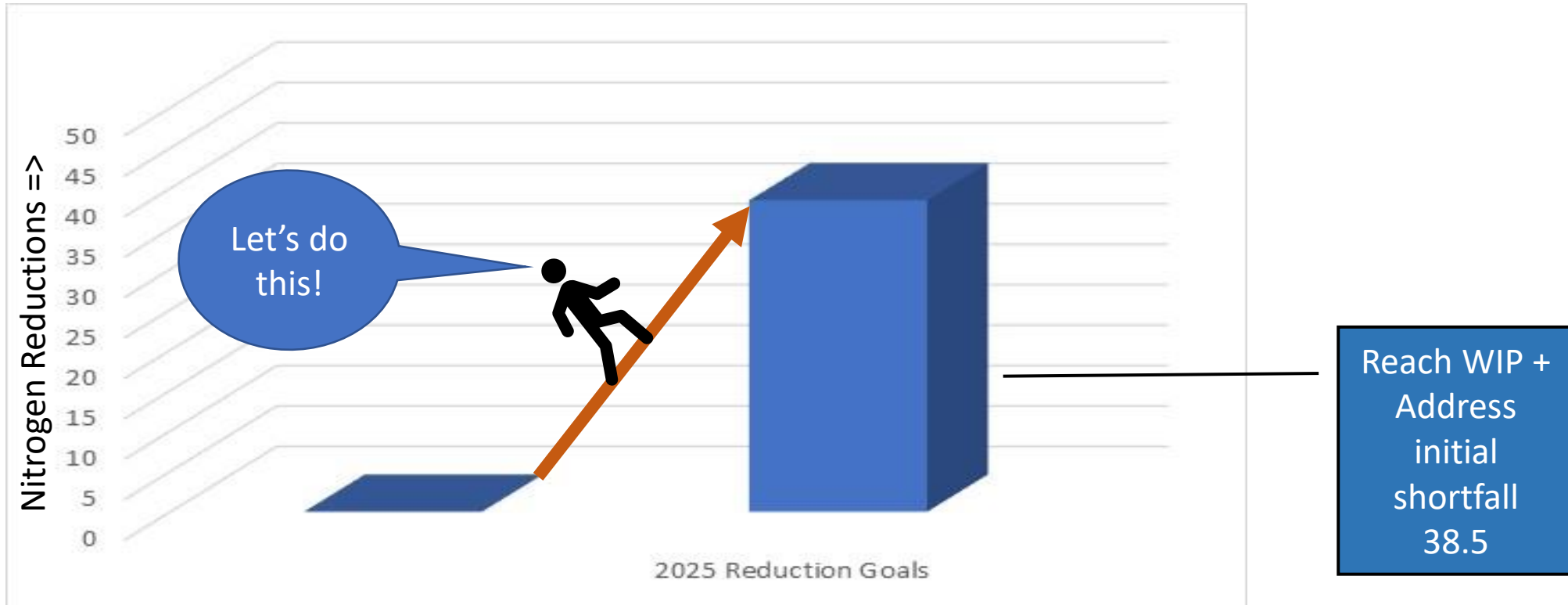


Dealing with unaccounted loads

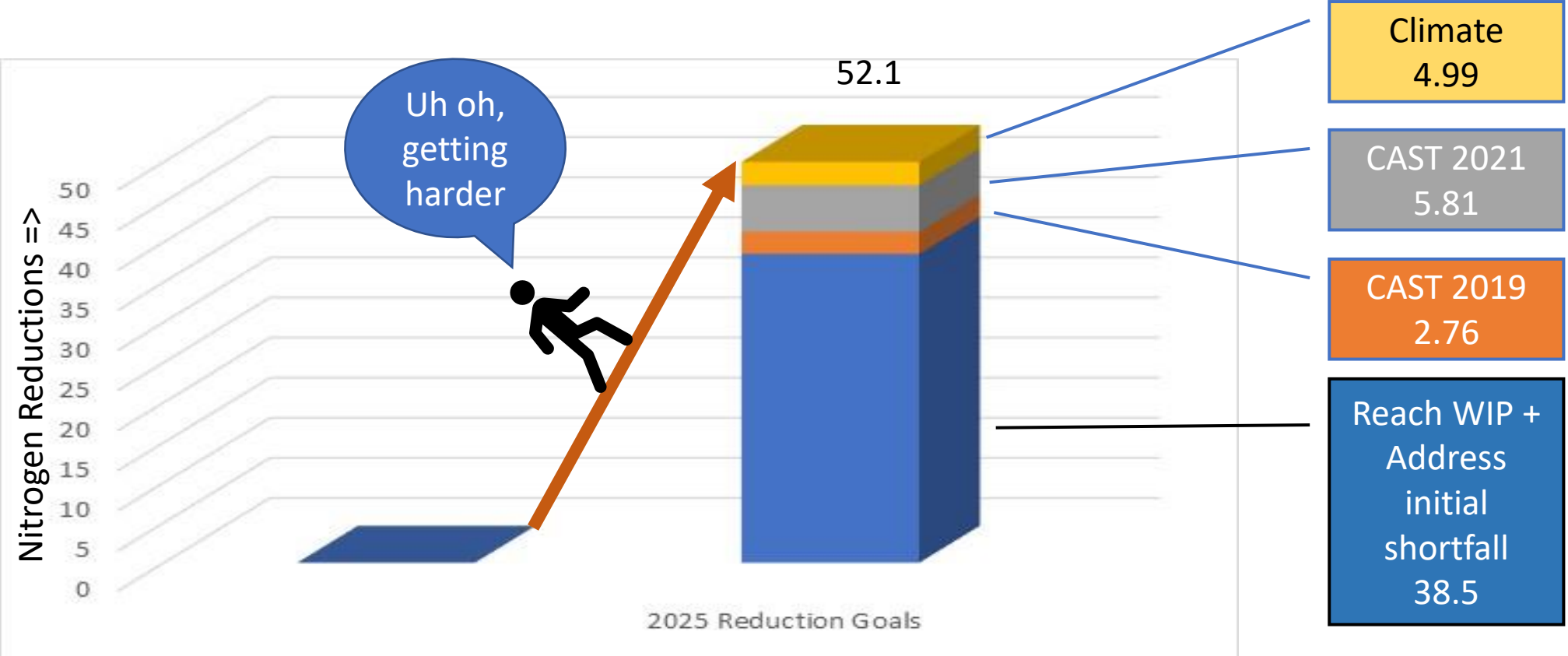
Proposal:

Define unaccounted loads as loads identified after the planning targets were adopted in July 2018, which keeps the level of effort constant.

Original Phase 3 level of effort



New versions of CAST raised loads



Get back to the original Phase 3 level of effort



We can move forward with CAST2021 – following partnership decisions

...the numbers

	Nitrogen Reduction (Million pounds)					
Jurisdiction	CAST-17 WIP + Planning Target	CAST-19 addn'l WIP loads	CAST-21 addn'l WIP loads	Climate Change	Total addn'l loads	Total Reduction
DC	-0.77	0.00	0.00	0.01	0.01	-0.77
