



**pennsylvania**  
DEPARTMENT OF ENVIRONMENTAL  
PROTECTION

Bureau of Watershed Restoration  
and Nonpoint Source Management



# **Land Application of Manure, a supplement to Manure Management for Environmental Protection (361-0300-002) Substantive Revision**

DEP Water Resource Advisory Committee

July 20, 2023

Josh Shapiro, Governor

Richard Negrin, Secretary

# Manure Management Manual (MMM) Revision Agenda

- Background
- Progress to date
  - Timeline
  - Stakeholder Engagement
- Summary of Revisions
- Future: Supporting Tools and Resources

# Background

## **AUTHORITY**

Section 5(b)(1) and Section 402 of the Pennsylvania Clean Streams Law, 35 P.S. Sections 691.5(b)(1) and 691.402; Section 1920 A of the Administrative Code of 1929, 71 P.S. Section 510 20, and 25 Pa. Code Section 91.36(b).

# Background

## 25 Pa. Code Section 91.36(b)

(1) The land application of animal manures and agricultural process wastewater requires a permit or approval from the Department unless the operator can demonstrate that the land application meets one of the following:

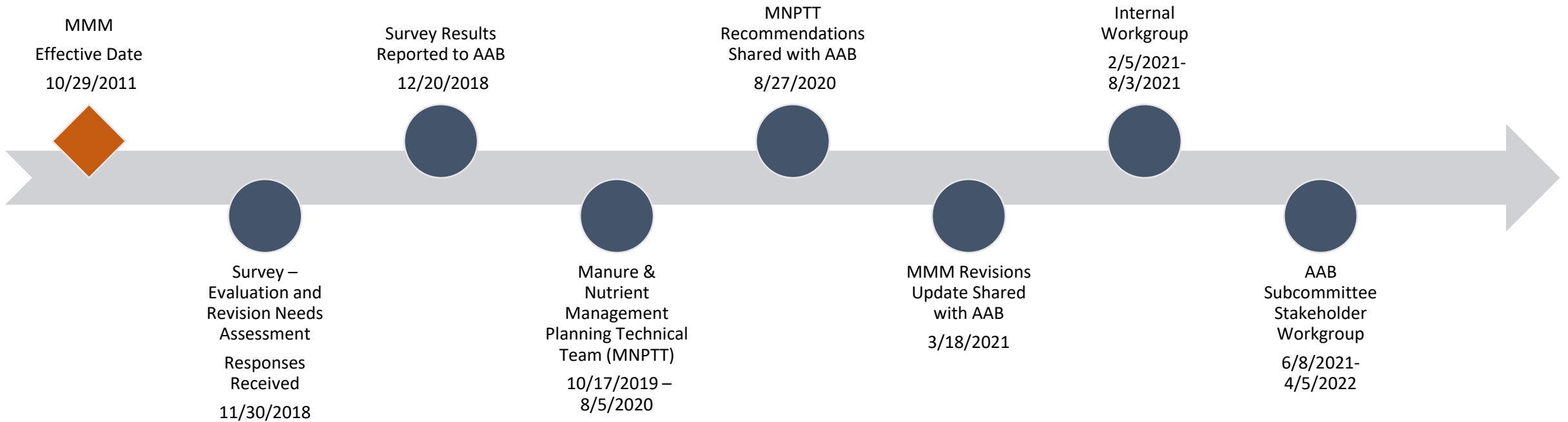
(i) The land application follows current standards for development and implementation of a plan to manage nutrients for water quality protection, including soil and manure testing and calculation of proper levels and methods of nitrogen and phosphorus application. **The Manure Management Manual contains current standards for development and implementation of a plan to manage nutrients for water quality protection which can be used to comply with the requirements in paragraph (1).**

# Background

## PURPOSE

- The PURPOSE of these revisions is to **address the diverse planning needs of the regulated community** and maintain or improve the feasibility of planning, verification, and implementation of Manure Management Plans developed in accordance with the standards set forth in the Manure Management Manual.

