Constant Delivery Factors Reconsideration

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WQGIT
6/10/13

Revisit Decision of 8/8/11

CHESAPEAKE BAY PROGRAM
WATER QUALITY GOAL IMPLEMENTATION TEAM
AUGUST 8TH, 2011 CONFERENCE CALL MINUTES

SUMMARY OF DECISION AND ACTION ITEMS

Action: WQGIT should send potential topics to Larry. Larry will compile, share with WQGIT, and determine whether a meeting is necessary

Action: Jennifer Sincock will follow up with Maryland on contract dollars to help tracking.

Action: CBP will have a meeting with Katherine Antos, Mark Dubin, and Frank Coale to discuss Rich Eskin's proposal regarding nutrient management.

Action: Katherine Antos will bring the issue of constant delivery factors to the Indicators Workgroup meeting next week.

Decision: WQGIT recommends using constant delivery factors for TMDL, WIP runs, milestone commitments, annual progress runs, and Bay Barometer "Reducing Pollution" indicator

Action: Linker will work to pull together the suggested changes to this document and a report on the N:P exchanges to be brought back to the group at the October meeting.

From 8/8 Discussion Paper

RATIONALE

Pros:

1. Jurisdictions will have an easier time creating their Phase II WIPs, determine local area targets, and calculating N:P exchanges if they know their delivery factors in advance.
2. The MAST/CAST tool does not contain variable delivery factors, so the agreement between MAST/CAST and the Phase 5.3.2 Bay watershed model will be much better with constant delivery factors.
3. Addresses requests by the partners.
4. Much easier to explain to public. Public comments were received on this issue during the development of the December 2010 Bay TMDL.

Cons:

1. There will be multiple scenarios for each year for multiple purposes. For example, there will be a 2011 scenario for load indicator use with the variable delivery factor and also a 2011 scenario with a constant delivery factor for accounting purposes.
2. Scientifically, the variable delivery factor is more defensible. However, we are setting it at a conservative point.

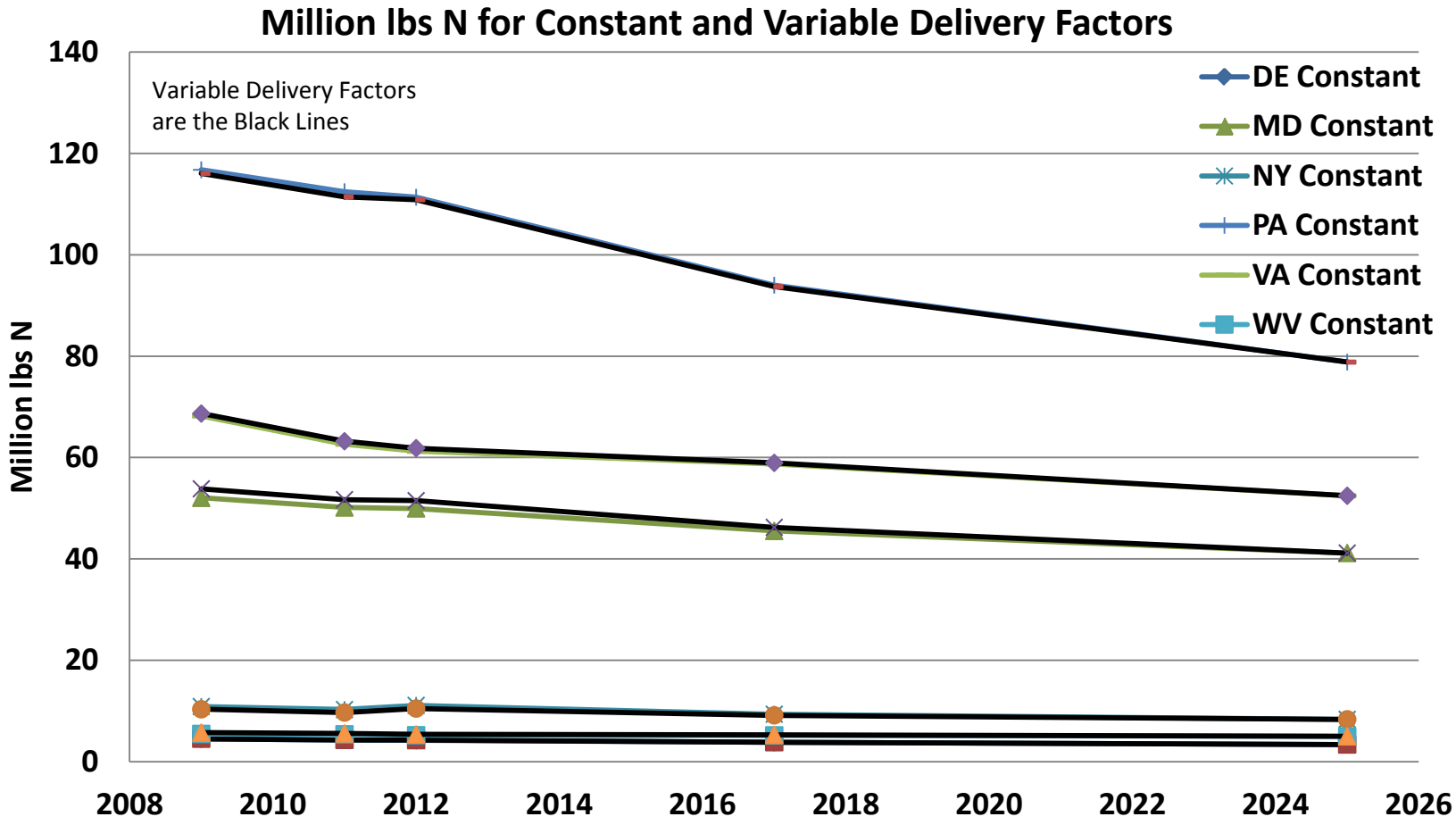
Questions raised by VA and PA January 2013 Modeling QR

