



Federal Facility Planning Goals Default Method

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Federal Facilities Workgroup, Meeting

December 8, 2020



Federal Planning Goals

Default Method

Objective

- Demonstrate that the level-of-effort assigned (draft) to Federal Facilities for their load reductions to the Chesapeake Bay (Federal Planning Goals) using the “default method” – are the same as those in the jurisdictions’ Phase III WIPs (PA, MD, VA, WV, NY, and DC).



Federal Planning Goals

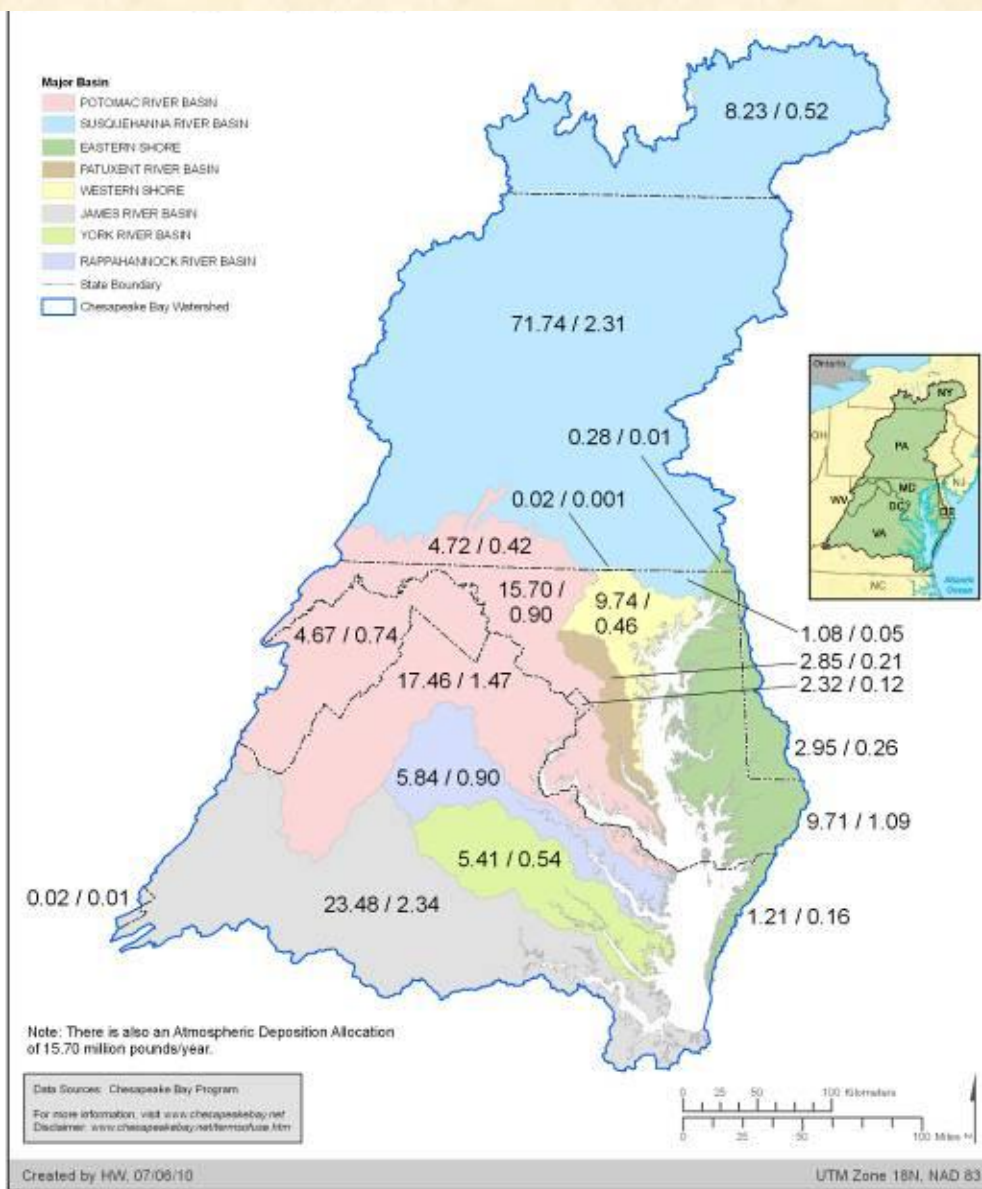
Default Method

- Spatially, the Planning Targets (planning toward the CB TMDL) established by the Partnership are by “state-basin” for Total Nitrogen, Total Phosphorus, and Sediment.
 - 19 state-basins in the CB watershed
 - 16 have Federal Facilities



Federal Planning Goals

State-Basins in the CB Watershed





Federal Planning Goals

Default Method

- The default methodology is similar to that used with Phase II WIPs (described in “Protocol for Setting Targets, Planning BMPs and Reporting Progress for Federal Facilities and Lands” at https://www.chesapeakebay.net/channel_files/22813/federal_targets_protocol_final_06_22_2015_2.pdf – but updated with Phase III information.
 - “Federal Facilities Targets Action Team”, in 2015
 - MD and VA Federal Targets were established by those states for the Phase II WIPs; did not use the default method.



Federal Planning Goals

Default Method

- Federal Planning Goals are presented as:
 - Percent reductions from 2019 (to 2025)
 - Lb. reductions 2019-2025
 - 2025 “cap” loads (absolute loading goals) could also be calculated



Federal Planning Goals

Default Method

- Federal Planning Goals are presented as:
 - Percent reductions from 2019 (to 2025)
 - Lb. reductions 2019-2025
 - 2025 “cap” loads (absolute loading goals) could also be calculated
- For each state-basin, Federal Planning Goals represent the same level-of-effort as non-federal Planning Targets, i.e., the same percent reductions from 2019.
 - The 2019-2025 percent reduction from relevant non-federal sources is applied to Federal Facility 2019 absolute loads – for each state-basin.



