

Draft Final Integrated Interim Response
Feasibility Report and Environmental
Assessment

**NEW YORK-NEW JERSEY
HARBOR AND TRIBUTARIES
COASTAL STORM RISK MANAGEMENT
FEASIBILITY STUDY**

**APPENDIX G
STUDY AUTHORITY AND LEGISLATIVE
HISTORY**

March 2026

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1 INTRODUCTION

This appendix presents the context of the study authority underlying the Feasibility Cost Sharing Agreement (FCSA), executed in July 2016 with the States of New York and New Jersey. The legislative history following the discussion of the study authority provides insight into the public's feedback on the study scope, as manifested through their Congressional delegation. A common theme in the legislative history is the public's wish to expand the scope of the study beyond the coastal storm risk management as authorized in the FCSA by incorporating a more comprehensive approach to managing flood risk.

2 STUDY AUTHORITY

USACE is authorized under Public Law 84-71, June 15, 1955 (69 Stat. 132), as modified, to investigate potential coastal storm risk management (CSRМ) solutions within the New York-New Jersey Harbor and Tributaries Study (NYNJHATS). A FCSA with the States of New York and New Jersey was executed in 2016 citing the text below from PL 84-71 for the study authority:

“...an examination and survey to be made of the eastern and southern seaboard of the United States with respect to hurricanes, with particular reference to areas where severe damages have occurred... Such survey, to be made under the direction of the Chief of Engineers, shall include the securing of data on the behavior and frequency of hurricanes, and the determination of methods of forecasting their paths and improving warning services, and of possible means of preventing loss of human lives and damages to property, with due consideration of the economics of proposed breakwaters, seawalls, dikes, dams, and other structures, warning services, or other measures which might be required.”

Leading up to the initiation of the study, the NYNJHATS General Study Area was identified as one of the Focus Areas of Analysis that experienced continued risk of coastal storm damage, as part of the North Atlantic Coast Comprehensive Study (NACCS). The NACCS was completed under the authority of Public Law 113-2, the Disaster Relief Appropriations Act of 2013, which was passed into law to assist in the recovery and long-term resilience of coastal communities impacted by Hurricane Sandy in 2012, from Virginia to Maine. The NACCS report, completed in 2015, identified the NYNJHATS General Study Area as one of nine high-risk focus areas along the Atlantic Coast that warranted additional analyses to address coastal flood risk.

The study authority as provided by Public Law 84-71 is broadly investigating ways to manage coastal storm risk along the nation’s eastern and southern seaboard. Reports prepared under NYNJHATS to PL 84-71 should be considered partial or interim responses to the underlying study authority and do not close out the 1955 authorization for USACE.

3 LEGISLATIVE HISTORY OF NYNJHATS

More recently, Congress has included language relevant to NYNJHATS in Section 203 of the Water Resources Development Act of 2020 (WRDA 2020), Section 8106(a) of WRDA 2022, and Section 1343 of WRDA 2024 that provide either study-specific authority (WRDA 2020 and WRDA 2024), or general authority (WRDA 2022) for the study. This legislation illustrates the congressional interest in several areas: 1) expanding the scope of the NYNJHATS to address the comprehensive coastal storm risk, and the effects of additional sources of flooding, including sea level rise and precipitation, 2) ensuring the study considers the full range of project outputs, 3) ensuring extensive public involvement in the development of plans, and 4) expediting the study. This document describes the effect of each legislative text upon the study and concludes with a summary table.

3.1 WRDA 2020 SECTION 203(A)(4) FOR EXPEDITED COMPLETION OF FEASIBILITY STUDIES

Section 203(a) of WRDA 2020 specified expedited completion of named feasibility studies, including NYNJHATS, with the following modifications:

(4) NEW YORK AND NEW JERSEY HARBOR AND TRIBUTARIES, NEW YORK AND NEW JERSEY. — The study for flood and storm damage reduction for the New York and New Jersey Harbor and Tributaries project, authorized by the Act of June 15, 1955 (chapter 140, 69 Stat. 132), and being carried out pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113–2), is modified to require the Secretary to —

(A) evaluate and address the impacts of low-frequency precipitation and sea-level rise on the study area;

(B) consult with affected communities; and

(C) ensure the study is carried out in accordance with section 1001 of the Water Resources Reform and Development Act of 2014 (33 U.S.C. 2282c).

The description of how the scope of NYNJHATS compares to these requirements is presented below.

