

CENAB-OP-RMS

Application 2011-00766 (SOUTHWEST WATERFRONT REDEVELOPMENT/THE WHARF)

MEMORANDUM FOR RECORD

SUBJECT: Department of the Army Environmental Assessment and Statement of Findings for Above-Numbered Permit Application

This document constitutes the Environmental Assessment, 404(b) (1) Guidelines Evaluation, Public Interest Review, and Statement of Findings.

- a. Application as described in the public notice (PN) dated 13 June 2011:

APPLICANT: Government of the District of Columbia
Office of the Deputy Mayor for Planning and Economic
Development

ATTN: Mr. Victor Hoskins
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Washington, DC 20004

Hoffman Madison Waterfront (Developer)
4725 Wisconsin Avenue NW, Suite 200
Washington, DC 20016

Moffatt & Nichol (Consultant)
2700 Lighthouse Point East, Suite 501
Baltimore, MD 21224

WATERWAY & LOCATION: In the Washington Channel along Water Street and Ohio Drive, SW, Washington, District of Columbia, 20024.

LATITUDE & LONGITUDE: The coordinates (Latitude: 38° 52' 51.33" N Longitude: -77° 01' 39.16" W and Latitude: 38° 52' 27.41" N Longitude: -77° 01' 14.57" W) represent the northernmost and southernmost points respectively of the existing bulkhead at the project site.

The applicant originally proposed to: construct five new public piers and two independent marinas; install "day-use" docks; construct sewage pump-out facilities; install lighting, potable water, electric, communications, sewer, fire protection infrastructure and winterization, and de-icing systems below deck for both fixed and floating piers; create a mooring field; construct a replacement bulkhead; and construct a residential building and multi-purpose buildings on the new piers, as described in detail below:

Market Pier and Docks: To construct a fixed 35-foot wide by 155-foot long concrete pier

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with 24 18-inch square concrete support piles, a 35-foot wide by 40-foot long tensile pavilion structure, a 5-foot wide by 60-foot long gangway, an irregularly-shaped 43-foot wide by 130-foot long floating parallel pier connecting two floating pier extensions including Dock A - to install an 8-foot wide by 375-foot long floating pier with an 8-foot wide by 98-foot long "T" head and 17 4-foot wide by 45-foot long finger piers; and Dock B - to install an 8-foot wide by 445-foot long floating pier with an 8-foot wide by 53-foot long "L" head and install ten 4-foot wide by 45-foot long finger piers; and to install 18 12-inch fender piles within a maximum of 555 feet channelward of the existing bulkhead.

Transit Pier: To construct a fixed 30-wide by 220-foot long concrete pier with 70 18-inch square concrete support piles; an 11,700 square foot triangular base pier, a two-story security and terminal building with a 2,165 square feet footprint, and a perimeter floating dock system including to install an 8-foot wide by 1,040-foot long floating pier with two 4-foot wide by 40-foot long finger piers, three 5-foot wide by 30-foot long gangways and two 5-foot wide by 60-foot long gangways; to install 36 12-inch diameter fender piles within a maximum of 335 feet channelward of the existing bulkhead.

City Pier: To construct a fixed 50-foot wide by 490-foot long concrete pier with a 30-foot wide by 100-foot long tensile pavilion structure and a two-story harbor master and security center building with a 500 square feet footprint; to install 85 18-inch square concrete support piles and 49 12-inch diameter fender piles within a maximum of 490 feet channelward of the existing bulkhead.

Capital Yacht Club (CYC) and Marina: To construct an 8-foot wide by 600-foot long floating head dock with two 5-foot wide by 80-foot long gangways; and four floating dock extensions including Dock A - to install an 8-foot wide by 370-foot long floating pier with an 8-foot wide by 133-foot long "T" head and 12 6-foot 7-inch by 65-foot wide and 13 6-foot wide by 60-foot long finger piers; Dock B - to install an 8-foot 8-inch wide by 420-foot long floating pier with an 8-foot wide by 114-foot long "T" head and 15 5-foot 6-inch wide by 55-foot long and 15 5-foot wide by 50-foot long finger piers; Dock C - to install an 8-foot wide by 425-foot long floating pier with an 8-foot wide by 108-foot long "T" head and 32 5-foot wide by 50-foot long finger piers; and an additional floating dock extension including to install an 8-foot wide by 151-foot long floating pier; to construct a two-story CYC clubhouse building with a 5,600 square feet footprint on a 50-foot wide by 160-foot long concrete platform; and to install 25 18-inch square concrete support piles for the CYC clubhouse platform within a maximum of 450 feet channelward of the existing bulkhead.

7th Street Pier and Overlook: To construct a fixed 25-foot wide by 446-foot long concrete pier with a 76-foot diameter roundabout at the terminus and a 56-foot diameter two-story tensile pavilion structure with a 1,250 square feet footprint; to install a 10-foot to 20-foot wide by 500-foot long floating dock with two 5-foot wide by 80-foot long gangways; to construct a 15-foot 4-inch by 67-foot 7-inch concrete overlook platform, partially covered by a 25-foot wide wooden trellis supported on the Promenade; and to install 64 18-inch

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square concrete support piles for the fixed pier within a maximum of 446 feet channelward of the existing bulkhead.

Gangplank Marina: To construct an 8-foot wide by 1,150-foot long and a 10-foot wide by 850-foot long floating head dock with six 4-foot wide by 30-foot long and eight 4-foot wide by 42-foot long finger piers three 5-foot wide by 60-foot long gangways, three 5-foot wide by 80-foot long gangways, and four floating dock extensions including Dock A – to install an 8-foot wide by 300-foot long floating pier with 15 4-foot wide by 50-foot long finger piers, one 5.5-foot wide by 55-foot long finger pier, one 6.5-foot wide by 65-foot long finger pier, and one 7.5-foot wide by 75-foot long finger pier; Dock B – to install an 8-foot wide by 285-foot long floating pier with 13 4-foot wide by 50-foot long finger piers and 14 4-foot wide by 45-foot long finger piers; Dock C – to install an 8-foot wide by 285-foot long floating pier with 14 4-foot wide by 45-foot long finger piers and 14 4-foot wide by 40-foot long finger piers; Dock D – to install an 8-foot wide by 85-foot long floating pier with ten 4-foot wide by 30-foot long finger piers; Dock E – to install an 8-foot wide by 135-foot long floating pier with 16 4-foot wide by 30-foot long finger piers; Dock F – to install a 10-foot wide by 60-foot long floating pier with eight 4-foot wide by 30-foot long finger piers; Dock G – to install an 8-foot wide by 220-foot long floating pier with 11 4-foot wide by 40-foot long finger piers, one 5-foot wide by 50-foot long finger pier, one 5.5-foot wide by 55-foot long finger pier, and one 6.5-foot wide by 65 foot long finger pier; Dock H – to install an 8-foot wide by 240-foot long floating pier with 24 4-foot wide by 40-foot long finger piers; and Dock I – to install an 8-foot wide by 245-foot long floating pier with 12 4-foot wide by 40-foot long finger piers and 13 4-foot wide by 35-foot long finger piers; to construct fueling dock facilities with diesel and gasoline stored in landside tanks; to construct a multi-purpose two-story Gangplank Marina building with a 6,300 square feet footprint on an 80-foot wide by 110-foot long concrete platform; to rehabilitate the existing Gangplank Marina service center and platform in place; to install 28 new 18-inch square concrete piles for the new concrete platform within a maximum of 830 feet channelward of the existing bulkhead.

Pier 3: To renovate the existing Odyssey Pier; to construct a fixed concrete 29,300 square feet (0.67 acre) pier platform, incorporating the renovated Odyssey building and platform with a fixed, concrete 50-foot wide by 500-foot long pier, a two-story security and terminal building with a 9,000 square feet footprint, and floating dock system including to install a 10-foot wide by 550-foot long floating pier with one 5-foot wide by 60-foot long gangway and two 5-foot wide by 80-foot long gangways; and to install 175 18-inch square concrete piles for the Pier 3 concrete platform, and 73 12-inch fender piles within a maximum of 715 feet channelward of the existing bulkhead.

Pier 4: To renovate the existing Pier 4 by constructing a four-story residential building on the renovated Pier 4 within the footprint of the existing building; to install a floating dock system around Pier 4 including Dock A – to install an 8-foot wide by 630-foot long floating pier with 33 4-foot wide by 50-foot long finger piers and one 4-foot wide by 45-foot long finger pier, and one 5-foot wide by 80-foot long gangway; Dock B – to install

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an 8-foot wide by 425-foot long floating pier with 15 4-foot wide by 50-foot long finger piers, one 5-foot wide by 60-foot long gangway, and one 5-foot wide by 80-foot long gangway; and install a 40-foot to 80-foot wide by 100-foot long (8,500 square feet) floating pier platform at the terminus within a maximum of 660 feet channelward of the existing bulkhead.

Mooring Fields: To install 135,950 square feet (3.12 acres) of mooring field within a maximum of 125 feet channelward of the existing bulkhead; and to install dual point moorings for approximately 50 boats at an average grid spacing of 30-foot by 100-foot.

East Potomac Park Day-Use Dock: To construct a 10-foot wide by 100-foot long parallel floating dock with one 5-foot wide by 30-foot long gangway within a maximum of 15 feet channelward of the approximate mean high water shoreline.

Bulkhead: To construct 2,370 linear feet of replacement bulkhead with a steel sheet pile bulkhead within a maximum of 18 inches channelward of the existing bulkhead; to repair 720 linear feet of existing timber and concrete bulkhead within a maximum of 18 inches channelward of the existing bulkhead. Approximately 2,500 cubic yards of backfill will be deposited behind the replacement bulkhead.

The purpose of the work is to: provide water-based educational, recreational, commercial and cultural opportunities; improve navigation and water quality; and comply with current Americans with Disabilities Act, United States Coast Guard (USCG), and Homeland Security requirements. As part of the planning process for the proposed project, steps were taken to ensure avoidance and minimization of impacts to aquatic resources to the maximum extent practicable. No mitigation is proposed.

The project site is located in the Washington Channel, a Federal navigation project that was authorized by Congress in 1935, south of Interstate 395(I-395) and adjacent to the Fireboat Pier 5 off of Maine Avenue in SW, Washington, DC.

ADDITIONAL INFORMATION

The Corps met to discuss the proposed project with the applicant, their representatives, and their consultants during several meeting and telephone calls, as well as exchanged information by electronic mail messages. The project description was revised several times during the Corps permit review process. On 30 August 2011, the Corps transmitted to the applicant, the comments and concerns that were received from the agencies and the public, in response to the PN, and requested that the applicant provide additional information, and/or revised plans to address the Corps' concerns regarding the project's adverse impacts to general navigation and the channelward encroachment of the proposed work into the Federal navigation channel. In addition, the Corps requested that the applicant provide an alternatives analysis and justification regarding the basis and need for the buildings that were proposed to be located on piers, since the proposed purposes

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and functions of the buildings were considered by the Corps to be non water dependent; that the applicant explain the site selection process factors and criteria used and provide rationale which lead the applicant to select the proposed project site and scope needed to meet design purposes; that the applicant identify both locations and acreages of any alternative sites that were considered, including an assessment of their feasibility/practicability as alternative sites; an explanation why these alternative sites were rejected or not considered further; and why the proposed project site was selected over other potential alternative sites.

