Shoreline and Tidal BMPs in Planning Targets

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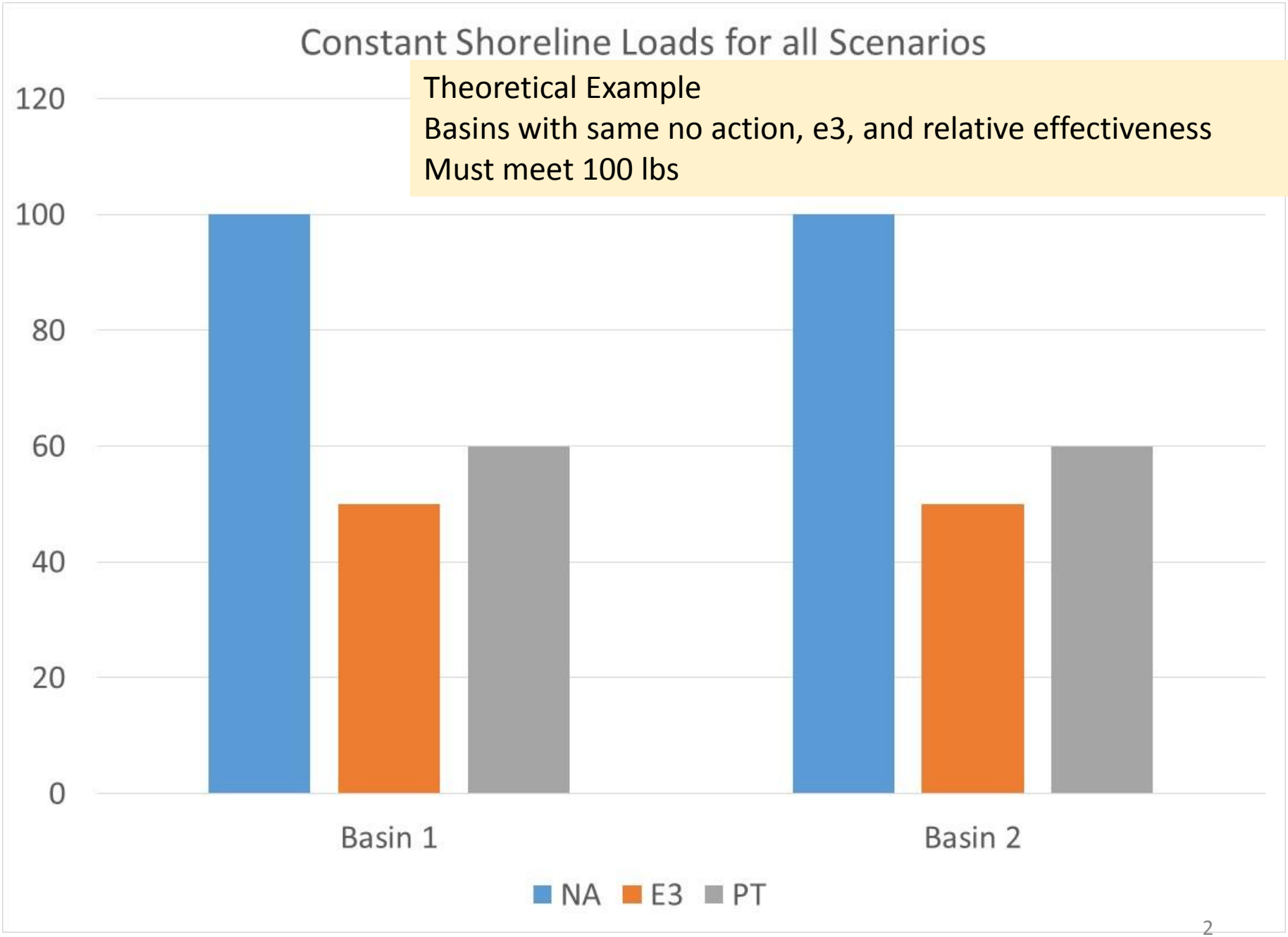