Section 203(4) (A): “*evaluate and address impacts of low frequency precipitation and sea level rise on the study area;*” The NYNJHATS addresses precipitation impacts through the incorporation of interior drainage considerations from coastal storm precipitation as they occur coincident with wave and storm surge. Most low frequency precipitation events do not appear to be associated with coastal storms and do not always correlate to high tributary discharges. Flooding risks (including life-loss) in the NYNJHATS area are predominantly from coastal storms, rather than from precipitation-driven fluvial flooding. The NYNJHATS is formulated to consider the impacts that sea level change will have on future conditions, both with and without project alternatives in place, and it is consistent with ER 1100-2-8162 (USACE 2013), Incorporating Relative Sea Level Change (RSLC) in Civil Works Programs. The scope for NYNJHATS includes all USACE scenarios for RSLC to be considered during plan selection, designs, and for communication of

proposed project performance, although RSLC was not explicitly identified within the initial study authority of PL 84-71.

Section 203(4) (B): “consult with affected communities;” The NYNJHATS continues its program of extensive public outreach to the various affected communities in the approximately 2,150 square mile study area (which include all of New York City and the most densely populated area of the most densely populated state (New Jersey). The details of public engagement are presented Appendix F: Public Coordination.

Section 203(4) (C): “ensure the study is carried out in accordance with Section 1001 of the Water Resources Reform and Development Act of 2014 (33 U.S.C. 2282c).” Section 1001 of WRRDA 2014 calls for the completion of feasibility studies vertical integration at all levels of the organization, within 3 years and for a maximum Federal cost of \$3 million, unless the Secretary determines the study is too complex to fit within these parameters and needs more time and funding. NYNJHATS continues to comply with this requirement, through the submission and approval of Additional Resources Requests.

In summary, USACE determined that the scope of NYNJHATS was compliant with the requirements outlined in each subsection of Section 203(a)(4).

3.2 DISASTER RELIEF SUPPLEMENTAL APPROPRIATIONS ACT OF 2022

In the aftermath of Hurricane Ida, Congress passed the Disaster Relief Supplemental Appropriations Act of 2022 (DRSAA-22), Public Law 117-43. The DRSAA included funding for the balance of the approved budget for the NYNJHATS, to be completed at 100% Federal expense. Following the allocation of DRSAA-22 funding to complete the NYNJHATS, the scope of the study was adjusted to include:

- 1) additional modeling to respond to questions from the public about potential environmental effects,
- 2) to provide for more extensive public engagement opportunities, and
- 3) to meet USACE requirements on design maturity in support of certified cost estimates to present to Congress for project authorization.

These additions to the scope of study expanded the budget for the study beyond the amount provided by DRSAA 22. Given the increased cost and schedule to complete the study as originally scoped, the limitations of additional funding from DRSAA 22, the requirement to complete this effort with DRSAA funds, and the opportunity to identify near-term localized actions for early implementation, USACE has recommended a three-pronged completion strategy for the study effort, including: 1) a DRSAA 22-funded interim report to allow for the recommendation and authorization of constructible elements in a potential Water Resources Development Act of 2026 (WRDA 2026), 2) a potential DRSAA 22-funded interim report to allow for the recommendation and authorization of constructible elements in a possible WRDA 2028, subject to availability of additional DRSAA funds, and 3) the completion of the comprehensive study, as a cost-shared study

effort, within the regular General Investigations (GI) Program, subject to the availability of funding. This report is the DRSA 22-funded interim report for constructible elements for potential WRDA 2026 authorization (the first prong).

3.3 WRDA 2022 SECTION 8106(A)

Section 8106(a) of WRDA 2022 included language directing the Secretary to formulate alternatives to maximize net benefits on a more comprehensive basis to address flooding problems, at the non-Federal sponsor's request. The text of 8106(a) specifies:

SEC. 8106. SCOPE OF FEASIBILITY STUDIES.

- *FLOOD RISK MANAGEMENT OR HURRICANE AND STORM DAMAGE RISK REDUCTION.—In carrying out a feasibility study for a project for flood risk management or hurricane and storm damage risk reduction, the Secretary, at the request of the non-Federal interest for the study, shall formulate alternatives to maximize the net benefits from the reduction of the comprehensive flood risk within the geographic scope of the study from the isolated and compound effects of—*
- *a riverine discharge of any magnitude or frequency;*
- *inundation, wave attack, and erosion coinciding with a hurricane or coastal storm;*
- *flooding associated with tidally influenced portions of rivers, bays, and estuaries that are hydrologically connected to the coastal water body;*
- *a rainfall event of any magnitude or frequency;*
- *a tide of any magnitude or frequency;*
- *seasonal variation in water levels;*
- *groundwater emergence;*
- *sea level rise;*
- *subsidence; or*
- *any other driver of flood risk affecting the area within the geographic scope of the study.*

The non-Federal study sponsors formally invoked Section 8106(a) of WRDA 2022, to request USACE to formulate alternatives that maximize the benefits from the management of comprehensive coastal storm risks in the Study Area. The Office of the Assistant Secretary to the Army of Civil Works provided a response indicating that the study team should work with the non-Federal interests to include this additional analysis following the implementation guidance for Section 8106(a). The intent of the study team is to address the Section 8106 request in two parts, both in the further refinement of the TSP as part of the comprehensive analysis and advancement of a recommended plan, and in a limited capacity in the development of near-term Actionable Elements. This document explores, in increasing granularity, the general effect of 8106(a) upon USACE coastal storm risk management studies, the effect of 8106(a) upon the NYNJHATS TSP, and the intersection of 8106(a) with the Actionable Elements.