Federal Planning Goals

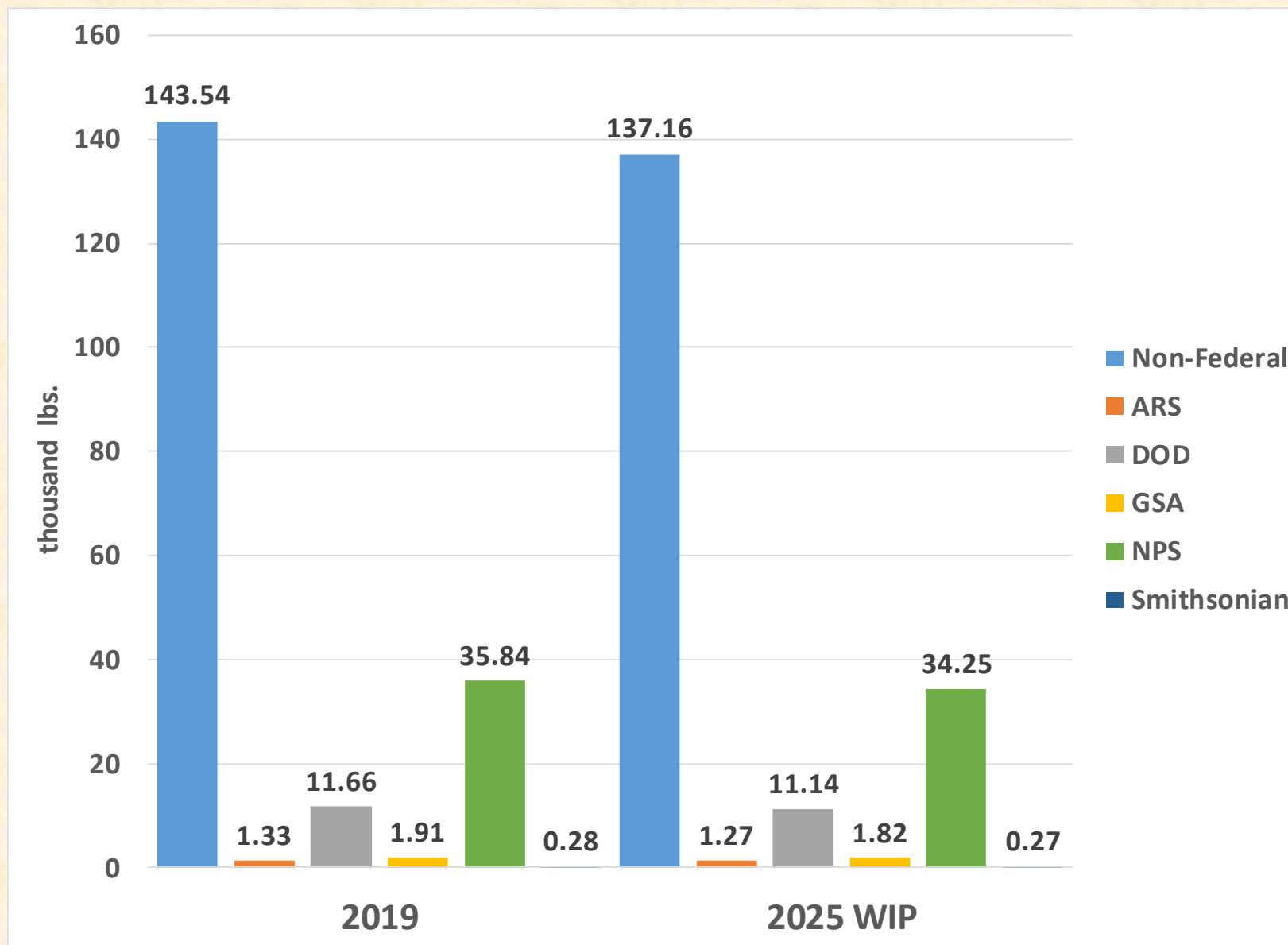
Default Method

- The Federal Planning Goals and reference loads use all source categories available to Federal Facilities in the model.
 - The determination of the non-federal level-of-effort used these same categories, e.g., no agriculture as we have no federal agriculture data (crop types and acres, animals, locations, yields, fertilizer use, etc.)