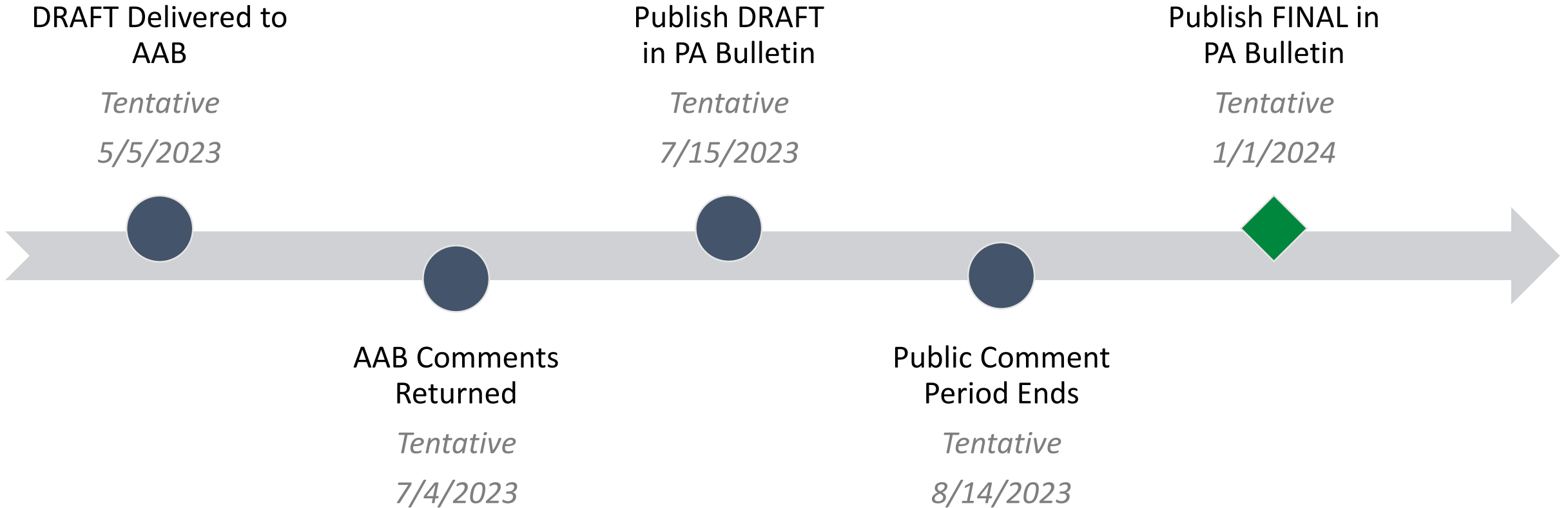
# Timeline (To Date)



# Stakeholder Engagement

FORUM	DATES ENGAGED	STAKEHOLDER GROUPS REPRESENTED	
Survey	10/29/2018 - 11/30/2018	County Conservation Districts Certified Commercial NM Specialists Hauler/Brokers	Federal Agencies Agricultural Operators Penn State University
MNPTT	10/17/2019 - 8/5/2020	Chesapeake Bay Foundation PA Farm Bureau Penn State University	PennAg. Industries Association SCC
Internal Wkgroup	2/5/2021 - 8-3/2021	Clearfield CCD Lancaster CCD NRCS Penn State Extension	Farm Bureau DEP Regional Staff SCC
AAB Subcommittee – Stakeholder Wkgroup	6/8/2021 - 4/5/2022	PennAg Industries PA Farm Bureau Sen. Elder Vogel’s Office Perry CCD	Chesapeake Bay Foundation Penn State University PDA

# Proposed Timeline (Moving Forward)





# Summary or Revisions

## Planning options for Non-CAOs, Non-CAFOs meeting the requirements under 91.36(b)

- In the draft technical guidance document
  - Manure Management Plan Short Form
  - Manure Management Plan Workbook
- Act 38 NMP