DE	1.65	0.44	0.48	0.04	0.96	2.60
MD	4.19	0.77	1.10	1.14	3.01	7.20
NY	0.86	-0.12	0.82	0.40	1.10	1.96
PA	30.08	1.04	2.78	1.81	5.63	35.71
VA	3.18	0.34	0.74	1.59	2.66	5.84
WV	-0.66	0.29	-0.11	0.00	0.18	-0.47
All	38.53	2.76	5.81	4.99	13.56	52.08
	Phosphorus Reduction (Million pounds)					
Jurisdiction	CAST-17 WIP + Planning Target	CAST-19 addn'l WIP loads	CAST-21 addn'l WIP loads	Climate Change	Total addn'l loads	Total Reduction
DC	-0.06	0.00	0.00	0.00	0.00	-0.06
DE	0.02	0.01	0.01	0.00	0.02	0.04
MD	-0.01	0.12	-0.44	0.11	-0.21	-0.22
NY	0.05	0.00	0.01	0.04	0.06	0.11
PA	0.73	0.05	0.00	0.09	0.14	0.87
VA	0.35	-0.03	-0.18	0.34	0.12	0.47
WV	-0.03	0.02	0.08	0.01	0.10	0.08
All	1.05	0.15	-0.52	0.60	0.23	1.29