3.3.1 General Applicability of 8106(a) to USACE Coastal Storm Risk Management Studies

By their nature, USACE coastal storm risk management studies consider many Section 8106(a) drivers in the planning process. **Table 1** developed by HQUSACE in April 2024 identifies the drivers identified under Section 8106(a), and addresses if the specific drivers are considered as a storm driver, or non-storm driver, and if these drivers are in the Federal interest, if addressed in isolation. Additionally, the table addresses how these features would be accounted for as combined drivers. As shown in **Table 1**, a number of these drivers when considered in isolation would not be considered as storm drivers, and alternatives to address these drivers in isolation would not be in the Federal interest within the USACE coastal storm risk management program. The table further illustrates that each of these drivers is considered in a coastal storm risk management project, when treated as combined effects. The notes column further highlights how these drivers would be considered as combined efforts.

Table 1: WRDA 2022 Section 8106(a) Drivers Relation to USACE Missions.

8106(a) Drivers	Isolated	Combined	Notes
1. Riverine Discharge	FRM	CSRM (as compound flooding)	If riverine discharge (fluvial flooding) is expected to have an effect on the performance of a CSRM feature it would be accounted for as compound flooding.
2. Inundation, Wave Attack, and Erosion Coinciding with a Hurricane or Coastal Storm	CSRM	CSRM	These are the primary CSRM damage mechanisms for USACE CSRM projects.
3. Flooding Associated with Tidally Influenced Portions of Rivers, Bays, and Estuaries that are Hydrologically Connected to the Coastal Water Body (Individual and Compound Effects)	CSRM	CSRM	This is a primary CSRM purpose. The geographic extent of the coastal mission includes areas influenced by tides and winds as well as the Great Lakes. This is a subset of Driver 2.
4. A Rainfall Event of Any Magnitude or Frequency	Not a USACE mission	CSRM (interior drainage)	Rainfall alone is not a USACE mission. Rainfall is accounted for in a CSRM study when considering interior drainage. Interior drainage features can only be considered in conjunction with a CSRM feature, not stand-alone.
5. A Tide of Any Magnitude or Frequency	Non-storm	CSRM	Tidal effects are a non-storm function, and as an

8106(a) Drivers	Isolated	Combined	Notes
		(total water level)	isolated effect are not part of the USACE CSR mission. Tides are accounted for in the total water surface when considering storm impacts.
6. Seasonal Variation in Water Levels	Non-storm	CSR (total water level)	Seasonal variations in water elevations are a non-storm function, and as an isolated effect are not part of the USACE CSR mission. Though not typically accounted for, seasonal variations could be accounted for in the total water surface when considering storm impacts.
7. Groundwater Emergence	Non-storm	CSR (interior drainage)	Groundwater is not a storm driver. Groundwater has the effect of reducing infiltration of flood waters and primarily influences flood duration, not height of water. Not typically accounted for in coastal forcing, but included in interior drainage analysis, if applicable.
8. Sea Level Rise	Non-storm	CSR (total water level)	Sea level rise is a non-storm function, and as an isolated effect are not part of the USACE CSR mission. Relative sea level change is accounted for in the total water surface when considering storm impacts.
9. Subsidence	Non-storm	CSR (total water level)	Subsidence is accounted for in sea level rise analysis and is a non-storm function, and as an isolated effect is not part of the USACE CSR mission. Subsidence is accounted for in the total

8106(a) Drivers	Isolated	Combined	Notes
			water surface when considering storm impacts.
10. Any Other Driver of Flood Risk Affecting the Area within the Geographic Scope of the Study	Non-storm	---	No additional drivers have been identified.

