

FINDING OF NO SIGNIFICANT IMPACT

Issuance of a Negotiated Agreement for Use of Outer Continental Shelf Sand from Unnamed Shoal A for the National Aeronautics and Space Administration (NASA) Wallops Flight Facility Shoreline Protection Project

Pursuant to the National Environmental Policy Act (NEPA), the National Aeronautics and Space Administration (lead agency) prepared an Environmental Assessment (EA) in support of the Wallops Flight Facility Shoreline Protection Project (Project). Pursuant to the Department of the Interior (DOI) NEPA Implementing Procedures, the Marine Minerals Administration (MMA), as a cooperating agency, independently evaluated and adopted the 2026 EA. The 2026 EA considers whether authorizing use of Outer Continental Shelf (OCS) sand from Unnamed Shoal A for nourishment of the Project would have a significant effect on the human environment and whether an environmental impact statement (EIS) should be prepared.

NASA described the affected environment, evaluated potential environmental impacts resulting from the proposed action, and developed and described alternatives to the proposed action in the *2010 Final Programmatic Environmental Impact Statement Wallops Flight Facility Shoreline Restoration and Infrastructure Protection Program (SRIPP) (Final PEIS)* (http://sites.wff.nasa.gov/code250/final_sripp_peis_document.html). In March 2011, the Bureau of Ocean Energy Management, predecessor to the MMA, adopted the Final PEIS and issued a Record of Decision (ROD) authorizing use of OCS sand in the initial construction of the Wallops Flight Facility SRIPP.

The 2026 EA tiers from the 2010 SRIPP PEIS. The following NEPA documents previously prepared by NASA (with MMA, known then as the Bureau of Ocean Energy Management, as cooperating agency) or the MMA are also incorporated by reference into the 2026 EA:

- *2012 Modification of the Negotiated Agreement Authorizing Use of Outer Continental Shelf Sand in the Wallops Flight Facility Shoreline Restoration and Infrastructure Protection Program Environmental Assessment*. [Wallops Island 2012 EA and FONNSI .pdf](#). In 2011, the MMA granted authorization to NASA to use 3,199,000 cubic yards (cy) of OCS sand. After resurveying nearshore conditions in advance of construction, NASA determined the Project could not be constructed as originally designed without additional beach fill material. NASA requested that the MMA authorize an additional 300,000 cy of OCS sand. The 2012 EA considered the modification of the existing agreement for the additional sand. The MMA signed a FONSI on June 29, 2012.
- *2013 Wallops Island Post-Hurricane Sandy Shoreline Repair Final Environmental Assessment*. [Wallops Island 2012 EA and FONNSI .pdf](#). The 2013 EA considers the repair of the nourished beach following damage incurred during Hurricane Sandy. The MMA signed a FONSI on July 5, 2013, supporting the decision to issue a negotiated agreement for use of OCS sand to repair the beach template.

- 2019. *NASA Wallops Flight Facility Final Shoreline Enhancement and Restoration Project EA*.
<https://www.nasa.gov/goddard/memd/nepa/shoreline/#documents%20https://cod e200-11external.gsfc.nasa.gov/250-WFF/serp-ea>. The 2019 EA considers the renourishment of the Project consistent with the Wallops Flight Facility SRIPP. The MMA signed a FONSI on February 6, 2019, supporting the decision to issue a negotiated agreement for use of OCS sand supporting nourishment in 2020. However, sand was transferred from North Wallops Island Beach; OCS sand was not used as originally planned.

Proposed Action

NASA is proposing to use Unnamed Shoal A to dredge up to 2.3 million cubic yards (mcy) of material for the renourishment of the Project. Within the next seven years, NASA may seek to use a total of 4.5 mcy of material from Unnamed Shoal A under separate request, evaluation, and leasing decision. That entire volume is analyzed in the 2026 EA, but only 2.3 million cubic yards is considered for the current leasing decision. The NASA Proposed Action could involve a combination of the following:

- sand renourishment within an approximate 15,000-foot section of shoreline from the south property line on Wallops Island north to the location of the fire station;
- construction of up to six breakwaters in the nearshore area between the existing breakwaters; and
- repairs and extension of the existing seawall.

While the lead agency's Proposed Action also includes construction of breakwaters and repair of an existing seawall, these activities do not involve the use of Outer Continental Shelf sand and are not authorized, funded, or regulated by the MMA. The MMA's proposed action is the issuance of a negotiated agreement, and its purpose is to authorize use of an OCS borrow area, Unnamed Shoal A (sub-area A-1), so that NASA can obtain the necessary sand resources to undertake the beach nourishment project. The Project is needed to address shoreline erosion and protect valuable property along the Wallops Island Flight Facility shoreline (Attachment 1).

