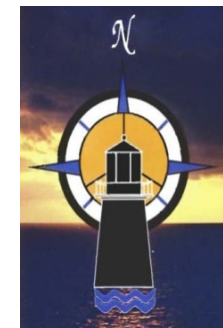
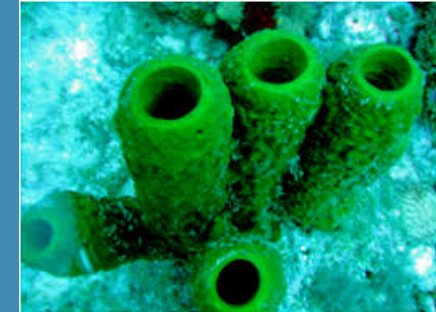


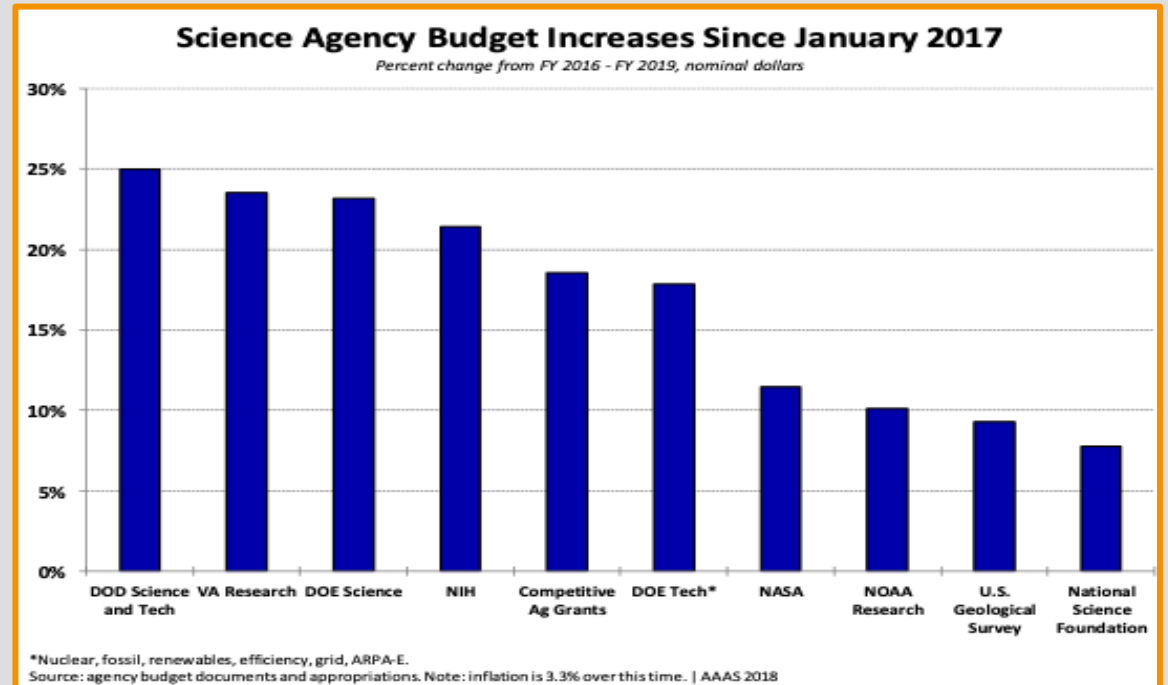
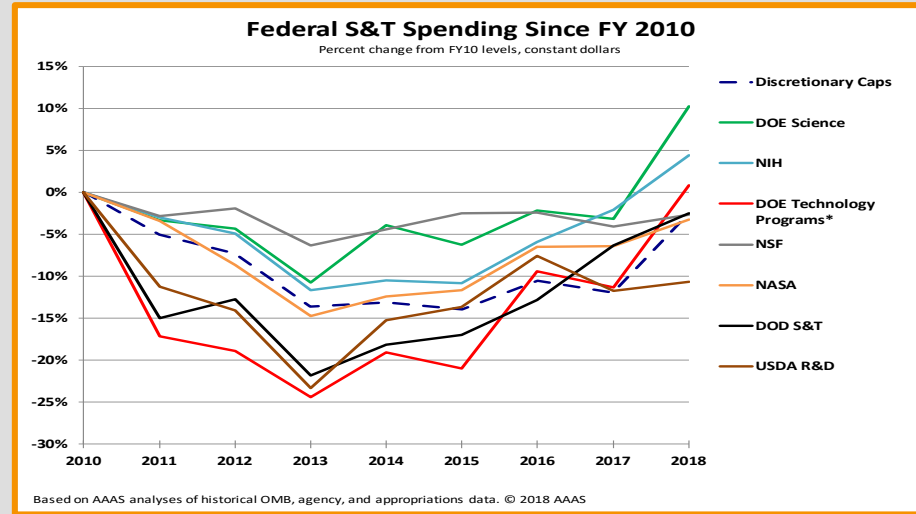
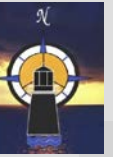
**National Association  
of Marine  
Laboratories  
Public Policy Meeting  
Washington, D.C.  
March 2020**