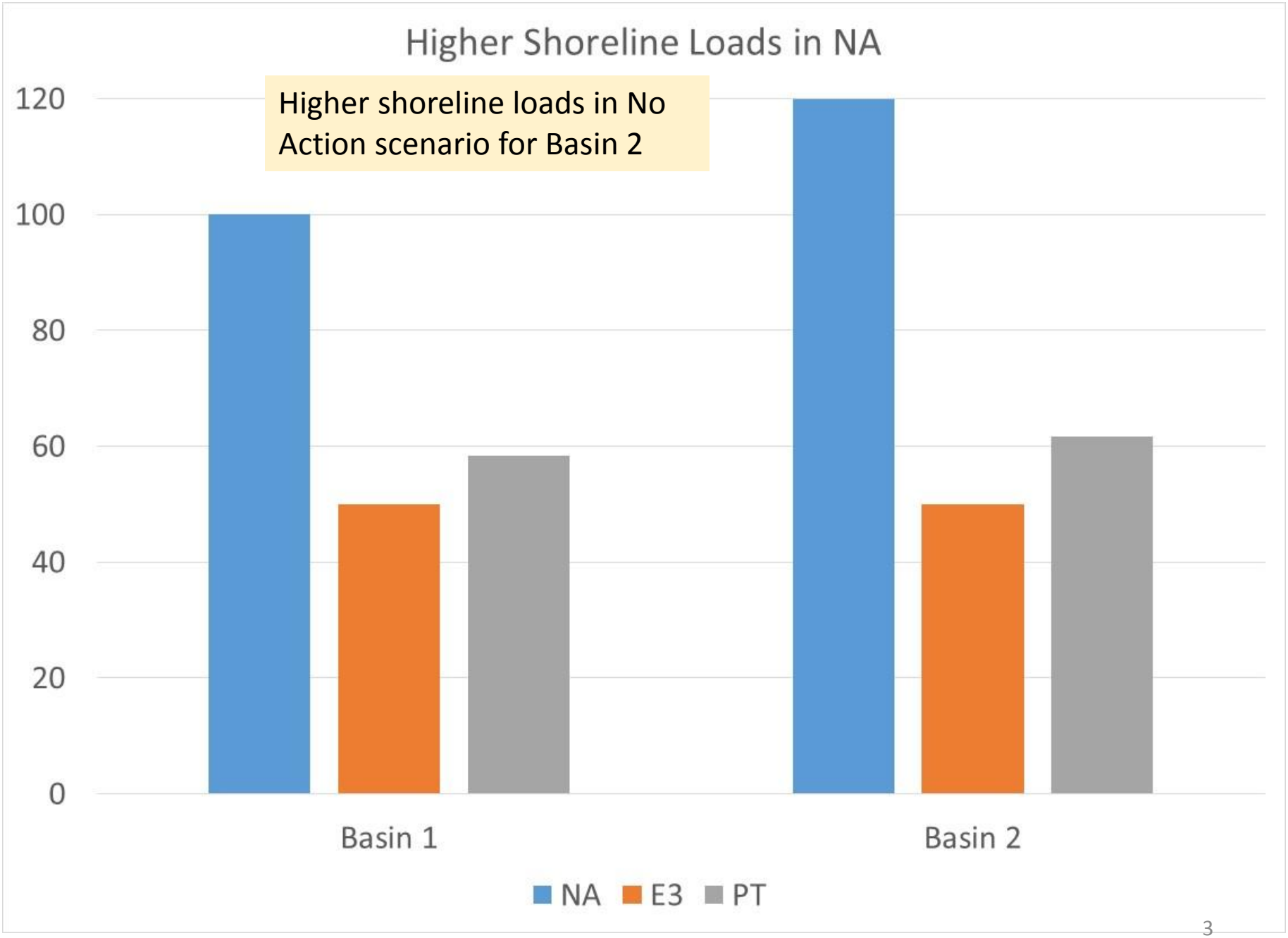
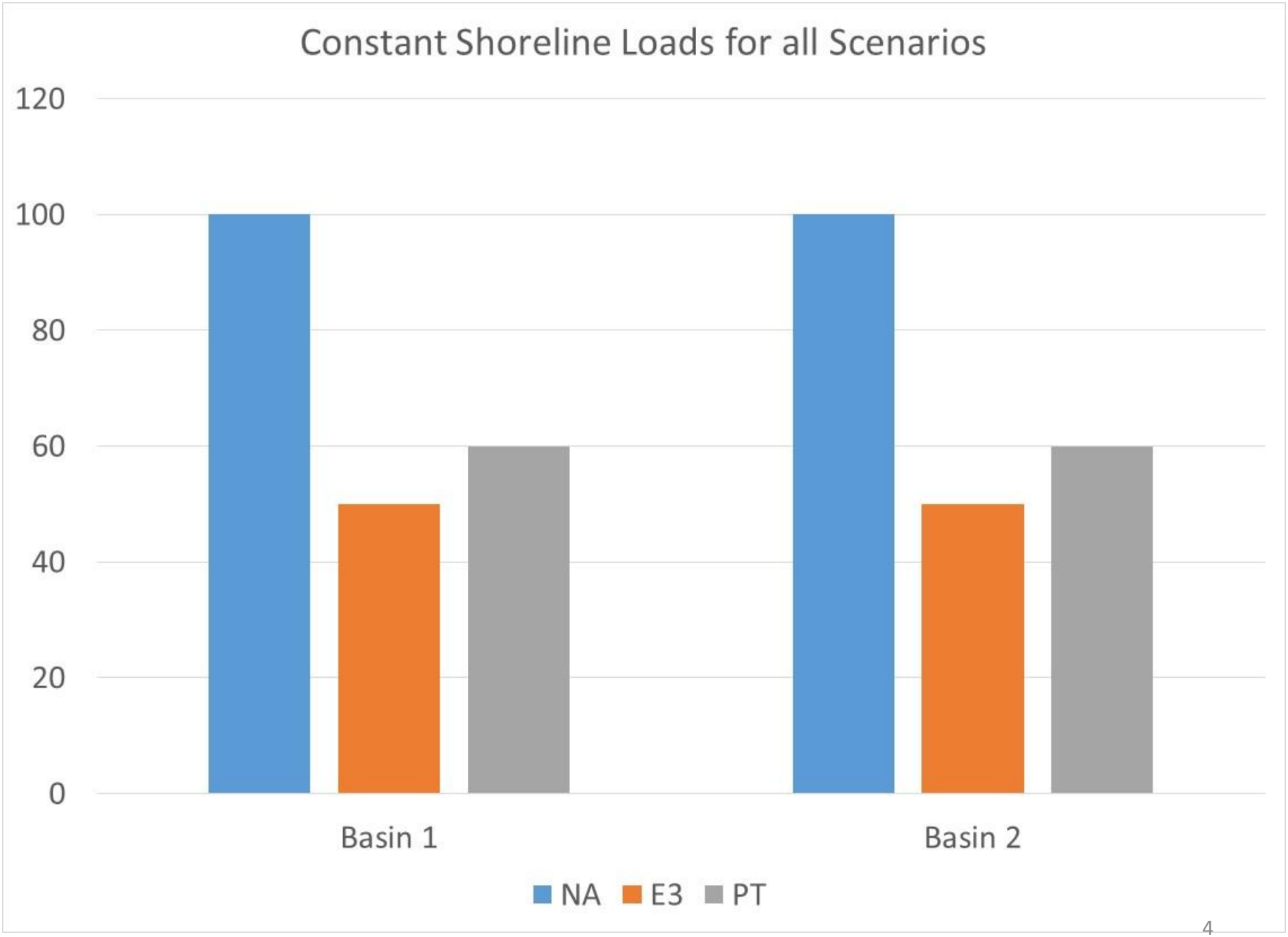


