



# Wetland Indicator Data Updates & Progress Towards the Outcome

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Wetland Workgroup Meeting  
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## Wetland Indicator Data Updates & Progress Towards the Outcome

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- Review the amount of wetland acres restored per jurisdiction and updated restoration goals based on the WIP III.
- Review the progress made toward the 85,000-acre restoration goal based on the NEIEN data from the last several years.
- The workgroup will have the opportunity to discuss the changes and what effects this may have on the goals stated in the Outcome.



## Wetlands Outcome(s)

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- Continually increase the capacity of wetlands to provide water quality and habitat benefits throughout the watershed.
- Create or reestablish 85,000 acres of tidal and non-tidal wetlands, and
- Enhance function of an additional 150,000 acres of degraded wetlands by 2025
- These activities may occur in any land use (including urban), but primarily occur in agricultural or natural landscapes.





# Model Data for Wetlands

## Sources and Timing

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- Data are reported by states annually as part of TMDL accounting – CBRAP and CBIG funding
- Data are particular to the agriculture sector
  - The developed sector has a reporting category “Wet Ponds and Wetlands” w/ data that goes back 30 years where the area is the drainage area



# Model Data for Wetlands

## Sources and Timing

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- Latest updates to the data were for CAST19, the most recent version of the CB Watershed Model, for the 2020-2021 Milestone period
  - Significant updates by states to the reported historic implementation data with the introduction of the Phase 6 model with the 2017 Mid-Point Assessment
  - Relatively minor updates to BMP history each year; varies by state



# Model Data for Wetlands Verification

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- Each jurisdiction has a BMP Verification Program Plan (BMP Quality Assurance Project Plan) that follows the Bay Program's 2014 "Strengthening Verification of BMPs Implemented in the Chesapeake Bay Watershed: A Basin-wide Framework" at <https://www.chesapeakebay.net/documents/Complete%20CBP%20BMP%20Verification%20Framwork%20with%20appendices.pdf>
  - Appendix B includes CBP Wetlands Workgroup's "Wetlands BMP Verification Guidance", 12 pages



# Model Data for Wetlands Verification

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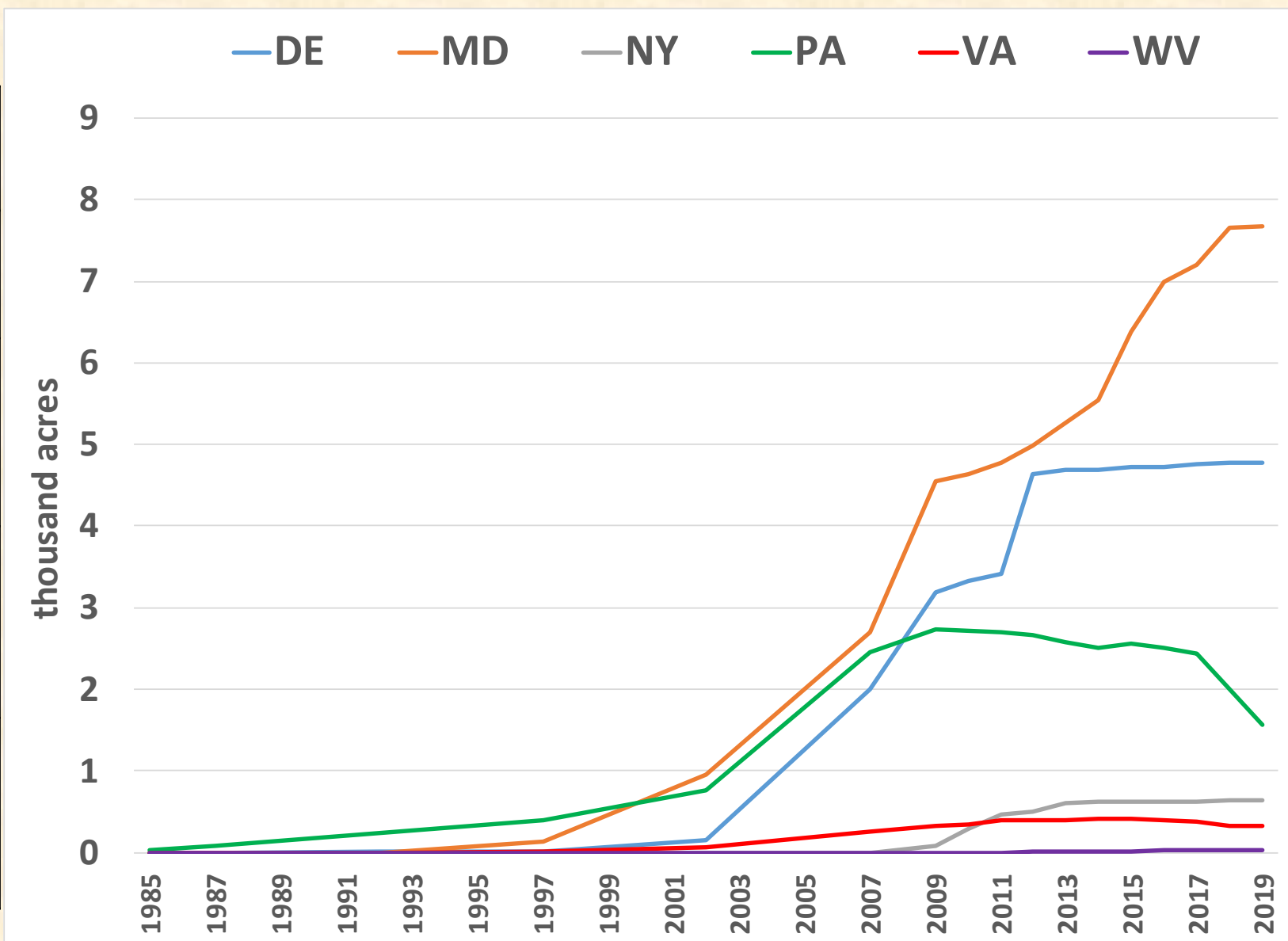
- Jurisdictional BMP Verification Program Plans as of December 2019 can be found at
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# Wetland Restoration 1985–2019 Reporting By State