**Presented by  
Meg Thompson and Joel Widder  
Co-Founders and Partners  
Federal Science Partners**

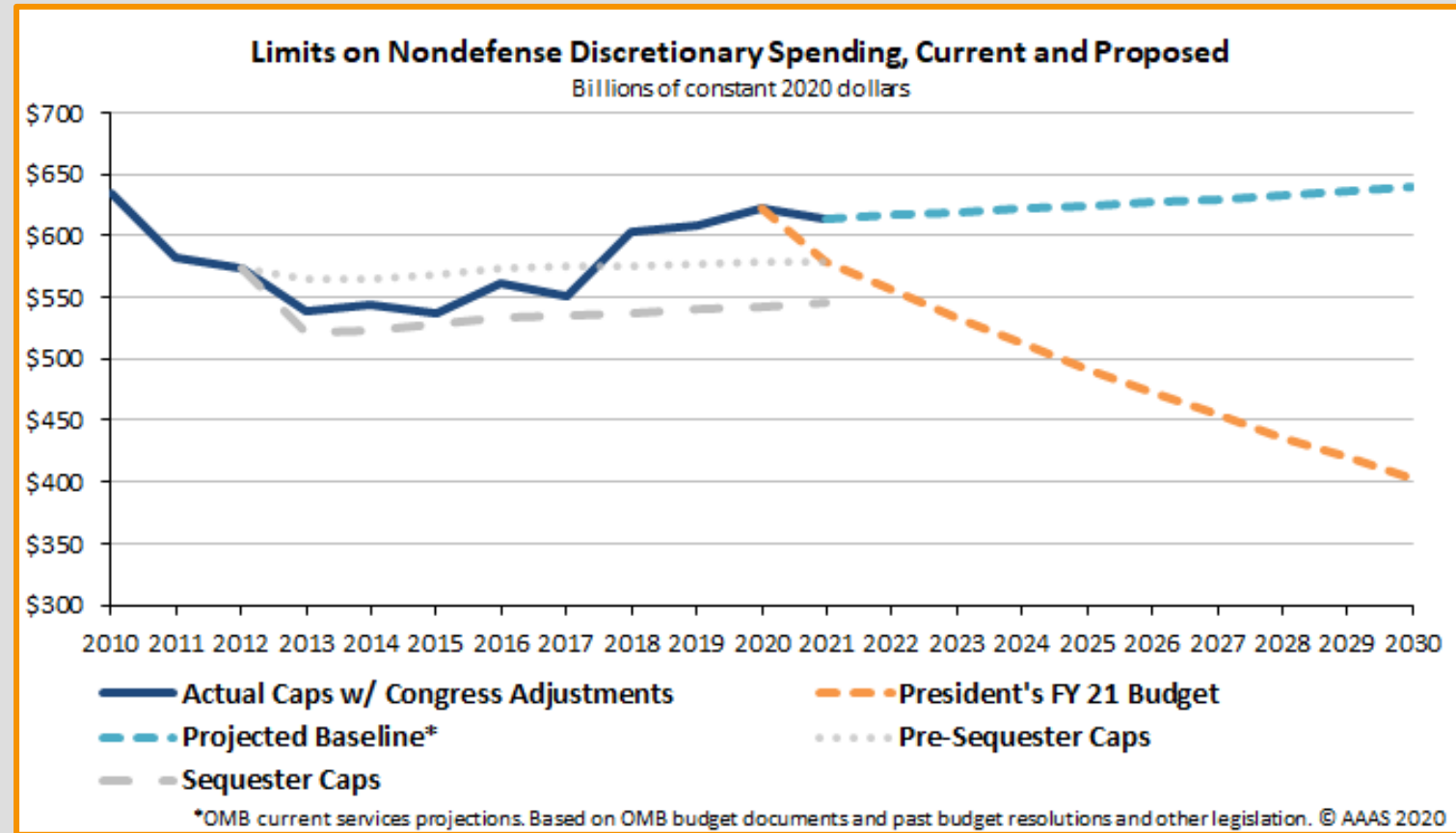


As Non-Defense Discretionary Spending Goes, So Goes R&D but not all agencies benefit