Impact of Constant Delivery Factors on Annual Progress Runs

- Is the use of constant delivery factors on annual progress runs introducing error over the old or standard way where model delivery factors are generated per scenario?
- Is this error compounding what is communicated as progress with the use of 10-year averaging?
- Are we portraying a false since of progress?

- CBPO presented at 4/8/2013 WQGIT
- WQGIT requested some specific runs

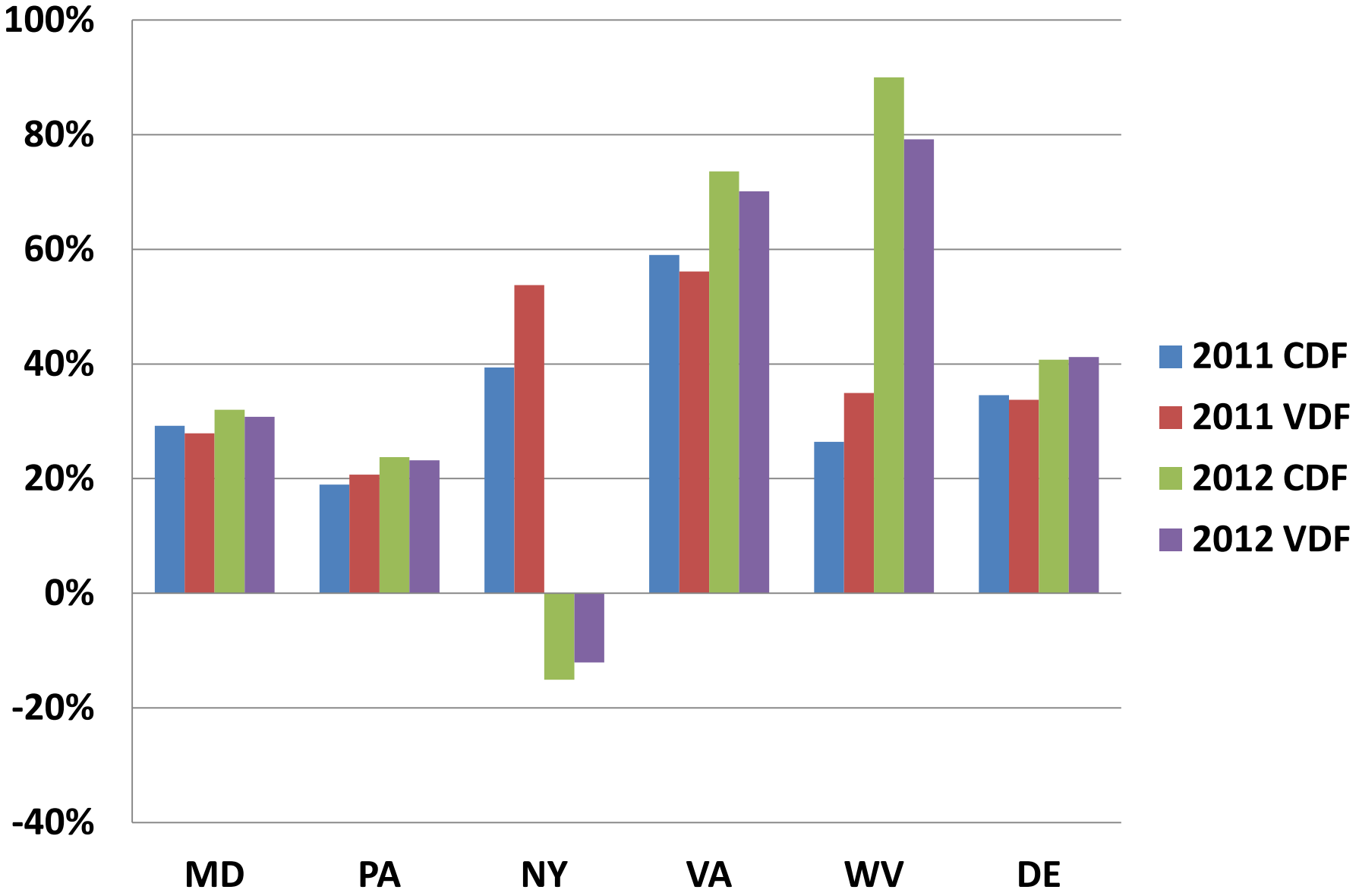
Scenarios with Constant and Variable Delivery Factors