3.3.2 Applicability of 8106(a) to NYNJHATS Tentatively Selected Plan (Alternative 3b)

The focus of USACE coastal storm risk management feasibility studies such as the NYNJHATS is to manage the risk of coastal storm damage to make our coastlines more resilient. **The impacts of non-storm related forces are included in the problem definition and evaluation procedures, but teams are required by policy to focus plan formulation and selection on coastal storm related risks.** That is, study teams consider an array of flood hazards – typically including most or all Section 8106(a) drivers – but are required to formulate alternative plans based *only* on information related to coastal storm risk management costs and benefits. Section 8106(a) expands the types of alternative plans that teams can consider, from those focused solely on coastal storm risk management to plans that address flood risks related to all Section 8106(a) drivers.

The NYNJHATS scope includes consideration of the isolated (individual) and combined (compound) effects of most Section 8106(a) drivers, as shown in Table 2. The table also includes notes about the potential to expand the study scope to further investigate several of the drivers, as detailed in this section. Please note that this table the section below describes how 8106(a) would affect the comprehensive plan (Alternative 3b) that was described in the 2022 draft report. The incorporation of 8106(a) for the Actionable Elements described in this Interim Report follows in a subsequent section.

Table 2: Section 8106(a) Drivers and the NYNJHATS TSP

Section 8016(a) Drivers	Driver Currently Considered within Scope?	Drivers included in Compound Effects?	Potential to Expand Scope?
1. Riverine Discharge	Yes (compound flooding)	2, 3, 4, 5, 6, 7, 8, 9, 10	Yes
2. Inundation, Wave Attack, and Erosion Coinciding with a Hurricane or Coastal Storm	Yes	1, 3, 5, 6, 8, 9, 10	Yes
3. Flooding Associated with Tidally Influenced Portions of Rivers, Bays, and Estuaries that are Hydrologically Connected to the Coastal	Yes	1, 2, 4, 5, 6, 7, 8, 9, 10	Yes

Section 8016(a) Drivers	Driver Currently Considered within Scope?	Drivers included in Compound Effects?	Potential to Expand Scope?
Water Body (Individual and Compound Effects)			
4. A Rainfall Event of Any Magnitude or Frequency	Yes (interior drainage)	1, 2, 3, 5, 6, 7, 8, 10	Yes
5. A Tide of Any Magnitude or Frequency	Yes (total water level)	1, 2, 3, 4, 6, 7, 8, 9, 10	Yes
6. Seasonal Variation in Water Levels	Yes (total water level)	1, 2, 3, 4, 5, 7, 8, 9, 10	No
7. Groundwater Emergence	No	1, 3, 4, 5, 6, 8, 9, 10	Yes
8. Sea Level Rise	Yes (total water level)	1, 2, 3, 4, 5, 6, 7, 9, 10	Yes
9. Subsidence	Yes (total water level)	1, 2, 3, 5, 6, 7, 8, 10	No
10. Any Other Driver of Flood Risk Affecting the Area within the Geographic Scope of the Study	Yes (induced flooding)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	Yes

1. Riverine Discharge. Currently Considered? Yes (compound flooding). Potential Area of Scope Expansion? Yes. Riverine discharge (also described as fluvial or pluvial discharge) is a major flood hazard in the study area. Riverine discharges are included within current engineering modeling (ADCIRC model), but the extent is limited geographically to tidally influenced regions of the study area. The addition of non-tidally influenced regions would be a significant scope expansion.

Coastal processes and riverine discharge were considered separately, as coastal storm flooding in the study area is generally not coincident with peak riverine discharge, with the latter generally lagging the former by hours or days in some tributaries. Further, the magnitude of flows from ambient tidal dynamics is considerably greater in much of the study area such that coastal storm flooding contributes more to flood water surface elevations than the same frequency (or probability) of riverine flood risks. However, understanding the joint probability could be valuable to better understand hydrodynamics and flood threats. There is an opportunity to expand the study scope to include such a joint probability analysis.

Additionally, there are modeling limitations related to the understanding of riverine discharge and the operation of the proposed storm surge barriers that include gates. All modeling simulations completed to date include a river inflow rate set to a zero-flow rate. Modeling limitations require that storm surge barrier gates be simulated in either the “open” or “closed” position for the entire duration of the simulation. The study team

understands that modeling river inflows with the gates closed would cause unrealistically large buildups of water behind the gates. This in turn would unacceptably induce flooding behind the storm surge barriers, which is not a scenario under which the gates would be operated. There is an opportunity to expand the study scope to improve the understanding of riverine discharge in the study area by including more ADCIRC modeling simulations or utilizing a different model that could model different scenarios.