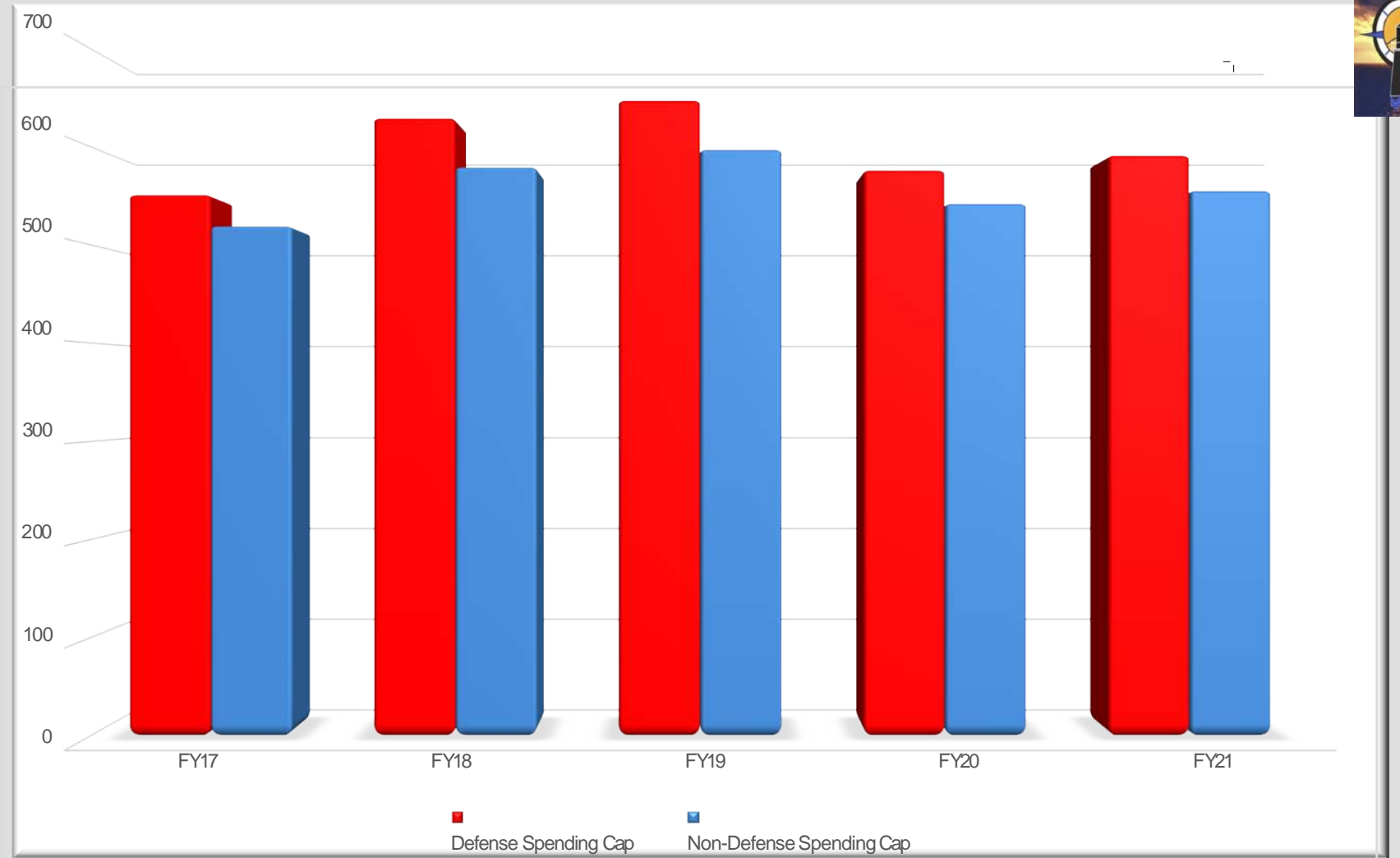


# If R&D Tracks with Non-Defense Discretionary Spending, Where is Non-Defense Discretionary Going?



# The FY21 Budget Environment Facing Science & Technology

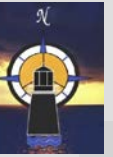
\$ in billions Of current dollars



Budget Control Act (BCA) Spending Levels as of August 2017.

Source: Congressional Research Service; *Budget Control Act: Frequently Asked Questions*, September 1, 2017; and *A New Foundation for American Greatness*; Budget of the U.S. Government FY 2018, Office of Management & Budget





### FY 2021 Requested Budgets for Select S&T Agencies and Programs

(net budget authority, millions of dollars. Contains non-R&D)

	FY 2019 Actual	FY 2020 Enacted	FY 2021 Request	FY20 Change	
				Amount	Percent
<b>Dept. of Defense</b>					
Basic Science (6.1)	2,476	2,603	2,319	-284	-11%
DARPA	3,426	3,458	3,566	108	3%
<b>Natl Institutes of Health 1/</b>	39,184	41,685	38,694	-2,991	-7%
<b>Dept. of Energy</b>					
Energy Efficiency & Renewables	2,320	2,777	720	-2,057	-74%
Fossil Energy R&D	720	750	731	-19	-3%
Nuclear Energy	1,386	1,582	1,180	-402	-25%
ARPA-E 2/	366	425	0	-425	-100%
Office of Science	6,708	7,000	5,838	-1,162	-17%
Cybersecurity & Response	118	156	185	29	19%
<b>NASA</b>					
Exploration Technology	927	1,100	1,578	478	43%