## Project Examples

<b>Restore</b>	Restore hydrology to prior-converted cropland; elevate subsided marsh and re-vegetate
<b>Create</b>	Re-contour (elevate deepwater or excavate upland) sites to support wetland vegetation
<b>Enhance</b>	Flood seasonal wetland for waterfowl benefit; regulate flow velocity for increased nutrient uptake by fully functional wetland
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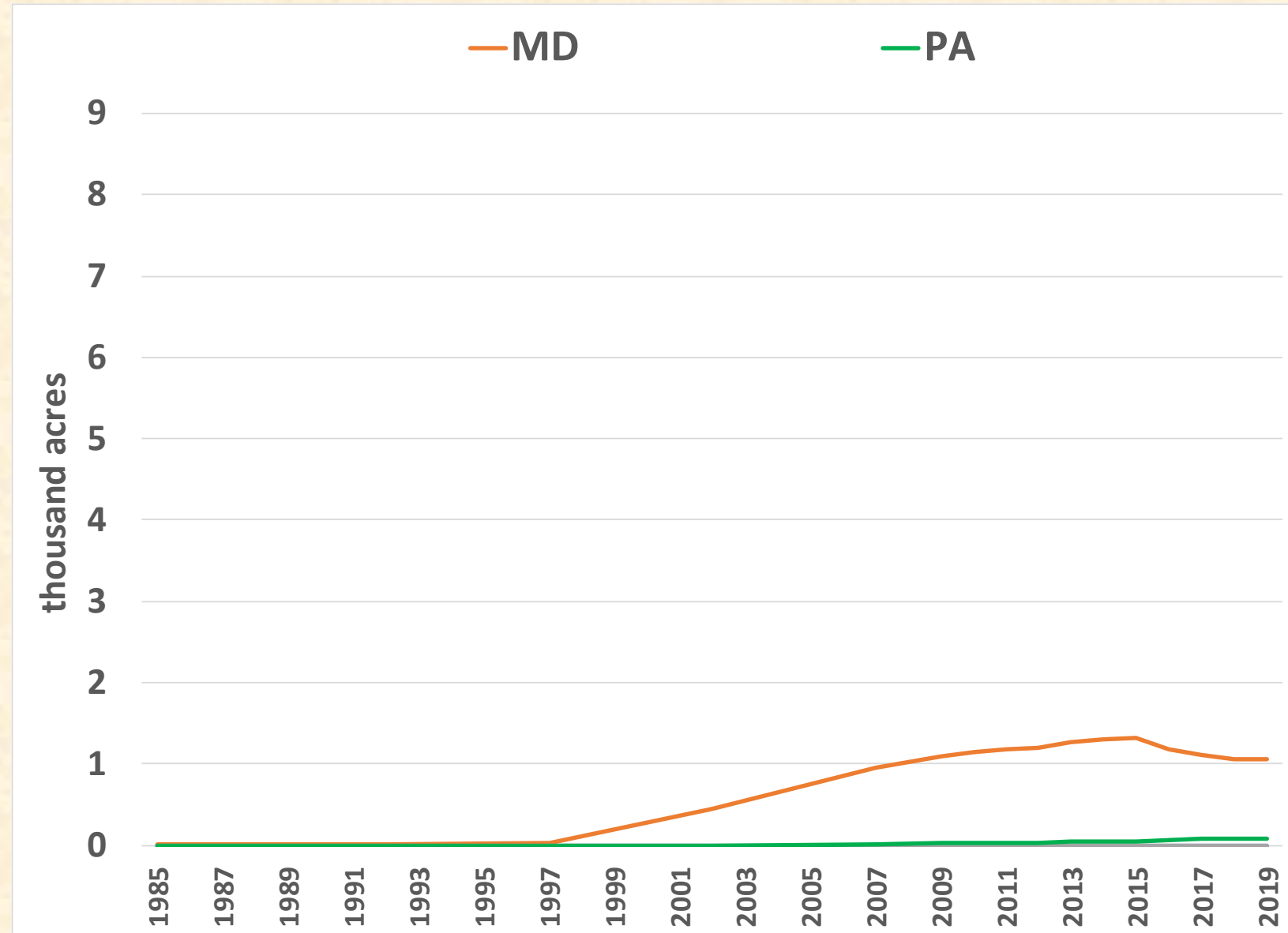