Federal Planning Goals

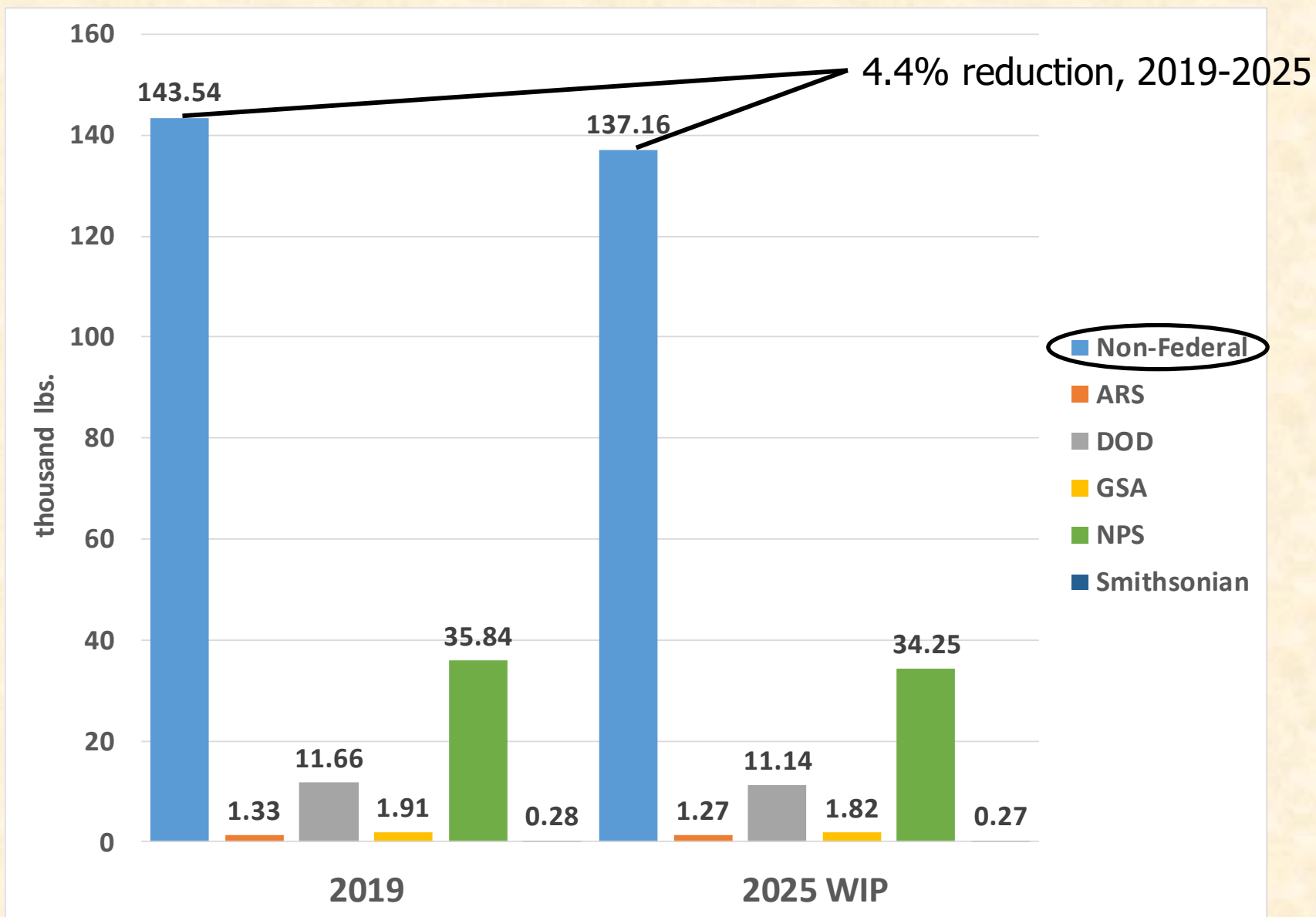
DC Potomac River





Federal Planning Goals

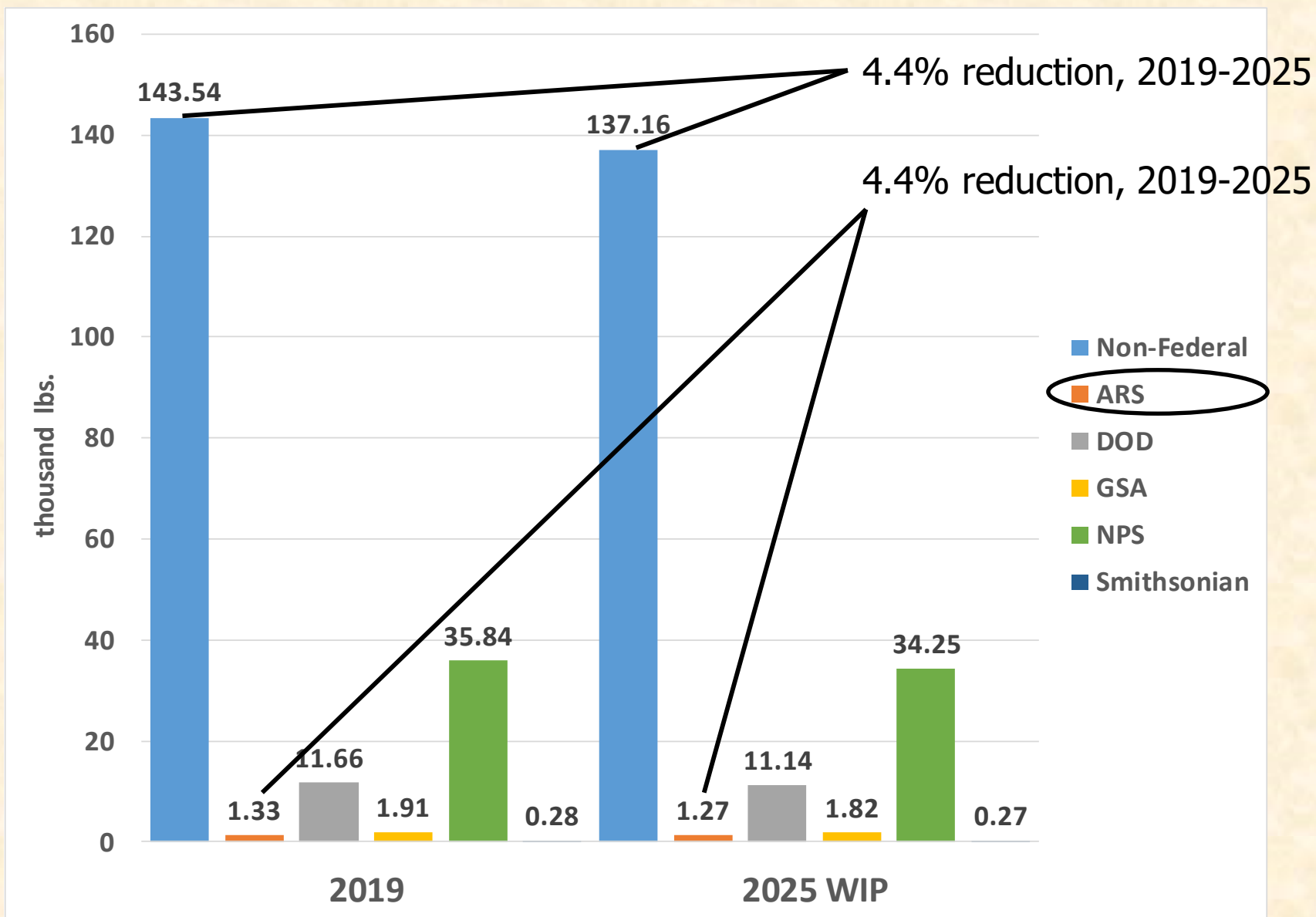
DC Potomac River