Science Directorate	6,887	7,069	6,307	-762	-11%
Exploration Systems	5,045	6,018	8,762	2,744	46%
Aeronautics	725	784	819	35	4%
STEM Engagement	110	120	0	-120	-100%
<b>Total Budget</b>	<b>21,500</b>	<b>22,629</b>	<b>25,245</b>	<b>2,616</b>	<b>12%</b>
<b>National Science Foundation</b>	8,150	8,278	7,741	-537	-6%
<b>Dept. of Agriculture</b>					
Agricultural Research Service	1,684	1,607	1,418	-189	-12%
Natl Inst of Food and Ag (NIFA)	1,486	1,549	1,596	47	3%
AFRI	415	425	600	175	41%
Economic Research Service	87	85	62	-23	-27%
National Ag Statistics Service	176	180	177	-3	-2%
Forest Svc Rangeland Research	301	305	249	-56	-18%
<b>Dept. of Commerce</b>					
NOAA Research Office 3/	558	590	353	-237	-40%
NIST	987	1,037	701	-336	-32%
<b>Dept. of Homeland Security S&amp;T</b>	820	737	644	-94	-13%
<b>US Geological Survey</b>	1,161	1,271	971	-300	-24%
<b>EPA Science &amp; Technology</b>	695	716	485	-232	-32%
<b>VA Medical Research</b>	779	750	787	37	5%

Source: OMB appendix and agency budget documents.

All figures rounded to nearest million. Changes calculated from unrounded figures.

1/ FY 2020 includes additional requested funding for Type I Diabetes research.

2/ The Administration recommends cancelling \$332 million in unobligated balances.

3/ Figures reflect obligations.