# Wetland Creation 1985–2019 Reporting By State

## Project Examples

<b>Restore</b>	Restore hydrology to prior-converted cropland; elevate subsided marsh and re-vegetate
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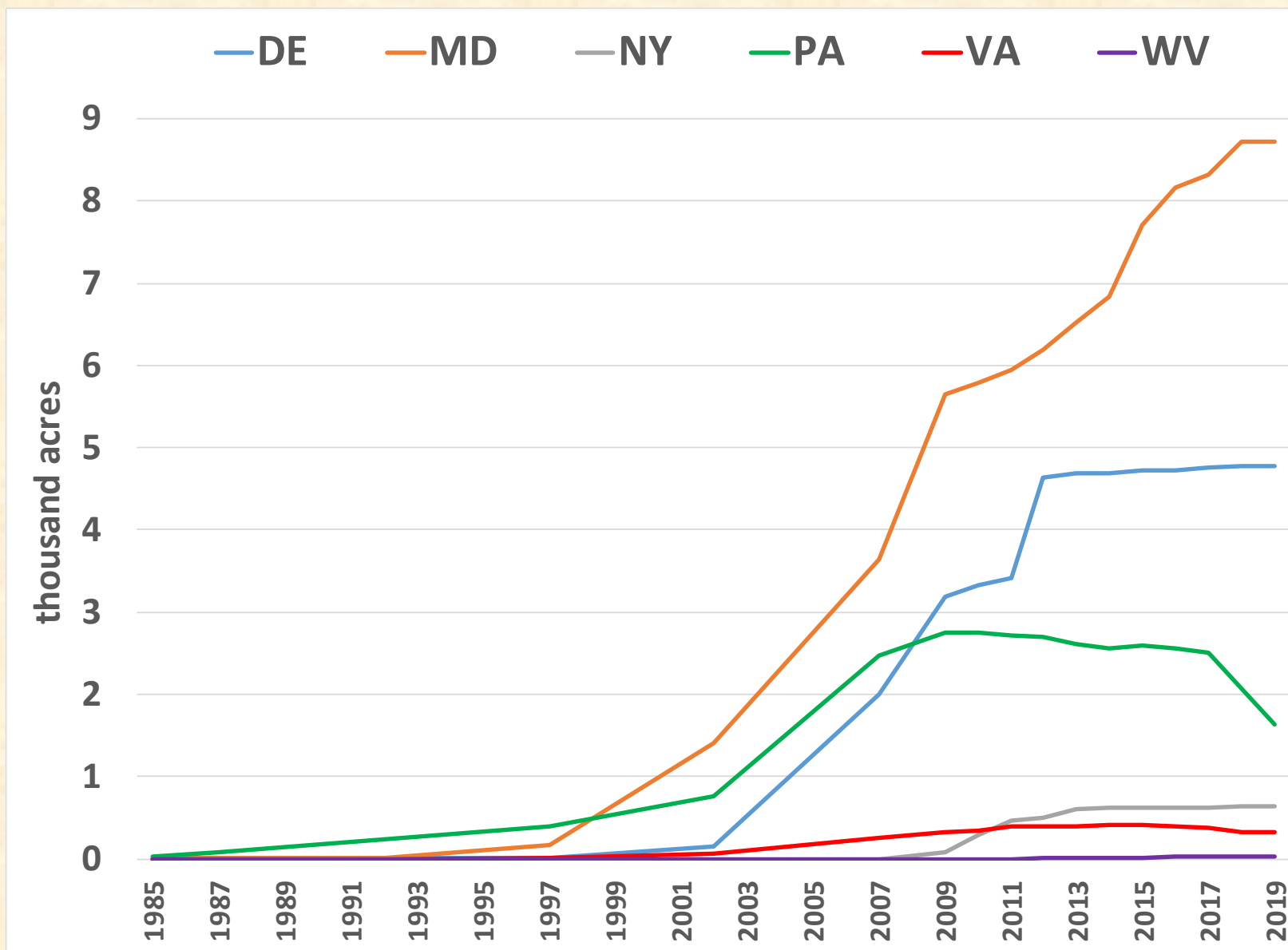