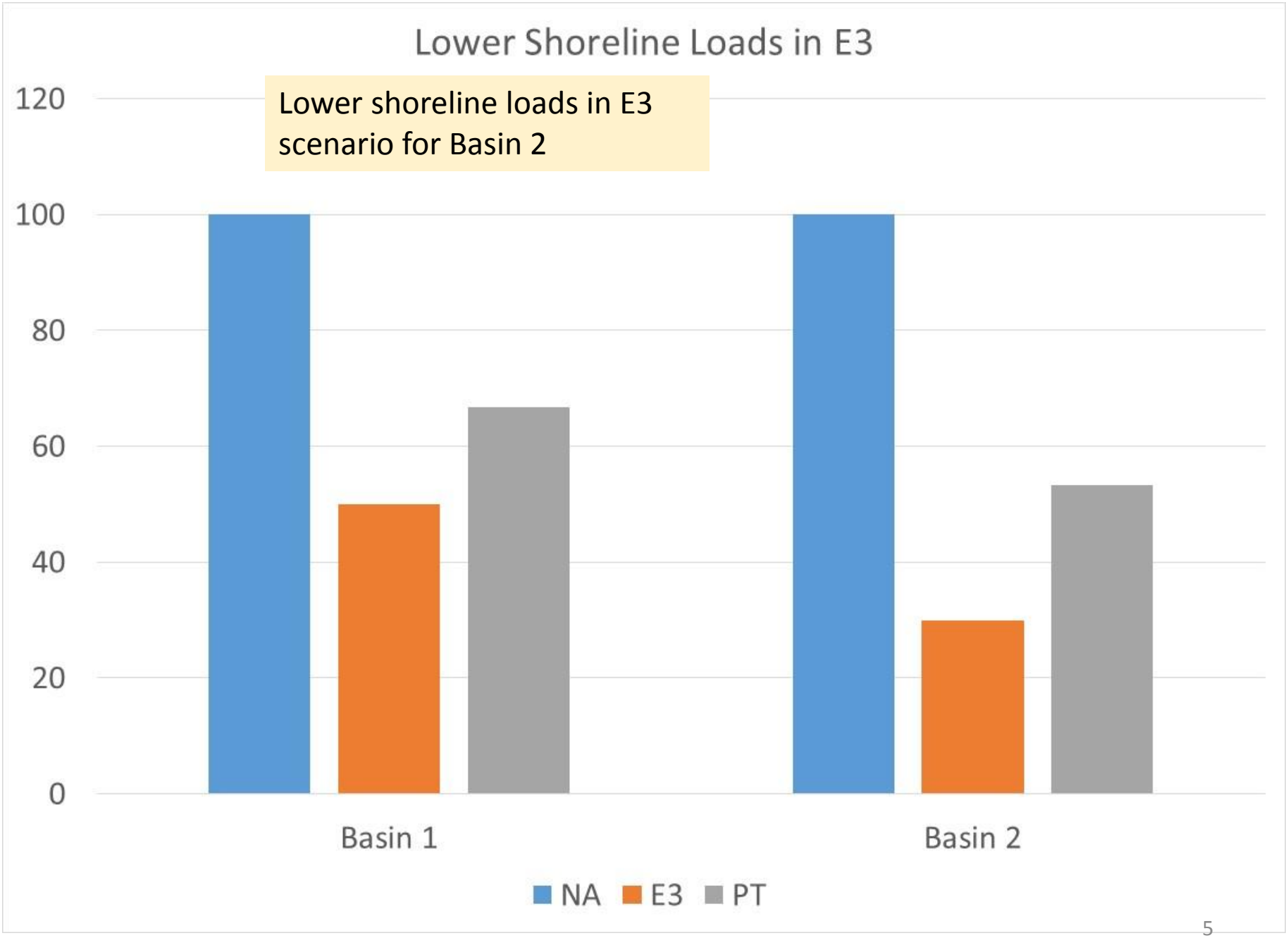
Theoretical Example

