

116TH CONGRESS  
1ST SESSION

# H. R. 988

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IN THE SENATE OF THE UNITED STATES

JUNE 10, 2019

Received; read twice and referred to the Committee on Commerce, Science,  
and Transportation

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## AN ACT

To provide for a study by the National Academies of Sciences, Engineering, and Medicine examining the impact of ocean acidification and other stressors in estuarine environments.

1        *Be it enacted by the Senate and House of Representa-*  
2        *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “National Estuaries and  
3 Acidification Research Act of 2019” or the “NEAR Act  
4 of 2019”.

5 **SEC. 2. FINDINGS.**

6 Congress finds the following:

7 (1) Ocean acidification impacts human health,  
8 natural resources, and the environmental, economic,  
9 and recreational uses of the coastline.

10 (2) The current understanding of ocean acidifi-  
11 cation impacts on estuarine ecosystems is inadequate  
12 to fully prepare and manage for changing environ-  
13 mental conditions in nearshore locations.

14 (3) While pH can be measured with high preci-  
15 sion and accuracy in open ocean environments, more  
16 understanding of the carbonate system in estuarine  
17 ecosystems is needed for precise and accurate meas-  
18 urements and observations.

19 (4) The interaction of multiple stressors, includ-  
20 ing salinity, pH, temperature, sea level rise, and nu-  
21 trient input, within estuarine ecosystems is inad-  
22 equately understood for managing the health, eco-  
23 nomic, recreational, and environmental impacts driv-  
24 en by these interactions.

1           (5) A better understanding is needed of how  
2 anthropogenic influences in coastal environments af-  
3 fect estuarine ecosystems.

4           (6) More integration and coordination is needed  
5 among regional, national, and global environmental  
6 observations in estuarine environments, supporting  
7 prior investments in related topics such as nutrient  
8 loading, hypoxia, ocean acidification, and harmful  
9 algae bloom research and observational systems.

10 **SEC. 3. STUDY EXAMINING THE IMPACT OF OCEAN ACIDIFI-**  
11 **CATION AND OTHER ENVIRONMENTAL**  
12 **STRESSORS ON ESTUARINE ENVIRONMENTS.**

13       (a) IN GENERAL.—Not later than 60 days after the  
14 date of enactment of this Act, the Secretary of Commerce  
15 shall make appropriate arrangements with the National  
16 Academies of Sciences, Engineering, and Medicine (re-  
17 ferred to in this Act as the “National Academies”) under  
18 which the National Academies shall conduct a study  
19 that—

20           (1) examines the existing science of ocean acidi-  
21 fication in estuarine environments;

22           (2) examines the challenges to studying ocean  
23 acidification and ocean acidification’s interactions  
24 with other environment stressors in estuarine envi-  
25 ronments;

1           (3) provides recommendations for improving fu-  
2           ture research with respect to ocean acidification in  
3           estuarine environments; and

4           (4) identifies pathways for applying science in  
5           management and mitigation decisions relating to  
6           ocean acidification in estuarine environments.

7           (b) CONTENTS OF STUDY.—The study described  
8           under subsection (a) shall include—

9           (1) the behavior of the carbonate system within  
10          estuarine environments;

11          (2) the interactions of the carbonate system  
12          with other biotic and abiotic characteristics of estua-  
13          rine ecosystems;

14          (3) how environmental and anthropogenic  
15          changes or disturbances could affect abiotic and bi-  
16          otic processes within estuaries;

17          (4) how estuarine biotic and abiotic processes  
18          will be affected under predicted environmental  
19          changes;

20          (5) the current state of data collection, inter-  
21          pretation, storage, and retrieval and observational  
22          infrastructure of abiotic and biotic parameters in es-  
23          tuarine ecosystems;