# Wetland Restoration + Creation

## 1985–2019 Reporting By State

### Project Examples

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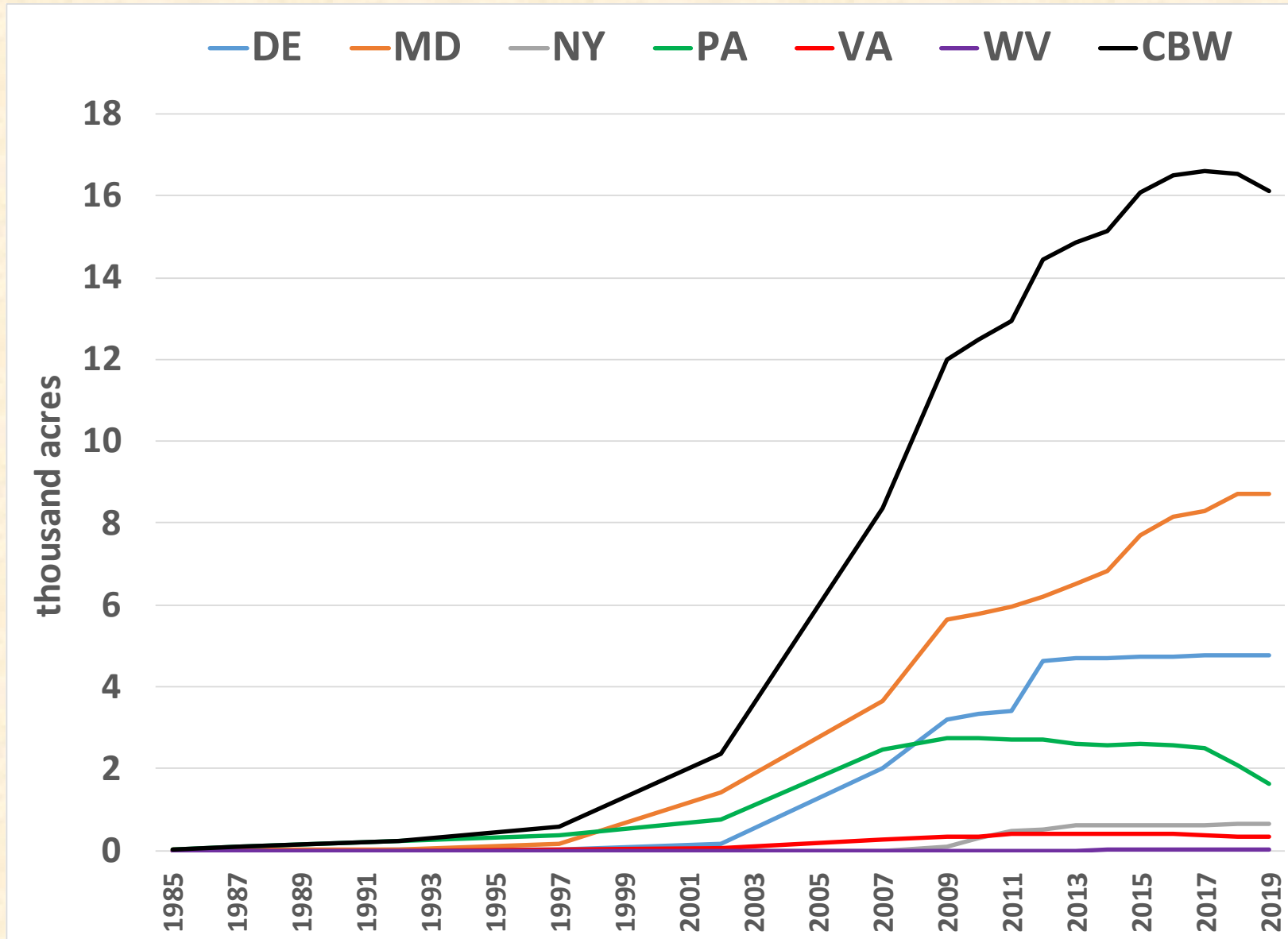


