

AGENDA

**EASTERN SHORE REGIONAL
NAVIGABLE WATERWAYS COMMITTEE
A-NPDC Conference Room
Northampton County Social Services Department
5265 the Hornes, Eastville, VA 23347
July 19, 2017
3:00 P.M.**

1. Call to Order
2. [Minutes of the April 19, 2018 Meeting](#)
3. Old Business:
 - a. Water Access Authority Update
 - b. FY2018-2019 USACE project status and potential suggestions concerning FY2020 projects: Greenbackville, Oyster, \$1.75 VIP/WCV funding & applicability
 - c. VA Commonwealth Fund
 - i. Draft VPA Grant Guidance & Process
 - ii. Potential ES State Waterway Projects
 - d. USCG AtoN Removal Progress Update: Bayside, Seaside, Nassawadox
4. New Business:
 - a. Proposed Cape Charles anchorage update
5. Other Matters
6. Public Comment
7. Schedule Next Meeting & Adjourn

ESRNWC April 19, 2018 Minutes

At a meeting of the Eastern Shore Regional Navigable Waterways Committee held on the 19th day of April, 2018 at 3:00 p.m. in the Conference Room of the Enterprise Building of the A-NPDC in Accomac.

Members Present: John Joeckel, Chair
 George “Danny” Bowden
 Granville Hogg, Vice Chair
 James Dixon
 John Coker
 John Tavolaro
 J.T. Holland
 William J. “Billy” Tarr

Members Absent Donald L. Hart
 Spencer Murray

Others Present: Curt Smith, A-NPDC
 Shannon Alexander, A-NPDC

Call to Order

The meeting was called to order by Mr. Joeckel at 3:04 p.m.

Minutes

Mr. Holland made a motion to approve the Minutes of the October 19, 2017 meeting. The motion, seconded by Mr. Tavolaro, carried unanimously, with the exception of Mr. Coker and Mr. Hogg who were not present during the October meeting and Mr. Tarr and Mr. Bowden, who had not yet arrived at the meeting.

New Committee Member Introductions

Members introduced themselves and discussed background and current location of residence.

Old Business

1. VA Commonwealth Fund status

Chairman Joeckel supplied a brief update as to the status of SB693 establishing a VA Waterway Maintenance Fund and Grant Program, which was signed by the governor on March 30th. Staff also supplied a brief update with regards to HB1096, HB1093, BH095, BH1091, HB1091, HB1092. HJ69.

2. Cedar Island Project

Chairman Joeckel supplied an overview of the 5-year process to date. Mr. Smith reviewed the letter that was submitted to the USACE on April 19th. He explained the two main factors identified by experts were marsh elevation and fetch, and that using these factors, Site 5 (on Figure 3) was agreed to be the most important. Mr. Tavolaro described the results of his research into USACE Authorities relevant for coastal restoration projects. These included Section 204 WRDA 92, 206 WRDA 96, 1135 WRDA 86, 510 WRDA 96 (Chesapeake Bay Environmental Restoration Pilot Program, may be possible to apply to the seaside), 1201 WRDA 16 (Chincoteague Island Study, needs a sponsor to move forward). Curt announced that recently living breakwaters were approved as a mechanism to generate credits with nutrient credit trading programs. Concerns with regards to the USACE lack of coordination with scientific experts prompted Members to discuss working with Mrs. Diane Kauffman of Tim Kaine's office, should we have no adequate reply to Mr. Smith's letter in the next two weeks. Discussions continued with Mr. Dixon referring to the NOAA Marsh Restoration Program of the National Ocean Service, Center for Operational Oceanographic Products and Services and Mr. Smith referencing partnership with TNC for match.

3. USCG AtoN Removal Progress Update

Tabled as representatives from the USCG were not present due to a lack of communication about location. Staff is to request this information from the USCG and supply to Committee Members via email as soon as possible.

New Business

1. Eastern Shore Water Access Authority

Ms. Alexander provided an update as to progress with establishing the ESWAA and associated new legislation that would be applicable for the Committee. She presented that she presented to the Commission and the Accomack County Board, and will present to the Northampton County Board Monday April 23.

2. USACE Projects: Greenbackville, Oyster, Tangier (East/West Channel at Basin)

Chairman Joeckel presented that the Greenbackville and Oyster projects have been delayed, but should start by the end of calendar year 2018. He also reviewed the suggested projects that the Committee supplied to the USACE, which included Deep Creek, Little Machipongo River, Surveying Parkers Creek, and Onancock Creek (specifically developing a dredge material site location).

Other Matters

Mr. Tarr pointed out that there have been indications that the Commonwealth of Virginia has supplied the \$1.5M in match needed for the Chincoteague Inlet study. Research into the realities of this obligation and designation of a specific sponsor needs to be done.

Mr. Smith announced that there will be a field trip to Parramore Island with coastal geologist Chris Heine of VIMS, Members are to be invited, more details to come.

Mr. Tavolaro indicated that in all written correspondence, and verbal whenever

possible, members of the Committee should refrain from use of the word spoil, instead indicating dredge material or another suitable alternate.

Chairman Joeckel presented that for the USACE call for applicants to the Beneficial Use Project program, the VMRC submitted for Tangier and we supplied a letter of support. He also presented that there was feedback from the USACE on the separate application that he submitted with regards to the whole seaside of the Eastern Shore project. USACE indicated that it might be able to compile Atlantic coast projects and so Chairman Joeckel presented a draft letter indicating the Committee's willingness to merging our project with other states along the Atlantic, so long as an organizational framework could be developed that would strive for equitable evaluation of projects and funding amongst the states.

Mr. Tarr made a motion to send the draft letter, as written, to the USACE. The motion, seconded by Mr. Holland, carried unanimously.

Public Comment

None.

Schedule Next Meeting and Adjourn

The Committee agreed the next meeting will be on July 19, 2018 at 3:00 pm in the Eastville. Chairman Joeckel adjourned the meeting at 4:48pm.