FINAL REVISED PROJECT

In response to comments and concerns of the public, the resource agencies and the Corps, the applicant provided a letter dated 15 June 2012 that included revised plans and a detailed alternatives analysis. Additional information and clarification was provided by the applicant in conference calls and electronic mail messages during July 2012, including final revised plans dated 20 July 2012. Overall, the project scope was revised as follows: the channelward encroachment of the piers and the impacts of the work associated with the in-water bulkhead replacement, as previously proposed, were reduced, and the proposed expansion of the Gangplank Marina was reconfigured to address current slip owner concerns, while the proposed 4-story residential development on Pier 4, as well as the proposed new commercial building on the Pier 3 was removed entirely. The applicant's revisions also included renovation of the existing commercial building on Pier 4, and removal of the proposed additional floating platforms, and slips at Pier 4. Further, the applicant's revised proposal included a relocation and reorientation of the proposed Market Pier docks, and a reduction in slip widths to increase navigational access near the 1-395 bridge, as well as removal of the previously proposed day-use dock near the East Potomac Park. Finally, the applicant revised plans and reduced the linear footage of bulkhead replacement from 2,370 linear feet to 240 linear feet, removed the proposed bulkhead fender system along portions of the bulkhead, reduced the total amount of proposed fixed piers from 134,525 square feet to 82,775 square feet, reduced the total amount of proposed floating structures from 172,255 square feet to 149,895 square feet, and incorporated approximately 2,900 square feet of floating wetlands near the proposed 7th Street pier.

The work description has been revised, based on the applicant's revised plans dated 20 July 2012 to include the following:

Market Pier and Docks: To construct a fixed 45-foot wide by 130-foot long concrete pier supported by approximately thirty 24-inch square concrete support piles with approximately eighteen 12-inch fender piles; to install various-sized, temporary, tensile structures*; to install two 4-foot wide by 80-foot long gangways and one 10-foot wide by 20-foot long gangway landing; to install a 10-foot wide by 207-foot long floating pier connecting two floating pier extensions including Dock A - a 10-foot wide by 324-foot

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long floating pier with an 8-foot wide by 45-foot long “L” head, a 4-foot wide by 47-foot long finger pier, a 4-foot wide by 52-foot long finger pier, a 4-foot wide by 54-foot long finger pier, a 4-foot wide by 57-foot long finger pier, a 4-foot wide by 60-foot long finger pier, a 4-foot wide by 62-foot long finger pier, and a 5-foot wide by 38-foot long utility platform and Dock B - an 8-foot wide by 335-foot long floating pier with two 4-foot wide by 35-foot long finger pier, five 4-foot wide by 45-foot long finger piers, and a 5-foot wide by 38-foot long utility platform, and including a 20-foot long by 20-foot wide floating landing with eight 2-foot diameter mooring piles; to install two 40-foot wide by 60-foot long, one 40-foot wide by 75-foot long, and one 20-foot wide by 80-foot long permanently moored barges at the Pier; and to install a 25-foot wide by 120-foot long permanently moored historic vessel at the Docks within a maximum of 414 feet channelward of the existing bulkhead.

*The tensile structures on the pier would be used for seasonal shelters for public access.

The purpose of the Market Pier and Docks is to provide public access, dockage for transient boaters, additional slips for historical vessels, barges and other vessels, and for day use. The pier is designed to allow emergency vehicles and service trucks to access the barges and Market Pier and Docks. Temporary and transient mooring slips would be available for approximately 16 boats on the ends and sides of the pier. This work would be located outside of the 200-foot wide section of the Federal channel as deauthorized; however, the floating, removable structures would be located outside of the 40-foot setback located adjacent to this area of the Federal channel.

Transit Pier: To construct a fixed 68 to 175-foot wide by 272-foot long concrete pier with a triangular landside end supported by approximately one hundred 24-inch square concrete support piles; to construct a two-story security and terminal building within a 2,040 square foot area on the pier; to install a perimeter floating dock system including a 12-foot wide by 569-foot long floating pier with one 4-foot wide by 60-foot long gangway; and to install twenty-three 12-inch diameter fender piles within a maximum of 235 feet channelward of the existing bulkhead.

The two-story building would provide public access and berthing (i.e. water taxis, ferries and other commercial watercraft); facilitate ingress/egress from vessels of varying sizes and passenger loading/off-loading from water taxis and ferries; provide an overflow area for the District Pier, as well as provide a secondary function as an emergency services pier for the upper Washington Channel. The building would support commercial maritime activities (i.e. ticketing, restrooms, passenger staging) and include a security checkpoint and screening site at a controlled access point, as required by the Maritime Transportation Security Act of 2002. The size of the security checkpoint area is based on the extent of the screening activities required during the highest alert levels of the USCG Maritime Security (USCG MARSEC). Maritime Security directives are issued by the USCG to provide vessels and facilities with performance standards regarding access control and for securely handling cargo. Information within the MARSEC directives is

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designated as sensitive security information (SSI) and is not subject to public release.¹

The purpose of the Transit Pier would be for intermodal transportation and it would also provide for occasional and temporary berthing of special event barges. This work would be located outside of the 200-foot wide section of the Federal channel as revised as well as outside of the 75-foot setback, the turning area proposed by the applicant, and the Washington Metropolitan Area Transit Authority (WMATA) DC Metro tunnel Zone of Influence (ZOI).

District Pier: To construct a fixed 55-foot wide by 456-foot long concrete pier supported by approximately one hundred and twenty-four 24-inch square concrete support piles; to construct a two-story Dock Master building within a 2,147 square foot area on the pier; to install various-sized, temporary, tensile structures* on the pier; and to install approximately seventy-nine 12-inch diameter fender piles within a maximum of 460 feet channelward of the existing bulkhead.

*The tensile structures on the pier would be used for seasonal shelters for public access.

The two-story building would provide permanent and transient berthing for flag ships of different countries, tall ships, military vessels, antique/historic ships, and other large display ships. The Dock Master and Arrival building would support maritime activities by providing a security checkpoint, ticketing, restrooms, offices, and passenger staging, including multi-level staging and boarding areas for vessels of differing sizes. The Dock Master's office would be located towards the channelward end of the pier. The building would include a security checkpoint and screening protocols at a controlled access point as required by the Maritime Transportation Security Act of 2002. The size of the security checkpoint area is based on the extent of the screening activities required during the highest alert levels (USCG MARSEC).

The purpose of the District Pier would be for mooring of visiting historical, cultural and military vessels and temporary transient mooring slips would also be available for approximately six boats on the ends of the pier. This work would be located outside of the 200-foot wide section of the Federal channel as deauthorized. The fixed District Pier would be located landward/outside of the 40-foot setback and the building on the Pier would be sited landward/outside the 75-foot setback.

Capital Yacht Club (CYC) and Marina: To construct an 8-foot to 27-foot wide by 355-foot long floating dock with a 27-foot wide by 55-foot long platform that includes an 8-foot wide by 27-foot long section, a 19-foot wide by 60-foot long section and a 6-foot wide by 6-foot long gangway platform, two 4-foot wide by 80-foot long gangways and

¹ NAB 2011-00766 Southwest Waterfront Redevelopment "The Wharf": Maritime Alternatives Summary, 15 June 2012, Appendix A, Evolution of the Master Plan, Chapter 4, Security Regulations and Guidance, page 41, section 4.2.2 MARSEC Directives

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three floating dock extensions including Dock A – an 8-foot wide by 375-foot long floating pier with an 8-foot wide by 108-foot long “T” head, a 5-foot wide by 21-foot 7-inch long utility platform, eighteen 4-foot wide by 40-foot long finger piers, thirteen 5-foot wide by 60-foot long finger piers, and one 5-foot wide by 55-foot long finger pier; Dock B – an 8-foot wide by 376-foot long floating pier with an 8-foot wide by 128-foot long “T” head, a 5-foot wide by 21-foot long utility platform, thirteen 5-foot wide by 55-foot long finger piers, one 5-foot wide by 50-foot long finger pier, and eleven 5-foot wide by 65-foot long finger piers; and Dock C – an 8-foot wide by 400-foot long floating pier with an 8-foot wide by 128-foot long “T” head, a 5-foot wide by 18-foot 6-inch long utility platform, twelve 5-foot wide by 70-foot long finger piers, one 5-foot wide by 55-foot long finger pier, one 4-foot wide by 45-foot long finger pier, and seventeen 4-foot wide by 50-foot long finger piers within a maximum of 457 feet channelward of the existing bulkhead; and to construct a 47-foot wide by 100-foot long concrete platform supported by approximately sixty-six 24-inch square concrete support piles and construct a two-story CYC building within a 2,960 square foot area on the platform within a maximum of 47 feet channelward of the existing bulkhead.

The purpose of the CYC Marina and building would be to serve as a base for the Nation’s oldest yacht club with associated marina support facilities (i.e., security & maintenance personnel, restrooms, laundry, and storage space) as well as provide a secure access point to the proposed floating piers. Temporary transient mooring slips would be available for approximately six boats on the ends and sides of the pier. This work is proposed to be located outside of the 200-foot wide section of the Federal channel as deauthorized, however the floating removable structures would be located outside the 40-foot setback.

7th Street Pier and Overlook: To construct a fixed 45 to 120-foot wide by 419-foot long concrete and timber pier with an irregular shaped approximate 6 to 10-foot wide by 290-foot long lower elevation floating dock; to install a tensile structure* within a 1,250 square foot area on the pier; to install one 5-foot wide by 80-foot long gangway; to construct a 15-foot 4-inch by 67-foot 7-inch concrete overlook platform, partially covered by a 25-foot wide wooden trellis supported on the Promenade; and to install one hundred and twenty-eight 24-inch square concrete support piles for the fixed pier within a maximum of 420 feet channelward of the existing bulkhead.

*The tensile structures on the pier would be used for seasonal shelters for recreational, public access to water from land.

The purpose of the 7th Street Pier and Overlook is to provide public access to the waterway and to provide small-craft recreational opportunities. Temporary transient mooring for approximately 7 vessels would be available on the side of the proposed pier. This work would be located landward/outside of the 200-foot wide section of the Federal channel as revised, as well as landward/outside of the 75-foot setback.