2. Inundation, Wave Attack, and Erosion Coinciding with a Hurricane or Coastal Storm. *Currently Considered? Yes. Potential Area of Scope Expansion? Yes.* The effects of coastal storm-related inundation, wave attack, and erosion have been quantified by engineering modeling of existing and future conditions. The CSTORM suite of numerical models was used to quantify inundation and wave attack. The model couples inundation modeling (ADCIRC) with wave modeling (STWAVE). The model, however, does not quantify erosion. The HEC-FDA economic model derived economic damages related to inundation. However, the model does not quantitatively consider damages due to wave attack or erosion. Environmental models did not consider inundation, wave attack, nor erosion. There is opportunity to expand the study scope to include a more robust investigation of wave attack and erosion, depending on where this driver applies to specific sites for implementation.

3. Flooding Associated with Tidally Influenced Portions of Rivers, Bays, and Estuaries that are Hydrologically Connected to the Coastal Water Body. *Currently Considered? Yes. Potential Area of Scope Expansion? Yes.* Similar to Driver #2 (Inundation, Wave Attack, and Erosion Coinciding with a Hurricane or Coastal Storm), several current engineering, environmental, and economic models characterize flooding associated with tidally influenced portions of water bodies that are hydrologically connected to the coast. The engineering ADCIRC and AdH models are being used to quantify the depth and extent of flooding with and without alternative plans in place. The HEC-FDA model is being used to quantify the economic damages of flooding. The New York Bight Ecological Model (NYBEM) is being used to predict effects to the environment from existing and predicted flooding. However, the study scope does not include the consideration of tidal flooding over time that could cause permanent inundation of some areas due to relative sea level rise. The scope could be expanded to include the consideration of tidal flooding over time by using engineering and economic models and relative sea level change projections (see Driver #8).

4. A Rainfall Event of Any Magnitude or Frequency. *Currently Considered? Yes (interior drainage). Potential Area of Scope Expansion? Yes.* Rainfall, stormwater runoff, and outfall discharge are important factors affecting interior drainage in the study area. The study scope includes investigating ways to address how the project may affect stormwater management systems. However, rainfall effects are not specifically modeled. The study scope could be expanded to include a more robust consideration of rainfall flooding, both independently and as a compound threat in concert with storm surge and tidal inundation.

5. A Tide of Any Magnitude or Frequency. Currently Considered? Yes (total water level). Potential Area of Scope Expansion? Yes. Tidal flooding is a component of the coastal flooding considered in current engineering, environmental, and economic models. Similar to Driver #3 (Flooding Associated with Tidally Influenced Portions of Rivers, Bays, and Estuaries that are Hydrologically Connected to the Coastal Water Body), the study scope does not include the consideration of tidal flooding over time that could cause permanent inundation of some areas due to RSLC. It also does not include consideration of chronic high-frequency tidal flooding, also called sunny day flooding, caused by non-storm related flooding due to high tides. The study scope could be expanded to include additional modeling to show the effects of tidal flooding over time and high-frequency tidal flooding.

6. Seasonal Variation in Water Levels. Currently Considered? Yes (total water level). Potential Area of Scope Expansion? No. Predictable seasonal changes in water levels are incorporated into current engineering modeling. A steric adjustment was added to the initial still water value in the ADCIRC model domain to account for seasonal variations in water levels. There is little to no opportunity to expand the study scope to include a more robust investigation of this driver.

7. Groundwater Emergence. Currently Considered? No. Potential Area of Scope Expansion? Yes. Similar to Driver #4 (A Rainfall Event of Any Magnitude or Frequency), groundwater emergence is an important factor affecting interior drainage in the study area. The study scope includes investigating ways to address how the project may affect stormwater management systems. However, groundwater emergence is not specifically modeled.

8. Sea Level Rise. Currently Considered? Yes (total water level). Potential Area of Scope Expansion? Yes. The study scope includes the consideration of climate change and relative sea level change as required by USACE policy – mainly, Engineer Regulation (ER) 1100-2-8162 (USACE, 2013). Three USACE projections are used as a basis for consideration to evaluate and compare the effects of relative sea level change on a study area and project performance. The scientific basis for the projections is the same as other regional and national projections, building on the work done by the Intergovernmental Panel on Climate Change. ER 1100-2-8162 allows study teams to consider a higher rate of sea level change if justified by project conditions. The NYNJHATS scope includes the consideration of climate change and relative sea level change projections used by New York State, the State of New Jersey, and the City of New York – including the low probability, high-impact Antarctic Rapid Ice Melt scenario.

While the study team characterizes future flood risk by using these many projections, there remains an opportunity to expand the study scope similar as for Driver #3 (Flooding Associated with Tidally Influenced Portions of Rivers, Bays, and Estuaries that are Hydrologically Connected to the Coastal Water Body) and Driver #5 (A Tide of Any Magnitude or Frequency). Rising sea levels can create permanent inundation of some areas over time. The study scope could be expanded to include the consideration of

permanent inundation over time by using engineering and economic models and relative sea level change projections.

