

Update on CAST-2019

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Timeline for CAST-2019 Review

- February 21, 2020
 - Review initiated.
- March 5, 2020
 - Presentation on updates to the Watershed Technical Workgroup
- February 21 to March 22, 2020
 - Comments received from WV, MD, PA, DE, and VA and meetings held with each state
- March 23, 2020
 - CAST-2019 is presented to the WQGIT
- April 2, 2020
 - Presentation on updates to the Watershed Technical Workgroup
- April 27, 2020
 - Updates presented to the WQGIT
- Next Steps
 - Receive and respond to comments on CAST-2019 version
 - CAST-2019 goes live following final updates
 - CAST-2017d web-access is removed
 - Migrate Scenarios option is available to all users who have CAST-2017d scenarios

Comments Received

Change in hay acres

Developed acres

Double cropped acres

Dairy animals

Nutrient Applications compared to acres

Change in Projected Hay Acres

The 2017 Agricultural Census collapsed three categories of hay that were separate in previous censuses

- Wild hay
- Other Hay
- Small grain hay

The early CAST-2019 beta split the acres equally among the three categories.

UPDATE—the 2017 hay acres are proportioned according to the percentages in the 2012 census

Developed acres

States using land policy BMPs were seeing increases in developed acres.

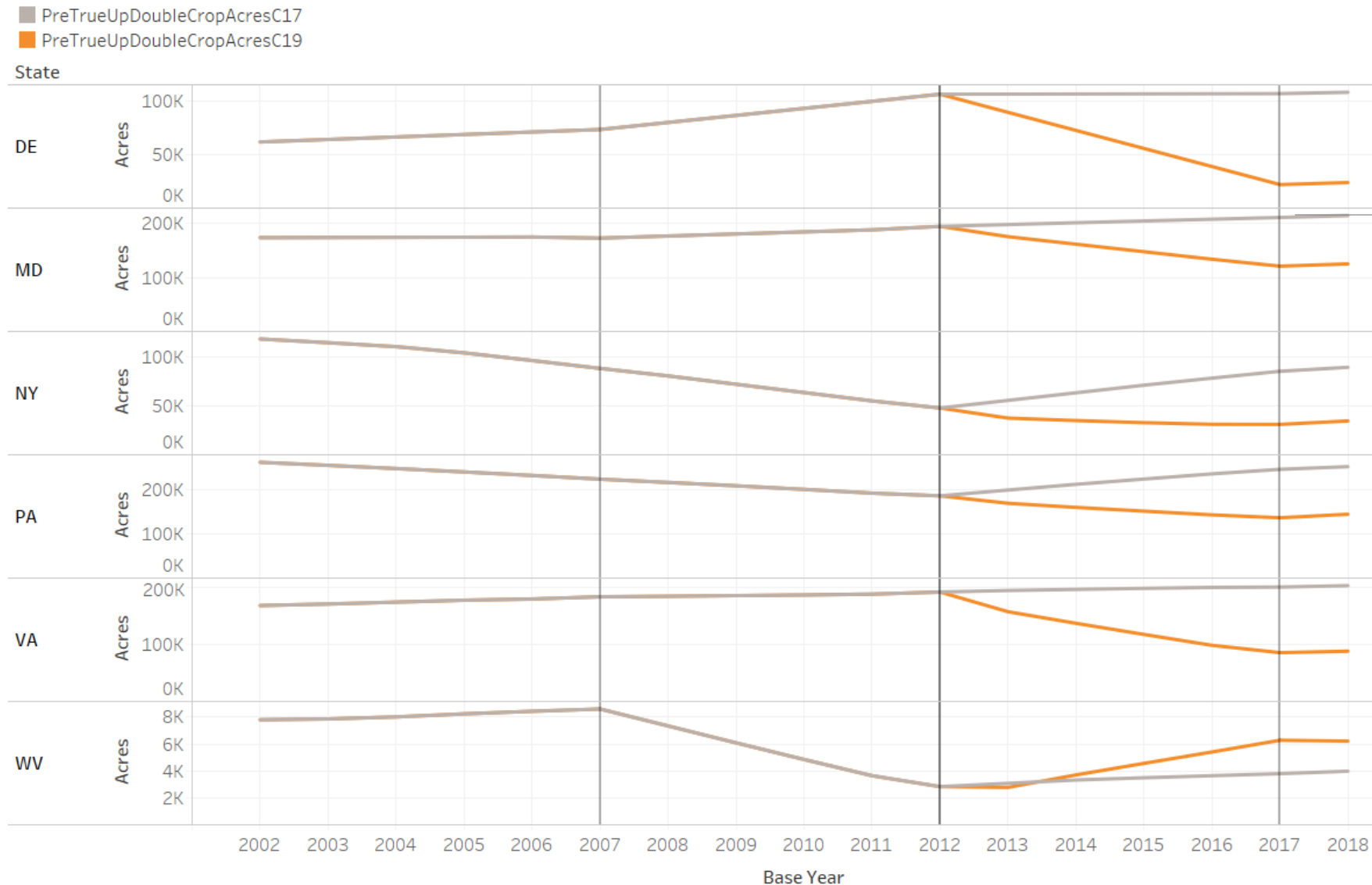
- Evident in the WIP scenario for WV, PA, and MD.