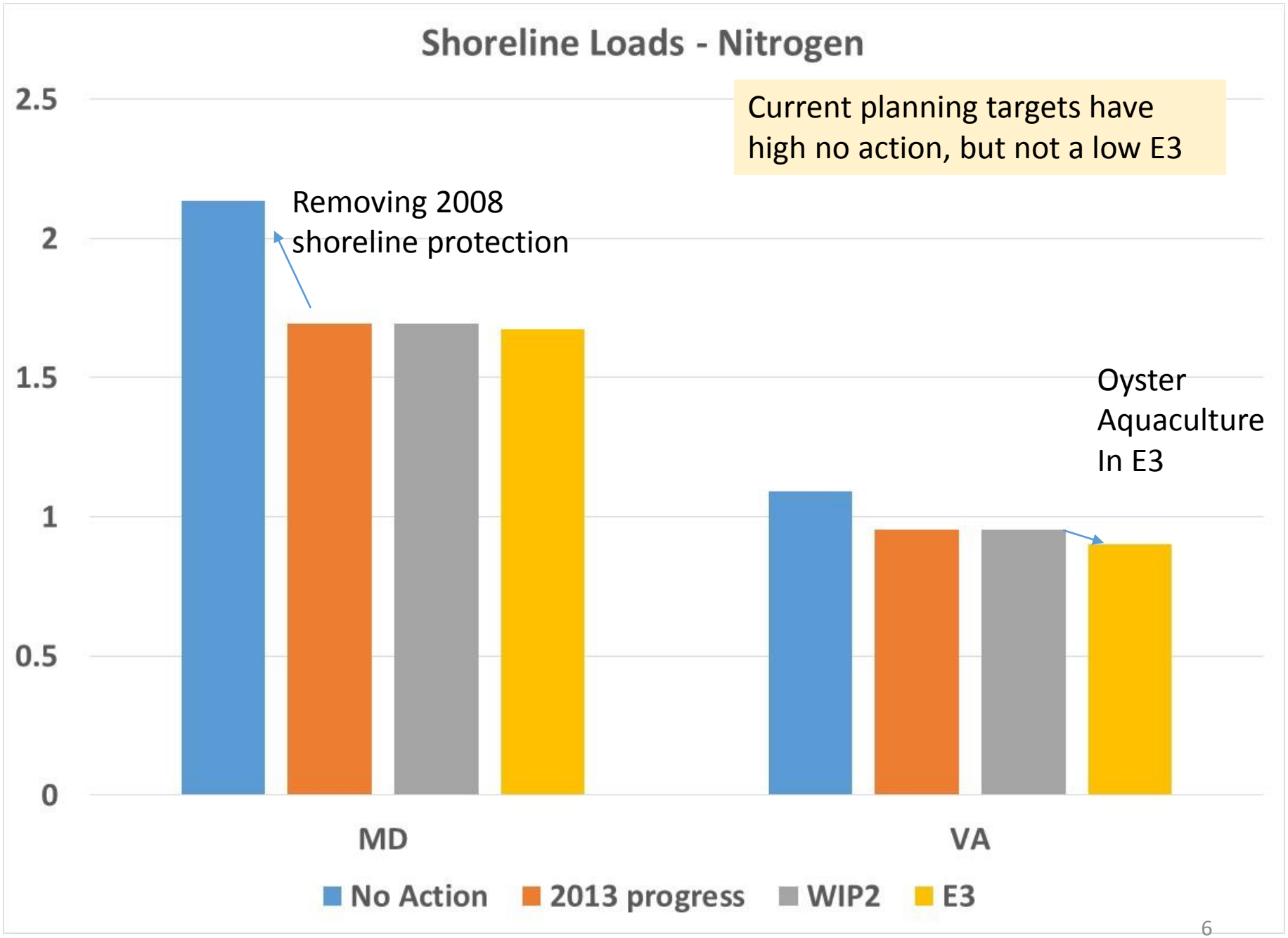
Basins with same no action, e3, and relative effectiveness