9. Subsidence. Currently Considered? Yes (total water level). Potential Area of Scope Expansion? No. Ground subsidence is a factor in the calculation of relative sea level change, which is defined as the change in the height of the ocean in relation to the land at a specific location. Simply, RSLC increases as the ground subsides. There is little to no opportunity to expand the study scope to include a more robust investigation of this driver, as it is factored into the characterization of RSLC in the General Study Area.

10. Any Other Driver of Flood Risk Affecting the Area within the Geographic Scope of the Study. Currently Considered? Yes (induced flooding due to storm surge barriers). Potential Area of Scope Expansion? Yes. The operation of storm surge barriers can induce flooding in the study area. Such flooding may occur as rainfall and riverine discharge may pile up “behind” the barrier. The risk of this is previously described for Driver #1 (Riverine Discharge) and Driver #4 (A Rainfall Event of Any Magnitude or Frequency). Induced flooding may also occur “outside” the barrier, as storm surge is pushed into areas not part of the barrier system. Water levels thus may increase “behind” and “outside” storm surge barriers when the gates are closed.

There is opportunity to expand the study scope to investigate induced flooding by modeling the coincidence of river flooding and closure of the barriers (aka, the closure criterion). Engineering models could be used to characterize induced flooding within and outside the study area caused by closure of the storm surge barrier gates. The USACE Gate Operational Closure Tool (GOAT) can be used to help identify closure frequencies.

3.3.3 Applicability of 8106(a) to NYNJHATS Actionable Elements (Subset of Alternative 3b)

As discussed in Sections 3.3.1 and 3.3.2, many of the flood drivers in Section 8106(a) are built into the coastal storm risk management mission, namely tidally influenced flooding, seasonal water variation, and relative sea level change and/or subsidence. Other drivers are captured in the USACE mandate to avoid induced flooding related to interior drainage requirements or the displacement of floodwater to adjacent areas. The application of 8106(a) for NYNJHATS comes in the expansion of the study scope beyond coastal storm risk management and its associated considerations. In the case of the Actionable Elements, 8106(a) applies in the case of East Riser, Meadowlands, NJ, where there is a notable riverine and rainfall contribution to East Riser, in addition to the tidally influenced floodwaters that flank the gate at Berry’s Creek to end in East Riser. The Harlem River floodwall is an example of a typical structural coastal storm risk management solution, while Oakwood Beach is a nature-based solution, also within conventional coastal storm risk management parameters.

3.4 WRDA 2022 SECTION 8302, WATERSHED AND RIVER BASIN ASSESSMENTS

WRDA 2022, Section 8302 (2)(c) included text updating Section 729 of WRDA 1986 for watershed studies, including the addition of the NYNJHAT study area to the list of priority river basin and watersheds:

“(11) New York-New Jersey Watershed Basin, which encompasses all the watersheds that flow into the New York-New Jersey Harbor and their associated estuaries, including the Hudson, Mohawk, Raritan, Passaic, Hackensack, and Bronx River Watersheds and the Hudson River Estuary;”

USACE has the authority pursue a Section 729 Watershed study for the NYNJHAT study area, pending federal appropriations and a non-federal sponsor to sign the feasibility cost sharing agreement provide the non-federal contribution of 25% of the overall study cost. A Section 729 study allows for the development of a comprehensive framework and extensive stakeholder and public engagement. It could serve as a vehicle for system wide modeling runs that could answer questions that have been raised about systemic effects of the NYNJHATS TSP, for instance, the effects of proposed in-water gates upon the estuary’s circulation patterns. This type of modeling can be difficult to start if the budgeting focus is on actionable elements for implementation. It culminates in the production of a collaborative watershed plan. Full compliance with USACE design maturity requirements and NEPA is not required because the watershed plan is not provided to Congress to seek construction authorization for a project. Should there be interest in implementing parts of a watershed plan, a follow-on feasibility report, typically under General Investigations or the Continuing Authorities Program, would be needed to obtain authorization to construct projects.

3.5 WRDA 2024 SECTION 1343, NEW YORK AND NEW JERSEY HARBOR AND TRIBUTARIES

WRDA 2024 included language under Section 1343 directing the Secretary to modify the scope of the study to take a more comprehensive approach to evaluating potential benefits and effects, pursuant to Section 8106(a) of WRDA 2022, consider nature-based solutions, solicit public comments, expedite the study, and provide an interim response to Congress. Below is the text of Section 1343, annotated descriptions of how the language affects NYNJHATS and any actions taken to respond to the language.

WRDA 2024 - SEC. 1343. NEW YORK AND NEW JERSEY HARBOR AND TRIBUTARIES, NEW YORK AND NEW JERSEY.