Federal Planning Goals

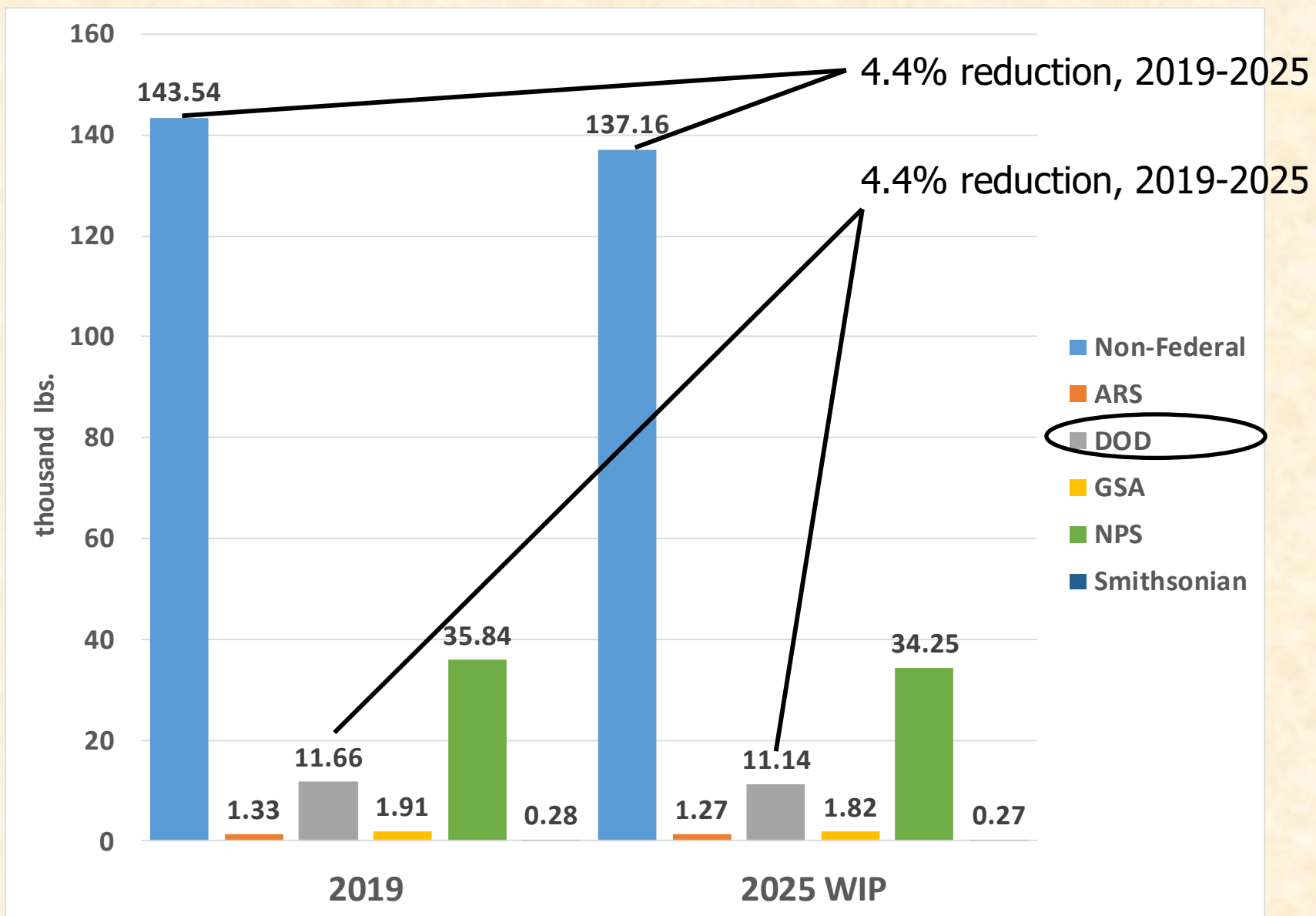
DC Potomac River





Federal Planning Goals

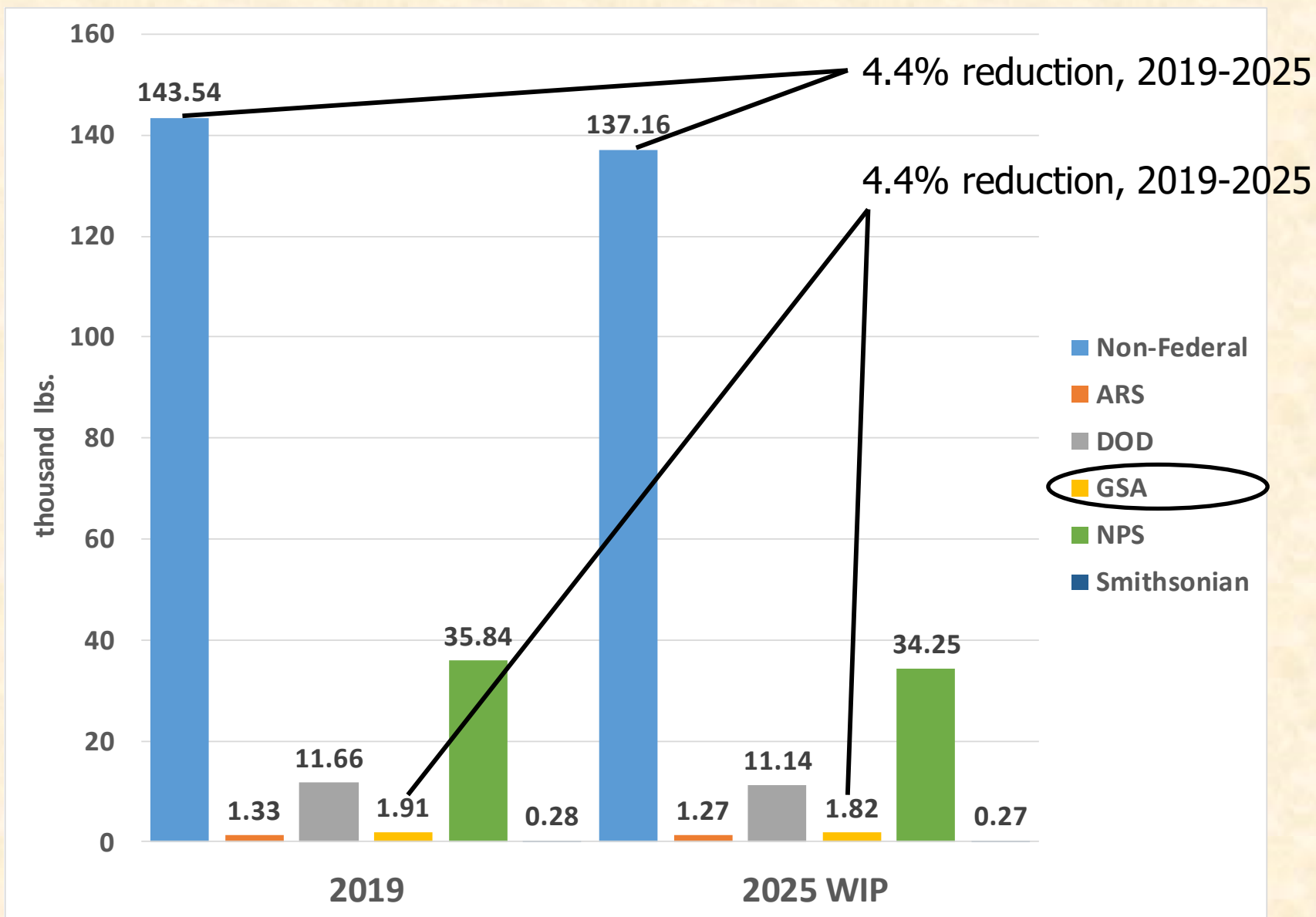
DC Potomac River