The processing of the land policy BMPs had an error.

UPDATE—the processing of these BMPs has been corrected and now the expected effect of conservation is evident

Some concerns were expressed that the process used to bring in the agricultural census data, construction acres, and harvested forest was causing this result. The issue was found with the processing of the land policy BMPs, not the “true up”.

Decrease in Double Crop Acres

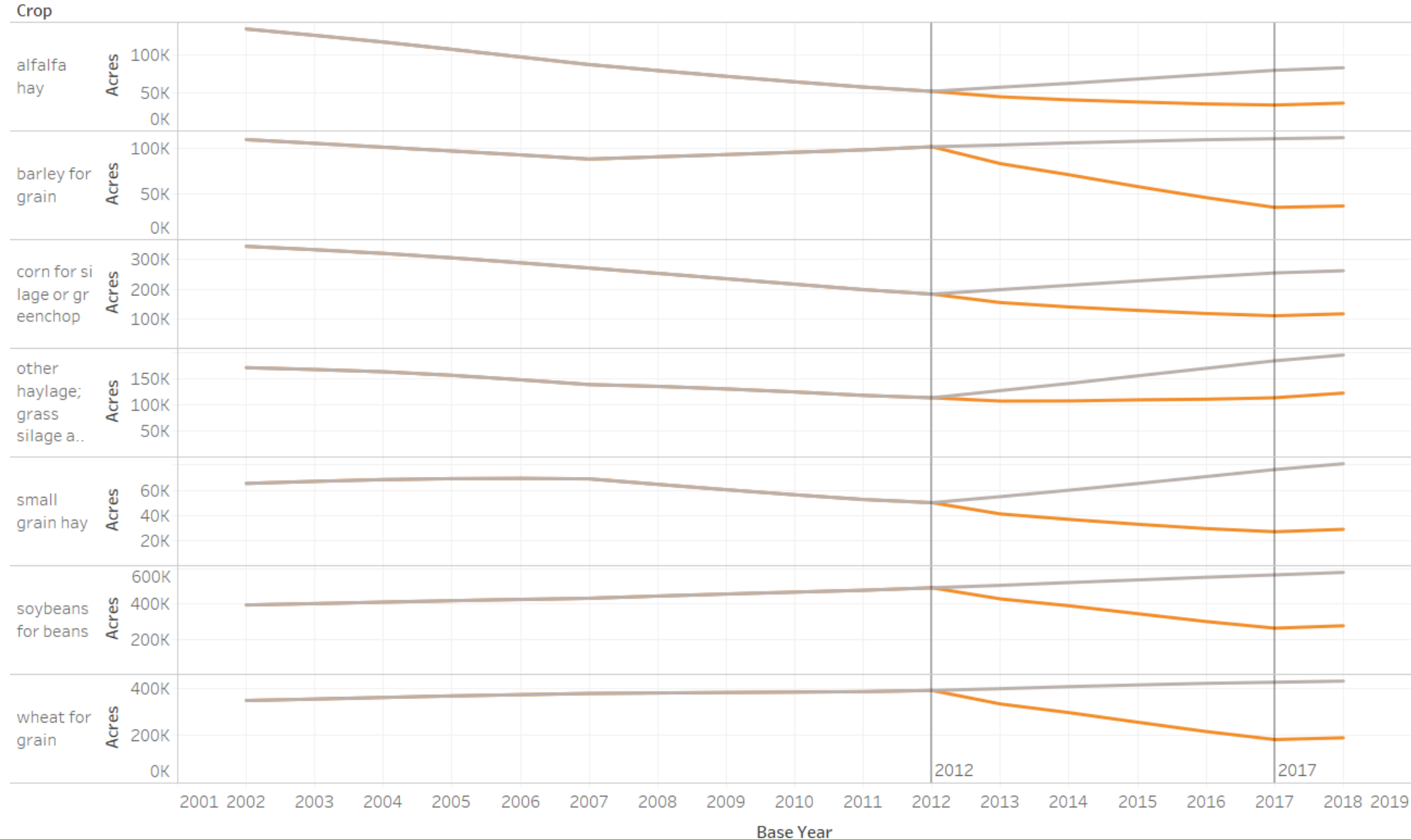


Available acres determined using difference between the Agricultural Census categories