Illustrating the proposal: version 2

There is **ONE proposal**, but there are two versions of how to explain the concept

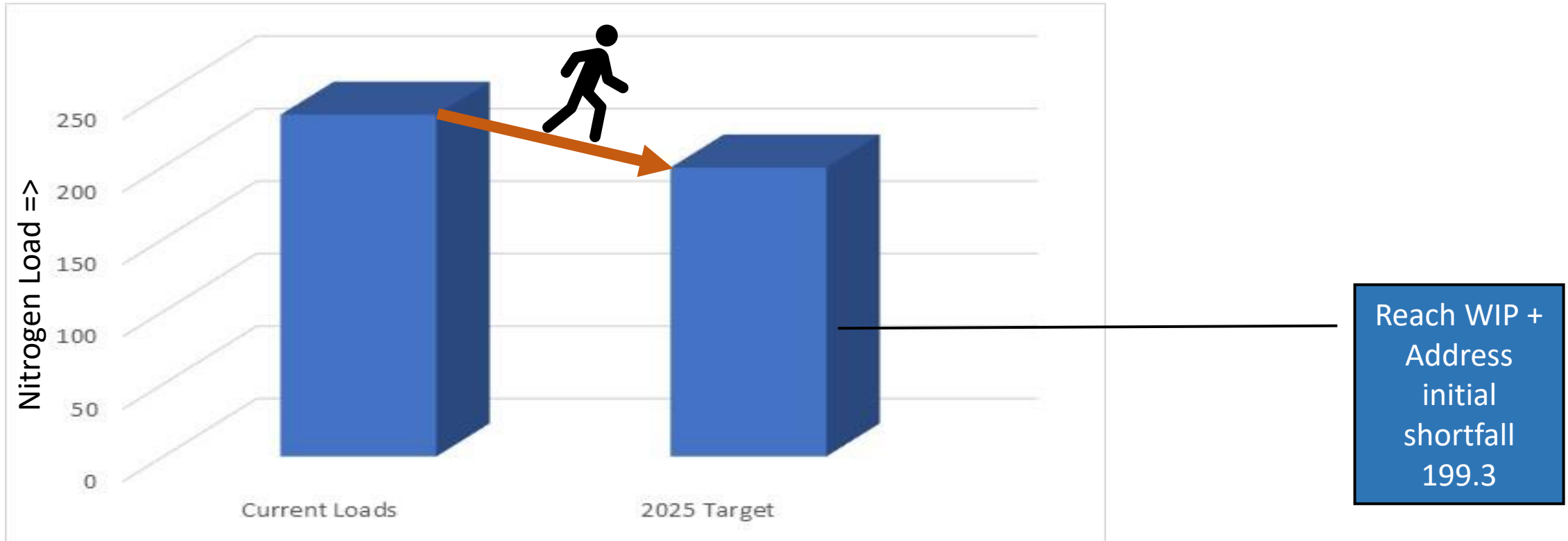
Slides 2-5 illustrate version 1 of the explanation