Federal Planning Goals

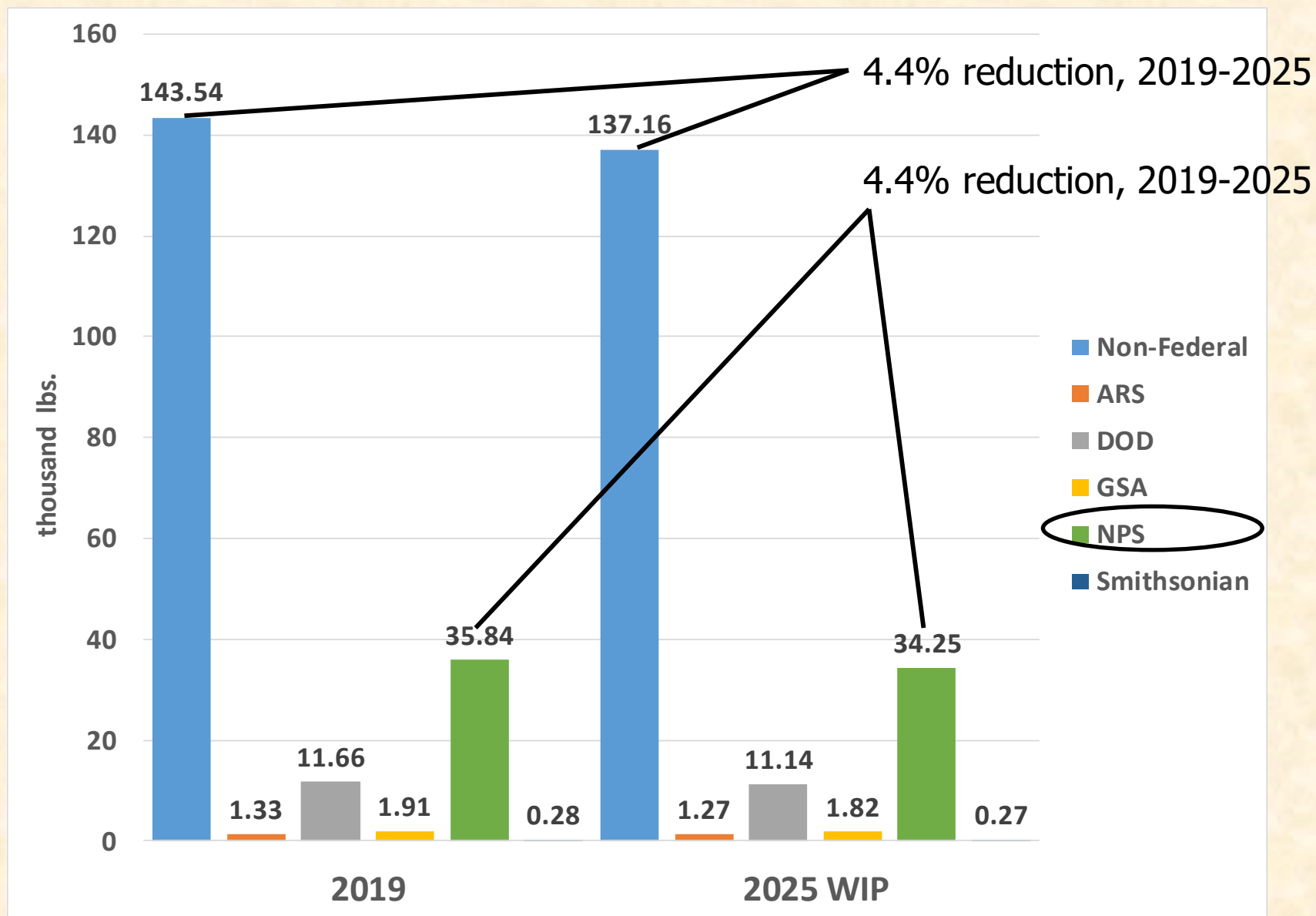
DC Potomac River





Federal Planning Goals

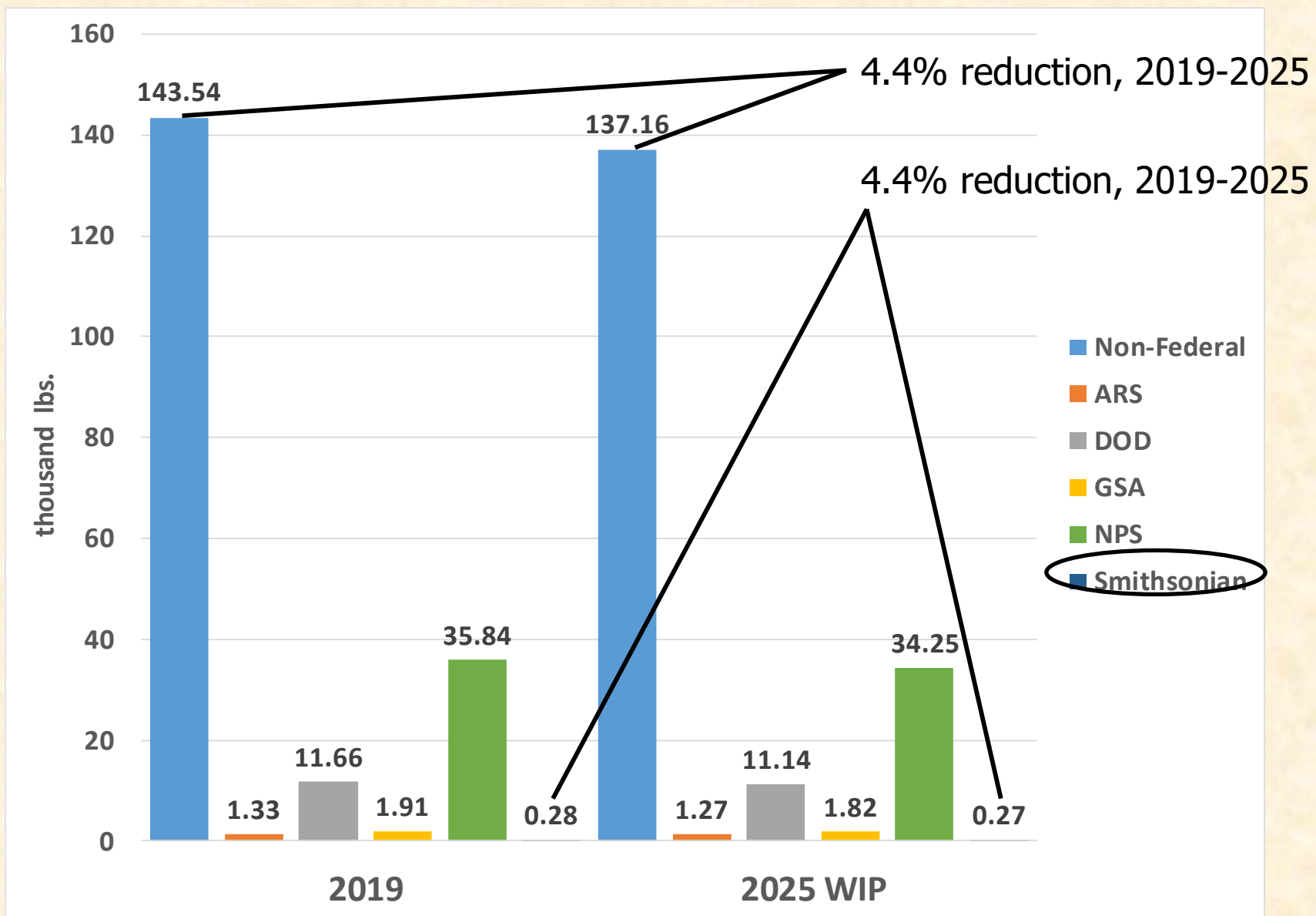