John Joeckel, Chair

Curtis Smith, Secretary

Date

EASTERN SHORE REGIONAL NAVIGABLE WATERWAY COMMITTEE ATTENDANCE RECORD

Members	Term Exp.	06/17	7/17	10/18	1/18	4/19	7/19	10/19	1/20	4/21	7/21
<u>Accomack Co.</u>											
Donald Hart	Term	X	X	X	*						
"Billy" Tarr	Term	X	X	X	*	X					
John Joeckel	June 30, 2020	X	X	X	*	X					
Bill Burnham	June 30, 2018				*	-	-	-	-	-	-
John Tavoraro	June 30, 2020			X	*	X					
George Bowden	June 30, 2020	-	-	-	*	X					
<u>Northampton Co.</u>											
Spenser Murray	Term	-	-	-	*						
John Coker	Term	-	-	-	*	X					
Granville Hogg	Jun2018	X	X		*	X					
Larry LeMond	Jun2018	X		X	*	-	-	-	-	-	-
J.T. Holland	Feb2019	X	X		*	X					
P.G. Ross	Aug2019				*	-	-	-	-	-	-
James Dixon	Oct2019	-	-		*	X					
<u>Non-Voting Ex-Officio Members – Secretary</u>											
S. Alexander	NA	X	X	X	*	X					
C. Smith	NA		X		*	X					

- Indicates not a member. X Indicates member present.
 * Indicates no meeting held. NA Not Applicable
 () Indicates an alternate present



VIRGINIA PORT AUTHORITY
POLICY ON GRANTS TO LOCAL GOVERNMENTS FOR
FINANCIAL ASSISTANCE FOR DREDGING ACTIVITIES
DRAFT

PREFACE: In May 2018, the Virginia General Assembly established the Virginia Waterway Maintenance Fund for the purpose of supporting shallow-draft dredging projects throughout the Commonwealth. The source of the grant funds shall be the Virginia Waterway Maintenance Grant Fund. The Virginia Port Authority finds it necessary and in the public body interest, and pursuant to its statutory responsibility, to establish the Virginia Waterway Maintenance Grant Program Guidelines. This policy shall be as follows:

I. DEFINITIONS

- A. Applicant – refers to the political subdivision and the governing bodies of Virginia localities.
- B. Study – refers to feasibility and cost evaluations, pre-project engineering studies, and project permitting and contracting costs for a waterway project conducted by a political subdivision of the Commonwealth.
- C. Carryover Funds – refers to unused funds for awarded projects. Funds must be reapplied for each year.
- D. Dredging – refers to the removal of sediments and debris from the bottom of lakes, rivers, harbors, and other water bodies.
- E. Items of Local Cooperation – include specific requirements on the applicant for implementation of a federal, state or local project. Such items include but are not limited to lands, easements, rights-of-way, relocations, dredge material disposal sites, and cash contributions.
- F. Beneficial Use – refers to innovative uses and placement alternatives for dredge materials that produce public, economic or environmental benefits.
- G. Shallow draft dredging – refers to rural coastal waterways that have recognized and established navigable channels that are pivotal to the use and enjoyment of docks, marinas, boat yards and working waterfronts. Shallow draft dredge areas can be categorized as primary, secondary (including smaller tributaries and marked and unmarked channels) having a water depth of 14' or less.

II. ADMINISTRATION

The following elements will guide the application, allocation, and distribution of the Virginia Waterway Maintenance Grant Fund:

- A. FOR ALL PROJECTS FOR WHICH VIRGINIA WATERWAY MAINTENANCE GRANT FUNDS ARE REQUESTED.

- 1) The Virginia Port Authority will serve as the responsible agency for administering the Virginia Waterway Maintenance Grant Fund.
- 2) Funds will be used to support: (i) feasibility and cost evaluations, pre-project engineering studies, and project permitting and contracting costs for a waterway project conducted by a political subdivision of the Commonwealth; (ii) the state portion of a nonfederal sponsor funding requirement for a federal project, which may include the beneficial use of dredged materials that are not covered by federal funding; (iii) the Commonwealths' maintenance of shallow-draft navigable waterway channel maintenance dredging and the construction and management of areas for the placement of dredged material; and (iv) the beneficial use, for environmental restoration and the mitigation of coastal erosion or flooding, of dredged materials from waterway projects conducted by a political subdivision of the Commonwealth.
- 3) For a project to be eligible for funds, VPA, in its sole discretion, must determine that the proposed project is economically feasible based on preplanning study or current level of business, will not directly competitively disadvantage existing publicly-owned port facilities, and will further the interests of the Commonwealth of Virginia. Development and presentation of the information needed to determine project eligibility will be the responsibility of the applicant.

- 4) Requests for funding and their disposition shall be as follows:

Requests for funding shall be made by March 1st. Applicants may be required to make oral presentation of the requests to the VPA. Funds will be allocated by VPA at its May Board of Commissioners meeting and available for successful applicants by July 1st of that year.

- 5) Application Guidelines: The applicant shall submit a completed application to the VPA that contains the following information: statement of need and urgency, total project cost, timeline and phases of project, feasibility of the proposed planning and/or dredging project, status of any necessary permits, the adequacy of the applicants project management, the potential beneficial use of dredged materials for the purpose of mitigation of coastal erosion, flooding or other purposes, potential beneficial impact to the community, and total amount of funding being requested.
- 6) Prior to the receipt of a grant, the applicant shall enter into a memorandum of understanding with the VPA establishing the requirements for the use of grant funds.
- 7) Disbursements: The applicant shall submit a requisition to the VPA for payment. The requisition shall be accompanied by supporting invoices or other documentation as well as a certification of the applicant that the work has been performed or that payment is otherwise properly due. The requisition shall further set forth the name of the person or entity to whom payment is to be made, the

amount of payment, and the project for which the payment is to be made. Requisitions may be submitted quarterly or at the completion of the project. When the project is completed, the applicant shall certify its completion date to the VPA.

- 8) Requests not made within the schedule of Paragraph 4 above, shall be considered only when accompanied by a statement declaring the need for funds an emergency, with consequences of non-funding clearly specified, or a statement explaining why the schedule in Paragraph 4 above could not be met. Requests must be received no later than three weeks prior to the next regular Board of Commissioners meeting to be considered at that meeting.
- 9) VPA will allocate an amount appropriated by the General Assembly for projects which are judged to meet the criteria above.
- 10) VPA, in its sole discretion, may allocate the total amount requested to an applicant, any portion thereof, or may decline to allocate funds for the project. These funds may not be used for any dredging project for a solely privately owned marina or dock. Additionally, special consideration will be given in the first year to applicants who can provide a 3 to 1 match for requested funds.