# Wetland Restoration + Creation

## Reporting By State + CB Watershed Composite

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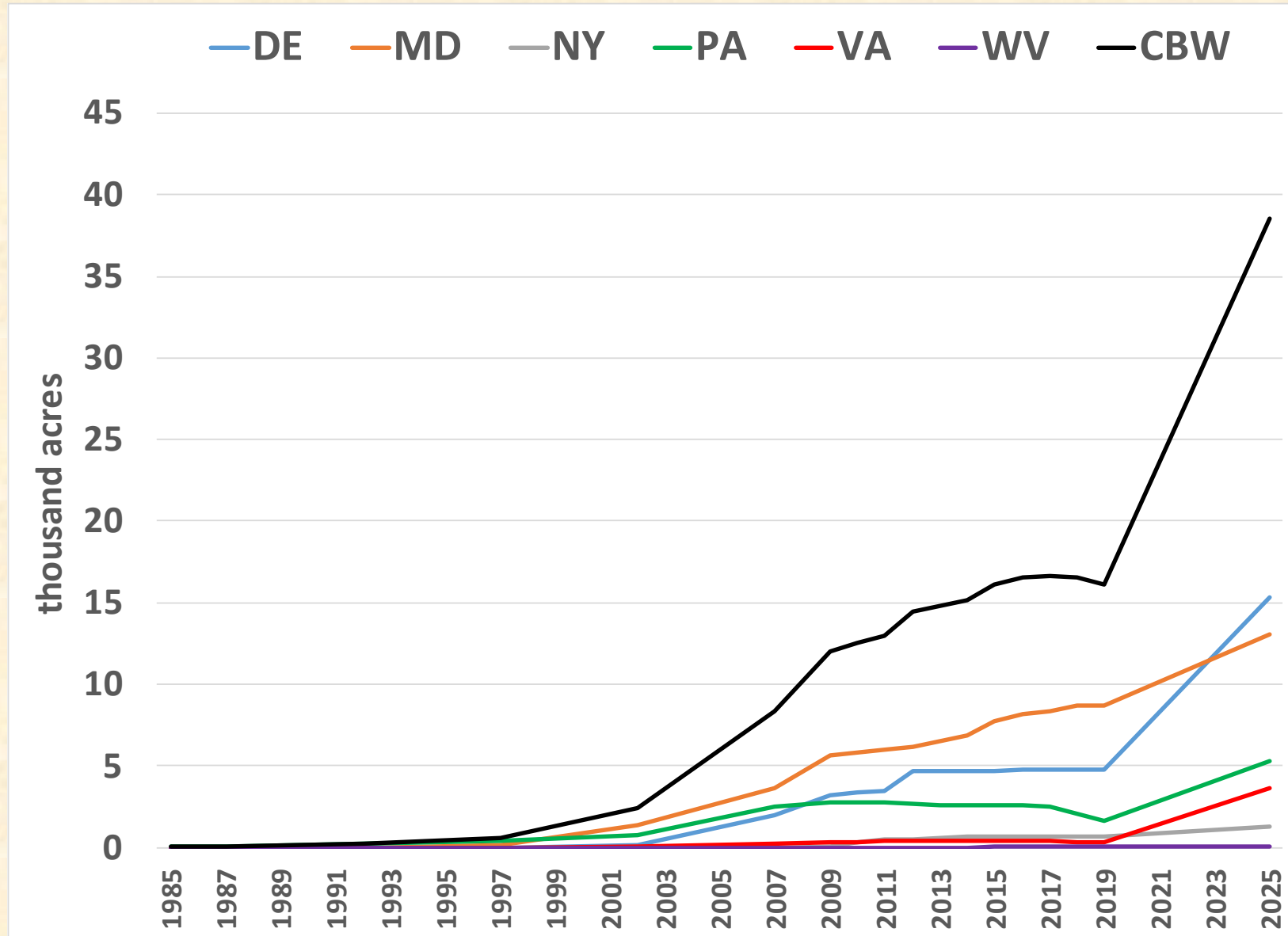