Alternatives to the Proposed Action

The 2010 EIS considered a range of potential shore protection alternatives, including the extension of the seawall combined with beach fill and the extension of the seawall combined with beach fill and sand retention structure (either groin or breakwater). Based upon a combination of economic, engineering, and environmental factors, NASA selected beach nourishment combined with a seawall extension as the alternative that would best meet its needs for the SRIPP. The Project was initially constructed in 2012, with a supplemental nourishment in 2013 following Hurricane Sandy. In 2020, NASA completed a third renourishment effort using sand bypassed from the north Wallops Island beach. Separately, NASA installed a 1,430 foot seawall and a total of five breakwaters approximately 200 feet offshore from the mean high water line of the

Wallops Island shoreline. Shoreline monitoring efforts indicated that in spite of the 2020 sand placement effort, beach profiles had receded landward of the 2019 profile and the construction template by Fall 2024.

The 2026 EA analyzes the preferred alternative of beach renourishment and additional breakwater construction, as well as beach renourishment without additional breakwaters, additional breakwaters without beach renourishment, and no-action alternatives. All of the action alternatives include an option for seawall extension, by 4,600 feet to the south, and repair.

Environmental Effects

The 2026 EA and prior environmental documents evaluate Project impacts associated with dredging and placement operations, as well as breakwater and seawall construction activities. The suite of environmental commitments necessary to avoid, minimize, and/or reduce and track any foreseeable adverse effects that may result from the Project will continue to be implemented by NASA. NASA is responsible for implementing all environmental requirements prior to, during, and after construction, as described in the 2026 EA.

The MMA independently reviewed the 2026 EA, considered other environmental documents incorporated by reference, and evaluated the adequacy of the documents. The MMA confirmed that the reliance on the analyses and any underlying assumptions, considering any substantial new circumstances or information about the significance of adverse effects that bear on the analysis, was appropriate.

Significance Review

The MMA analyzed the significance of potential effects of the Project considering both the potentially affected environment and the degree of effects. Connected actions include on-and-off site mobilization, breakwater and seawall construction activities, and beach placement activities.

The MMA considered the affected area and resources potentially present in both spatial and temporal context. The proposed action is considered site-specific. The area of direct fill placement includes dry sandy beach, intertidal flat/surf zone, and shallow subtidal habitat. Effects would be limited to the placement site (including the pipeline corridors for conveying sediment to the beach), the breakwater and seawall construction sites, and the immediate dredging area, all of which are dominated by storms and physical processes of waves and currents. Effects of the Project would generally be limited to the 3-month to 6-month construction window and the time interval associated with equilibration of the placement material, recovery of the disturbed borrow area, and any habitat change along the beach. Both the sand placement and dredging sites are expected to equilibrate in the intervening time. After construction, the breakwaters and seawall would alter habitat type creating a hardened substrate that would provide resting and foraging areas for various marine species and avifauna. The MMA considered the following when evaluating the degree of effects:

(i) *Short- and long-term effects*

Potential effects associated with the Project would be localized, short-term, and generally reversible. The only long-term effect within the Unnamed Shoal A borrow area would be related to physical geomorphologic change due to the removal of OCS sand and limited infilling or reshaping expected. Dredging in the borrow area will permanently reduce the sand resources. Minor hydrodynamic effects related to seafloor disturbance or modification are expected to be limited to the immediate dredging area.

Construction of the seawall extension and breakwaters would temporarily disturb the nearshore bottom, causing minor, localized increases in turbidity and sediment disruption. In the long term, the breakwater structures would alter hydrodynamics, sediment transport, beach morphology, and habitat by accumulating sand landward of the breakwaters, while their “leaky” design helps maintain a source of sand transport to nearby islands. Permanent changes in bathymetry, such as slight depressions seaward of the breakwaters and shifts in sand bars, would occur, and up to 2.5 acres of unconsolidated sand could be converted to hardbottom essential fish habitat, also providing new resting and foraging areas for avifauna. Long-term, the seawall will continue to face erosion of the shoreline seaward of its location.