B. ADDITIONALLY, FOR PROJECTS WITH POTENTIAL FEDERAL INTEREST

- 1) Applicant must have made previous, or must make simultaneous, "application" for federal funds.
- 2) VPA recognizes that local sponsors for federal projects must agree to share with the federal government in the cost of studies and construction as a condition necessary for the initiation of federal study of the project. VPA agreement to provide support necessary to allow for the initiation of any project is conditional upon the later determination of VPA that the standards in II.A.3 above are met and that funds are available.
- 3) VPA shall be given the opportunity to review and comment on all cost sharing agreements between the local sponsor and federal government prior to releasing any funds.
- 4) If undertaken prior to the receipt of federal funds, but for which federal funds are committed, projects must be completed within the time frame determined reasonable by the Corps of Engineers in project studies.

C. ADDITIONALLY, FOR NONFEDERALLY FUNDED PROJECTS:

- 1) There will be no financial contribution requirement for the applicant.
- 2) Special consideration will be given to any project application that supports waterway enhancement in rural coastal Virginia as defined by §15.2-7600. Localities as defined by §15.2-7600 will provide evidence of working waterfront businesses or commercial fishing or seafood business and the need for dredging project.

Consideration of a Path Forward for the Eastern Shore Concerning the Utilization of the Waterway Maintenance Fund (WMF) Grant Program

Introduction

The Eastern Shore Regional Navigable Waterways Committee (ESRNWC) will be tasked to develop project priorities for utilization of potential available funding from the Waterways Maintenance Fund (WMF) Grant Program. Whereas, the actual grant application, review and approval processes for acquisition of the funds has yet to be finalized, the ESRNWC needs to commence evaluation of our path forward.

NOTE: July 10th, meeting developed draft VPA grant application guidelines for the WMF which is being provided to the VPA for finalization internally and presented to the VPA Board in August for approval. The VPA draft guidelines are provided elsewhere in the meeting packet.

Virginia Budget Fiscal Years 2019 & 2020

D. Out of amounts in this item, \$1,350,000 the first year and \$1,350,000 the second year from amounts transferred to this item pursuant § 3-1.01 M. of this act, the Authority shall award a grant of funds to a qualified applicant or applicants to support a dredging project or projects that have been approved by the Authority. The source of the grant funds shall be the Virginia Waterway Maintenance Fund created pursuant to § 62.1-132.3:3.

Applicants shall be limited to political subdivisions and the governing bodies of Virginia localities. The Authority shall develop guidelines establishing an application process as set out in Chapter 642, 2018 Session of the General Assembly. Projects for which the Authority may award grant funding include (i) feasibility and cost evaluations, pre-project engineering studies, and project permitting and contracting costs for a waterway project conducted by the Commonwealth; (ii) the state portion of a nonfederal sponsor funding requirement for a federal project, which may include the beneficial use of dredged materials that are not covered by federal funding; (iii) the Commonwealth's maintenance of shallow-draft navigable waterway channel maintenance dredging and the construction and management of areas for the placement of dredged material; and (iv) the beneficial use, for environmental restoration and the mitigation of coastal erosion or flooding, of dredged materials from waterway projects conducted by the Commonwealth.

Special consideration shall be given to any locality which provides a three-to-one match for any requested funding in the first year.

Eastern Shore Regional Navigable Waterways Committee (ESRNWC) Responsibility

The ESRNWC responsibility will be to develop a project prioritization plan for use of available WMF monies. There will undoubtedly be significant applications annually for the \$1.35 million. The annual applications will undoubtedly far exceed the available funds. For example, the Virginia Port Authority (VPA) Aids to Small Ports Grant Program is authorized \$1 million annually. Annual applications for those funds can be in the \$3-\$4 million dollar range, thus, only a few project applications are approved by VPA based on merit and evaluated with various other VPA justification principles. The final WMF legislation passed does not differentiate uses of the WMF between Federal Channels and Commonwealth Channels. Other regions of the Commonwealth intend on using WMF monies on Federal Channels since they have been unsuccessful in achieving Army Corps of Engineer funding. This of course will reduce available funds for state waterway projects and frankly will tend to have the ACOE use federal dredging

funds in other states since they will see Virginia spending state funds on federal waterways alleviating to a degree the need for Corps shallow draft dredging project funding.

- The 2016 Regional Dredging Needs Assessment (RDNA) found that almost half of the non-federal, WCV/VIP connecting waters have sections with three feet or less water and 37% (10) of the total 27 non-federal assessed waterways have areas of three feet or less water at mean low water.
- The 2016 Virginia Working Waterfront Master Plan found that the Eastern Shore has 222 working waterfronts which represents the greatest number of working waterfronts within any region in the Commonwealth. These Working Waterfronts are on both federal and state navigable waters. The Working Waterfront Master Plan also gave to the ESRNWC the following actions:
 - The Eastern Shore Regional Navigable Waterways Committee (ESRNWC) to use the Master Plan as a tool to prioritize improvements to working waterfronts infrastructure.
 - The ESRNWC to utilize the Master Plan to facilitate development of a dredging plan for the Eastern Shore that provides funds, sets priorities, and creates a schedule that is sensitive to commercial interests.

In Accomack and Northampton Counties of Virginia, the term 'working waterfront' means real property (including support structures over and adjacent to the water or inland property engaged in significant water-related activities) that provides access to coastal waters or that supports commercial fishing; recreational fishing businesses; aquaculture; ecotourism; national defense; public safety uses; marine research; shipping and rail yards; boatbuilding; support of offshore energy production; or other commercial, recreational, and industrial business.

The Shore's working waterfronts are also used for recreational boating and fishing including but not limited to Chincoteague, Cape Charles, Onancock, Saxis, Wachapreague, Willis Wharf, Red Bank, Quinby and Oyster. Individuals also use the counties' public boat ramps for harvesting clams, oysters, crabs, fin fish and water-based tourism.