Slides 7-11 illustrate version 2

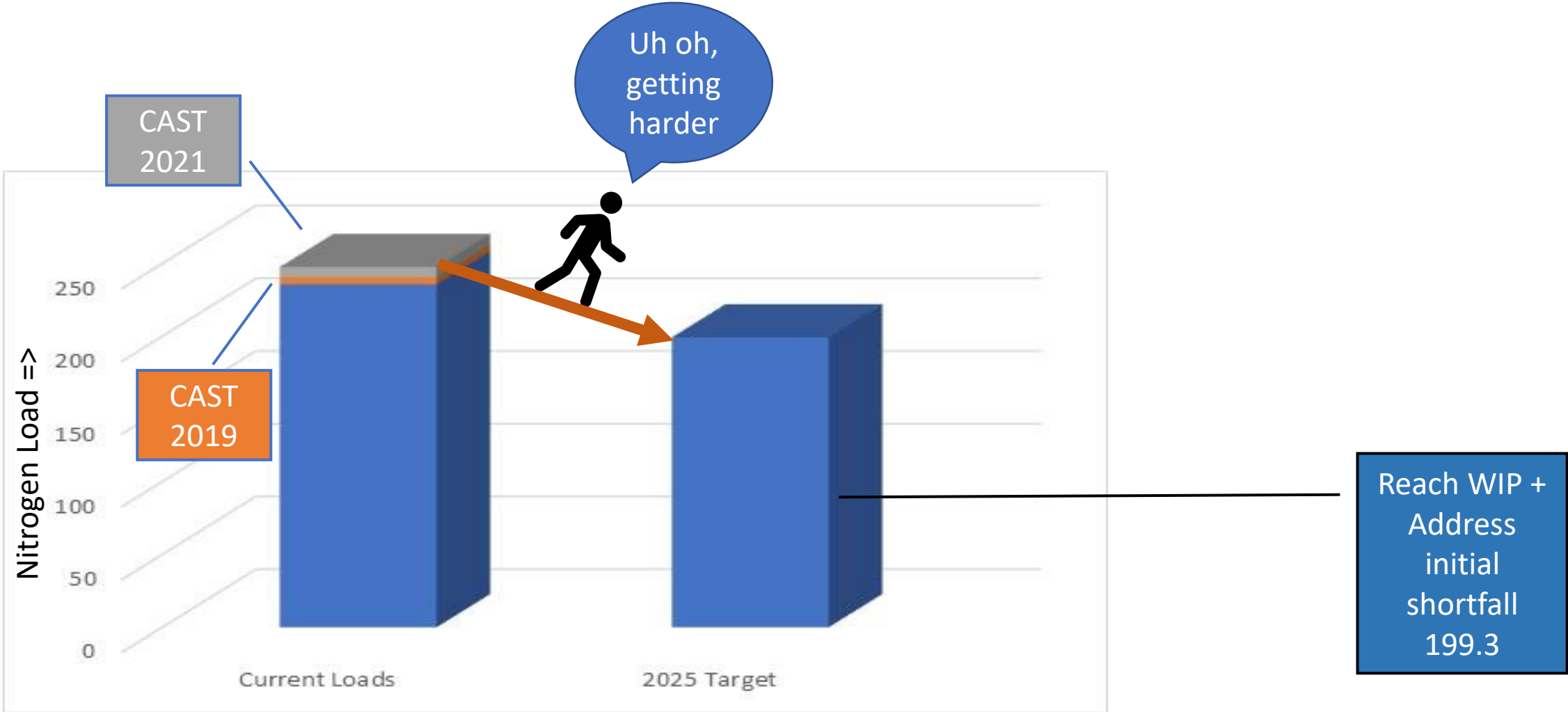
They are the same, but both are provided since one version may resonate better for an individual