NASA collected pre- and post-dredge multibeam hydrographic survey data within the borrow area before and after the 2012 and 2014 dredging efforts. NASA estimated 3.42 million cubic yards of sediment were dredged during the 2012 and 2014 renourishments. Modeling, conducted using the 2012 post-dredging survey and the 2014 pre-dredging survey data, concluded that approximately 238,000 cubic yards of sand accreted between the 2012 and 2014 renourishments (Bonsteel 2015). More recent bathymetric survey data are not available. Additional hydrographic survey data will be collected in association with the proposed nourishment event. Dredging the borrow area would create steeply sloped areas of micro-topography, which would be smoothed by tidal and wave energy in the years following the dredge event. The lowering of the shoal’s topography would be a longer-term effect, with the shoal maintaining the same general morphology but at a lower elevation. The use of draghead screening to preclude the uptake of unexploded ordnance would also lead to potentially “hardening” of the sediments through the exclusion of larger sized material. Overall, consequences to the offshore shoal would be further reduced because of NASA’s commitment to implementing minimization measures such as dredging from the accretional area, limiting cut depth to avoid pitting, and not dredging the entire length of the shoal.

Unnamed Shoal A occupies roughly 1,800 acres of seabed. Dredging would temporarily impact benthic epifaunal and infaunal organisms and result in the loss of some infaunal species. However, the equilibration, post-dredge, to similar conditions would support the recovery of benthic invertebrate communities. In addition, benthic species will recruit and recolonize in the short-term after dredging given similar species in surrounding habitat. Recovery of the benthic population is expected within 1 to 2 years after dredging ceases. Impacts are anticipated within the nearshore and intertidal soft bottom communities of the beach placement site; however, they are expected to recover within

a similar timeframe through recruitment from surrounding communities. Future dredging activities, associated with the Project, would introduce another cycle of disturbance and recovery.

Potential effects to sea turtles, marine mammals, and Atlantic sturgeon in the vicinity of operations have been reduced through tested mitigation, such as sea turtle deflector use, sea turtle monitoring, and protected species observers. Sea turtles infrequently nest on Wallops Island and do not normally nest in the Project area. Effects to onshore shorebirds would include the potential for startle or disruption of foraging, reduction in prey availability, and for plovers, the potential for disruption of beach habitat during the placement of sand on the Wallops Island shoreline, which may temporarily disturb breeding, nesting, and feeding activities. Wallops Flight Facility has a Protected Species Monitoring Plan that includes mitigation and monitoring to minimize effects to both onshore avifauna and sea turtles, such as suspension of construction activities in areas of shorebird nests, nesting buffers, and monitoring for onshore species. Use of a consistent cut depth will optimize trailing suction hopper dredge material recovery, improve dredging efficiency, and reduce sea turtle entrainment risk. All of these effects are expected to be short-term and primarily focused to the period of construction.

The Atlantic Ocean coastal waters and offshore shoals in the vicinity of the Project area are designated essential fish habitat (EFH) for mollusks, bony finfish, and cartilaginous fish species (including several Atlantic highly migratory species (e.g., tunas, sharks, swordfish, and billfishes). The marine water column and soft bottom (subtidal) habitats are located within the Project area. The offshore shoals provide bottom habitat for various life history stages of a variety of benthic (bottom-dwelling) and demersal (bottom-oriented) shellfish and finfish. NASA will implement previously established avoidance and minimization measures to minimize effects on fish species and fish habitat, including but not limited to adherence to the State Water Quality Certification conditions, limiting cut depth, avoiding dredging the entire length of the shoal, and avoidance of hard bottom. In the short-term, effects include avoidance of the area by fish species. Longer term effects are expected due to benthic habitat disturbance, which is expected to recover within 1-2 years.

Other expected short-term effects from the Project include beach access closures in active construction zones and pump-out locations, small, localized, temporary increases in concentrations of air pollutant emissions, and localized and minor noise level increases at the placement and dredge site. The placement area is not publicly accessible and is at a distance from occupied facilities, so noise effects on the public and Wallops Flight Facility employees and tenants would be minimal. These effects are likely limited to the 3-month to 6-month construction period.

(ii) Beneficial and adverse effects

The MMA evaluated potential impacts to the physical environment, biological resources, cultural resources, and socioeconomic factors. Construction activities may temporarily disrupt foraging and nesting for coastal sand-dependent species, such as migratory shorebirds and sea turtles.

Dredging within Unnamed Shoal A overlaps with habitats of several protected sea turtles, including threatened loggerhead (Northwest Atlantic DPS), green (North Atlantic DPS), and endangered leatherback, hawksbill, and Kemp's ridley species, as well as Atlantic sturgeon, though the latter are not expected in high concentrations. Offshore dredging and nearshore/onshore construction could affect avifauna if nesting occurs within the Project area. There is a risk of entrainment for sea turtles and Atlantic sturgeon from trailing suction hopper dredges.