# Wetland Restoration + Creation

## 1985–2019 + 2025 WIP Goals

### Project Examples

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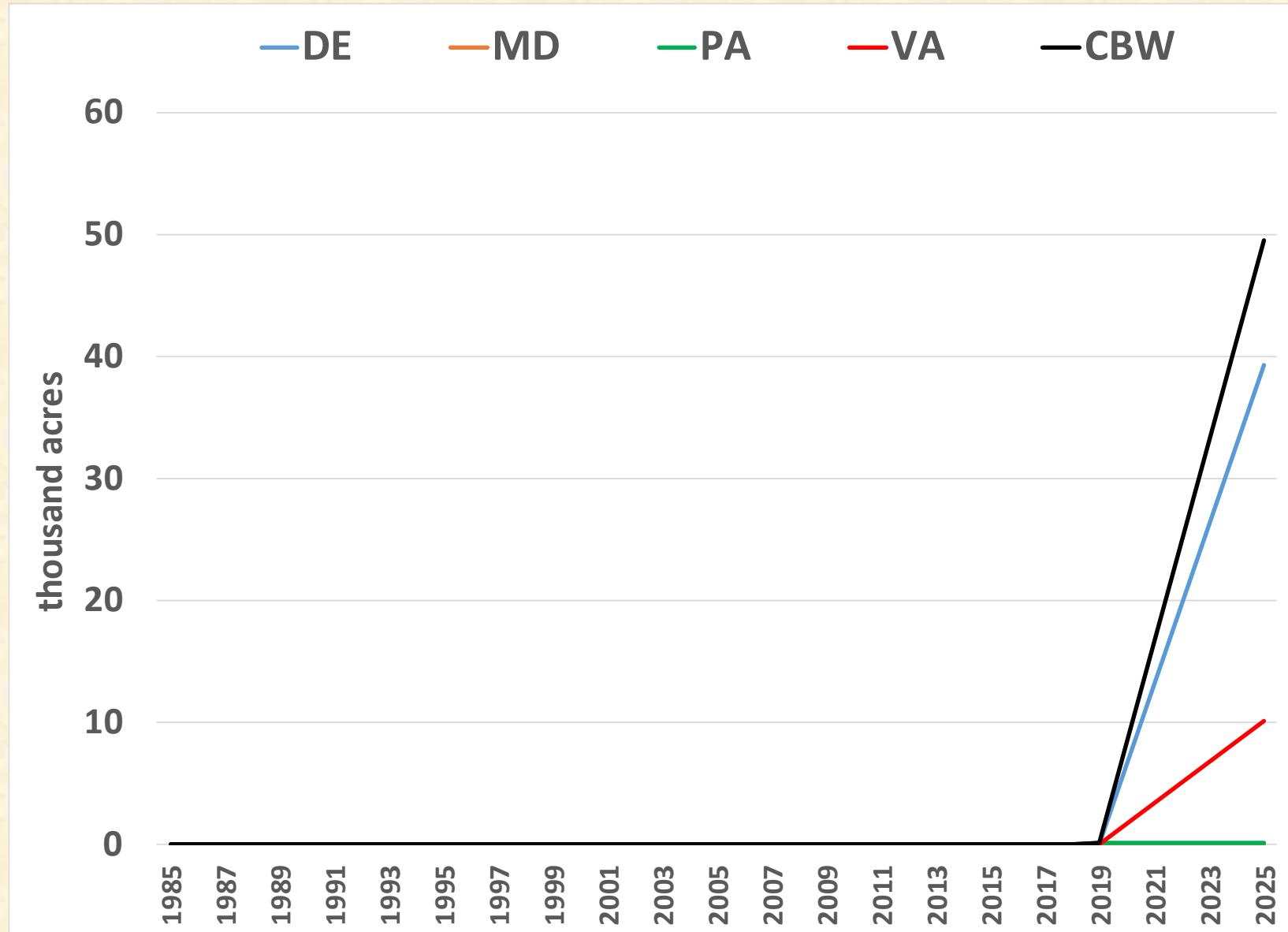