- Total harvested cropland
- Sum of the acres of each crop harvested

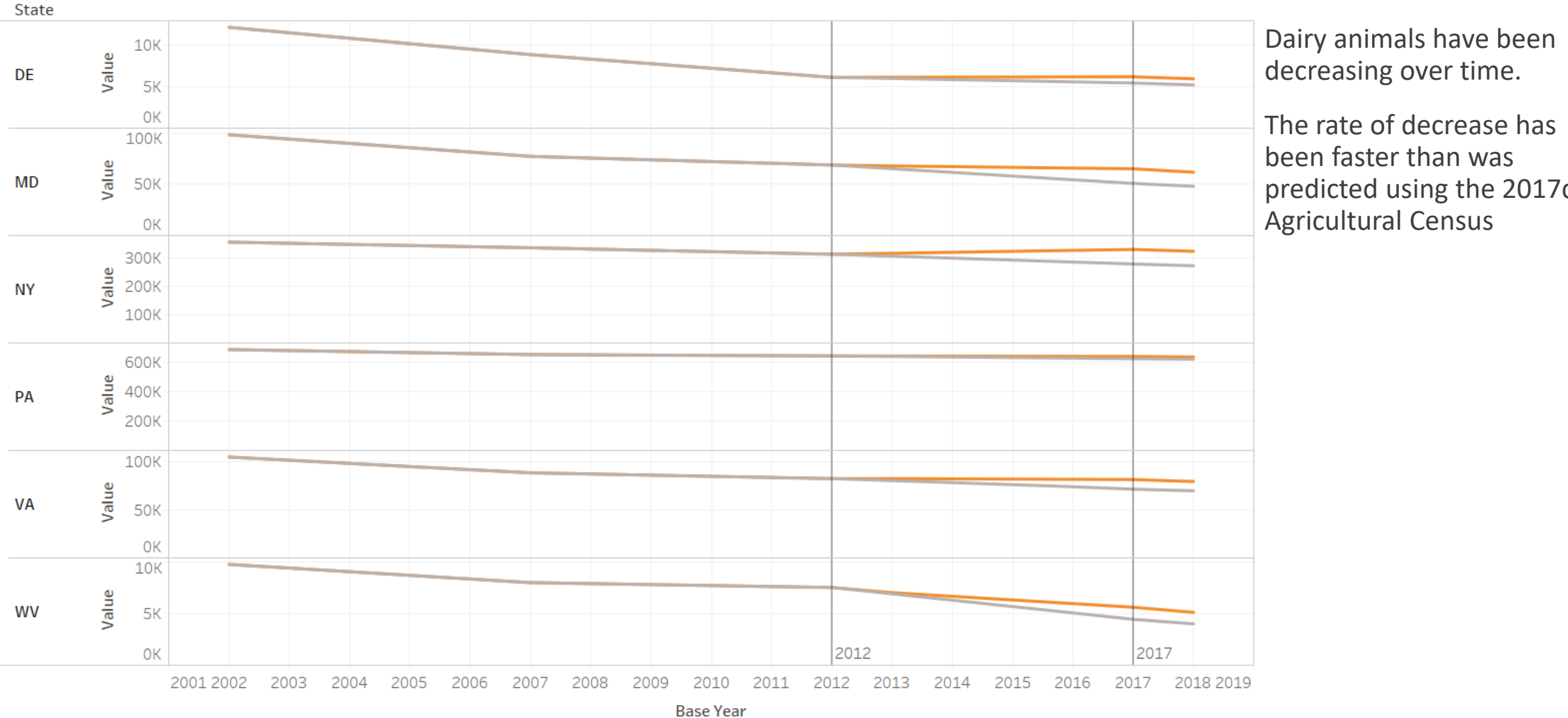
The 2017 Ag Census shows us that the projections from the 2012 Ag Census led to an overestimation of double crop acres used in CAST-2017d for 2013 to 2025.