Potential 10 Commonwealth Waterways for WMF Project Funding
Accomack County
Hunting Creek: 3.5 miles northeastward of Pocomoke Sound Light 6, leads to Hunting Creek along the south side of Guilford Flats and southward through The Thorofare to the wharf at Hopkins on the east side of Hunting Creek. The marked channel has depths of 7 feet or more to within 0.7 mile of Hopkins, thence 2.5 feet to the wharf and Hunting Creek Pier. This data may be a bit dated, as satellite imagery and Navionics reveal shallow waters no deeper than four feet from day marker "9" up the creek. The Hunting Creek Pier is 440 feet in length. Hunting Creek also has a County pier for crabbing and fishing and a concrete boat ramp at Johnson Landing.
Folly Creek to Metompkin Inlet: On the seaside, this creek leads westward from the south end of Metompkin Bay and has a depth of 1 foot to the landing at its head, 3 miles above the mouth. A County launching ramp and a pier are on the south side of Folly Creek about 1 mile west of Light 87. Metompkin Inlet, the ocean entrance between Metompkin and Cedar Islands, is used by some small local fishing and oyster boats. The changeable entrance channel is unmarked and should not be entered without local knowledge. This project area coincides with another state waterway project area, WCV - Metompkin Bay Channel to Cedar Island Bay Channel Connecting Waters. There are only AtoNs on the small segment that is part of this project area. Therefore, the Folly Creek to Metompkin Inlet project area includes the 1.3 miles from the Folly Creek Road County boat ramp facility to the junction with the WCV, and picks up

<p>an additional 1.2 miles from where the WCV turns south, northeast to Metompkin Inlet.</p>
<p>Wachapreague Channel (From marker 122 out to the Wachapreague Inlet): Serves as an important oystering and fishing center and is a base for recreational, commercial, eco-tourism and charter fishing boats. Gasoline, diesel fuel, berths, hotel, tackle shops and 5 marinas are located in the town. A depth of about 4 feet can be carried from Wachapreague Inlet through Hummock Channel and Wachapreague Channel which is marked with USCG AToNs. The federal channel commences at marker 122 and terminates just outside of the town. The Wachapreague inlet entrance is marked by a lighted bell buoy and unlighted buoys that are shifted in position with changing channel conditions. The controlling depth is about 5 feet through the inlet, which is used by many fishing boats and by some boats seeking shelter, There are many areas of shoaling between Day Marker 122 and Wachapreague Inlet. This waterway is used extensively by recreational and commercial vessels as well as hosting the USCG Station Wachapreague and the VIMS ES Laboratory.</p>
<p>Quinby-Eastern End of Federal Channel to Quinby Inlet: A channel to the seaside village, marked by lights, follows Sandy Island Channel to Upshur Bay, thence through a slough in the mudflats to a dredged channel leading to a basin that has a public County landing and harbor with a pump-out station available with a wide concrete boat ramp with rental slips and parking. Quinby Inlet, the ocean entrance between Parramore/Revell Islands and Hog Island, has a fan of breakers across the bar at the entrance. The buoys marking the inlet are frequently shifted and not charted. The inlet should not be used without local knowledge. The USCG AtoNs in the federally-designated Quinby project areas are not scheduled to be removed, however, those marking this state waterway are scheduled to be reevaluated at a later date, after the 2016 federal channel dredging, to determine if they should remain or be removed.</p>
<p>Pungoteague Creek: Three miles northeastward of Nandua Creek, this bayside creek has depths of 8 feet to the pier at Harborton, 2 miles above the mouth, and thence 4 feet to the ruins of Boggs Wharf, 3 miles above the mouth. Above this point the creek shoals rapidly. The entrance and inside channel are marked as far as Harborton. . Barges carrying trash from Tangier Island still operate on this waterway. The County facilities at Harborton include both a drive on and launch facilities and offers ample parking, restrooms and trash cans. This waterway offers a lot of oyster aquaculture, and is highly used by both commercial watermen and recreational boaters. In addition to the public and private facilities at Harborton, the Eastern Shore Yacht and Country Club is located on the Creek as is the Sandpiper Marine and Campground.</p>
<p>Northampton County</p>
<p>Great Machipongo Channel: Great Machipongo Channel extends northwestward through Hog Island Bay from the inlet to the mainland where it continues as Machipongo River. Willis Wharf on the west bank of Parting Creek 1 mile above the junction with Machipongo River, is a base for shellfish and fishing boats. A public launching ramp is available and a marine railway can handle craft up to 60 feet. A County-owned boat harbor is just below Willis Wharf on the west side of Parting Creek. An area with about 41 slips available for commercial fishing boats. The harbor has electricity, water and a launching ramp. USCG AtoNs mark this entire length and beyond into the Atlantic. These are not scheduled for removal. Willis Wharf county marina is scheduled for dredging and Little Machipongo River, a federal channel, has been recommended to the Corps of Engineers for dredging.</p>
<p>Hungers Creek: Hungars Creek and Mattawoman Creek have a common outlet to the Bay 8 miles northward of Cape Charles Harbor. Hungars Creek is marked by lights, day beacons, and bush stakes, and Mattawoman Creek by bush stakes. Although there are no public access facilities on Hungars Creek, the access channel is important to access the extensive aquaculture ground leases in the creek.</p>
<p>Kings Creek: This Northampton County bayside creek has depths of 3.5 feet for 1 mile upstream. The shoal that extends out from the north side of the entrance bares at low water; a light marks the entrance. The creek is used extensively by fishermen and pleasure craft. Gasoline, diesel fuel, berths,</p>

and marine supplies are available at a marina just inside the entrance. Private funds enabled this waterway to be dredged in 2004, as did a permit from VMRC.

Red Bank Creek: The VDGIF dual boat ramp provides access to extensive public Baylor grounds and oyster ground leases in both Hog Island and Outlet Bays and beyond to USCG AtoN marked channel to the Great Machipongo Channel to the Atlantic Ocean. This is the only public boat ramp on the seaside for about 20 miles between Willis Wharf and Oyster Harbor. There is shoaling as the creek enters Hog Island Bay and the guts that lead through Fowling Point and Castle Ridge to Ramshorn Bay are extremely narrow and do not provide adequate water depth for many vessels.