Original Phase 3 level of effort

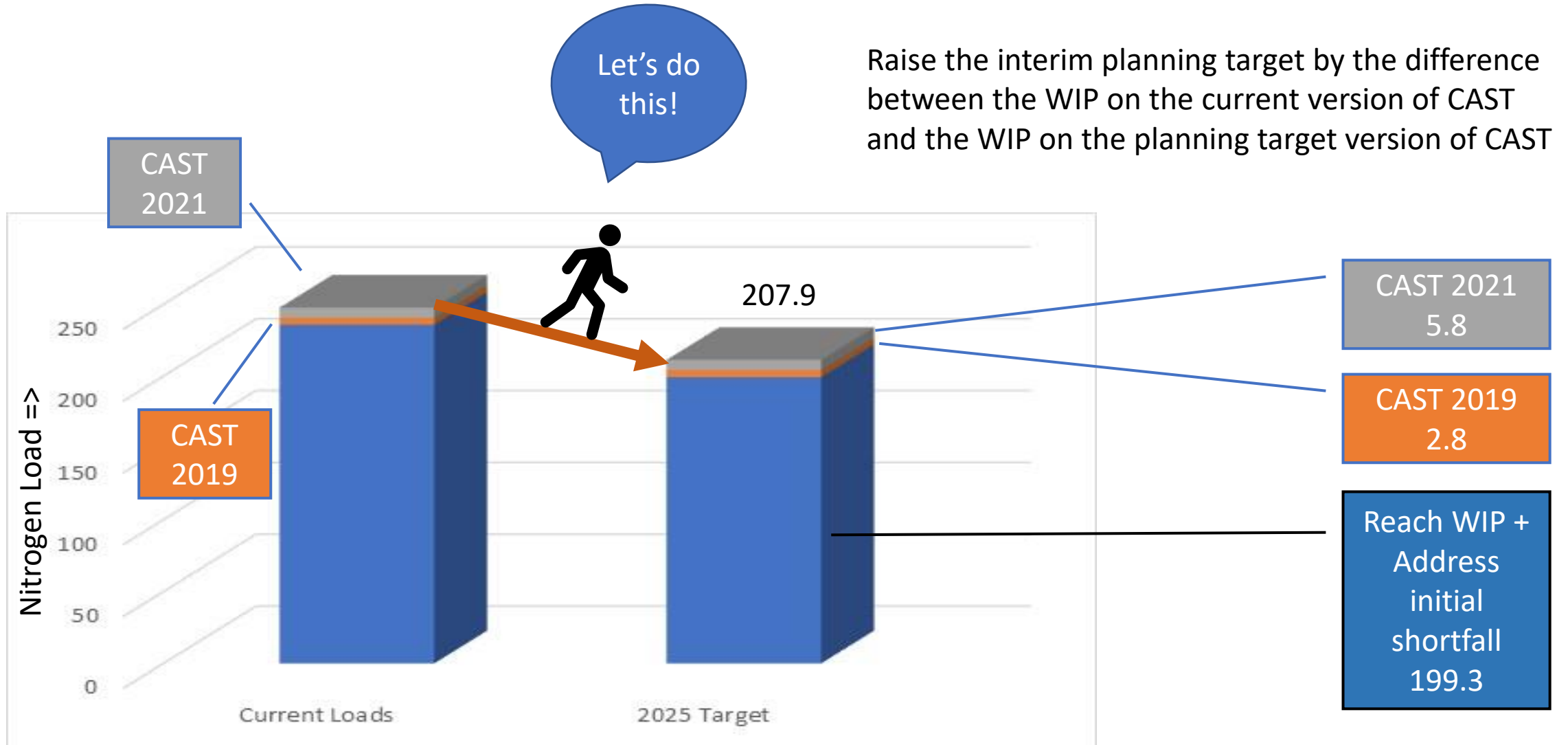
Let's do this!



New versions of CAST raised loads



Get back to the original phase 3 level of effort



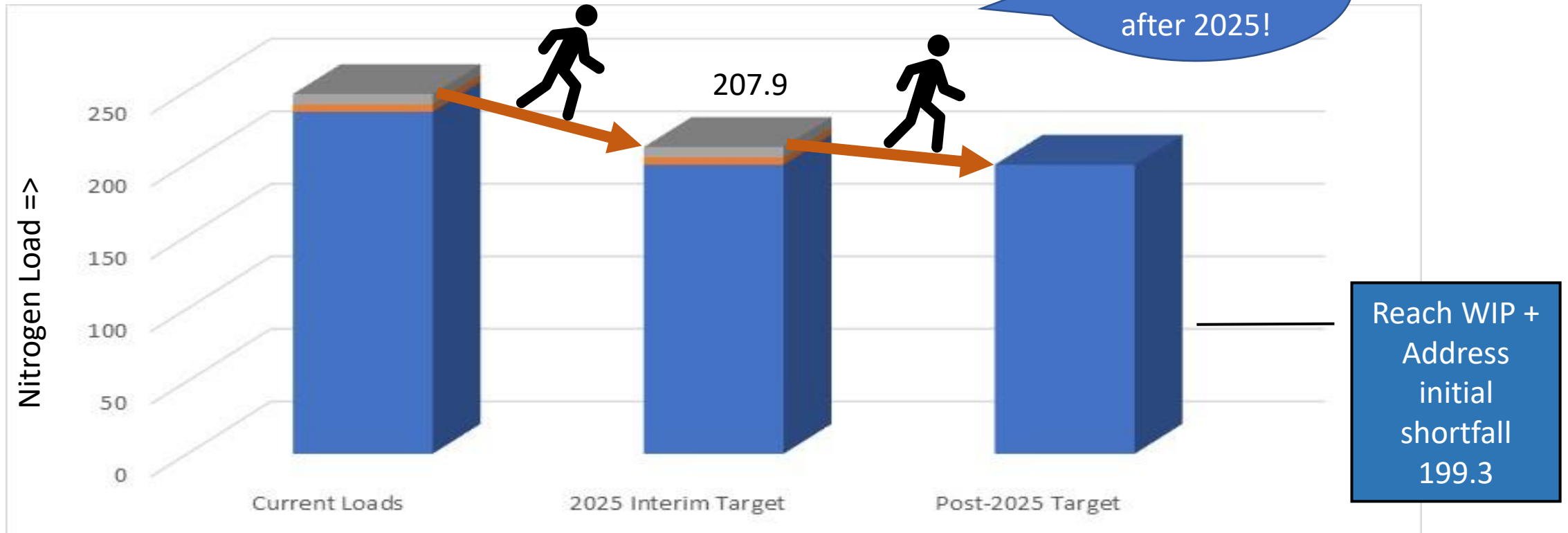
Get back to the original phase 3 level of effort