(a) IN GENERAL.—The study for flood and storm damage reduction for the New York and New Jersey Harbor and Tributaries project, authorized by the Act of June 15, 1955 (chapter 140, 69 Stat. 132, 134 Stat. 2676) and being carried out pursuant to the Disaster Relief Appropriations Act, 2013 (Public Law 113–2), is modified to require the Secretary, upon the request of the non-Federal interest for the project, to include within the scope of such study an investigation of, and recommendations relating to, projects and activities to maximize the net public benefits, including ecological benefits and societal benefits, from the reduction of the comprehensive flood risk within the geographic scope of the project from the isolated and compound effects of factors described in section 8106(a) of the Water Resources Development Act of 2022 (33 U.S.C. 2282g).

USACE assessment: Section 8106(a) is incorporated into the scope of study as applicable. In the case of the Actionable Elements, East Riser in NJ has the most direct application of 8106(a) through the intersection of coastal and riverine flood inputs. USACE addressed net public benefits through the development of Agency Specific Procedures, pursuant to Section 110 of WRDA 2020, and will evaluate proposed projects according to this metric when the Agency Specific Procedures when directed to by the Administration. In the interim, the study team focuses on the comprehensive documentation of benefits, identified as the Total Net Benefit plan.

(b) ASSOCIATED PROJECTS.—The Secretary is authorized to carry out projects and activities recommended pursuant to subsection (a) if such projects and activities otherwise meet the criteria for projects carried out under a continuing authority program (as defined in section 7001(c)) of the Water Resources Reform and Development Act of 2014 (33 U.S.C. 2282d(c)).

USACE assessment: Section 7001(c) specifies the contents of the Annual Report to Congress on: Feasibility Reports proposed, in progressed, or completed; proposed modifications to an authorized water resources development project; and proposals from non-Federal interests for feasibility studies and project modifications. Please note the distinction between continuing authority program as defined in Section 7001(c) and the Continuing Authorities Program (CAP), the nine legislative authorities under which USACE can plan, design, and implement certain types of water resources projects of limited size, cost, scope, and complexity without additional project specific congressional authorization. Proposed projects meeting the criteria for CAP could be implemented under the CAP program pending agreement between USACE and the non-Federal interest. A Chief's Report would still be required to obtain construction authorization for the Actionable Elements documented in this Interim Report.

- *CONTINUATION; —Any study recommended to be carried out in a report that the Chief of Engineers prepares for such study shall be considered a continuation of the study described in subsection (a).*

USACE assessment: By designation this work as a New Phase instead of New Start, congress is streamlining future budgeting for investigations needed to support a construction recommendation.

- *CONSIDERATION; CONSULTATION. —In developing recommendations pursuant to subsection (a), the Secretary shall—*
 - (1) consider the use of natural and nature-based features;*
 - (2) consult with applicable Federal and State agencies and other stakeholders within the geographic scope of the project; and*
 - (3) solicit public comments.*

USACE assessment: These activities are within the current scope for NYNJHATS. Among the Actionable Elements, Oakwood Beach is nature-based solution for coastal

storm risk management. Our non-Federal sponsors were consulted for the selection of Actionable Elements to advance for this interim response, and resource agencies are Cooperating Agencies for this study.

- *INTERIM PROGRESS; REPORT TO CONGRESS.* —Not later than 3 years after the date of enactment of this Act, the Secretary shall transmit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report detailing—
 - (4) any recommendations made pursuant to subsection (a);
 - (5) any projects or activities carried out under subsection (b);
 - (6) any additional, site-specific areas within the geographic scope of the project for which additional study is recommended by the Secretary; and
 - (7) any interim actions related to reduction of comprehensive flood risk within the geographic scope of the project undertaken by the Secretary during the study period.

USACE assessment: This requirement could be satisfied with the Chief’s Report for this Interim Response for 2026.

- *EXPEDITED CONSIDERATION.* —The Secretary shall expedite the completion of the study described in subsection (a) and any further study, project, or activity recommended pursuant to this section.

USACE assessment: To comply with this section, USACE used a standard 30-day comment period after release of the Draft Report on Actionable Elements in July 2025. Questions on the comprehensive plan (Alternative 3b) will be addressed through the comprehensive plan analysis when it resumes.

- *SAVINGS CLAUSE.* —Any additional action authorized by this section shall not delay any existing study, engineering, or planning work underway as of the date of enactment of this Act.

USACE assessment: Completion of existing work or additional work is subject to the availability of future funding.