The breakwater structures can yield ecological and shoreline benefits. These include providing new resting and foraging areas for avifauna, converting submerged unconsolidated sand into a different type of essential fish habitat, and reducing future beach renourishment by trapping sand landward of the breakwaters in tombolos, while maintaining natural sand transport to nearby barrier islands. However, the construction process temporarily disturbs the nearshore bottom, increases localized turbidity, and causes minor, permanent changes in bathymetry, such as depressions and shifts in sand bars. Such effects may startle or disrupt foraging activities and reduce prey availability for wildlife. Fish and sea turtles, could experience interactions with sediment plumes, reduced forage, disturbance from vessel-created sounds, and altered ingress and egress patterns around the breakwaters. Historical data indicate that sea turtle nesting on this portion of Wallops Island is low, with the last recorded nest in 2013. Breakwaters will not interfere with the beach and dune areas that historically supported the most nesting. Breakwater placement is planned south of historical piping plover and red knot nesting and foraging areas; moreover, rocks will be placed approximately 200 feet offshore of the renourished shoreline without directly implicating subaerial habitat. Although the seawall protects part of the Wallops Flight Facility shoreline and infrastructure from direct wave action and erosion, the seawall may disrupt natural coastal processes like wave runup and washover, potentially leading to morphologic changes in adjacent, unprotected areas.

Seafloor-disturbing activities (e.g., dredging, anchoring, pipeline placement, breakwater installation) will occur during construction. NASA conducted surveys for cultural and hardbottom resources in the Project area, including Unnamed Shoal A, pipeline corridors, breakwater footprint, and the beach placement area. No significant archaeological or hardbottom targets were identified. If previously unidentified archaeological resources are discovered, work will cease immediately and authorities will be notified. No adverse effects to historic or pre-contact resources are anticipated. NASA, as lead agency, re-initiated Section 106 consultation under the National Historic Preservation Act (NHPA), engaging the Virginia Department of Historic Resources (VDHR) and Tribal Historic Preservation Officers (THPOs) from seven Tribal Nations (Catawba Indian Nation, Chickahominy Indian Tribe, Nansemond Indian Tribal Association, Pamunkey Indian Nation, Rappahannock Tribe of Virginia, Chickahominy Indians Eastern Division, and Pocomoke Indian Nation.). The VDHR concurred with the finding of no adverse effect, and no comments were received from Tribal Nations.

Temporary reductions in water quality due to turbidity are expected during dredging and placement operations. Best management practices for water quality, erosion, and

turbidity control will be implemented in accordance with permits from the US Army Corps of Engineers (USACE), Virginia Department of Environmental Quality (VDEQ), Virginia Marine Resources Commission (VMRC), and Accomack County. Minor, localized, and temporary increases in air pollutant emissions may occur, but are not expected to affect overall air quality.

NASA will comply with all applicable conservation measures, Reasonable and Prudent Measures (RPMs), and Terms and Conditions (T&Cs) outlined in the 2012 National Marine Fisheries Service (NMFS) biological opinion covering seawall, offshore dredging, and beach placement activities; NMFS's 2014 amendment to address Munitions of Explosive Concern (MEC) screening; and NMFS more recent determination that construction and placement of breakwaters did not require reinitiation given the scope of prior analysis. NASA submitted Biological Assessments to the U.S. Fish and Wildlife Service (USFWS) on February 26, 2026, and to NMFS on January 20, 2026, describing the full portfolio of proposed activities, including additional beach renourishment, additional breakwaters, and seawall repair and extension. NMFS responded by email on April 15, 2026, that it is not necessary to reinitiate consultation on the existing SRIPP biological opinion. On July 14, 2026, USFWS issued a Programmatic Biological Opinion that incorporates the activities proposed by this project. Additional adherence to state and federal requirements, including sediment compatibility, operational constraints, and migratory bird protection protocols, will help avoid or minimize effects.