We can claim some success in 2025 – We achieved what we said we would do in our WIPs.

Let's do this!

We will address the unexpected loads after 2025

Let's do this!
...and climate after 2025!



We can move forward with CAST2021 – following partnership decisions

...the numbers

Nitrogen Load (Million pounds)							
Jurisdiction	CAST-21 2021 Progress	CAST-17-based Planning Target	CAST-17 WIP Load	CAST-21 WIP Load	WIP difference	CAST-2021 2025 interim Target	Climate Reductions
DC	1.65	2.42	2.31	2.31	0.00	2.43	0.01
DE	7.11	4.55	4.46	5.38	0.92	5.47	0.04
MD	51.89	45.83	44.02	45.89	1.87	47.70	1.14
NY	13.36	11.80	11.67	12.38	0.70	12.50	0.40
PA	107.39	73.49	82.12	85.94	3.82	77.31	1.81
VA	57.21	52.95	49.57	50.65	1.08	54.03	1.59
WV	7.75	8.23	7.50	7.68	0.18	8.41	0.00
All	246.37	199.28	201.65	210.22	8.57	207.85	4.99
Phosphorus Load (Million pounds)							
Jurisdiction	CAST-21 2021 Progress	CAST-17-based Planning Target	CAST-17 WIP Load	CAST-21 WIP Load	WIP difference	CAST-2021 2025 interim Target	Climate Reductions
DC	0.07	0.130	0.105	0.102	-0.003	0.127	0.001
DE	0.14	0.108	0.081	0.096	0.016	0.124	0.003
MD	3.34	3.680	3.212	2.889	-0.323	3.356	0.111
NY	0.54	0.476	0.474	0.488	0.015	0.490	0.044
PA	3.68	2.905	2.865	2.912	0.047	2.951	0.095
VA	5.72	5.583	5.230	5.017	-0.213	5.369	0.337
WV	0.50	0.433	0.380	0.476	0.096	0.528	0.009
All	14.00	13.31	12.35	11.98	-0.37	12.95	0.60

Benefits of Proposed Approach

- **Makes Good on PSC Decision** to move unexpected loads to post-2025
- **Keeps Original Level of Effort** in WIPs through 2025. We achieved what we said we'd do in our WIPs.
 - Using CAST2019 with error would be a greater level of effort.
- **Follows partnership decisions**
 - Allows CAST2021 to move forward, which represents the partnership decisions.
 - Using CAST2019 with known error is not defensible.
- **Saves Staff Time** – May simplify discussion on short-term resolutions to ag fertilizer data.
- **Keeps Fertilizer Experts Focused** on long-term, scientifically defensible model improvements for Phase 7 of model.

Proposal

- Retain original planning targets, but extend the date
- Move forward with CAST-2021 and CAST-2023
- Define unaccounted loads as loads identified after the planning targets were set in July 2018
- Create interim 2025 planning targets by adding the difference between the WIP on the current version of CAST and CAST-2017.
 - The interim planning targets would change when CAST versions change.
- Conowingo is still evaluated separately
- Continue to enhance Partnership QA procedures