DC Potomac River





Federal Planning Goals

DC Potomac River





Federal Planning Goals

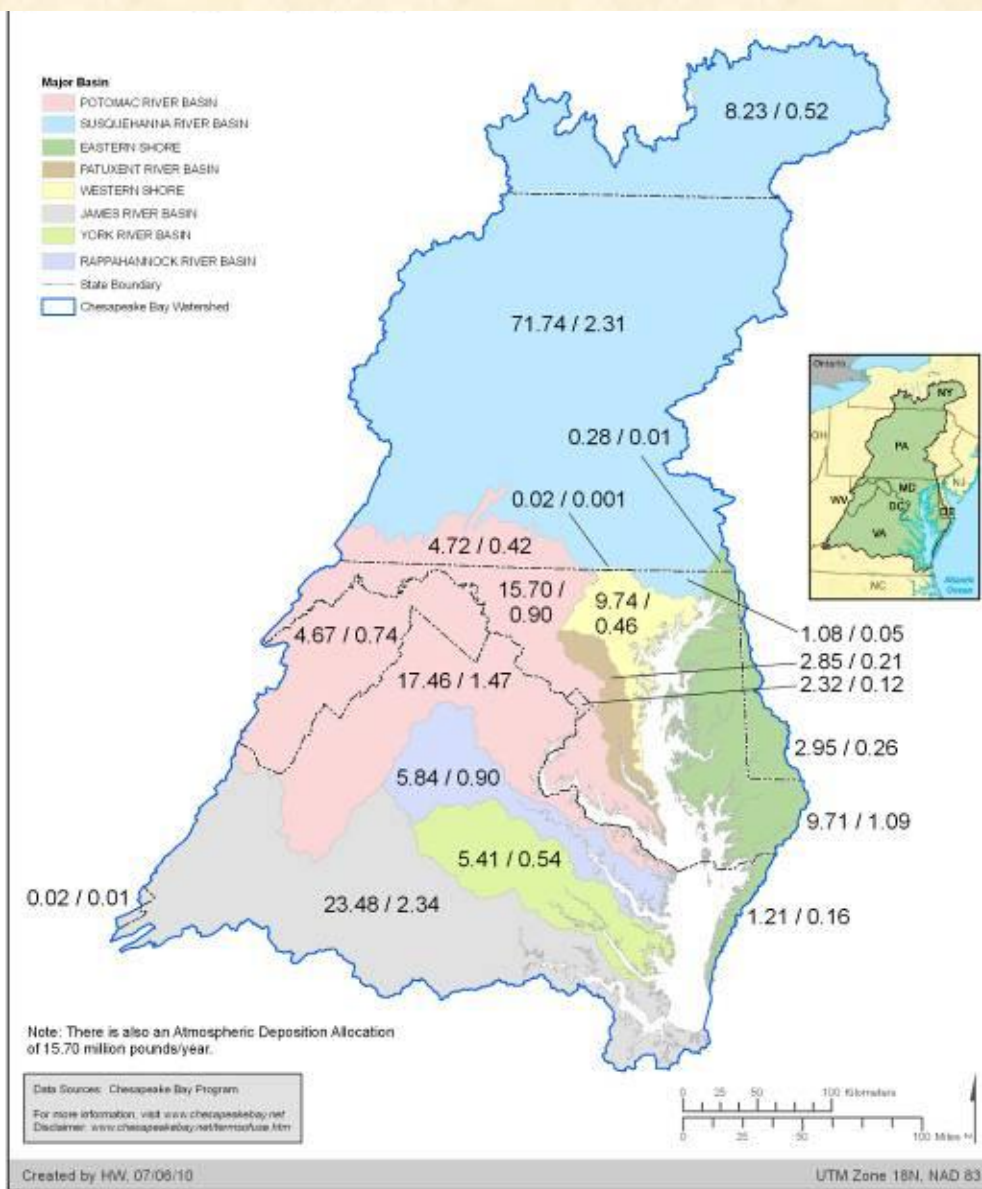
State-Basins in the CB Watershed w/ Facilities