Nassawadox Creek: The condition of the creek at the entrance from the Bay, as of 2016, is considered hazardous. The AtoNs have been removed and replaced with danger signs. The northern channel section entering the Bay has about a 100 foot section of 3.5 feet depth at low tide (as of August 28, 2016). Inside the 100- foot length of 3.5 feet depth, there is between 5 and 10 feet channel depth to Warehouse Creek. There is also a southern channel which is partially marked by PVC pipes along shellfish lease areas and has a minimum depth of 4 to 6 feet. **(Note: Nassawadox Creek is eliminated from consideration as a project at present time due to non-support for dredging, but may be reconsidered at a later date.)** The only commercial support facility on Nassawadox Creek is located at Bayford and offers a dock, fuel, concrete ramp (in need of maintenance), and a sandy launch. In addition, there is a shed that has sorting tables and is used during soft shell crab harvest by two operators. Shellfish leases now cover large areas, and there are about 25-30 personnel that are actively engaged in commercial harvesting in this area of shellfish and six commercial crabbing operators.

The Challenges of Dredging Potential Eastern Shore Commonwealth Waterways

- Need to prioritize projects due to lack of funds, high competition for WMF monies from other regions of the Commonwealth, projects need to have a high degree of justification due to competition from other regional project submittals.
- None of the potential project waterways have ever been to our knowledge dredged, except for Kings Creek with private funds in 2004 and the partial dredging at the entrance to Nassawadox Creek.
- Channel conditions are unknown since no hydrographic channel condition surveys have been conducted, nor have any sediment samples been taken to evaluate potential material uses.
- It is doubtful there are any vintage permitted dredge material disposal areas, and none will have any current permits. Thus, disposal options, e.g., beneficial use, open water dumping and or landside containment areas are unknown for each waterway and since no sediment samples have been taken, uses for the dredge spoils are unknown.
- Neither the counties nor the towns have individuals or organizations with the expertise or authority to manage any potential dredging project.
- Neither the counties nor the towns have accounts with funds that can be used to pay contractors and then request VPA reimbursement.

Executing a Dredging Project

- Identify navigable channels with dredging need and prioritize potential projects based on traffic use (commercial and recreational), shore-side infrastructure, e.g., marinas, boat ramps, lodging, restaurants, working waterfronts, etc.
- Conduct a pre-dredge bathymetric survey, engineer channel for dredging (length, width & depth), calculate volume of sediment for removal

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- Take sediment samples to verify no contamination and determine potential use
- Identify and select a location for disposal of dredged material, e.g., open water dumping, beneficial use or landside containment. Landside containment property acquisition, containment site development, cost calculations for various dredge spoil use options.
- Apply for and receive the necessary permits for dredging and disposal
- Application (Appendix A- JPA), potential need of one or more required public meetings.
 - Detailed description of the proposed activity
 - Maps and engineering drawings
 - Potential wetlands directly affected, the location of the proposed work thereon, the area of existing and proposed fill and excavation, the location width depth and length of any proposed channel and disposal area
 - Description of the type of dredging equipment to be used and the means of access to the activity site
 - Names and addresses of record of adjacent land and known claimants water rights in or adjacent to the wetland of whom the applicant has notice
- Project cost estimate, application to VPA for WMF Grant
- Develop contractor bid packages for Phase 1 and Phase 2 of project
- Negotiate contracts with contractors
- Provide additional material and documentation as the wetlands board may require
- Provide Project Management oversight to Phase 1 & Phase 2 Contractors
 - Oversee contractor work, contract compliance, administration of contractor payments and reimbursement process from VPA, compliance with permit requirements, project completion documentation to agencies and VPA

Potential Project Costs

Daily Press December 29, 2017 article, *“Shallow dredging projects often overlooked”*, dredging of Mathews County’s Davis Creek estimated to cost \$900,000 without landside disposal site (approximately 4,130’ in length x 80’ wide x 10’ depth). The Middle Peninsula Shallow Draft Navigation and Regional Sediment Management Plan (2010) had a low project estimate of \$1.15 million to a high estimate of \$2.3 million. Davis Creek is a Federal Navigation Project and it would appear this will be one of the primary projects that the Middle Peninsula will attempt to utilize WMF Grant funding.

On the Eastern Shore, our federal dredging projects have the following project costs, which equates to an average seaside dredging project would cost somewhere in the range of \$1,240,000. Each project cost varies due to channel conditions, volumes requiring removals and disposal options.

- 2013 Wachapreague Channel dredging cost approximately \$775,000
- 2014 Bradford’s Bay Channel cost about \$1,125,000
- 2017 Quinby Channel cost approximately \$1,745,000 (mobilization/demobilization alone was \$1 million)
- 2018 Oyster Channel budgeted \$2,100,000 (rehabilitation of land containment site, about \$500,000 costs included)
- 2018 Greenbackville/Chincoteague Bay Channel budgeted \$950,000

Thus, when one reviews estimated and actual project costs, the WMF annual availability of \$1.35 million statewide will be insufficient to meet the pent up demand for these funds.

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Over the past couple of months, I have been working with two contractors that the Corps of Engineers use for their project preparatory work, which I call Phase 1 activities.

Phase 1 Activity	Geodynamics Group	Waterway	Average/Project
Project Planning/Admin	\$5,000	\$5,000	\$5,000
Channel Condition Survey	\$20,000	\$10,000	\$15,000
Sediment Sampling: Physical & Chemical	\$50,000	\$15,000	\$33,000
Disposal Strategy / DMMP / Beneficial Use. Research on existing disposal areas	\$30,000	\$100,000	\$65,000
Permit preparation and submittal	\$30,000	\$15,000	\$23,000
Design and construction documents for bidding	\$40,000	\$50,000	\$45,000
Minor & Miscellaneous	\$10,000	\$10,000	\$10,000
Consolidate all Phase 1 costs/invoices submit and receive reimbursement from VPA			
Totals	\$185,000	\$205,000	\$195,000/Project
9 Potential Waterway Projects for ES = \$1.755 million Phase 1			

Phase 2 Activity	Dredging Contractor 1 Costs	Dredging Contractor 2 Costs
Issue Contractor Bid Packages		
Negotiation with dredging contractor, local jurisdiction legal work, contract agreement		
Disposal site work preparation, either beneficial use or land containment site construction		
Mobilization and demobilization of dredging contractor Dredging		
Project management/regulatory compliance, quality assurance/financial oversight/administration of project dredging and disposal		
Final channel survey to verify		

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contractor complied with the contract		
Submit project completion documentation to various agencies including final survey report		
Consolidate all costs/invoices for Phase 2, request reimbursement from VPA		

The initial WMF application submittals will not be before March 1, 2019. It is suggested between now and January the ESRNWC should develop a project priority list of at least 5 ES Waterways from the list provided herein or potential other candidates. The projects are divided into Accomack County and Northampton County waterways, it is requested that the Accomack County members work on the prioritization of Accomack waterways and Northampton members work on the Northampton waterway priorities. These priorities will be finalized by January 1, 2019, which then the ESRNWC will go out for Phase 1 bids from the two contractors shown herein.