# Wetland Enhancement Re-habilitation

## 1985–2019 + 2025 WIP Goals

### Project Examples

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# ChesapeakeProgress

## Progress Towards Wetlands Outcome as of Oct., 2018

### Ag Wetland Restoration Acres (Annual)

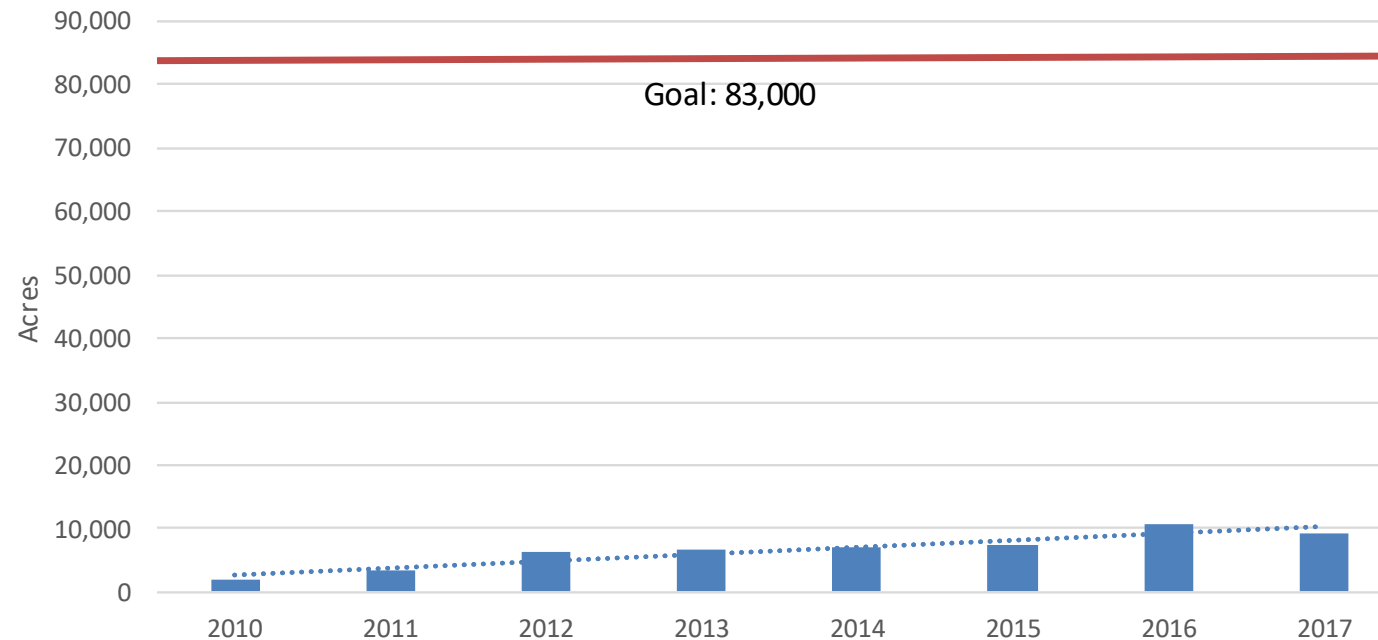
Source: CBP Watershed Model Scenario Input Deck (data beginning 2009 are input to scenarios in phase 5.3.2 WSM)

Contact: Jennifer Greiner, USFWS, CBPO

updated: 10/12/2018

Year	2010	2011	2012	2013	2014	2015	2016	2017	Goal	2025	Progress towards goal:
Cumulative Acres	1,921	3,531	6,258	6,705	6,925	7,623	10,876	9,103		83,000	10.97%
Annual Acres	1,921	1,610	2,727	447	220	698	3,253	-1,773			