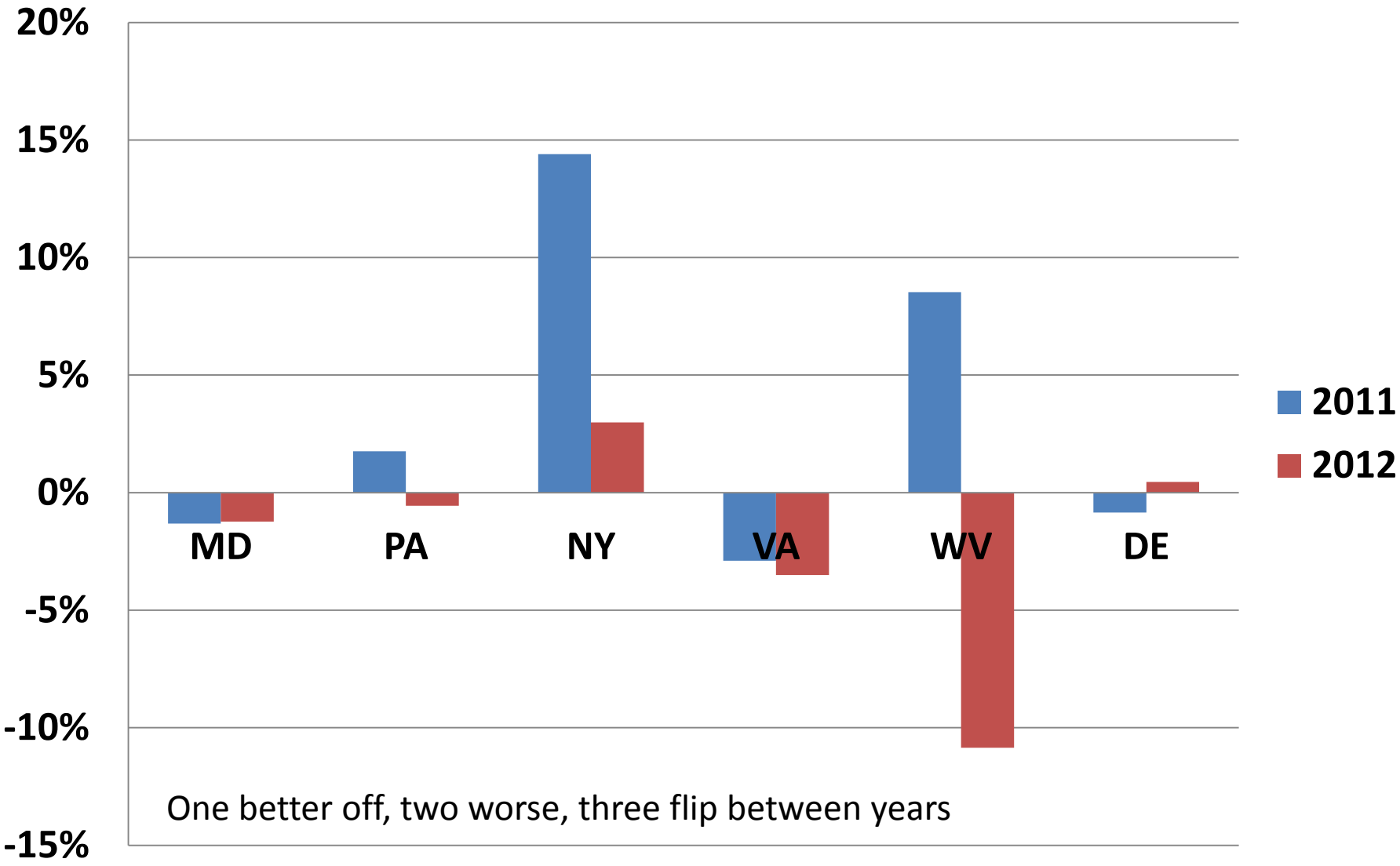
Points to Consider

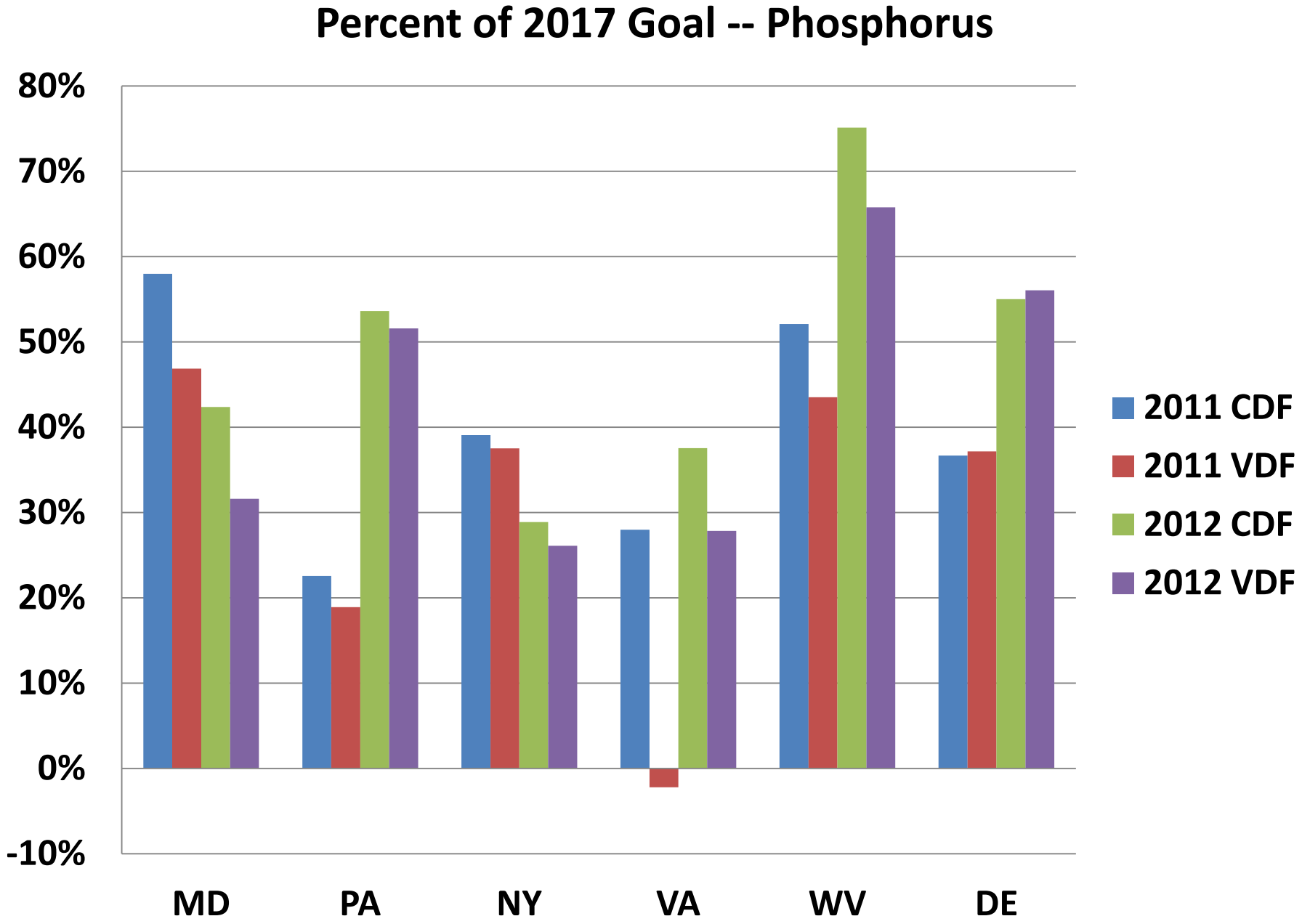
- Using Constant Delivery Factors means that progress reporting is proportional to edge-of-stream, which is directly related to effort.
- Annual progress reporting is looking at relatively small changes year-to-year.
  - Delivery factor changes applied against the load can be a larger influence than the annual incremental BMP implementation