Gangplank Marina: To construct a 10-foot wide by 715-foot long and a 12-foot wide by

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154-foot long floating dock with four 4-foot wide by 60-foot long gangways and two 4-foot wide by 80-foot long gangways; to install a 30-foot wide by 40-foot long, a 20-foot wide by 103-foot long and a 35-foot wide by 40-foot long permanently moored barge; to construct the following docks: Dock A – a 10-foot wide by 515-foot long floating pier with one 10-foot wide by 80-foot long finger pier and a 20-foot wide by 52-foot 3-inch long gangway landing; Dock B – a 10-foot wide by 415-foot long floating pier with an irregular-shaped 20-foot wide by 30-foot long utility platform; Dock C – to install an 8-foot wide by 265-foot long floating pier with six 4-foot wide by 45-foot long finger piers, six 4-foot wide by 40-foot long finger piers, and one 8-foot wide by 93-foot long “T” head; Dock D – an 8-foot wide by 265-foot long floating pier with twelve 4-foot wide by 45-foot long finger piers and one 8-foot wide by 98-foot long “T” head; Dock E – a 10-foot wide by 290-foot long floating pier with two 5-foot wide by 55-foot long finger piers, two 5-foot wide by 60-foot long finger piers, and one 8-foot wide by 60-foot long “L” head; Dock F – a 10-foot wide by 52-foot 4-inch long floating pier; Dock G – an 8-foot wide by 546-foot long floating pier with fourteen 4-foot wide by 40-foot long finger piers, fourteen 4-foot wide by 45-foot long finger piers, two 5-foot wide by 35-foot long utility platforms, one 10-foot wide by 40-foot long floating platform, and one 8-foot wide by 93-foot long “T” head; Dock H – an 8-foot wide by 599-foot long floating pier with one irregular-shaped 30-foot wide by 50-foot long floating platform totaling 1,500 square feet, fifteen 4-foot wide by 45-foot long finger piers, thirteen 5-foot wide by 50-foot long finger piers, a 5-foot wide by 35-foot long and a 5-foot wide by 50-foot long utility platform, and one 8-foot wide by 103-foot long “T” head; Dock I – a 10-foot wide by 150-foot long floating pier with four 3-foot wide by 30-foot long finger piers and one 8-foot wide by 30-foot long “L” head; Dock J – a 10-foot wide by 164-foot long floating pier with four 3-foot wide by 35-foot long finger piers and a triangular-shaped utility platform, 30-feet along each side; Dock K – an 8-foot wide by 255-foot long floating pier with six 4-foot wide by 40-foot long finger piers, six 4-foot wide by 45-foot long finger piers, one 10-foot wide by 40-foot long utility platform, and one 8-foot wide by 93-foot long “T” head; Dock L – an 8-foot wide by 255-foot long floating pier with eleven 4-foot wide by 45-foot long finger piers, eleven 5-foot wide by 50-foot long finger piers, one 12-foot wide by 45-foot long utility platform, and one 8-foot wide by 103-foot long “T” head; Dock M – a 10-foot wide by 280-foot long floating pier with two 5-foot wide by 50-foot long finger piers, one 5-foot wide by 55-foot long finger pier, and one 10-foot wide by 55-foot long utility platform; Dock N – a 12-foot wide by 596-foot long floating pier with three 3-foot wide by 35-foot long finger piers with fueling dock facilities on the pier at the intersection of Docks M and N, within a maximum of 620 feet channelward of the existing bulkhead; and to construct a 60-foot wide by 110-foot long concrete platform supported by thirty 24-inch square concrete piles; to construct a multi-purpose two-story Gangplank Marina building within a 4,500 square foot area on the platform within a maximum of 60 feet channelward of the existing bulkhead; and to renovate the existing deteriorating Gangplank Marina Service Center and platform, in place, within a maximum of 42 feet channelward of the existing bulkhead.

The purpose of the Gangplank Marina and buildings is to provide for mooring space and

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navigational access for people that live aboard their boats, and for transient boaters, as well as to provide marina support facilities (i.e., security & maintenance personnel, restrooms, laundry, and storage space) and secure access to the proposed floating piers. The two existing buildings located on the existing fixed piers are proposed to be repaired and renovated in place (42-feet wide by 65 feet long with building) and the new pier (60-foot long by 110-feet wide with a new two-story building) is proposed to be constructed. This work would be located landward/outside of the 200-foot wide Federal channel as revised; however, the floating removable structures would be located landward/outside of the 40-foot setback.

Pier 3: To renovate the existing deteriorated Pier 3 structure and 2-story buildings, in the same roofline footprint, within an approximate 10,440 square foot area on the pier that extends a maximum of 200 feet channelward of the existing bulkhead.

The purpose of Pier 3 would be to provide for mooring space and access for people that live aboard their boats, and for their access to amenities and also for transient boaters. Pier 3 would be incorporated into the Gangplank Marina providing private and public access to additional transient slips and fuel service. The existing buildings on Pier 3 would be repaired, renovated and maintained as a restaurant, restroom facilities, and office space. This work would be located landward/outside of the 200-foot wide Federal channel as deauthorized and would also be located landward/outside the 75-foot setback.

Pier 4: To renovate, including adding a second story to the existing deteriorating Pier 4 structure and building, in the same roofline footprint, to install two rows of five 3-foot diameter mooring piles with connecting 3-foot wide by 255-foot long and 3-foot wide by 250-foot long catwalk systems extending from the outboard end; and to construct an approximate 40-foot wide by 40-foot long, 1,540 square foot area, high freeboard floating dock landing with 3 timber fender piles, a 4-foot wide by 80-foot long gangway, and two 4-foot wide by 30-foot long moveable gangways within a maximum of 560 feet channelward of the existing bulkhead.

The purpose of Pier 4 would be to support cruise operations and provide public access. The pier renovations, as proposed include a two-story security and terminal building that is proposed to be constructed within the same roof-line footprint as the current building which presently supports maritime commercial activities, and this pier would also provide for, ticketing, restrooms, offices, and passenger staging for up to 2,000 people, including a kitchen and storage space. The building would include a security and screening checkpoint at a controlled access point, as required by the Maritime Transportation Security Act of 2002. The size of the security checkpoint area is based on the extent of the screening activities required during the highest alert levels (USCG MARSEC).

This work would be outside of the 200-foot wide section of the Federal channel as deauthorized and would also be located landward/outside the 75-foot setback.

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For the entire project, fixed piers would include concrete deck slabs on driven concrete pilings and cap beams using typical 24-inch square pre-cast concrete pilings. The pilings would be spaced apart and would not act as fill.

Mooring Area/Field: To designate approximately 110,700 square feet, 2.54 acres, of mooring field/area within a maximum of 82 to 87 feet channelward of the existing bulkhead along the western shoreline, including installation of up to 15 single-point moorings, with spacing ranging from 85 to 110 feet within a minimum of 58 to 65 feet channelward of the existing bulkhead.

The purpose of the Mooring Area/Field, which would be policed by the Dock Master, is to create/establish a designated area adjacent to NPS property that could be used as a mooring area for boaters on the west side of the Washington Channel. The mooring area was designed to enable boats of certain sizes to be at mooring and not swing into the channel. This work would be located landward/outside of the 200-foot wide section of the Federal channel; however, the mooring buoys would be located within a portion of the 75-foot setback. The swing radius of the vessel stern of moored vessels would not encroach into the 200-foot wide Federal Channel and would not encroach into the designated turning basin as described below:

Vessel Length	Swing Distance (approximate)	Swing Radius Distance to Bulkhead (approximate)	Swing Radius Distance to Federal Channel Edge (approximate)
25-foot	50 feet	8 feet	5 feet
30-foot	60 feet	5 feet	5 feet
40-foot	70 feet	12 feet	9 feet
50-foot	75 feet	12 feet	5 feet

Bulkhead: To construct 240 linear feet of replacement steel sheet pile bulkhead within a maximum of 18 inches channelward of the existing timber relieving platform structure; to repair 2,913 linear feet of existing steel and concrete bulkhead within a maximum of 18 inches channelward of the existing bulkhead; and to install timber fenders on the face of 640 linear feet of bulkhead.

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The purpose of the bulkhead is for erosion control. This work would be located landward/outside of the 200-wide section of the Federal channel as deauthorized and also would be located landward/outside the 75-foot setback.

Floating Wetlands: To install one 50 square foot, one 60 square foot, three 175 square foot, one 250 square foot, and four 500 square foot floating wetland structures totaling approximately 2,900 square feet within a maximum of 200 feet channelward of the existing bulkhead.

The purpose of the floating wetlands would be to improve water quality and provide some wetland habitat. This work would be located landward/outside of the 200-wide section of the Federal channel as revised and would also be located landward/outside of the 75-foot setback.

Construction Transition Plan: During the approximately two-year transition period, the existing 8-foot wide by 170-foot long floating dock with a 10-foot wide by 110-foot long "T" head and twenty-two 5-foot wide by 50-foot long finger piers CYC "B" dock would be temporarily relocated from the CYC to the end of the existing Gangplank "B" dock; the existing 8-foot wide by 170-foot long floating dock with a 10-foot wide by 110-foot long "T" head and twenty-two 5-foot wide by 50-foot long finger piers CYC "C" dock would be temporarily relocated from the CYC to the end of the existing Gangplank "C" dock; and the 4-foot wide by 60-foot long gangway would be relocated from the Gangplank "F" dock area to the area between the Gangplank "C" and "D" docks, all to extend a maximum of 340 feet channelward of the existing bulkhead.

Washington Channel Deauthorization: HR 2297 was passed by the Senate on 29 March 2012, and was passed by the House on 26 June 2012. It was presented to the President on 29 June 2012. President Obama signed the Bill on 9 July 2012 thereby approving the deauthorization of a portion of the Federal Channel project limits as specified below.

The Enrolled Bill H.R.2297 to promote the development of the Southwest waterfront in the District of Columbia (DC) and for other purposes, has passed both the House and Senate, One Hundred Twelfth Congress of the United States of America, and included transfer from the United States to the District of Columbia Redevelopment Land Agency title to real property located at the Southwest Waterfront Project site and deauthorization of a portion of the Project For Navigation, Washington Channel, District Of Columbia. The Bill H.R.2297 was signed by President Obama on 9 July 2012 and became Public Law 112-143.

H. R. 2297 SEC. 4. PROJECT FOR NAVIGATION, WASHINGTON CHANNEL, DISTRICT OF COLUMBIA the portion of the project for navigation of the Corps of Engineers at Potomac River, Washington Channel, District of Columbia, as authorized by the Act of August 30, 1935 (chapter 831; 49 Stat. 1028) is deauthorized as described: the

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de-authorized portion of the project for navigation is as follows: Beginning at Washington Harbor Channel Geometry Centerline of the 400-foot-wide main navigational ship channel, Centerline Station No. 103+73.12, coordinates North 441948.20, East 1303969.30, as stated and depicted on the Condition Survey Anacostia, Virginia, Washington and Magazine Bar Shoal Channels, Washington, DC, Sheet 6 of 6, prepared by the United States Army Corps of Engineers, Baltimore District, July 2007; thence departing the aforementioned centerline traveling the following courses and distances: N. 40 degrees 10 minutes 45 seconds E., 200.00 feet to a point, on the outline of said 400-foot-wide channel thence binding on said outline the following 3 courses and distances: S. 49 degrees 49 minutes 15 seconds E., 1,507.86 feet to a point, thence; S. 29 degrees 44 minutes 42 seconds E., 2,083.17 feet to a point, thence; S. 11 degrees 27 minutes 04 seconds E., 363.00 feet to a point, thence; S. 78 degrees 32 minutes 56 seconds W., 200.00 feet to a point binding on the centerline of the 400-foot-wide main navigational channel at computed Centerline Station No. 65+54.31, coordinates North 438923.9874, East 1306159.9738, thence; continuing with the aforementioned centerline the following courses and distances: N. 11 degrees 27 minutes 04 seconds W., 330.80 feet to a point, Centerline Station No. 68+85.10, thence; N. 29 degrees 44 minutes 42 seconds W., 2,015.56 feet to a point, Centerline Station No. 89+00.67, thence; N. 49 degrees 49 minutes 15 seconds W., 1,472.26 feet to the point of beginning, the area in total containing a computed area of 777,284 square feet or 17.84399 acres of riparian water way.