- DC Potomac
- MD Eastern Shore
- MD Patuxent
- MD Potomac
- MD Susquehanna
- MD Western Shore
- NY Susquehanna
- PA Potomac
- PA Susquehanna
- VA Eastern Shore
- VA James
- VA Potomac
- VA Rappahannock
- VA York
- WV James
- WV Potomac



Federal Planning Goals

State-Basins in the CB Watershed





Federal Planning Goals

Federal Agencies

- ARS
- DOD
- GSA
- NASA
- NPS
- Smithsonian
- Fish & Wildlife
- Forest Service
- Other Federal Land



Federal Planning Goals

Default Method

- There are cases where jurisdictions' state-basin loads are allowed to increase from 2019 to the 2025 WIP, e.g., they are currently under their 2025 "cap" load.
 - The Federal Planning Goal is maintained at the 2019 load.



Federal Planning Goals

Default Method

- There are cases where jurisdictions' state-basin loads are allowed to increase from 2019 to the 2025 WIP, e.g., they are currently under their 2025 "cap" load.
 - The Federal Planning Goal is maintained at the 2019 load.
- In some cases, loads and goals for an agency can be summed by state to show a composite level-of-effort for the whole state.
 - An agency has facilities in several state-basins in the state.



Federal Planning Goals

Default Method

- There are cases where jurisdictions' state-basin loads are allowed to increase from 2019 to the 2025 WIP, e.g., they are currently under their 2025 "cap" load.
 - The Federal Planning Goal is maintained at the 2019 load.
- In some cases, loads and goals for an agency can be summed by state to show a composite level-of-effort for the whole state.
 - An agency has facilities in several state-basins in the state.
- Since PA's and NY's WIPs are not final, suggestion is to consider the Federal Planning Goals in these states as interim.



Federal Planning Goals

Default Method

- The average load reductions from 2019 to the 2025 Federal Planning Goals – among all Federal Facilities and all state-basins – are:
 - Nitrogen = 4.0%
 - Phosphorus = 4.1%
 - Sediment = 2.6%



Federal Planning Goals

Agricultural Research Service

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
ARS	DC	Potomac	4.4%	59	6.8%	7	4.9%	4,956
ARS	MD	Patuxent	2.9%	3	4.6%	1	1.5%	221
ARS	MD	Potomac	1.0%	204	2.6%	98	0.8%	39,203
ARS	MD	AllBasins	1.0%	208	2.6%	99	0.8%	39,424



Federal Planning Goals

Department of Defense

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
DOD	DC	Potomac	4.4%	519	6.8%	72	4.9%	97,286
DOD	DE	Eastern Shore	0.0%	0	0.0%	0	0.0%	0
DOD	NY	Susquehanna	17.4%	1,333	14.9%	122	26.8%	229,004
DOD	WV	Potomac	0.0%	0	6.1%	101	0.0%	0
DOD	MD	Eastern Shore	1.0%	192	0.7%	48	0.0%	11,597
DOD	MD	Patuxent	2.9%	2,282	4.6%	709	1.5%	688,239
DOD	MD	Potomac	1.0%	1,301	2.6%	844	0.8%	996,990
DOD	MD	Susquehanna	1.3%	12	3.2%	1	0.2%	106
DOD	MD	Western Shore	2.5%	4,291	2.3%	1,286	0.5%	1,046,087
DOD	MD	AllBasins	2.0%	8,078	2.6%	2,889	0.7%	2,743,019
DOD	PA	Potomac	0.0%	0	0.0%	0	0.2%	12,432
DOD	PA	Susquehanna	0.5%	1,378	0.0%	0	0.0%	0
DOD	PA	AllBasins	0.5%	1,378	0.0%	0	0.1%	12,432
DOD	VA	Eastern Shore	11.2%	9	4.1%	0	0.0%	0
DOD	VA	James	7.2%	14,027	6.3%	2,077	4.3%	3,746,338
DOD	VA	Potomac	7.3%	12,568	6.5%	2,265	5.5%	3,618,933
DOD	VA	Rappahannock	4.2%	3,556	2.0%	154	0.5%	14,874
DOD	VA	York	7.8%	6,843	4.4%	573	0.0%	0
DOD	VA	AllBasins	6.9%	37,003	5.7%	5,071	3.9%	7,380,145



Federal Planning Goals

General Services Administration

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
GSA	DC	Potomac	4.4%	85	6.8%	9	4.9%	7,957
GSA	NY	Susquehanna	17.4%	1	14.9%	0	26.8%	114
GSA	WV	Potomac	0.0%	0	6.1%	0	0.0%	0
GSA	MD	Eastern Shore	1.0%	0	0.7%	0	0.0%	0
GSA	MD	Patuxent	2.9%	2	4.6%	0	1.5%	45
GSA	MD	Potomac	1.0%	48	2.6%	14	0.8%	8,831
GSA	MD	Western Shore	2.5%	163	2.3%	9	0.5%	1,606
GSA	MD	AllBasins	1.9%	213	2.5%	23	0.7%	10,483
GSA	PA	Potomac	0.0%	0	0.0%	0	0.2%	0
GSA	PA	Susquehanna	0.5%	0	0.0%	0	0.0%	0
GSA	PA	AllBasins	0.5%	0	0.0%	0	0.0%	0
GSA	VA	James	7.2%	8	6.3%	1	4.3%	419
GSA	VA	Potomac	7.3%	84	6.5%	6	5.5%	3,496
GSA	VA	AllBasins	7.3%	91	6.5%	7	5.3%	3,914