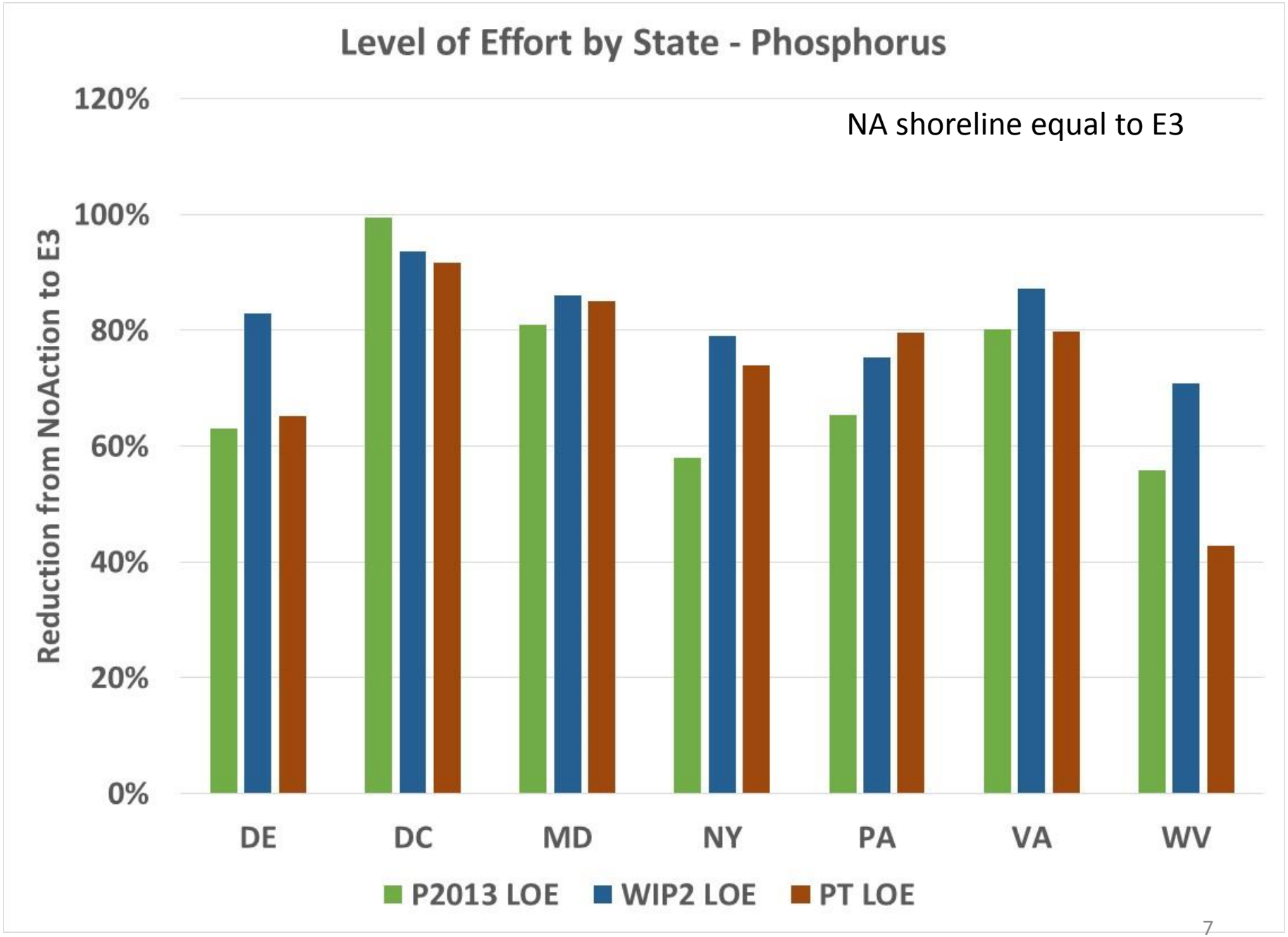
Must meet 100 lbs

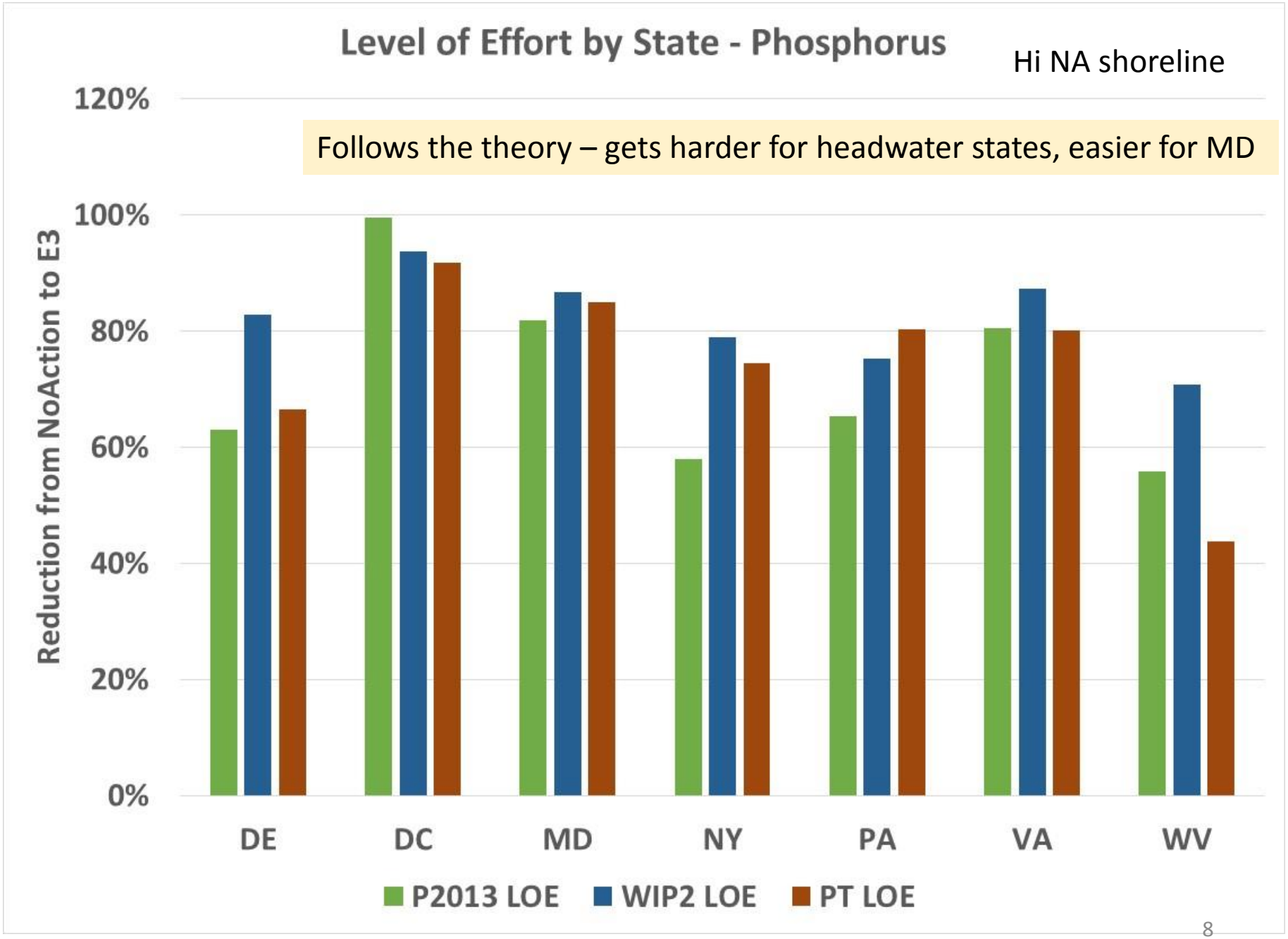

Higher Shoreline Loads in NA
Higher shoreline loads in No Action scenario for Basin 2
120
100
80
60
40
20
0
Basin 1
Basin 2
NA
E3
PT


Constant Shoreline Loads for all Scenarios
120
100
80
60
40
20
0
Basin 1
Basin 2
NA
E3
PT


Lower Shoreline Loads in E3
Lower shoreline loads in E3 scenario for Basin 2
120
100
80
60
40
20
0
Basin 1
Basin 2
NA
E3
PT