# What is the Administration Proposing for FY 2021?

NSF down 6%

NOAA R&D down by 40%

NASA Science down by 11%

EPA R&D down by 32%

USGS down by 24%

DOD basic research down by 11%

Eliminate ARPA-E

Eliminate NASA STEM ed

Eliminate NOAA Education

Priorities include Quantum Science, Artificial Intelligence, Space Exploration, Ocean Exploration/Mapping





# What is the Administration Proposing for FY 2021 for NSF?

- NSF Research to decline by 5.6%
- Geosciences to decline by 14%
- Ocean Sciences to decline by 8.5%
- Reduce GEO Undergraduate STEM Education by 10%
- Increase Coastlines and People from \$6M to \$15M
- Reduce Support for the Academic Fleet by 6.2%
- Reduce Environmental Biology by 2.2%
- Reduce Biological Infrastructure by 12.6%



# What is the Administration Proposing for FY 2021 for NOAA?

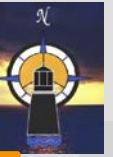
- Increase funding for Ocean Mapping...\$8.5M
- Eliminate \$\$\$ for NCCOS and NCCOS Competitive Research
- Eliminate \$\$\$ for NERRS, Title IX Coastal Resiliency Grants, CZM Grants
- Eliminate Prescott Program, Sea Grant Program, Competitive Climate Research
- Eliminate NOAA B-WET and other education programs
- Reduce IOOS from \$40M to \$19M
- Habitat Conservation & Restoration reduced from \$59M to \$39M
- Aquaculture: Reduced by \$2.4M in NMFS; Eliminated in OAR
- Marine Debris reduced by \$1.5M



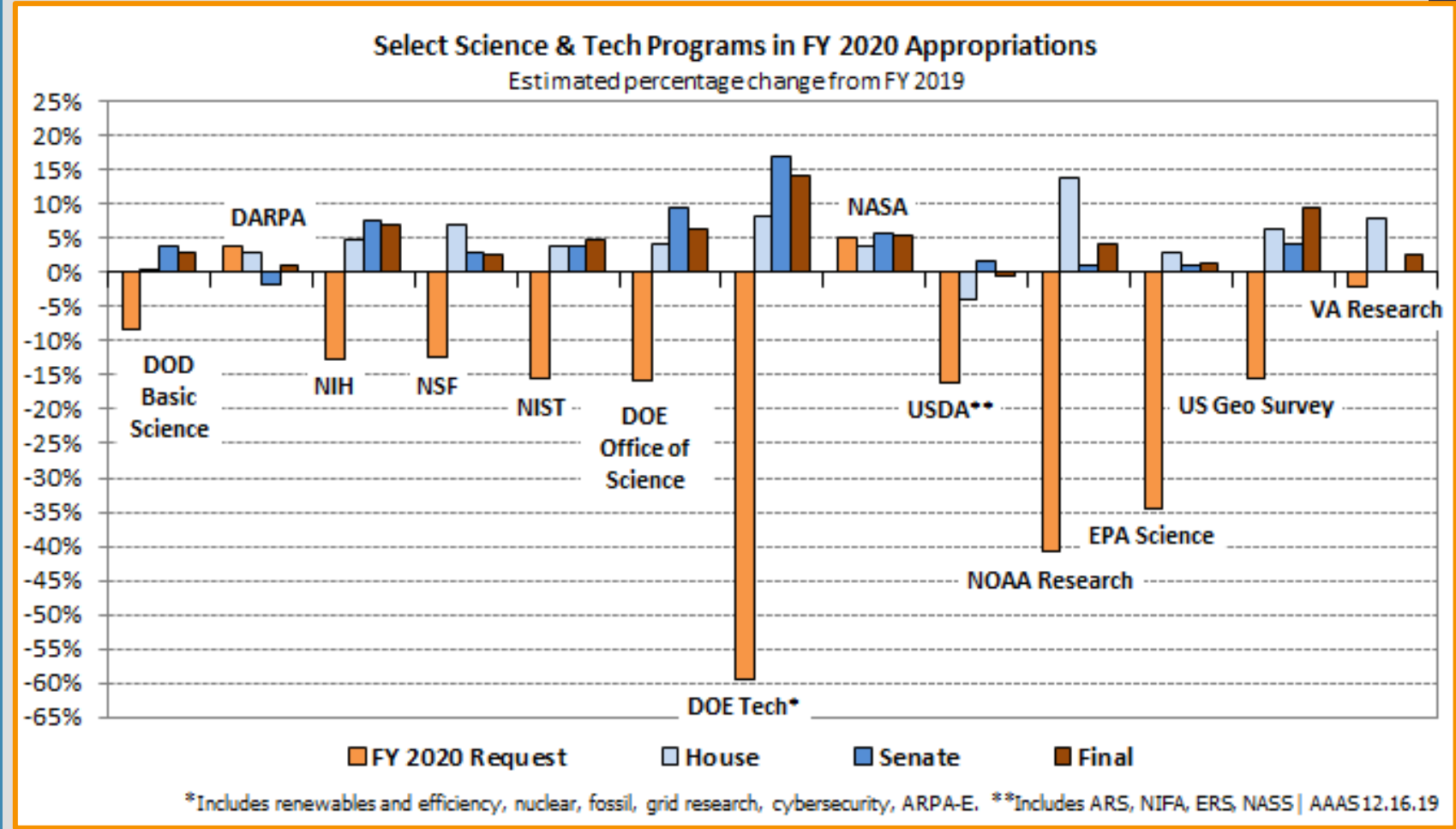
# What is the Administration Proposing for FY 2021 for EPA?