3.6 SUMMARY OF EFFECTS OF LEGISLATIVE ACTIONS ON NYNJHATS

As the summary of legislative actions on NYNJHATS demonstrates, the public would prefer USACE to take a comprehensive and holistic approach to formulating and justifying solutions for coastal storm risk management. The public wishes USACE to address compound effects of coastal storm risk with additional flood drivers such as riverine flooding, rainfall, and sea level rise, as specified in Section 8106(a) of WRDA 2022 and reinforced in Section 1343 of WRDA 2024. Some of the specified flood drivers are already part of the USACE standard operating procedure for evaluating coastal storm risk (RSLC

and interior drainage requirements). **Table 3** is summary of the relevant pieces of legislation and their effect upon the NYNJHATS.

Table 3: Summary of Legislative Effects upon the NYNJHATS

Legislation	Description	Effect Upon Study
Public Law 84-71, 1955	Authorized USACE to study coastal storm risk management on the eastern and southern seaboard	Provides the authorization for the feasibility cost sharing agreement on NYNJHATS, and focuses the study on coastal storm risk management
Public Law 113-2, 2013	Authorized USACE to conduct a vulnerability assessment of coastal storm risk in the areas impacted by Hurricane Sandy, from Maine to Virginia	The resulting report, the North Atlantic Comprehensive Coast Study (2015), identified the NYNJHATS as a focus area in need of further investigation for potential coastal storm risk management solutions.
Public Law 116-460 WRDA 2020 Section 203(a)(4)	Directed USACE to evaluate impacts of low-frequency precipitation and sea level rise on study area, consult with affected communities, and comply with the requirement to complete feasibility studies for 3 years and \$3 million, unless the Secretary determines a study is too complex to complete within those parameters	The scope of the NYNJHATS is compliant with Section 203(a)(4) of WRDA 2020.
Public Law 117-43 Disaster Relief Supplemental Appropriations Act of 2022 (DRSAA-22)	Authorized USACE to conduct investigations and funded ongoing studies, design, and construction for flood risk management in states affected by Hurricane Ida	Provided funding to complete the NYNJHAT (as scoped in 2022) at full Federal expense. DRSAA-22 funds also came with provision to complete the study with DRSAA-22 funding (rather than switch back and forth between DRSAA-22 and regular General Investigations funding). The requirement to complete with DRSAA funding can be met with a Chief's Report on Actionable Elements through an Interim Response to the study authority.
Public Law 117-263 WRDA 2022 Section 8106(a)	Directs USACE to formulate alternatives to maximize net benefits on a more comprehensive basis to address flooding problems, at the non-federal sponsor's request. Section 8106(a)	The non-Federal sponsor invoked 8106(a) for the NYNJHATS, and the Secretary indicated that the study team should work with the non-federal sponsor to incorporate 8106(a) into the study. Section 8106 is addressed in two

Legislation	Description	Effect Upon Study
	identifies 10 flood drivers to include for consideration.	parts, both in the further refinement of the TSP as part of the comprehensive analysis and advancement of a recommended plan, and directly in the development of near-term Actionable Elements. The site of East Riser in Hackensack, NJ, is the application of 8106(a) through the consideration of coastal storm risk and riverine flood risk as primary flood drivers.
Public Law 117-263 WRDA 2022 Section 8302(2)(c)	Adds the NYNJHAT study area to the priority list for Watershed assessments under Section 729 of 1986, as amended	Provides a vehicle for a Watershed Assessment for the NYNJHAT study area, which could be used to further develop a comprehensive framework. Note that Section 729 does not result in a Chief's Report for construction.
Public Law 118-272 WRDA 2024 Section 1343	<p>Directs USACE to take the following actions on NYNJHATS:</p> <ul style="list-style-type: none"> a) Incorporate 8106(a) b) Implement projects that meet Section 7001(c) of WRRDA 2014 c) Consider actions carried out under subsection (a) to be a continuation d) Consider Nature-Based solutions, consult with resource agencies and stakeholders, and to solicit public comments e) Produce an interim report to Congress on progress f) Expedite the study 	<p>NYNJHATS is compliant with the provisions of Section 1343. Section 8106(a) is addressed through work at East Riser, NJ. Oakwood Beach is a nature-based solution for coastal storm risk management. Resource agencies and stakeholders have been consulted throughout the process. Public comments will be solicited through the public comment period for the draft Interim Report for the Actionable Elements. This Interim Report satisfies subsection e) to apprise Congress of progress through an interim report. USACE will expedite the study by holding a 30-day comment period for the Actionable Elements, and explain that comments on the overall plan (Alt. 3b) will be addressed when the comprehensive analysis resumes, subject to the availability of funding.</p>

4 REFERENCES

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https://www.nan.usace.army.mil/Portals/37/NYNJHATS%20Draft%20Integrated%20Feasibility%20Report%20Tier%201%20EIS_3Oct2022.pdf