The current waterfront redevelopment plan would be completed in conjunction with the redevelopment of the upland areas adjacent to the existing and proposed pier facilities. The applicant plans to construct additional plazas, and promenades, and to increase the amount of space available for retail and restaurant opportunities along the waterfront for both residents and travelers. The project would also complete a major portion of the Anacostia River-walk, which is a continuous 16-mile trail on both sides of the Anacostia River ultimately connecting to the Tidal Basin and the C&O Canal National Historic Park. The River-walk Trail System is a new recreational amenity and transportation alternative and is part of the America's Great Outdoors Initiative.

Project Purpose

Basic: The basic project purpose as defined by the Corps is to provide navigable access and mooring facilities, shoreline erosion control, public and private access to the waterway, improve water quality, and support maritime commercial activities with enhanced security and improved public safety.

Overall: The overall project purpose as defined by the Corps is to redevelop existing structures in proximity to the Washington Channel and waterfront in Southwest Washington, DC by improving public access and local infrastructure, providing secure marine facilities with water-based educational, recreational, commercial, and cultural features; and improved navigation and water quality, as well as provide facilities to

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comply with the Americans with Disabilities Act, and USCG and Homeland Security requirements.

Water Dependency Determination: The basic purpose of the proposed in-water work is to provide public access to the waterway along with mooring facilities, to enhance public safety, as well as erosion control, improving water quality, and creating wetland habitat.

The project as revised would also provide a means to better support maritime commercial activities, through construction of facilities for passengers, crews and support staff for purposes of verifying identification, ticketing, passenger staging, and public comfort, and to better manage safety in the general area including within the waterway, and to provide observation of the waterway.

The Corps considers the following work to be water dependent: the fixed and floating piers and platforms as well as the associated mooring piles; the mooring area/field; the floating wetlands, and the repair/ replacement of the fender system and existing bulkhead. Although these structures and work can be considered to be water dependent, they are not regulated by the Corps pursuant to Section 404 of the Clean Water Act. The Corps considers the Dock Master building to also be water dependent since the purpose of this building is to provide a facility that can be used to facilitate waterway observation and improve public safety, which for this project, requires siting within the waterway. Again, this structure and work is not regulated by the Corps pursuant to Section 404 of the CWA. However, the Corps does not consider that the proposal to construct/renovate buildings to provide support for maritime commercial activities is water dependent since their purpose is not dependent upon siting within waters of the United States in order to fulfill the basic project purpose of providing mooring facilities, shoreline erosion control, public and private access to the waterway, improved water quality, and support for maritime commercial activities including enhanced security and improved public safety at the project site. The only component which requires that the Corps consider the water dependency aspects of the proposed work for purposes of Section 404, relate to the bulkhead repair and replacement which is considered by the Corps to be water dependent.

Avoidance and Minimization Information:

Through the development of the project, part of which occurred prior to submittal of the DA application, the plans were revised to reduce impacts. During the Corps review process, the project was further revised based on the comments provided by the public, resource agencies; and concerns of the Corps. The applicant avoided and minimized impacts by eliminating new residential and commercial buildings on pier structures; reduced the encroachment of the maritime related buildings on piers; eliminated the Pier 3 and Police Pier extensions and the museum pier; eliminated the "P" Street marina and breakwater; eliminated a majority of seawall related in-water steel pile work, dredging, landward seawall modifications, and minimized cast-in-place concrete work over water; eliminated Washington Marina additions; eliminated fill work below the I-395 bridge;

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eliminated the East Potomac Park Basin; relocated and re-oriented the Market Pier Docks and decreased slip width to increase navigational area near the Interstate 395 bridge; reduced the encroachment of the Transit Pier, District Pier, CYC Docks, 7th Street Pier, Gangplank Dock extension; reduced the area and impacts of in-water bulkhead replacement; reconfigured the proposed expansion of the Gangplank Marina to address current slip owner concerns; removed the proposed 4-story residential development on Pier 4 and the proposed new commercial building on Pier 3; renovated the existing commercial building on Pier 4; removed additional floating platforms and slips at Pier 4; and increased the setback from the Washington Channel portion of the Washington Harbor Federal Navigation Project, as deauthorized to the 200-foot width, to 40 feet for floating project elements, except the District Pier, and to 75 feet for fixed pier structures. As part of the avoidance and minimization, the applicant replaced some of the eliminated project elements with less intrusive project components including replacing the museum pier with the Transit and Market Pier Docks; replaced the Pier 3 with additional slips at Gangplank Marina; renovating the existing Pier 4 building to consolidate cruise-related facilities in lieu of the residential condominiums; and replacing condominium-related private residential slips with mooring piles, catwalks and boarding floats for Pier 4 cruise-facilities; removed the day-use dock near the East Potomac Park; incorporated approximately 2,900 square feet of floating wetlands near the proposed 7th Street pier; reduced the linear footage of bulkhead replacement from 2,370 linear feet to 240 linear feet; removed the bulkhead fender system below the mean high water level; reduced the total amount of proposed fixed piers from 134,525 square feet to 82,775 square feet; and reduced the total amount of proposed floating structures from 172,255 square feet to 149,895 square feet.

The minimization efforts associated with the revised project to include replacement and expansion of the existing pier structures; replaced an existing bulkhead; created a mooring field /area; and created a floating wetland takes into account existing features within the project area that encumbered aspects of the project design intended to meet the purpose of the overall plans for the Southwest Waterfront redevelopment. The project was revised through the Corps' permit review process to include an elliptical shaped 500 to 600-foot diameter turning area that would allow larger vessels, such as cruise ships, tall ships, and catamarans to safely turn around within the Washington Channel. The turning area would be in close proximity to the proposed mooring area; however, the mooring area including the swing radius of moored vessels would not extend into the turning area or into the Washington Harbor Federal Navigation Project. All floating structures that are proposed adjacent to the Washington Harbor Federal Navigation Project, as revised/deauthorized, would be located a minimum of 40 feet from the edge of the Channel and would be removed during any periods when maintenance dredging of the Channel is necessary, as determined by the Corps. All fixed structures adjacent to the limits of the revised/deauthorized Washington Harbor Federal Navigation Project, would be a minimum of 75 feet from the Channel edge, except for the District Pier which would house the Dock Master facilities, which would be located within the 75-foot setback from the Channel edge. The District Pier would extend no further than 35 feet into the 75 foot

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setback and would be located landward/outside of the 40 foot setback meaning 40 feet landward of the edge of the Washington Harbor Federal Navigation Project as revised/deauthorized. In addition, the residential and large commercial buildings that were originally proposed on two piers were eliminated from the project. The remaining proposed buildings were revised to the maximum extent practicable through the plan to renovate and modernize the facilities within the in-kind footprint of existing buildings and relocation of new proposed marina buildings to the landward most edge of the pier to provide for necessary security on the piers. Security and terminal buildings could not be constructed in upland locations since DC land use ordinances require that structures cannot be constructed within 60 feet of the existing bulkhead. More important for this project, these marina buildings must be sited in close proximity to the proposed piers to provide adequate security.

To further minimize potential impacts to navigation, the applicant has proposed to create a new Dock Master Program located at the Dock Master station on the District Pier. The Dock Master would work in conjunction with the Harbor Master, the Harbor Precinct of the Metropolitan Police Department, and the USCG, all having offices located at the Police Pier. One significant duty of the Dock Master would include providing on-water assistance to the DC Harbor Master and the USCG. In addition, the Dock Master would routinely welcome visiting vessels; assign transient and permanent slips; assign moorings; enforce mooring area stay limits and marina policies; monitor potential sewage or fuel/oil discharges; provide event programming; and maintain the docks and piers. During large on-water events, the Dock Master would provide on-water observation, boater assistance, and enforcement.

The removal of deteriorated, existing structures could decrease the risk of debris posing a hazard to navigation during and following storm events. Currently, when needed, floating debris is removed by personnel from the Corps' DC Drift Unit; however, prior to removal, debris resulting from deteriorated structures could pose a hazard to navigation and public safety or cause damage to transient or moored vessels or damage other structures, such as piers, mooring facilities, and bulkheads within the waterway. The removal of the deteriorated existing structures could likely reduce potential impacts to navigation and public safety resulting from debris. The owners of marine structures are responsible for maintaining the structures in good repair and could be held responsible for damages resulting from the debris. The applicant's efforts associated with this project would address this current problem.

Although stone revetments and sills or nonstructural shoreline erosion control methods can be more effective in some project locations, due to the bulkhead's location within an existing commercial marina, nonstructural shoreline erosion control and stone revetments or other structures, would not be practicable within the project area and would limit the applicant's ability to utilize areas used in the past for mooring boats. Current occupancy within the Capital Yacht Club and Gangplank Marinas are near, if not at 100%, and both marinas have a wait list of vessel owners hoping to utilize the marina. If the number of

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slips available for use adjacent to the bulkhead were reduced, additional slips could be necessary and would result in further channelward encroachment of the proposed structures and could potentially impact general navigation. The proposed bulkhead replacement would extend approximately 18 inches channelward of the existing structure.

This project has been minimized to the maximum extent practicable while still meeting overall project goals and objectives to provide public access; mooring facilities; shoreline erosion control; improve water quality; support maritime commercial activities; and to provide observation and improved public safety in the project area. The applicant has reduced the scope of the project through multiple project revisions as a result of numerous meetings between the applicant and the Corps.

Compensatory Mitigation: Compensatory mitigation is not required by the Corps for this project as revised because the project does not occur within any tidal or non-tidal wetlands and because the Corps does not believe that mitigation is required to balance the public interest.

EXISTING CONDITIONS: The project site is located at 600 Water Street, SW, Washington, DC. The project location is an approximate 47-acre site located along approximately 3,115 linear feet of bulkheaded shoreline between the Washington DC Fish Wharf and Ft. McNair within the Washington Channel which is bounded to the northwest by the Washington DC Fish Market, the I-395 Bridge and the Washington Marina. The site is bounded to the southeast by the Pier 5 Police Pier and the East Potomac Park to the southwest. The Washington Channel was 400-feet wide at the project site prior to deauthorization and is 200 feet wide after deauthorization. The portion of the Washington Channel Federal Navigation Project that extends to the north of the project site and beyond/upriver from the I-395 Bridge is 400-foot wide. The waterway at the project site ranges from 850 feet wide measured from the bulkhead within the existing Gangplank Marina to the bulkhead along East Potomac Park to 925 feet wide measured from the bulkhead at Pier 4 to the bulkhead along the East Potomac Park as shown in the Regulatory Set Back Site Plan provided by Moffatt & Nichol on 15 July 2012. The existing waterway, measured from the existing pier head line, which was established by DC, is located to the East Potomac Park bulkhead ranges from approximately 570 to 695 feet in width.

Section 11 of the Rivers and Harbors Act of 1899 authorized the establishment of harbor lines within waterways based on navigation impacts, landward of which no individual permit from the Corps is required. 33 CFR 209.150 published on 27 May 1970 requires authorization for structures landward of established harbor lines and provided guidance that review of applications would be based on a full public interest review evaluation and that harbor lines would serve as guidance for assessing navigation impacts. Protection of navigation in all navigable waters of the United States continues to be a primary concern of the Federal government.