Percent of 2017 Goal -- Nitrogen

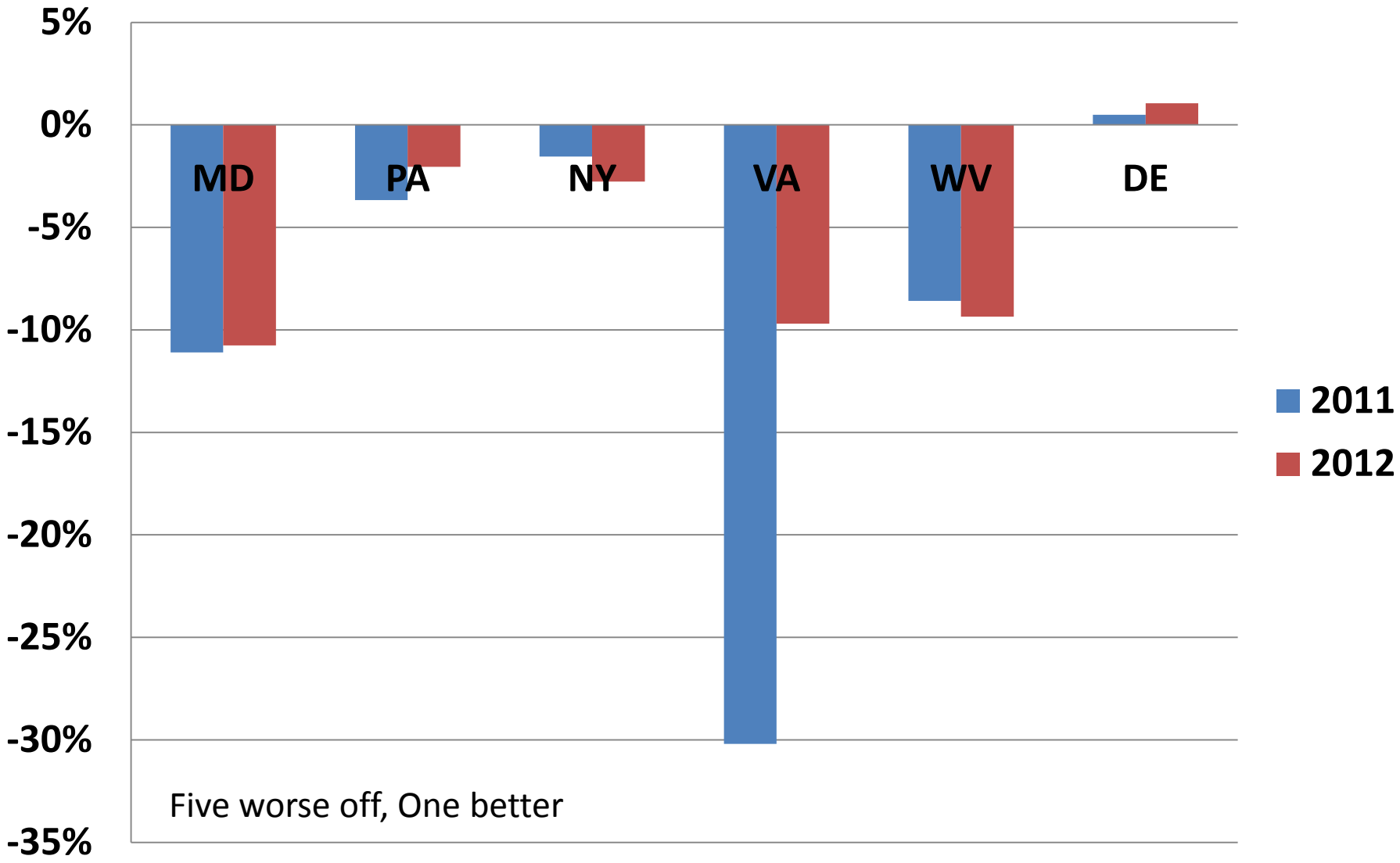


Change in progress toward 2017 by going to Variable Delivery Factors -- Nitrogen




Percent of 2017 Goal -- Phosphorus
80%
70%
60%
50%
40%
30%
20%
10%
0%
-10%
MD
PA
NY
VA
WV
DE
2011 CDF
2011 VDF
2012 CDF
2012 VDF

Change in progress toward 2017 by going to Variable Delivery Factors -- Phosphorus



CBPO recommendation – Keep CDFs

- Retains the agreed-upon method
- Credit is proportional to effort
- Much easier to understand and explain the results