The new data from the 2017 Ag Census corrects the previous projections



Change in Projected Double Cropped Crop Acres

■ PreTrueUpDoubleCropAcresC17
 ■ PreTrueUpDoubleCropAcresC19



Change in Projected Dairy Animals

Nutrient Applications Compared to Acres

The pounds of nutrients applied to all agricultural land is different between versions

UPDATE

- Analysis Underway
- Comparing the nutrient applications by specific land use for both versions of CAST with no BMPs

Data Available

<https://cast.chesapeakebay.net/Shiny/misc/castver/>

Compare CAST Versions

Loads

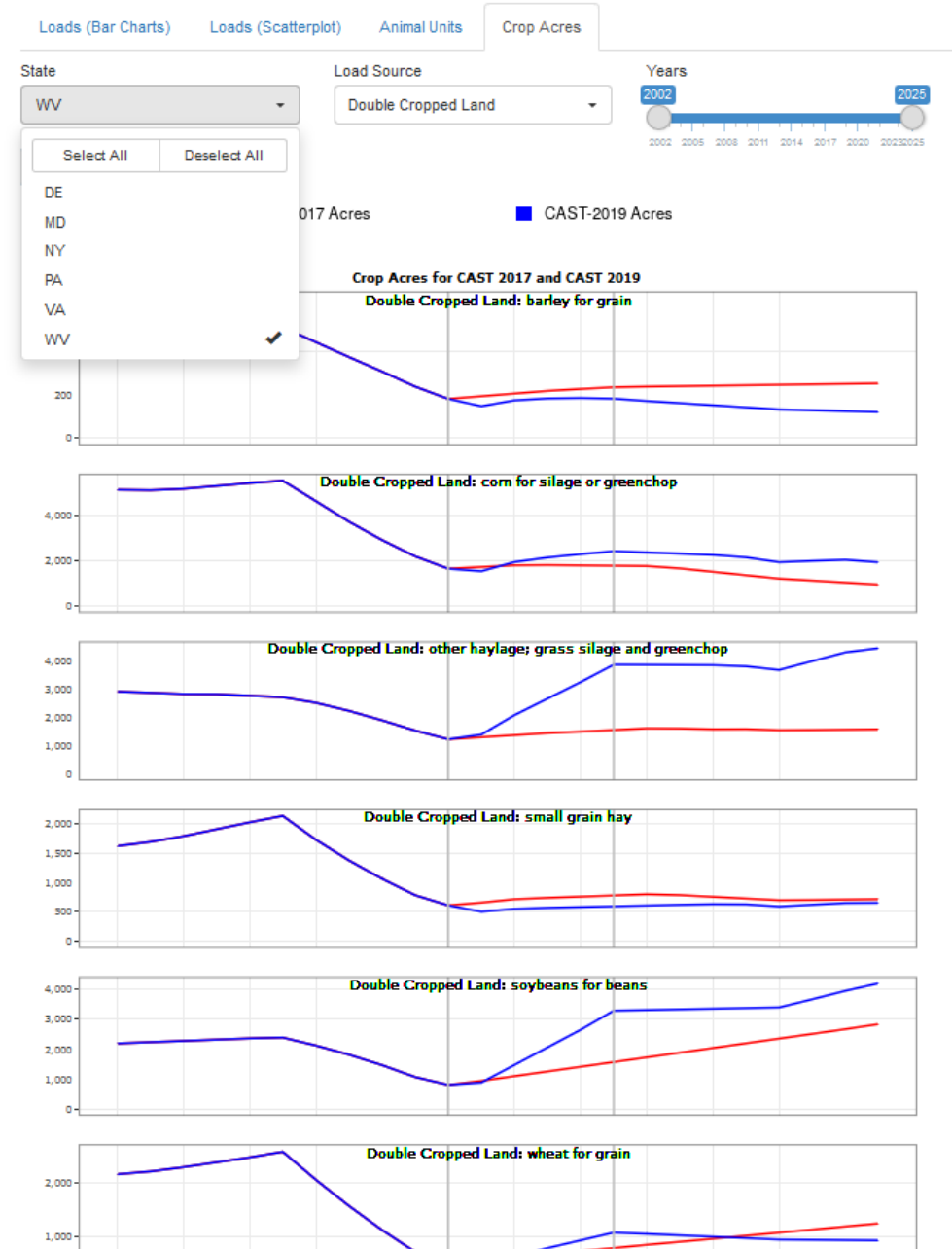
Compare loads between CAST versions 2017d and 2019 by viewing the edge of stream and edge of tide loads for nitrogen, phosphorus, and sediment. Select geography and sector of interest.

Animal Units

Compare animal units over time between CAST versions 2017 and 2019. Select state, animals, and date range. An animal unit is 1,000 pounds of live animal.

Crop Acres

Compare crop acres over time between CAST versions 2017 and 2019. Select state, load source, and date range.



CAST-2021 Schedule

September 1, 2021 - All data and approved methods

November 1, 2021 - CAST-2021Beta release

January 1, 2022 - Final CAST-2021 release



Questions?

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