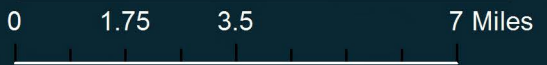
We submit Phase 1 projects to VPA for the first year, 5 projects approximately \$975,000 with the understanding that we may only get one application approved, e.g., \$195,000. If that is the case, the second year we would submit application(s) for Phase 2 of any approved Phase 1 projects as well as another select group of Phase 1 projects. So our initial focus is on approvals for Phase 1 projects followed the next year with Phase 2 projects.

Eastern Shore of Virginia Federal/State Managed Water Trails



Legend

- State Water Trails
- USACE Project Areas



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

State Water Trails

USACE Project Areas




0 1.75 3.5 7 Miles



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Legend

 State Water Trails

 USACE Project Areas



0 1.75 3.5 7 Miles

Hungars Creek

North Channel-Ramshorn Connection
Ramshorn Channel

Oyster Channel to Sand Shoal Inlet

Oyster Creek Channel

Kings Creek

Upper Magothy Bay-Ramshorn

Cape Charles - Cape Charles City Harbor

Cape Charles - Cherrystone Inlet

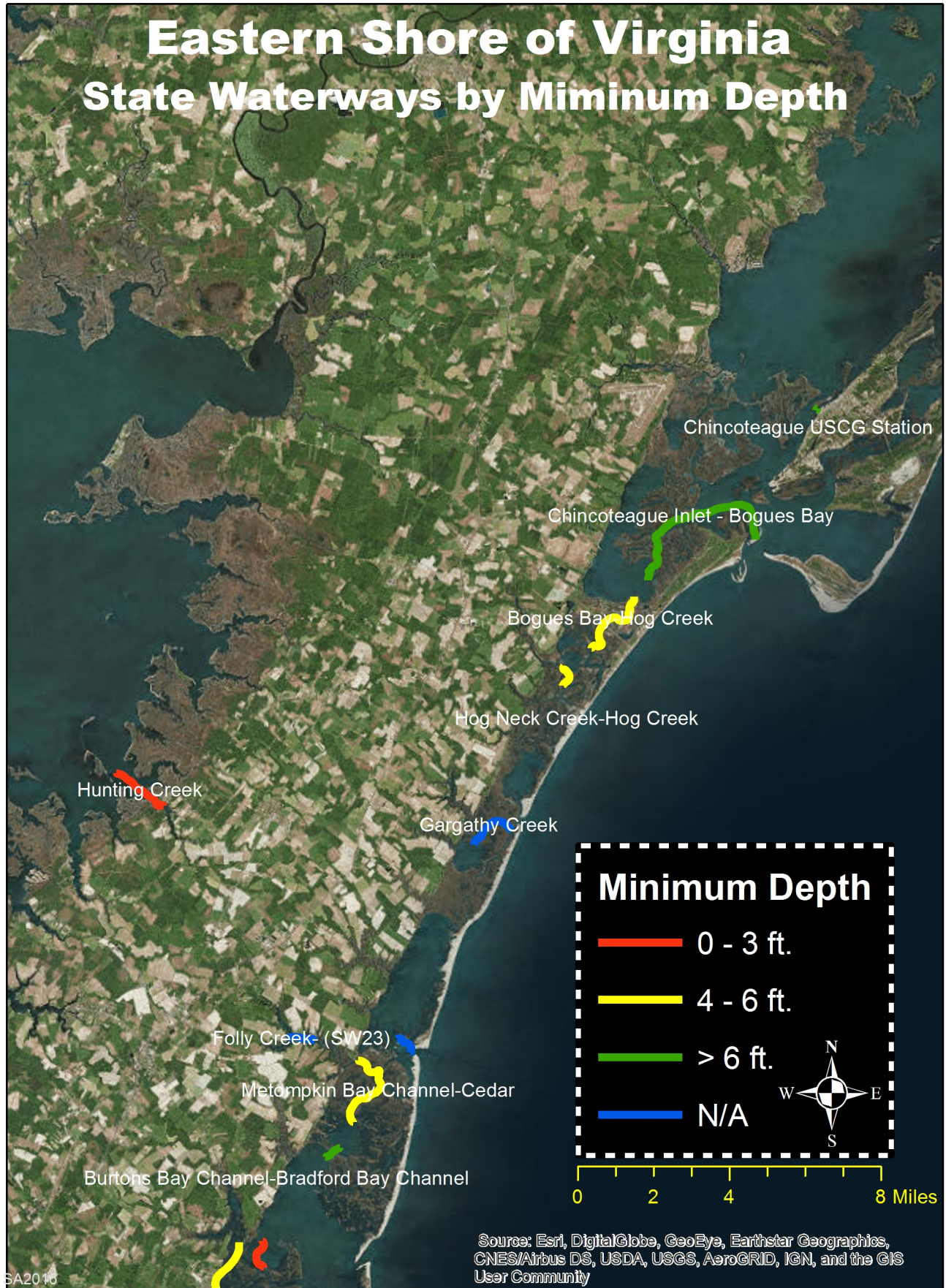
Magothy Bay Channel

Chesapeake Bay/Magothy Bay

Chesapeake Bay to Magothy Bay Channel

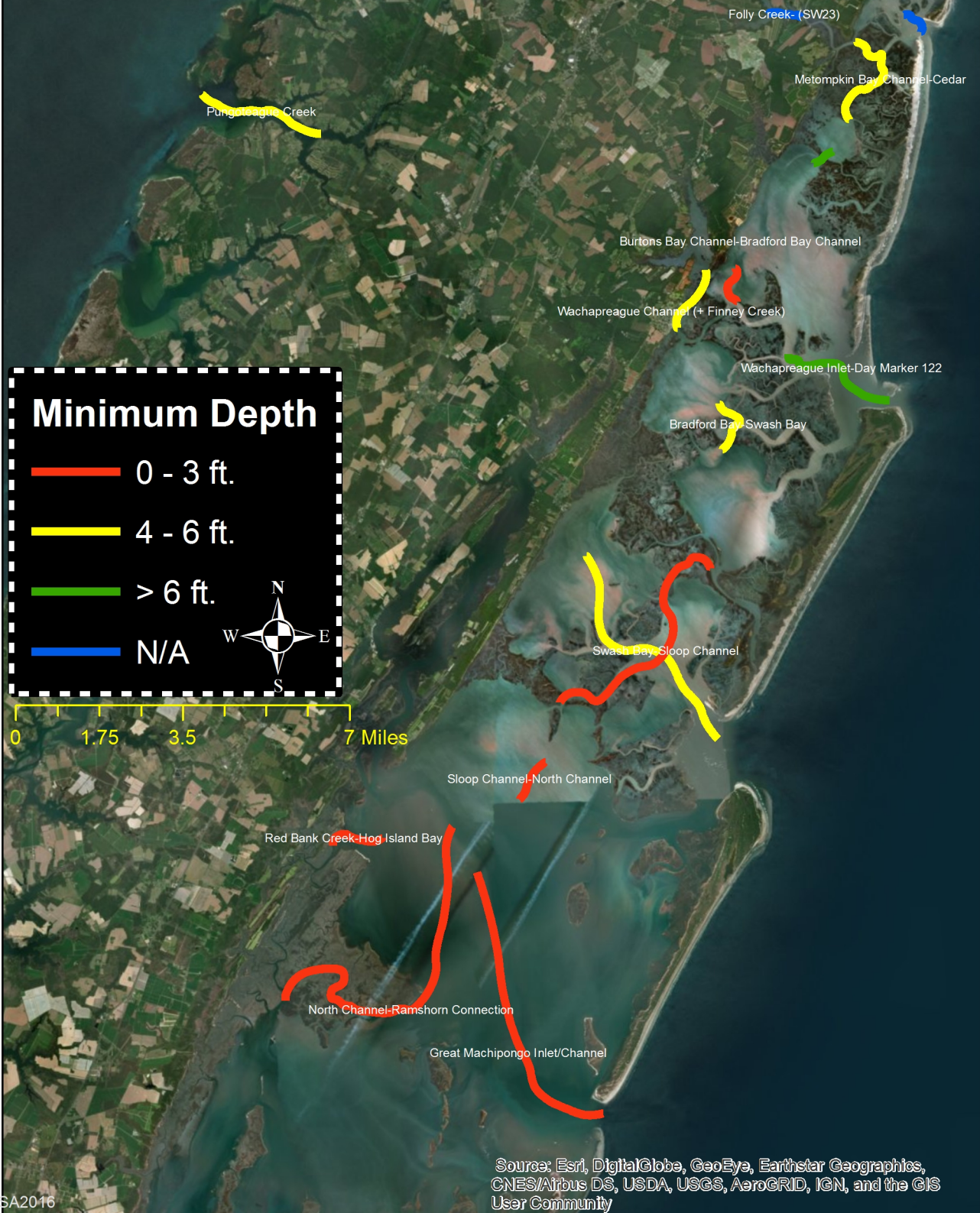
SA2016

Eastern Shore of Virginia State Waterways by Minimum Depth



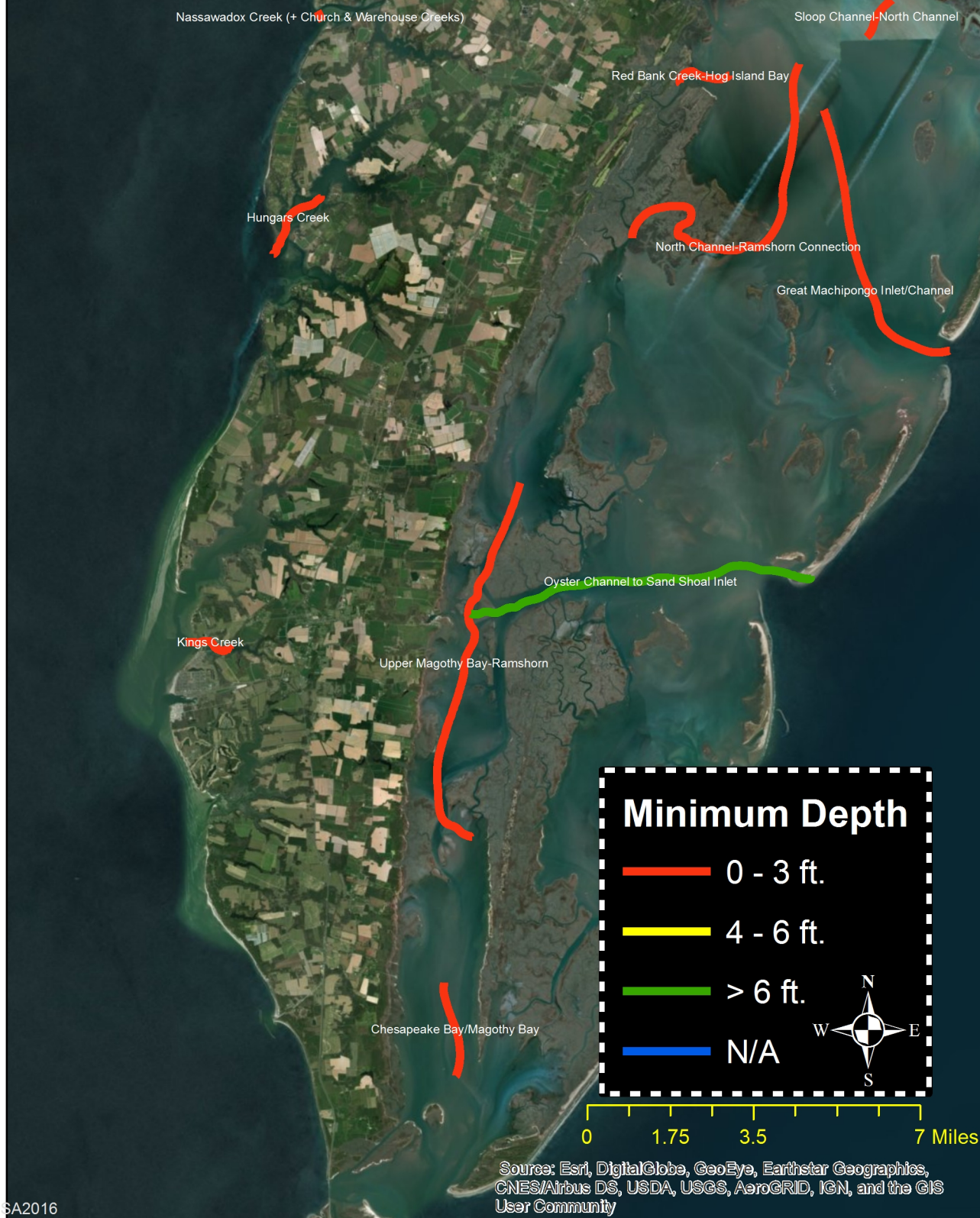
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Eastern Shore of Virginia State Waterways by Minimum Depth