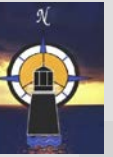
- EPA R&D reduced from \$500M to \$281M – extramural research grants to universities – such as STAR – not to be funded
- Reduce Geographic Programs from \$510 to \$331 – funding only Great Lakes and South Florida and limited funding for Chesapeake Bay – all others eliminated
- Eliminates climate change
- Eliminates funding for National Estuary Program
- Eliminates funding for Beach/Fish Programs
- Eliminates environmental education
- Increases funding to reduce ocean pollution and plastic waste by \$8.4M
- Increases funding for HABs Reduction by \$22.4M including \$15m for a competitive grant program





# How did Congress React to the Administration's FY20 R&D Budget Plans?





# NAML Public Policy Priorities for FY21

NAML recommends expanded support for Federal agencies and programs that address :

U.S.-based aquaculture to reduce the ever-increasing demand for foreign imports, to advance seafood security and opportunities for economic growth;

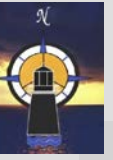
Oceanographic and geochemical exploration and associated technology development to advance national security, commerce and domestic energy independence;

Data collection and adaptive management strategies to increase productivity and sustainability of marine fisheries and social-economic productivity of U.S. exclusive economic zones;

Comprehensive understanding of ecosystems which support fisheries and other social-economic drivers;

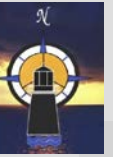
Defining the impacts and causative factors for shifting environmental regimes to inform risk management of critical defense, transportation, civic and business infrastructure along U.S. coastlines; and

Discovery and innovation in biological, chemical, geological and physical marine sciences to support advancement of human and environment health and social-economic objectives.



# Top Line Issues to be Explored with Speakers at this Meeting

- In what ways are the strengths of marine labs included in the administration's National Ocean Policy and Presidential Memo on Ocean Mapping?
- How will the FY21 budget caps impact extramural research and education programs at NSF, NOAA, ONR and other relevant Federal agencies?
- What are the major programmatic priorities agencies are likely to emphasize in their forthcoming FY21 budget plans?
- Within NSF, what is the impact of a \$500 billion reduction on core NSF research and education programs when AI, QS, and "NSF Big Ideas" are growing so dramatically?
- At NOAA, where does support for extramural research and education fit in with meeting NOAA's core missions and key priorities?
- What is the Administration's rationale for the proposals to reduce funding for STEM education in NSF, NOAA, and EPA?
- How can NAML be most helpful and effective in its advocacy efforts



# NAML Public Policy Activities: Recent and Planned