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NOTE: The pier head line, as referenced in this document, is defined as the geographic line adopted by the District of Columbia along the Washington Channel, beyond which construction is prohibited without authorization from the NPS. Pier construction may occur from the existing bulkhead to the pier head line without authorization from the NPS.

The existing bottom consists mostly of sand and silt, and both shorelines of the Washington Channel waterway are protected by bulkheads. There are 3 existing marinas in the waterway that provide approximately 512 slips including approximately 128 slips at the Washington Marina, 297 slips at the Gangplank Marina, and 87 slips at the Capital Yacht Club. Slip occupancy is 100% at each marina, and each marina has a waiting list for slip spaces from potential customers.

The western shoreline of the proposed project area known as East Potomac Park, a 327-acre peninsula which is protected by an existing bulkhead, is owned by the NPS. The water area east and adjacent to this property is frequently used for boat mooring and the NPS has riparian rights in the waterway extending to the existing pier head line established by DC.

The waterway in the project area is utilized by various sizes and types of boats and vessels and is subject to somewhat heavy recreational boat traffic seasonally and during certain events, holidays, festivals etc. and to a lesser extent during other times throughout the year. Commercial tour boats and other vessels, including yachts, catamarans, and historic tall ships utilize the waterway. Vessels that utilize the waterway vary in length, ranging from approximately 20-240 feet in length. Three barges are currently moored at the existing Fish Market facilities.

The applicant submitted a detailed description of existing conditions in the Washington Channel in their 15 June 2012 document entitled *NAB 2011-00766, Southwest Waterfront Redevelopment "The Wharf": Maritime Analysis Summary*, a summary of which is included below. These findings have been verified through the Corps visits to the project site.

The approximate 4.3-acre Capital Yacht Club Marina is located along approximately 690 feet of the existing bulkhead. The marina has 87 slips located at the existing fixed and floating piers. The Club operates a 6-ton crane for launching and retrieving boats. The Gangplank Marina is located along approximately 1,500 feet of the existing bulkhead to the south of the Capital Yacht Club. The existing marina has approximately 297 slips with steel frame floating docks with a mixture of concrete and wood decking. A portion of these structures, which were recently replaced are serviceable; however, a portion of the structures are narrow and in poor condition with undersized utilities for their current use. The Washington Marina is located to the north of the I-395 Bridge along approximately 1,000 linear feet of existing bulkhead. The Washington Marina has 128 slips for mooring both power and sail boats and larger vessels including yachts..

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Pier 3 is a combination of a fixed concrete pier, which supports a two-story office building and a two-story restaurant, and floating docks providing 10 slips and an area for a small boat sailing school. The pier also includes a loading platform and docking space for the 220-foot long Odyssey Dinner Cruise boat.

Pier 4 is a fixed concrete pier that provides cruise boat staging and support services. There is an existing building that covers a majority of the pier, and a 2,700 square foot building that serves as a security entrance and ticket booth. The applicant provided an undated structural analysis report of Pier 4 prepared by Moffatt & Nichol titled "*The Wharf Washington DC, Underwater Condition Survey and Structural Analysis of Pier 4*". The existing Pier 4 structure was inspected on 29 and 30 August 2011 to ascertain its present condition and was determined to be in satisfactory condition with no major defects. The pier consists of timber piles supporting concrete pile caps and beams with a concrete deck. The pier is currently in good condition.

The existing seawall and retention structures along the remainder of the waterfront include approximately 240 linear foot ballasted low-level timber relieving platform with a concrete seawall, and approximately 2,913 linear feet of steel sheet pile bulkhead with a concrete cap.

The applicant advised that the relieving platform was built in the 1940's and the steel sheet pile bulkhead was built in the 1960's and early 1970's. Topside and underwater inspections of these structures were performed in June 2006, including a visual/tactile inspection; physical measurements; pick penetration of timber members; and ultrasonic thickness measurement of steel members. The low-level timber relieving platform was found to be in fair to poor condition and near the end of its design life. Based on visual inspection with limited ultrasonic thickness measurement, the steel sheet pile bulkhead was found to be in good condition with a majority of the wall surface area exhibiting light corrosion and small holes at various locations. Additional measurements were gathered in August 2011, and the steel bulkhead was determined to be adequate for shoreline erosion control on site in its present condition.

A WMATA DC Metro subway yellow line tunnel runs submerged across the Washington Channel near the intersection of 9th Street SW and Water Street SW underneath existing structures within the Capital Yacht Club just south of the Interstate 395 Bridge and through the NPS property. The ZOI for the existing tunnel is approximately 25 feet within any direction of the tunnel and any construction within that area needs to conform to WMATA design criteria.

The Washington Channel is currently classified as an EPA impaired waterway on the District's 303(d) impaired waters list, which is comprised of all waters that the state has identified where required pollution controls are not sufficient to attain or maintain applicable water quality standards. The term "303(d) list" is short for the list of impaired

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and threatened waters (e.g., stream/river segments, lakes) that all states and DC are required to submit for EPA approval during even-numbered years².

Washington Channel Area Background:

Corps Projects:

Washington Harbor authorization was approved on 30 August 1935 in accordance with the River and Harbors Committee Document No. 22, 74th Congress, First Session to provide for a channel in the Potomac River from Giesboro Point to Key Bridge; a second channel from Giesboro Point to the end of Washington Channel; and a third channel from the mouth of the Anacostia River to the foot of 15th Street, S.E. with channel dimensions 24-feet deep and 400-feet wide. The Corps of Engineers Project Map number 101 revised September 1985, shows the extent of the Washington Channel north of the bridge.

A document titled *Potomac River, North Side of Washington Channel, Washington, DC. Condition of Improvement, 30 September 1985* described the existing project, adopted in 1935, that provided for the construction of three yacht harbors; two wharves for DC activities; three wharves for existing transportation lines; bulkhead walls; and removal of dilapidated structures along a project length of 5,100 feet. The project was completed in 1950. In January 1961, the lands were transferred to the Commissioners of the District of Columbia to make them available for private development under the supervision of the District of Columbia Redevelopment Land Agency. The Corps of Engineers Project Map number 103 revised September 1985 shows Yacht Basin No. 1 north of the bridge and Yacht Basin No. 2 adjacent to the south of the Fish Wharf.

Corps Regulatory:

The Corps Regulatory Branch records indicate that within the proposed project area scope, DA authorizations were granted for the following structures:

NABOP-P(C&P Tel. Co.)175 issued 20 January 1971 to install submarine conduits

NABOP-P (National Park Service, Department of the Interior) 20 issued 6 April 1972 to construct a pier and install mooring pile clusters.

NABOP-F/3(Wash. Metro. Area Transit Auth.)73-1208 issued 3 September 1975 to construct a tunnel and dredge.

NABOP-F/3(Wash, Metropolitan Area Transit Authority) 74-881 issued 27 January 1975 to construct a floating marina.

NABOP-F/4(Wash. Channel Limited Partnership) 76-583 issued 28 September 1976 to install three dolphins.

² http://www.epa.gov/owow_keep/tmdl/results/listing.html

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NABOP-F/4(Wash. Channel Limited Partnership) 77-0045 issued 7 June 1977 to install 277 floating slips as an addition to an existing marina.

NABOP-FR (DC Redevelopment Land Agency) 80-0057 issued 9 April 1980 to construct fixed timber piers, floating piers, and a walkway and to install mooring piles.

NABOP-RR (Jessie Taylor Seafood) 86-1398 issued 31 October 1986 to install two mooring piles.

Odyssey Cruises 1995-66709 issued 25 May 1995 to install pilings.

Odyssey Cruises 1995-00737 issued 25 May 1995 to reconfigure an existing marina

CENAB-OP-RMS (Spirit of Washington Floating Pier) 02-01164 issued 18 March 2002 to install a floating pier. Pictures in the file showed the existing pier berthing facilities with buildings on the pier.

NAB-2008-00291(Spirit Cruises/Pilings) issued 8 February 2008 to replace mooring pilings at Pier 4. Pictures in the file showed the existing pier berthing facilities with buildings on the pier.

NAB 2011-00084(Gangplank Marina) issued 9 March 2011 to remove pier portion and install fender piles.

In addition, CENAB-OP-RMS (Washington Marina) 01-014496 was issued 6 September 2001 to renovate and expand an existing marina under the I-395 Bridge and north of the bridge, just upstream of the project scope.

The Corps reviewed potential unauthorized work in the Washington Channel project area and discovered that the Fish Market has three unauthorized permanently moored barges; the Gangplank Marina has three unauthorized permanently moored barges, one temporary seasonal use vessel, and slight reconfigurations to several piers; the Odyssey Cruises pier facility has two walkways and a large platform; and the Spirit Cruises facility has a floating platform and a walkway. The Capital Yacht Club has no unauthorized structures. The Corps informally reviewed these issues with some of the property owners, but did not initiate a formal enforcement action for the work at the Fish Market, Spirit Cruises and Odyssey Cruises. Under pre-application coordination for CENAB-OP-2006-11162 RMS(Gangplank Marina, DC/Pre-app), the Corps evaluated the proposal and by 23 August 2007 memorandum from Corps Shallow Draft Navigation Section, the Corps stated that the proposed project encroachment 45 feet further toward the Washington Channel was not acceptable. A Corps letter issued 16 June 2008 stated that Gangplank Marina piers extend into the Federal Navigation Channel.

The proposed project would require the removal of all of these pier structures that were not authorized by the Corps, except those barges located at the Fish Market, which are not within the project area and would remain in place and in violation of Corps regulations. The proposed project, if constructed, would terminate the continued evaluation of potential violations of Section 10 of the Rivers and Harbors Act for the pier facilities within the scope of work.

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The project has been proposed in conjunction with an upland development project along the waterfront directly adjacent to the eastern bulkhead of the Washington Channel. “The Wharf” is a public-private partnership between the District of Columbia’s Office of the Deputy Mayor for Planning and Economic Development (the applicant) and Hoffman-Madison Waterfront.

The project is a result of many years of planning and multi-jurisdictional development, beginning with the Anacostia Waterfront Corporation and the Anacostia Waterfront Initiative that created the vision and environmental guidelines for development in the area. The local and federal public agency participants have included: District Government, Office of Planning, District of Columbia’s Office of the Deputy Mayor for Planning and Economic Development, District of Columbia Council, NPS, National Capital Planning Commission, Department of Defense, General Services Administration, Department of the Interior, Homeland Security, House of Representatives, Senate, Office of the Mayor of the District of Columbia, District of Columbia’s Office of Planning, Council of the District of Columbia, US Commission on Fine Arts, and the Office of Congresswoman Eleanor Holmes Norton³, and the President of the U.S as a result of his signing of the deauthorization bill passed by the Congress.