Shoreline Loads - Nitrogen
Current planning targets have high no action, but not a low E3
Removing 2008 shoreline protection
Oyster Aquaculture In E3
2.5
2
1.5
1
0.5
0
MD
VA
No Action
2013 progress
WIP2
E3


Level of Effort by State - Phosphorus
NA shoreline equal to E3
Reduction from NoAction to E3
120%
100%
80%
60%
40%
20%
0%
DE
DC
MD
NY
PA
VA
WV
P2013 LOE
WIP2 LOE
PT LOE


Level of Effort by State - Phosphorus
Hi NA shoreline
Follows the theory – gets harder for headwater states, easier for MD
120%
100%
80%
60%
40%
20%
0%
Reduction from NoAction to E3
DE
DC
MD
NY
PA
VA
WV
P2013 LOE
WIP2 LOE
PT LOE

Questions about shoreline loads

- Theory behind the planning target calculation is that jurisdictions are responsible for a certain fraction of what can be done
  - Do they get credit for existing shoreline protection relative to a No Action that removes city shorelines?
    - Is shoreline like a land use that No Action doesn't affect? Forest buffers are part of the land use and they are not removed for a No Action scenario.
    - Is shoreline like a BMP that can be removed in a No Action scenario?
    - Is shoreline like a WWTP that goes to primary treatment in No Action, but not a straight pipe?

Questions about shoreline loads

- Theory behind the planning target calculation is that jurisdictions are responsible for a certain fraction of what can be done
  - Do we have a low shoreline E3 that creates an expectation that states will do some percentage of what is available?
    - Should we expect DC Potomac to have the same percentage of protected shoreline as MD Lower Eastern Shore in an E3 case?

Some options to consider

- “Default” - Define a no action and E3 and treat just like any other BMP
- “Extra Credit” – No part in planning target calculations, but credit is given for implementation

Default option – Shoreline

- Define a No Action and E3 that gives reasonable credit for past action and reasonable expectation for future
- Set No Action to a true 'No Action'?
  - Creates credit for very long-standing shoreline protection (does the construction of Baltimore Harbor count as a BMP toward the Maryland's portion of the TMDL?)
  - Would make it hard for state-basins with lots of natural shoreline to meet targets without hardening large portions
  - Gives credit for past actions
- Set No Action to 2008?
  - Year the survey was completed
  - Gives credit for recent actions

Default option – Shoreline

- Define a No Action and E3 that gives reasonable credit for past action and reasonable expectation for future
- Set E3 to a true “everything, everywhere”
  - Creates expectation of certain percent of shoreline protection everywhere
  - Would make it hard for state-basins with lots of natural shoreline to meet targets without hardening large portions
- The ‘all else’ line varies between 55% to 75% for tidal state-basins
- Setting No Action to 2008 and E3 to a value that is about 60% higher than expected implementation through 2025 by State-Basin would result in a reachable goal

Default option - Oysters

- Defined a No Action and E3 that gives reasonable credit for past action and reasonable expectation for future
- Set No Action to a true ‘No Action’
  - Straightforward – no implementation
- E3 was determined by suitable areas

Extra Credit option

- No Action and E3 are both defined as the 2008 implementation
- Responsibility for implementing shoreline and tidal BMPs are taken out of the planning target calculation

- Question – What to do with the reductions from these sources?

Extra Credit option – who gets the credit?

- Implementing jurisdiction
  - As an additional tool to meet planning targets
- Implementer
  - As tradable nutrient reductions
- The CBP partnership
  - As credits to all states proportional to planning target
  - As additional margin of safety
  - As additional assimilative capacity in future calculations

Default Option

- Pro
  - Established method that is consistent with planning target principles
- Con
  - Creates the need for new decisions on No Action and E3
  - Could create situations with unrealistic expectations or too much credit for past actions

Extra Credit Option

- Pro
  - Simple implementation
  - Will not create unrealistic expectations
- Con
  - Requires a decision on who gets the credit
  - May not follow the principle of the planning target calculation where state-basins are expected to implement a certain percentage of what could be implemented

Decision Requested

- Default option
  - What are the no action and E3 levels?
- Extra credit option
  - What are to be done with the credits?