*The operator must obtain independent approval for any other planning format*

# Summary or Revisions

## Manure Management Plan Short Form Guidelines

- Maximum combined weight of livestock and poultry
- Maximum animal density
- Maximum amount of imported manure
- Manure is evenly spread across all acres

# Summary or Revisions

## Manure Management Plan Short Form Guidelines (cont.)

- Minimum 100' setbacks from environmentally sensitive areas
- No winter spreading
- No liquid or semi-solid manure generated or stored on site
- Solid manure storage to prevent pollutional discharge
- Exported manure is applied according to a NMP or MMP or transported to a permitted waste disposal site.

# Summary or Revisions

## Manure Management Plan Short Form Guidelines (cont.)

- Pastures maintain at least 3” of vegetation height and 75% perennial grass cover when animals are on pasture.
- No Animal Concentration Areas (ACAs) on site

# Summary or Revisions

## **Manure Management Plan Workbook – New Worksheets**

- Animals Worksheet – AEU Calculation
- Agricultural Process Wastewater Worksheet

# Summary or Revisions

## Manure Management Plan Workbook – Revised Worksheets

- Operation Information
  - To reflect new and revised worksheets later in the MMP Workbook
  - Manure Spreader Calibration – New check item verifying that the manure spreader will be calibrated according the recommendations in Agronomy Facts 68 prior to manure application.

# Summary or Revisions

## **Manure Management Plan Workbook – Revised Worksheets**

- Environmentally Sensitive Areas Worksheet
  - Included springs for clarification
- Winter Spreading Worksheet
  - No changes to winter spreading requirements
  - Minor revisions to heading language

# Summary or Revisions

## Manure Management Plan Workbook – Revised Worksheets

- Manure Management Plan Summary
  - New check box identifying that soils tests taken in the last 3 years indicated phosphorous levels are less than 200 ppm.
  - Clarification language indicating that no single manure application can exceed 9,000 gallons per acre unless it is applied in accordance with §83.294(e).



# Summary or Revisions

## Manure Management Plan Workbook – Revised Worksheets

- Operation Map (Formerly Farm Map)
  - New blank page inserted to facilitate hand drawing and/or remind the planner to include a map.
- Manure Storage and Stacking Worksheet (Formerly Manure Storage Facilities Worksheet)
  - Facilitates planning for stacking and stockpiling of manure.
  - Facilitates consideration and documentation of the PE certification for the design and construction of liquid and semi-solid manure storage facilities as required under § 91.36(a)(2).

# Summary or Revisions

## Manure Management Plan Workbook – Revised Worksheets

- Pasture Management Worksheet
  - Clarification of vegetation requirements needed to maintain pasture.
  - Added installation quantities and dates to obtain the necessary information to report pasture BMPs in MMPs toward Chesapeake Bay WIP implementation.

# Summary or Revisions

## **Manure Management Plan Workbook – Revised Worksheets**

- **Animal Concentration Area Worksheet**
  - Added installation quantities and dates to obtain the necessary information to report pasture BMPs in MMPs toward Chesapeake Bay WIP implementation.

# Summary or Revisions

## Revised Appendix

- Appendix 1: Manure Application Rate Tables
  - Simplified rate tables to include only application rates for Phosphorus removal of common crops and manure types in the Commonwealth of Pennsylvania.

# Summary or Revisions

## New Appendices

- Appendix 2: Agronomy Facts 54
  - To assist with completion of Animals Worksheet
- Appendix 3: Agronomy Facts 69
  - To assist with manure calibration

# Future: Supporting Tools and Resources

- Education & Outreach
  - PE certification of the design and construction of liquid and semi-solid manure storage facilities
  - Manure spreader calibration
  - New worksheets
  - New standard planning formats
- Tools
  - PAOneStop MMP Module
  - Engineer Report of Existing Manure Storage Facilities

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