The Southwest Waterfront Plan came about through a culmination of many years of planning efforts related to the Anacostia Waterfront Initiative which was a commitment to the waterfront revitalization by DC, quasigovernmental corporations, and federal agencies under a Memorandum of Understanding that was executed in 2000 to restore and revitalize the Anacostia River and its waterfronts. Public access was a vital part of the planning for the waterfront which included pedestrian and vehicular access and increasing waterfront activity to attract tourists and provide a location to celebrate the maritime history of DC at the site of its original commercial waterfront. The applicant proposes to construct a major new mixed-used urban development which would include five new public parks, four new public piers and a half mile promenade.

NPS -East Potomac Park Property

Background Information:

The western shoreline of the Washington Channel is along the East Potomac Park property, which is a 327-acre area of land reclaimed through the dredging of the Washington Channel⁴. The NPS is the owner of East Potomac Park and the bottom of the Washington Channel, up to the edge of the Washington DC Pier head line.

³NAB 2011-00766 Southwest Waterfront Redevelopment “The Wharf”: Maritime Alternatives Summary, 15 June 2012, Pages 1-4, Moffatt & Nichol

⁴http://www.nps.gov/history/history/online_books/ncr/ncr-1933/sec2.htm

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As described by the NPS, DC sits on the fall line in the Potomac River Basin. The District is surrounded on three sides by Maryland and on its fourth side by the Potomac River that separates it from Virginia. The Anacostia River and Rock Creek both flow through the District where they join the Potomac River. The Tidal Basin is an artificial inlet designed to flush the Washington Channel, which parallels the Potomac River and joins the Anacostia River⁵.

The NPS regulatory responsibility includes the Potomac River boundaries of DC from approximately the Wilson Bridge up to the Chain Bridge. The Washington Channel is considered the Potomac River since it was created by dredging a channel in the Potomac River and using that dredged material to fill in the Potomac River, creating the approximate 327-acre NPS East Potomac Park property. The NPS requires that any persons undertaking activities which may impact on the proprietary interests of the United States in the existing bed of the Potomac River within the original boundaries of DC (except for that portion of the bed lying within the pier head line on the DC side of the river) must have a permit from the NPS authorizing such activities.

The applicant has received a letter of support from the NPS for the placement of the moorings channelward of NPS property. Although the NPS has riparian rights, there is limited potential for the NPS to develop docks, piers, or marinas on their side of the Washington Channel due to the 75-foot setback for the Washington Harbor Federal Navigation Project. If the NPS wants to construct docks/ piers or desires to improve access or to maintain their shoreline in the future, and it is determined that the moorings interfere, the moorings would be removed.

A special condition would be included in the permit, if authorized, which would specify that the authorization would not be valid without the required Federal and local approvals, as applicable, including the U.S. Department of the Interior NPS and the Water Quality Certification (WQC) from the District Department of the Environment.

1. Authority.
 - Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. §403).
 - Section 404 of the Clean Water Act (33 U.S.C. §1344).
 - Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Scope of Analysis.

- a. NEPA.

- (1) Factors.

⁵ <http://www.nps.gov/archeology/SITES/stateSubmerged/districtofcolumbia.htm>

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- (i) Whether or not the regulated activity comprises "merely a link" in a corridor type project. Not applicable
- (ii) Whether there are aspects of the upland facility in the immediate vicinity of the regulated activity which affect the location and configuration of the regulated activity: The project site was chosen by the applicant since DC owns the land and due to its location on the Washington Channel and proximity to the existing Gangplank Marina, Capital Yacht Club, and Fish Market. The regulated activities are located in close proximity to other portions of the project including existing upland facilities with proposed renovations and new upland development, which includes the construction of plazas, promenades, restaurants and stores, thereby providing opportunities for shopping in conjunction with this waterfront development proposal.
- (iii) The extent to which the entire project will be within the Corps jurisdiction. The entire project channelward of the existing bulkhead would be within the Corps regulatory jurisdiction since all structures are proposed within navigable waters of the United States and are therefore, subject to regulation pursuant to Section 10 of the Rivers and Harbors Act of 1899 and / or Section 404 of the Clean Water Act
- (iv) The extent of cumulative Federal control and responsibility. The entire project channelward of the existing bulkhead would be under the cumulative federal control and responsibility pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act.

(2) Determined scope.

The scope of the project is shown by the project plans dated 20 July 2012, Sheets 1 through 37. The work would occur in navigable waters of the United States which are subject to the Corps regulatory jurisdiction. The proposed piers, mooring field, floating wetlands, and existing unauthorized barges, are regulated as structures pursuant to Section 10 of the rivers and Harbors Act of 1899 while the proposed bulkhead is regulated pursuant to both Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

b. NHPA "Permit Area".

- (1) Tests. Activities outside the waters of the United States are included because all of the following tests are satisfied: Such activity would not occur without the authorization of the work or structures within the waters

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of the United States; Such activity is integrally related to the work or structures to be authorized within waters of the United States (or, conversely, the work or structures to be authorized must be essential to the completeness of the overall project or program); and such activity as proposed here is directly associated (first order impact) with the work or structures to be authorized. The proposed upland development while not within the Corps jurisdiction is part of an overall redevelopment of this portion of the city, including the redevelopment of structures within the waterway, and the entire economic package including both the water based and upland development within the Southwest Waterfront Project site boundary is considered the Permit Area for purposes of NHPA evaluation.

By letter dated 15 June 2011, the DC State Historic Preservation Office (DC SHPO) identified Section 106 issues and concerns associated with this project. By letter dated 21 December 2011, DC SHPO requested additional information for the Determination of Eligibility for Banneker Overlook, Jefferson School, Lunch Room and Fish Clean Building/ Oyster Shucking Shed, Pier 4 Head House and Pier, the Six Sasaki-Designed Parks along the Waterfront, and Washington Marina Building.

In response to a request from the DC SHPO, the applicant submitted a Phase IA Archaeological Assessment of the Southwest Waterfront to the DC SHPO on 17 February 2012. In this document, the applicant identified the Area of Potential Effect for the waterway project to encompass any activities that would occur within the Washington Channel. In addition, the applicant identified the Area of Potential Effect for the upland development to be a broad area to include Hains Point across the Potomac River to the Virginia shoreline, north to the Pentagon-Tidal Basin lateral line, and east to the 5th Avenue corridor. The area of potential effect for the proposed project was expanded by the applicant in consideration of the project site boundaries, the project purpose, activities, size, form, and height based on general effects that might be caused by the project.

By letter dated 16 March 2012 DC SHPO stated that the proposed project would have no effect on historic and cultural resources provided conditions are imposed to avoid an adverse effect. However, DC SHPO also stated concerns that some properties are located within the area of potential effect that are eligible for listing in the National Register of Historic Places such as the Fish Market Cleaning Shed, Arena Stage, and Jefferson Junior High School. The DC SHPO had coordinated with the applicant on the surrounding resources that would possibly have an effect. Through coordination with the DC SHPO, the applicant, and the Corps, a determination was made that the properties that are eligible for listing in

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the National Register are outside the Permit Area. However, in coordination with the applicant, DC SHPO has requested that the applicant coordinate all future phases of the project with their office, the treatment of the Lunch Room and Fish Cleaning Building/ Oyster Shucking Shed proceed in accordance with DC Preservation law, and any archeological testing, evaluation, and identification of treatment for any National Register eligible resources be coordinated with DC SHPO office. Following review of the information submitted by the applicant and the recommendations of the DC SHPO, the Corps concurs with the DC SHPO recommendation that the project would have no effect of historic or cultural resources if the applicant coordinates plans for future phases with the DC SHPO and the applicant coordinates with the DC SHPO upon discovery of potential historic or archaeological resources.

- (2) Determined scope. The entire project is within the Corps jurisdiction pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

c. ESA "Action Area".

- (1) Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

- d. Determined scope. The entire project area channelward of the existing bulkhead is within the Corps jurisdiction and is within the ESA "Action Area". The National Marine Fisheries Service Protected Resources Division (NMFS PRD) responded to the Corps Public Notice via facsimile, dated 21 June 2011, stating shortnose sturgeon are unlikely to occur in the action area due to habitat type, and the FWS did not provide any comments concerning any species that would be covered under the ESA.

e. Public notice comments.

Date of Public Notice: 13 June to 15 July 2011.

- (1) Commenter and issues raised:

- a. The DC SHPO identified Section 106 issues and concerns associated with this project, by letter dated 15 June 2011 and they advised the Corps that they met with the project developers and expected to receive additional information. Also, several historic properties including Banneker Overlook, Jefferson School, Lunch Room and Fish Clean Building/ Oyster Shucking Shed, Pier 4 Head House and

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Pier, the Six Sasaki-Designed Parks along the Waterfront, and the Washington Marina Building, that could be eligible for listing on the National Register of Historic Places (National Register) are located in what may be considered the Area of Potential Effect (APE) for this project, as described in section 2. (b) above.

By letter dated 21 December 2011, the DC SHPO advised that it concurs that the Area of Potential Effect defined in the Phase IA Archeological Assessment submitted by the applicant is sufficient to take into account all of the direct and indirect effects of the proposed undertaking which includes, but is not limited to: disturbance of the Washington Channel; demolition of waterfront docks and barges; demolition of existing buildings and miscellaneous resources along the water's edge; introduction of new construction; changes to the visual appearance of structures such as buildings including increases in mass and height; and introduction of additional vehicle and pedestrian traffic.

By letter dated 16 March 2012, the DC SHPO concurred that the Jefferson School, the Pier 4 Head House and the Washington Marina Building are eligible for the National Register, and that for Banneker Overlook, the agency was unable to make a determination due to lack of information. For purposes of reviewing this application, the agency considered the Banneker Overlook as if it were eligible for the National Register. The agency also determined that the northernmost Sasaki-designed Waterfront Parks are not eligible for the National Register, and that the two southernmost parks known as Reservation 717 are potentially eligible for the National Register; however additional information would be required from the NPS prior to a formal determination. The DC SHPO considers the Lunch Room and Fish Cleaning Building/Oyster Shucking Shed; two sites located in an upland location in the vicinity of the project location, to be National Register eligible and are proposed for listing as National Landmarks.

The DC SHPO advised that based upon a review of the most recent plans, none of the buildings or parks that were listed or eligible for listing on the National Register would be directly affected by the project as proposed; that the new construction is generally similar to most of the existing Southwest Waterfront redevelopment-era buildings; that individual buildings have been reduced in height and size to protect the viewshed of Banneker Overlook.

The DC SHPO determined that the project would have "no adverse effect" on historic properties provided that the applicant coordinate future phases; that treatment of the Lunch Room and Fish Cleaning

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Building/Oyster Shucking Shed proceeds in accordance with procedures; that the archeological testing, evaluation and identification of appropriate treatments for any National Register eligible resources would be carried out in consultation with DC SHPO.