Federal Planning Goals

National Aeronautics and Space Administration

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
NASA	VA	York	7.8%	321	4.4%	16	0.0%	0
NASA	MD	Patuxent	2.9%	14	4.6%	3	1.5%	526
NASA	MD	Potomac	1.0%	29	2.6%	9	0.8%	4,055
NASA	MD	AllBasins	1.3%	42	2.9%	12	0.8%	4,581



Federal Planning Goals

National Park Service

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
NPS	DC	Potomac	4.4%	1,594	6.8%	320	4.9%	508,121
NPS	WV	Potomac	0.0%	0	6.1%	35	0.0%	0
NPS	MD	Patuxent	2.9%	64	4.6%	9	1.5%	1,709
NPS	MD	Potomac	1.0%	1,210	2.6%	515	0.8%	513,365
NPS	MD	Western Shore	2.5%	18	2.3%	3	0.5%	2,104
NPS	MD	AllBasins	1.1%	1,291	2.6%	528	0.8%	517,178
NPS	PA	Potomac	0.0%	0	0.0%	0	0.2%	5,562
NPS	PA	Susquehanna	0.5%	73	0.0%	0	0.0%	0
NPS	PA	AllBasins	0.2%	73	0.0%	0	0.2%	5,562
NPS	VA	James	7.2%	3,946	6.3%	516	4.3%	776,369
NPS	VA	Potomac	7.3%	13,487	6.5%	2,371	5.5%	5,558,916
NPS	VA	Rappahannock	4.2%	3,088	2.0%	266	0.5%	151,623
NPS	VA	York	7.8%	2,133	4.4%	283	0.0%	0
NPS	VA	AllBasins	6.7%	22,655	5.3%	3,437	4.1%	6,486,908



Federal Planning Goals

Smithsonian Institution

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
Smithsonian	DC	Potomac	4.4%	13	6.8%	4	4.9%	3,465
Smithsonian	VA	Potomac	7.3%	359	6.5%	34	5.5%	63,992
Smithsonian	MD	Potomac	1.0%	5	2.6%	1	0.8%	389
Smithsonian	MD	Western Shore	2.5%	55	2.3%	11	0.5%	6,450
Smithsonian	MD	AllBasins	2.2%	61	2.4%	12	0.5%	6,840



Federal Planning Goals

US Fish and Wildlife Service

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
Fish & Wildlife	DE	Eastern Shore	0.0%	0	0.0%	0	0.0%	0
Fish & Wildlife	PA	Susquehanna	0.5%	3	0.0%	0	0.0%	0
Fish & Wildlife	WV	Potomac	0.0%	0	6.1%	12	0.0%	0
Fish & Wildlife	MD	Eastern Shore	1.0%	1,420	0.7%	186	0.0%	28,845
Fish & Wildlife	MD	Patuxent	2.9%	767	4.6%	202	1.5%	36,373
Fish & Wildlife	MD	Potomac	1.0%	7	2.6%	3	0.8%	1,190
Fish & Wildlife	MD	Susquehanna	1.3%	26	3.2%	38	0.2%	9,867
Fish & Wildlife	MD	AllBasins	1.3%	2,219	1.3%	429	0.1%	76,274
Fish & Wildlife	VA	Eastern Shore	11.2%	281	4.1%	42	0.0%	0
Fish & Wildlife	VA	James	7.2%	1,942	6.3%	384	4.3%	906,292
Fish & Wildlife	VA	Potomac	7.3%	700	6.5%	287	5.5%	1,042,710
Fish & Wildlife	VA	Rappahannock	4.2%	625	2.0%	82	0.5%	86,622
Fish & Wildlife	VA	York	7.8%	1,145	4.4%	343	0.0%	0
Fish & Wildlife	VA	AllBasins	6.9%	4,694	4.9%	1,138	2.2%	2,035,625



Federal Planning Goals

US Forest Service

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
Forest Service	VA	James	7.2%	44,731	6.3%	5,710	4.3%	5,720,778
Forest Service	VA	Potomac	7.3%	24,123	6.5%	2,439	5.5%	3,141,398
Forest Service	VA	AllBasins	7.2%	68,855	6.4%	8,149	4.7%	8,862,176
Forest Service	WV	James	1.1%	98	0.4%	5	0.5%	16,017
Forest Service	WV	Potomac	0.0%	0	6.1%	1,567	0.0%	0
Forest Service	WV	AllBasins	0.0%	98	5.8%	1,572	0.0%	16,017



Federal Planning Goals

Other Federal Land

			NitrogenLoad	NitrogenLoadEOT	PhosphorusLoad	PhosphorusLoadEOT	SedimentLoad	SedimentLoadEOT
			2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction	2019-2025 Reduction
Agency	Jurisdiction	Tributary	(%)	(lbs)	(%)	(lbs)	(%)	(lbs)
Other Federal Land	DC	Potomac	0.0%	0	0.0%	0	0.0%	0
Other Federal Land	NY	Susquehanna	17.4%	192	14.9%	12	26.8%	24,952
Other Federal Land	MD	Eastern Shore	1.0%	20	0.7%	5	0.0%	1,143
Other Federal Land	MD	Potomac	1.0%	67	2.6%	9	0.8%	2,511
Other Federal Land	MD	Western Shore	2.5%	61	2.3%	9	0.5%	6,329
Other Federal Land	MD	AllBasins	1.4%	149	1.6%	23	0.2%	9,983
Other Federal Land	VA	James	7.2%	107	6.3%	21	4.3%	41,039
Other Federal Land	VA	Potomac	7.3%	3,473	6.5%	490	5.5%	688,697
Other Federal Land	VA	York	7.8%	29	4.4%	3	0.0%	0
Other Federal Land	VA	AllBasins	7.3%	3,608	6.5%	514	5.4%	729,736



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