage cost-share, or
  - Participating in the Farmland Preservation Program, or
  - Regulated under a local ordinance for manure storage or livestock siting, or
  - Regulated under a WI Pollutant Discharge Elimination System (WPDES) permit, or
  - Issued a Notice of Discharge (NOD) for causing a significant discharge.

# Follow these conservation practices to implement **state water quality standards**:

- Meet tolerable soil loss (T) on fields and pastures –
   Make sure your soils remain productive!
- Follow 590 NMP over the entire crop rotation –
   Ensure crop rotation is sustainable for the soil types and slopes of each field
- Maintain a minimum 5 foot tillage setback from surface water – Protect streambanks from eroding
- Prevent direct runoff from feedlots, feed, waste water, or manure storage to surface and groundwater
- Limit livestock access along surface waters to maintain banks *Prevent streambank erosion*
- Maintain manure storage structures to prevent leaking and overflow
- Follow NRCS technical standards for constructing and abandoning manure storage
- Near surface water or areas susceptible to groundwater contamination:
  - Do not stack manure in an unconfined pile
  - Divert clean water away from barnyards, feedlots, and manure storage facilities