(iii) Effects on public health or safety

The Project is not expected to cause significant effects to public health and safety. Construction activities could result in short-term impacts on worker health and safety and the increased usage of local fire, police, and medical services. Construction safety procedures and appropriate training would be implemented at Wallops Flight Facility, and NASA would ensure that construction and dredging contractors perform all work in accordance with Occupational Safety and Health Administration standards. Emissions from construction equipment may temporarily affect air quality in the immediate vicinity of operations. Noise would temporarily increase at the placement locations during construction and then would return to ambient levels after project completion. To avoid and/or minimize MEC risk, NASA will include screening on the drag heads to prevent intake of any material with a diameter greater than 1.25 inches, as well as 0.75 inch screen at the discharge end of the pipeline.

(iv) Effects that would violate a Federal, State, Tribal, or local law protecting the environment

To ensure protection of endangered species (sea turtles and sturgeon), dredging and placement activities would be undertaken in compliance with all RPMs and associated T&Cs outlined in the 2012 NMFS biological opinion and subsequent correspondence. NASA will adhere to all reasonable and prudent measures as well as monitoring and reporting requirements in the final Biological Opinions.

The proposed action complies with the Marine Mammal Protection Act. Marine mammals are not likely to be adversely affected by the Project and incorporation of safeguards to protect threatened and endangered species during construction (e.g., vessel speed requirements, protected species observers, etc.) would also protect non-listed marine mammals in the Project area.

NASA coordinated with the Virginia State Historic Preservation Officer (SHPO) and THPOs, as required by Section 106 of the NHPA. The SHPO agreed that the Project will not adversely affect historic properties listed, eligible, or potentially eligible for listing in the National Register of Historic Places provided avoidance of any nearshore targets. NASA will immediately cease operations and notify the MMA and SHPO if an unexpected discovery occurs.

NASA prepared a Federal Consistency Determination in conjunction with this EA. On March 26, 2026, VDEQ provided its concurrence with NASA's determination of consistency.

(v) Economic Impacts

Construction associated with the Project would create short-term but meaningful economic benefits. These include increased local employment at Wallops Flight Facility, spending on construction materials, and additional economic activity generated through payroll, supplier purchases, and visitor spending, creating a broader multiplier effect in the regional economy. Both direct and indirect economic gains would occur within Accomack County, with further boosts from lodging needs for non-local workers.

The Project would also help prevent economic losses by reducing storm-related damage risks to Wallops Island infrastructure, avoiding delays in missions and protecting critical technological capabilities. Launch activities at Wallops Island already provide substantial economic contributions, ranging from \$1 million to \$5 million per launch event through team spending, service demands, and tourism. The beach renourishment alternative would further protect launch infrastructure by reducing shoreline retreat impacts.

(vi) Effects on quality of life of the American people

Economic opportunities along Wallops Island improve the quality of life of local residents and visitors. The Project protects vital infrastructure and property from storm damage and preserves vital habitats that are part of the beach experience. These projects contribute to the overall well-being of the community by maintaining the natural beauty and function of the coastline, which is integral to the region's lifestyle, aesthetic, and economy.

Consultations and Public Involvement

NASA, serving as the lead Federal agency, and the MMA, in a consulting role, coordinated with USACE, USFWS, NMFS, Tribal Nations, VDEQ, VMRC, and the

Virginia DHR in support of this leasing decision. Pertinent correspondence with Federal and state agencies is provided in Chapter 6 and Appendix B of the EA. After signature of this Finding of No Significant Impact (FONSI), the MMA will post the FONSI and EA to its web site.

Mitigation and Monitoring

NASA is responsible for complying with all environmental mitigation measures and monitoring requirements engendered by Federal, State, Tribal, and local laws, including those identified in the 2026 EA and related consultations (Attachment 2). NASA will prepare an environmental compliance matrix to document and track all environmental mitigation requirements and identify roles and responsibilities for implementation to ensure compliance prior to, during, and after construction. Additionally, the dredging contractor will be required to provide an environmental protection plan that verifies compliance with relevant environmental requirements. Implementation of mitigation measures and monitoring requirements will ensure effects are not significant.

Any mitigation or monitoring uniquely specified by the MMA in its negotiated agreement is done pursuant to the authority established by the Outer Continental Shelf Lands Act and 30 CFR 583. Other Project mitigation is engendered by various authorities, including the vested authority of the USACE, as well as environmental laws, such as the Endangered Species Act, Clean Water Act, and Coastal Zone Management Act. Other federal or state agencies shall be responsible for enforcement of other mitigation measures. The MMA may terminate its authorization, or refer NASA to enforcing agencies, if they do not comply with mitigation measures (30 CFR 583).