Wetlands Restored on Agrucultural Lands





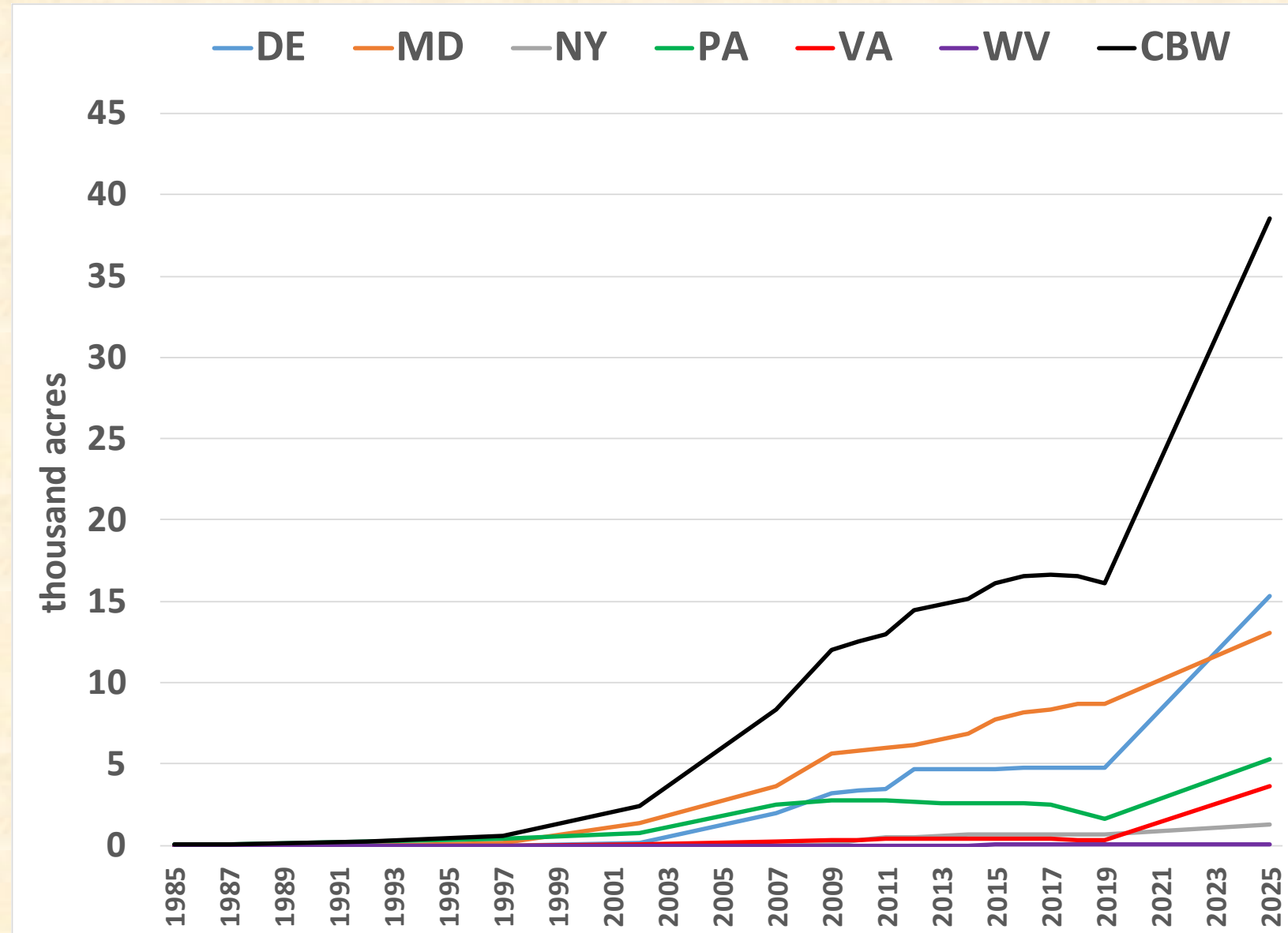


# Wetland Restoration + Creation

## Latest Reported History and Goals from States

### Project Examples

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# Model Data for Wetlands Verification

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Essence of jurisdictions' BMP Verification Program Plans is found in "Transparency Addendum" to the "BMP Verification Public Confidence Principle", regarding transparency:

- What actions were taken
- Which data were synthesized to generate a report or conclusion
- How data was collected and obtained
- What measures were employed to ensure data accuracy
- Who is responsible for data collection and synthesis
- Who is responsible for ensuring data accuracy
- The methods of data analysis utilized.



# Model Data for Wetlands Verification

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- The measures of transparency will be applied to three primary areas of verification:
  - 1) data collection
  - 2) data validation
  - 3) data reporting
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