- b. On 15 July 2011 the National Marine Fisheries Service (NMFS), commented on the project and advised that the buildings and other structures that were proposed to be located on floating or fixed piers over tidal waters should be water-dependent, and that the residential buildings should be constructed at alternative upland sites, and further they advised that they had no objections to the proposed tensile pavilions since they could be removed if maintenance of the pier was required in the future. Finally, they noted that their view was that provided the basic functions of the security terminal buildings, transit security building, and Dock Master Security building remain as security, and used for transit ticketing and navigation assistance, they would have no objections to them and their proposed locations.
- c. The NMFS PRD, in a facsimile dated 21 June 2011, stated that shortnose sturgeon are unlikely to occur in the action area due to the poor habitat the project site provides.
- d. The Environmental Protection Agency, by electronic mail message dated 21 June 2011, provided no objections to the project as proposed.
- e. The USCG did not respond initially to the Corps Public Notice; however the Corps contacted them to confirm their position by telephone subsequent to the Public Notice comment period. The USCG Water Management Section advised that since there were no USCG Aids to Navigation in that area of Washington Channel, they had no concerns with respect to the project from a standpoint of USCG Aids to Navigation. Further The USCG advised that the applicant would need to coordinate with them regarding the mooring buoys since these would need to be reviewed and approved by the USCG through a Private Aids to Navigation (PATON) application process, prior to installation of these moorings. Also the USCG advised that the applicant would need to coordinate with them before work commenced so that a Local Notice to Mariners (LNM) could be published, and to ensure that all aspects of the project had proper USCG approvals, such as the lights that are proposed for the District Pier.

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The Corps also contacted the USCG Bridge Section concerning the impact of the Market Pier and Docks, as shown by the 15 June 2012 revised plans, and their relationship and proximity to the I-395 Bridge and specifically to the fairway that runs under the bridge. The Corps had identified according to the NOAA navigation chart for that area, that there was a notation on the chart that identified a 37 foot vertical clearance at MHW, and a horizontal clearance of 93 feet, identifying that area as the fairway for navigation which was established when the I-395 Bridge was approved in the past. The USCG Bridge Section agreed with the Corps and advised that they too had concerns and both the Corps and the USCG concluded that the Market Piers as proposed were unacceptable with regards to impacts to navigation and safety. Accordingly, the Corps advised the applicant of these concerns and the applicant provided revised plans dated 20 July 2012 which showed a relocation/reorientation of the Market Pier and Docks to address the navigation and safety impacts that had been identified by both the Corps and the USCG. The Corps provided the applicant's revised plan dated 20 July 2012 to the USCG Bridge Section for review and comment and the USCG advised that they had no longer had objections to Market Pier and Docks as revised. The USCG requested that the Corps assist them in reaching out to the owner of the bridge, possibly through the applicant, to get all appropriate markings on the bridge, including a gauge for telling boaters the stage of the tide with respect to the water level and available vertical clearance at the bridge for purposes of helping the boating public when they are traversing the waters under the bridge. The Corps advised the USCG that we would make the applicant aware, and request that they work with the DC Government and others to address this matter. Since this water level gauge is outside the Corps purview, and doesn't directly factor into the Corps permit evaluation, it is nonetheless an important item that needs to be addressed from a standpoint of boater safety. We suggested that the applicant make the DC Harbor Master aware of the USCG concern, and the applicant agreed to do so.

- f. The United States Fish and Wildlife Service did not respond to the Public Notice.
- g. One public hearing request and numerous comments were received from individuals and associations in response to the Corps PN. In general, the public stated general environmental concerns; that the proposed pier extensions and marina reconfigurations would be a hazard to navigation; that the proposed pier extensions would result in

congestion during evacuation of the District due to national emergency, weather disaster, or terrorist attack; that the project as proposed would not allow for mistakes, mechanical malfunctions, bad weather, etceteras that could result in navigation errors; that the project as proposed would result in a reduction in anchorage area available for public use within the project location; that the mooring field as proposed is not correctly engineered and would not be sufficient to support the vessels that utilize the waterway; and that the proposed project could result in tall ships moored within and/or tall buildings within the FAA helicopter corridor H1. Additional concerns of the public included that the proposed residential structures on Pier 4 and the project as a whole would have a negative impact on the aesthetics of the area, public safety, and wildlife values and would result in increased pollution to an already impaired waterway; that the proposed project would have an adverse impact on cultural and historical resources; that the reconfiguration of the Gangplank Marina would fragment the current community infrastructure; and that the project competes with other uses in the waterway. A summary of public comments is within the administrative record.

(2) The project site was visited by Corps personnel on 10 February 2012 and 9 May 2012, to obtain additional information about the project and to evaluate the proposed project in light of the project setting. Navigational activity within the Washington Channel was also noted. It was recognized, however, given that both site visits occurred on weekdays and not during summer months, that observed conditions with respect to boat traffic, were likely less than what would be expected during other times of the year. During the 10 February 2012 site visit, several unauthorized structures were observed at the Police Pier, Pier 4, the Odyssey Pier (Pier 3), the Gangplank Marina, and at the Fish Market. During the 9 May 2012 site visit, the Corps observed that there were navigation lights marking the navigational fairway underneath the I-395 bridge that were not shown on the applicant's plans. The Corps advised the applicant to show the location of these lights on the project plans.

(3) Issues identified by the Corps during the Corps' permit review process.

In response to the comments and concerns that were received from the public and as a result of the Corps visits to the project site, the Corps identified several concerns associated with the project as shown on the Corps' PN, such as the project's potential impacts on navigation due to proposed pier encroachments as well as line-of-site concerns due to the size and location of the proposed buildings at the channelward end of the piers; impacts to general

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navigation in the area and encroachments into the designated 75-foot setback; potential for increased risk of collisions between vessels (large and small) while navigating in the area; maneuverability of the 240-foot long Odyssey Cruise vessel within the proposed 200-foot wide channel; vessels currently anchoring within the Federal Channel; associated crowding of the waterway and concerns about navigational access to the thalweg beneath the I-395 bridge due to the location of the proposed Market Pier; riparian access; ingress and egress; aesthetics; general environmental concerns; public safety; other public uses of the waterway; and cultural and historic resources. The project as originally proposed would require pile driving for the Transit Pier within the WMATA ZOI for the tunnel located underneath the Washington Channel. Reductions in the width of the waterway and the proposed redevelopment plan could result in buildings and tall vessels being moored in locations that could result in impacts to FAA helicopter corridor H1.

Some of the issues raised by the Corps were resolved by permit plan modifications and by special permit conditions that would: address navigation; require additional coordination between the applicant and the FAA; require completion of a Phase 1A Archaeological Study by the applicant and coordination with the DC State Historic Preservation Office (DC SHPO); reduction of the total square footage impacts of all buildings on piers; deletion of the proposed residential development on Pier 4; reduction in the channelward encroachment of proposed pier extensions; inclusion of a 75-foot buffer for all fixed structures, except the District Pier that would house the Dock Master building and would conform to the 40-foot setback restriction; implementation of a 40-foot buffer for floating structures where encroachments are of concern; and the reconfiguration of the Transit Pier to avoid the WMATA ZOI.

The applicant's representatives and consultants, met with the Corps and Congresswoman Eleanor Holmes Norton, in Washington, DC on 14 May 2012, in order to inform the Congresswoman and the applicant of the Corps' concerns over the project as proposed, including the following: general navigation; the 75-foot setback; safety; project configuration; historic properties; and buildings proposed over navigable waters. The meeting resulted in the applicant agreeing to request a variance to the 75 foot channel setback to allow floating structures and the District Pier to be placed within 40 feet of the Federal Navigation Project; remove the residences and slips from Pier 4; reconfigure the Market Pier; eliminate the proposed extension and 18,000 square foot building on the Pier 3; provide justification for the proposed buildings on piers (District, Transit, CYC & Gangplank) and proposed construction materials to improve transparency; provide a revised design for the proposed mooring field; and provide additional documentation received from the DC SHPO.

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Also, as noted above, navigation lights marking the navigational fairway beneath the I-395 Bridge were not shown on the applicant's plans. As a result of this discovery during the Corps site visit and additional information regarding height and vertical clearance of the I-395 Bridge, additional concerns for navigation of larger vessels to and from the Washington Marina beneath the I-395 Bridge were raised. The applicant revised the configuration and alignment of the Market Pier Docks to maintain a straight navigation path to the marked navigable fairway beneath the I-395 Bridge, to address the Corps concerns.

- (4) Issues/comments forwarded to the applicant. NA/Yes. The recommendations of the DC SHPO and NMFS as well as the concerns of the public were forwarded to the applicant in a letter dated 30 August 2011, by several electronic mail messages, through discussions at meetings and telephone conversations with the applicant. They were further discussed at subsequent meetings with the applicant and their representatives and consultants.
- (5) Applicant replied/provided views. NA/Yes. By letters dated 14 October and 21 December 2011, electronic mail message dated 6 February 2012, mail transmittal dated 17 February 2012, letter dated 30 May 2012, and electronic mail messages including revised plans dated 15 June 2012, the applicant stated the following:
- a. Concerns for navigation: The applicant has indicated that a fundamental goal of the project is to increase public access to the water while still providing an upgraded slip sizes to provide for the requirements of present and future boats. Further the applicant has advanced that in order to provide an adequate number of slips to satisfy the need for dockage in this area, scaled to fit modern boat dimensions, and add public access, and since the Capital Yacht Club and Gangplank Marina occupy 100% of the area along the bulkhead, the existing pier head line in the Washington Channel must be extended channelward from the existing location. Further, the applicant explained, since there is limited space, as a result of the Fish Market located to the North and the Police Pier to the south of the project site that the proposed piers needed to be extended channelward. The applicant stated that the width of the waterway was adequate for safe navigation, based upon the analysis that they performed using industry standards that considered vessel size; maneuverability; speed; effects of wind, waves, and currents; and boat traffic congestion. The applicant also stated that the Southwest Waterfront including the Washington Harbor Federal Navigation

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Project was originally designed to support commercial traffic, and that over time the waterway use has changed to mostly recreational vessels, which would not require a 400-foot wide channel. The plans have been revised to include a 40 to 75-foot setback from the 200-foot wide Federal Navigation Project to allow for more maneuverability within the waterway, as well as a 500-600 foot in diameter elliptical shaped turning area to enable larger vessels to turn around adjacent to the Market Docks and Transit Pier.

- b. General Environmental Concerns: The applicant stated that environmentally sustainable materials and best management practices would be incorporated into the construction plans where possible; that the entire project, including the upland development being done in association with this project, has a sustainable focus and water quality improvement goals; and that marina reconfigurations are designed for operation as a certified clean marina according to United States and international standards. Proposed water quality improvements associated with the upland development include the reuse of the stormwater from 3.2-inch storm events within a majority of the project area in the on-site cogeneration plant and filtration and reuse of stormwater from a 1.2-inch storm event through Low Impact Development measures to promote groundwater discharge and landscape irrigation; and reduce pollution of the Washington Channel. The project would include the retention of approximately 90% of stormwater and includes removal of garbage and debris from stormwater discharges. The project proposal includes increased restroom and laundry facilities to reduce sewage generation on boats; improved sewage pumps at each slip; public sewage pump-outs; the removal of toxic piles within the project area and replacement with more environmentally sustainable materials; sequestering of piles within the existing seawall; and replacement of all open-core Styrofoam floating docks with contained-core floating docks. In addition, the proposal has been revised to include approximately 2,900 square feet of floating wetlands that could help improve water quality within the project area.
- c. Concerns for aesthetics: The applicant stated that the effects on aesthetics and the viewsheds of adjacent property owners was evaluated through Stage I Planned Unit Development (PUD) process, which includes an extensive public review process; that the project went through Stage II PUD review concurrently with the Corps permit review process; and through negotiations the Harbour Square Owners Cooperative and the Tiber Island Condo and Co-Op endorsed the Stage I application. In addition, the applicant has removed the

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proposed 4-story residential development on Pier 4 from the plans and the new proposed building would be no taller than the existing building and would be utilized for commercial use.