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Eastern Shore of Virginia State Waterways by Minimum Depth



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

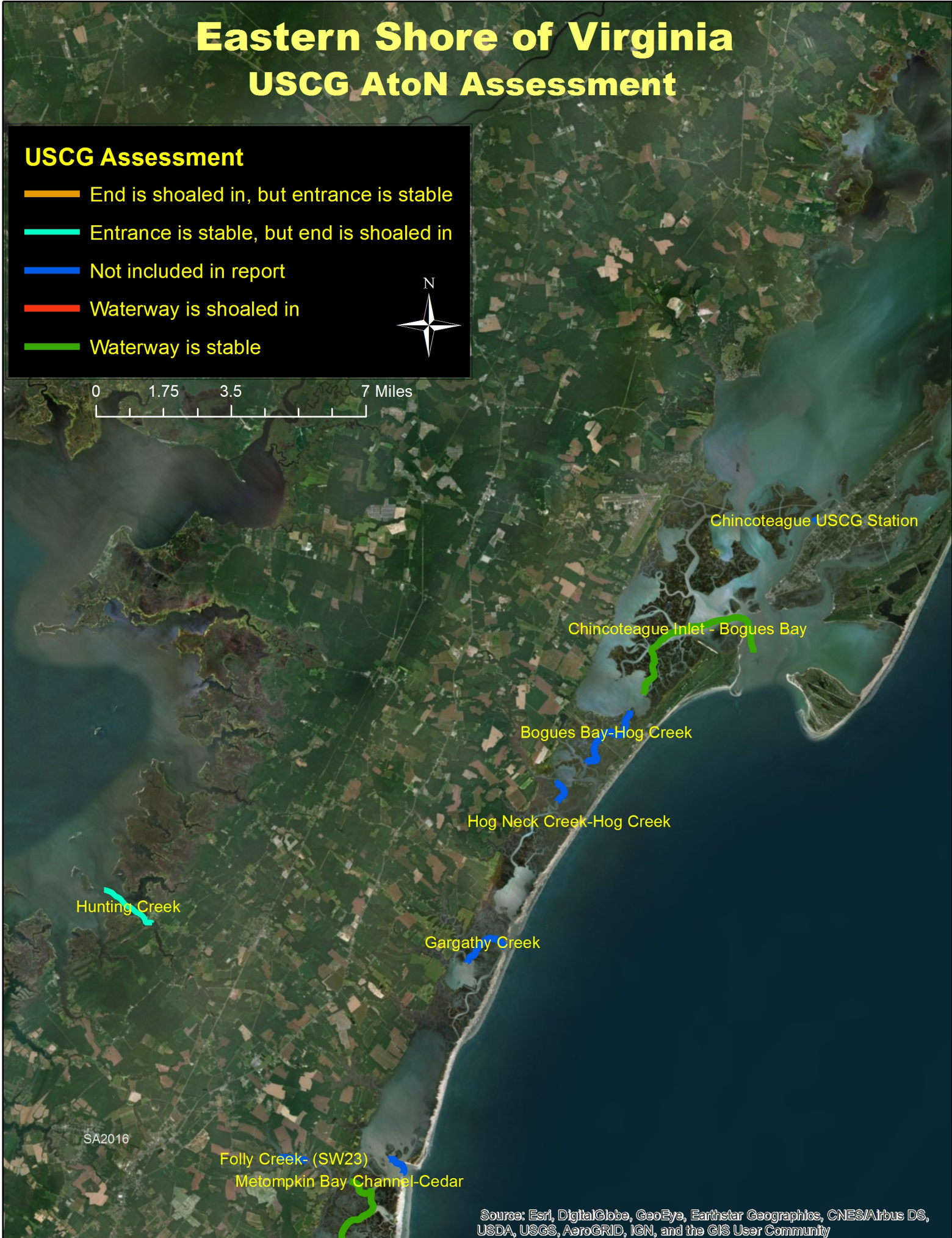
Eastern Shore of Virginia USCG AtoN Assessment

USCG Assessment

- End is shoaled in, but entrance is stable
- Entrance is stable, but end is shoaled in
- Not included in report
- Waterway is shoaled in
- Waterway is stable



0 1.75 3.5 7 Miles



SA2016

Folly Creek- (SW23)
Metompkin Bay Channel-Cedar

Eastern Shore of Virginia

USCG AtoN Assessment

Hunting Creek

USCG Assessment

- End is shoaled in, but entrance is stable
- Entrance is stable, but end is shoaled in
- Not included in report
- Waterway is shoaled in
- Waterway is stable



0 1 2 4 Miles

Pungoteague Creek

Folly Creek- (SW23)

Metompkin Bay Channel-Gedar

Burtons Bay Channel-Bradford Bay Channel

Wachapreague Channel (+ Finney Creek)

Wachapreague Inlet-Day Marker 122

Bradford Bay-Swash Bay

Swash Bay-Sloop Channel

SA2016

Eastern Shore of Virginia USCG AtoN Assessment

Nassawadox Creek (+ Church & Warehouse Creeks)

Hungars Creek

Kings Creek

Upper Magothy Bay-Ramshorn

Chesapeake Bay/Magothy Bay

Swash Bay-Sloop Channel

Red Bank Creek-Hog Island Bay

North Channel-Ramshorn Connection

Great Machipongo Inlet/Channel

Oyster Channel to Sand Shoal Inlet

USCG Assessment

- End is shoaled in, but entrance is stable
- Entrance is stable, but end is shoaled in
- Not included in report
- Waterway is shoaled in
- Waterway is stable



0 1.75 3.5 7 Miles

SA2016