Conclusion

The MMA considered the consequences of entering into a negotiated agreement authorizing use of OCS sand from the Unnamed Shoal A borrow area for this Project. The MMA contributed to the preparation of the 2026 EA and then conducted its own independent review before adopting it. The MMA finds that the 2026 EA complies with Section 108 of NEPA (§ 4336b) and relevant provisions of the DOI NEPA Handbook.

Based on the evaluation of potential effects and associated mitigation measures discussed in the 2026 EA and previous environmental documents incorporated by reference, the MMA finds that entering into a negotiated agreement, with the implementation of the mitigating measures, does not constitute a major Federal action significantly affecting the quality of the human environment, in the sense of NEPA Section 102(2)(C), and would not require preparation of an EIS.

Geoffrey Wikel
Marine Minerals Division Chief
Marine Minerals Administration

References

Bonsteel, M. 2015. 2015 Shoal Analysis Summary Document for NASA Wallops Flight Facility. May 2015.

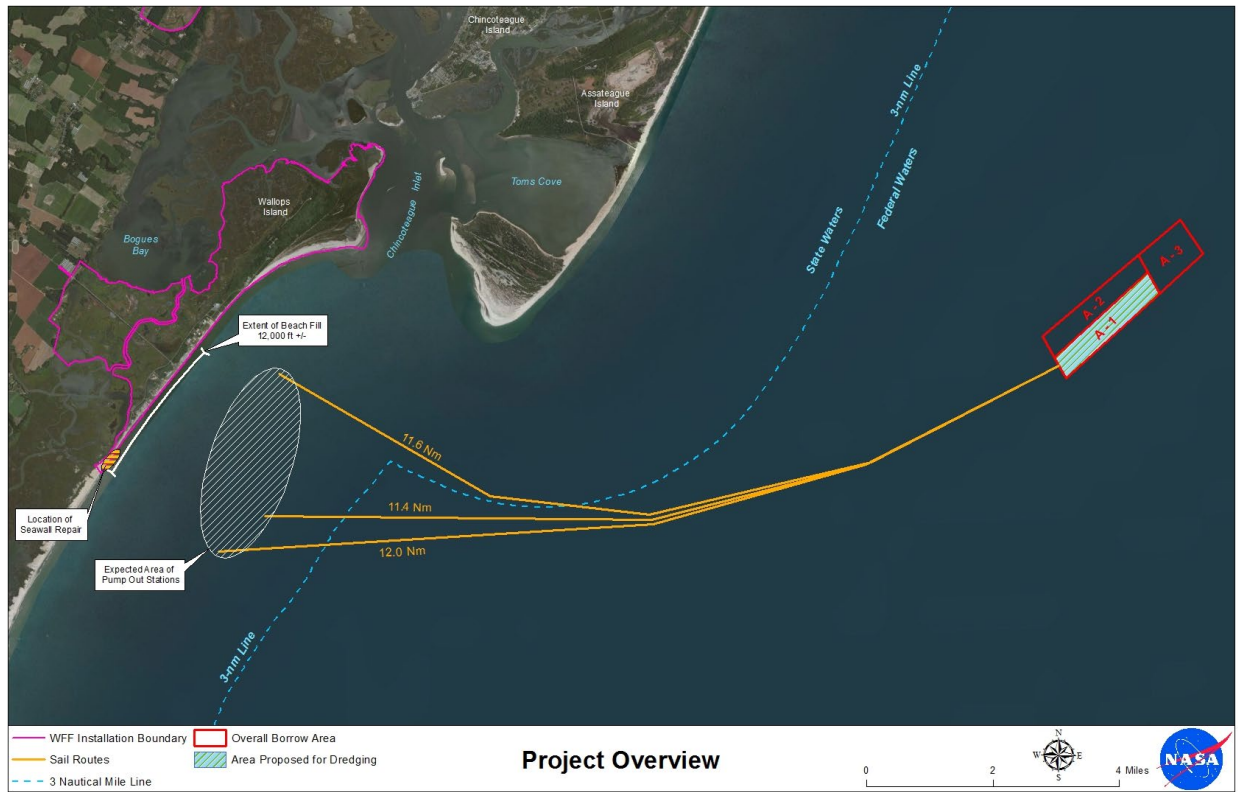
Attachments

Attachment 1 – Project Map

Attachment 2 – NASA Wallops Flight Facility Shoreline Protection Program
Environmental Assessment (2026)

ATTACHMENT 1
Project Map

Wallops Island Shoreline Protection Program Placement and Borrow Area



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ATTACHMENT 2

NASA Wallops Flight Facility Shoreline Protection Program Environmental Assessment (2026)