- d. In response to concerns for helicopter traffic within the H1 Corridor, the applicant submitted to the FAA an application for approval dated 7 June 2012.
- e. Concerns for anchorage: The applicant stated that anchoring in a Washington Harbor Federal Navigation Project is illegal (Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats; that authority rests with the USCG. The Corps has made the USCG aware of this past and current practice of anchoring in the Federal Navigation Project); however during low traffic volume, the Harbor Master may allow vessels to anchor within the Washington Channel; and that a mooring field/area has been proposed to provide a safe location for boats that do not wish to dock at a pier or boat slip. The applicant also stated that the depiction on the proposed plans would be the maximum possible number of mooring buoys that could be in the water at any given time; that in Phase 1 of the project, the applicant would place mooring buoys between the 7th Street pier and the turning basin only; that additional mooring buoys would be installed if necessary within the waterway as shown on the revised project plans (between the northern end of the turning area and the I-395 Bridge), and that vessels could still anchor near the proposed mooring field in the upper reaches of the Washington Channel. The mooring field/area was reduced by the applicant to a maximum of 15 mooring buoys that could be utilized by 25, 30, 40, or 50-foot long vessels, and the proposed buoy locations were reconfigured to account for swinging of vessels while moored without encroaching into the Federal Channel
- f. Concerns for Cultural and Historical Resources: Through the permit review process, the applicant has worked in coordination with the DC SHPO, and agreed to comply with the recommendations of DC SHPO to continue coordination with DC SHPO through all phases of the project.
- g. Project Revisions: In response to the public and agency comments received in response to Public Notice 11-50, the applicant has revised the work description to include a 40 to 75-foot setback from the Federal Channel for all fixed and floating structures; reduced the area and impacts of in-water bulkhead replacement; reconfigured the proposed expansion of the Gangplank Marina to address current slip

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owner concerns; removed the proposed Pier 3 extensions and the commercial building; removed the proposed 4-story residential development on Pier 4; incorporated a 2-story commercial building on Pier 4; removed additional floating platforms and slips at Pier 4; shortened the proposed Transit Pier length; relocated and reconfigured the proposed Market Pier docks and reduced slip widths to increase navigational access near the 1-395 bridge; removed the day-use dock near the East Potomac Park; and incorporated approximately 2,900 square feet of floating wetlands near the proposed 7th Street pier . The applicant has reduced the linear footage of bulkhead replacement from 2,370 linear feet to 240 linear feet; reduced bulkhead removed any bulkhead fenders below the mean high water level; reduced the total amount of proposed fixed piers from 134,525 square feet to 82,775 square feet; and reduced the total amount of proposed floating structures from 172,255 square feet to 149,895 square feet.

- (6) The following comments and concerns that the Corps received are not discussed further in this document since they are outside the Corps purview. Various members of the public stated concerns that docking fees would reduce the affordability of utilizing the Washington Channel; concerns about affordability of access to the Washington, DC area; concerns for the size and density of buildings in close proximity to the waterfront; that the proposed use of the District Pier could change over time due to lack of management; that the project would completely alter the Southwest Waterfront and the image of Washington, DC; that the proposed residential development on Pier 4 would result in increased traffic in an already busy location; questioned the structural integrity of utilizing a metal bulkhead at this location; that the private property is proposed in a location that is currently utilized by the public; that property values would decrease if the proposed residential development on Pier 4 is constructed; that the proposed residential development and non-public use of Pier 4 could result in user conflicts with recreation; concerns about increased noise and light pollution; that the National Capitol Planning Commission has stated that no large developments or changes should take place until the Monumental Corp Framework Plan, including the "Washington Canal and Channel Study," which would provide a detailed description of how the channel would function in the future; that the DC skyline is considered worldwide to be a symbol of American democracy; that Pier 4 has historically been utilized in the Civil War for soldier transportation and prior to that in the slave trade; and that Pier 4 should be put to a more public use such as a home for the Pearl, a historic DC slave ship.

These concerns are largely issues related to local zoning matters, , traffic, property values, noise, light, aesthetics, public use, etc. and regarding work

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proposed in uplands that are not within the Corps's jurisdiction or scope of review, and are therefore, issues that should be more appropriately be addressed by local officials.

3. Alternatives Analysis.

a. Basic and Overall Project Purpose (as stated by applicant and independent definition by Corps).

Same as Project Purpose in Paragraph 1.

Revised:

b. Water Dependency Determination:

Same as in Paragraph 1.

Revised:

c. Applicant preferred alternative site and site configuration.

Same as Project Description in Paragraph 1.

Revised:

Criteria: The project was evaluated in accordance with the requirements of Corps regulations, the Clean Water Act Section 404(b)(1) Guidelines, and the Corps public interest review process. For the successful redevelopment of the Southwest Waterfront to improve waterway use for recreational and commercial purposes, the area would need to be updated to accommodate the newer design of vessels with greater beams (width) being manufactured presently than the vessel sizes that were used when the existing piers were designed and constructed along with the need for larger piers/boat slips, and more dock space. The project purpose, to provide public access; mooring facilities; shoreline erosion control; improve water quality; support maritime commercial activities; and to provide observation and improved public safety, could not be accomplished without the redevelopment of the area. Several alternatives were considered for this application, including the No Action alternative; repair or in-kind replacement of existing structures; alternative marina layouts and pier dimensions; and alternative locations for the proposed development. The only component which requires that the Corps consider the alternatives in accordance with the Clean Water Act Section 404 (b)(1) Guidelines, relate to the bulkhead repair however, alternatives for other activities and proposed structures were explored by the applicant due to concerns raised by the Corps during the Corps review process.

The present project location was chosen since it is an existing harbor with a dredged navigational channel that has been designated as a port and commercial facility since the 1870's. Due to the existence of three marinas (Washington Marina, CYC, Gangplank); four commercial Piers (Fish Market Piers, Pier 3, Pier 4); and a public safety Pier (Police/Fire Pier), the proposed location is the most

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practical alternative with the least environmental impacts compared to other potential sites in this general area of the Potomac and Anacostia Rivers. Additional information regarding site selection and alternatives can be found in *NAB 2011-00766 Southwest Waterfront Redevelopment "The Wharf": Maritime Alternatives Summary* submitted by Moffatt & Nichol on 15 June 2012.

Issue	Measurement and/or constraint
Waters of the United States	The project would impact an approximate 47-acre site from the Washington DC Fish Wharf to Fort McNair within the Washington Channel identified as tidal waters of the United States

d. Off-site locations and configuration(s) for each.

Off-site locations and configurations are not practicable because the project purpose to provide navigable access and mooring facilities, shoreline erosion control, public and private access to the waterway, improve water quality, and support maritime commercial activities with enhanced security and improved public safety would not be accomplished. Other areas near the project site do not have the depths, available space, or existing maritime activities, including three existing marinas, four commercial piers, and a public safety pier, to expand without increased impacts to the aquatic environment such as dredging and shoreline stabilization.

The construction of the project at an alternative location would likely result in greater environmental impacts in order to accommodate the scope of the development. The overall project, as a whole would not be achievable if located at separate sites if such sites were available.

Additional information regarding site selection and alternatives can be found *Southwest Waterfront Redevelopment "The Wharf": Maritime Alternatives Summary* submitted by Moffatt & Nichol on 15 June 2012.

The present project location is an existing harbor with a dredged navigational channel that has been designated as a port and commercial facility since the 1870's. Off-site alternatives within the Potomac or Anacostia Rivers in Southwest Washington, DC area could require dredging; and increased construction of new structures within the waterway to create a waterway development of the same size and scope. The existence of three marinas, four commercial piers and a public safety pier brands the area as the most suitable for redevelopment as opposed to creating the proposed amenities in Anacostia and Potomac River

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waterfront areas in DC or elsewhere if available and may not have a deep water channel or the space to accommodate the scope of the entire redevelopment project; or areas where the proposed work would not be compatible with land use; or other sites that may not be available for development or available for sale. Due to the present existence of three marinas (Washington Marina, CYC, Gangplank), four commercial Piers (Fish Market Piers, Pier 3, Pier 4) and a public safety Pier (Police/Fire Pier), the lack of available off-site alternatives at this location, and the presence of the Federal Navigation Channel maintained by the Corps, the proposed location is the most practicable alternative with the minimal environmental impacts, including those impacts regulated under Section 404 of the Clean Water Act.

Project elements could be spread out along this area of the Washington Channel in order to reduce the channelward encroachment of project elements; however, the land to the immediate south of the project area is not owned by the applicant and was not transferred to DC through any property instrument or process, and the property further downstream adjacent to the Washington Channel is Federal land, utilized as the Fort Lesley J. McNair Army Post. The waterfront area to the immediate north is utilized by Washington Marina, where there is limited area for expansion due to the close proximity of existing structures to the Washington Harbor Federal Navigation Project. Across the waterway from the project site, the NPS, East Potomac Park property runs the entire length of the Washington Channel, and would not be available for development.

- e. NA) Site selected for further analysis and why.
- f. On-site configurations.

The applicant could choose not to build any structures within the waterway. This alternative would decrease the environmental impact of the project and removal of existing deteriorated structures would decrease the potential hazard to navigation if any debris should break free; however, only removal of existing structures without construction of marina facilities would not accomplish the basic project purpose.

The applicant could have proposed to fill the channel rather than constructing piers on concrete pilings that are spaced apart and would not be considered to act as fill. This alternative would result in increased impacts to the benthic community through shading and burying of the bottom substrate. This alternative would result in increased environmental

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impacts to the waterway.

In addition, the existing deteriorated bulkhead could be replaced by a stone revetment or nonstructural shoreline erosion control structure; however this alternative is not practicable because placement of the stone along the shoreline would interfere with the proposed placement of slips within the marina; would create a larger impact to aquatic resources; and require further encroachment into the channel in order to create the same number of boat slips.

The applicant could propose to replace or repair the entire length of the bulkhead; however, the replacement would result in increased impacts to the aquatic environment.

The applicant has proposed mainly the construction of floating pier structures with exception to construction of several fixed piers; however floating pier structures would have a smaller impact on the benthic community in the project location.

The applicant could repair or replace in-kind the existing fixed and floating piers, and buildings in their current locations; however, the current marina configurations including slip lengths and widths would not accommodate the modern-sized vessels that typically utilize the waterway and would not allow for improved public access or provide improved infrastructure such as modern sewage pump-out stations, restrooms, and laundry facilities.

The applicant has proposed alternative floating and fixed pier as well as building configurations at the currently proposed location, including reconfiguration and expansion of structures to the edge of the Federal channel. However, other alternatives would have a greater impact on navigation; would not align well with the proposed adjacent upland development activities and existing ingress/egress routes; would increase impacts to the aquatic environment; and could be in conflict with the WMATA Zone of Influence for an existing subway tunnel beneath the Washington Channel. Other pier dimensions could have been proposed; however, the current alternative minimizes the potential need for future expansion; provides safe public access in compliance with ADA requirements; and accommodates a variety of vessel types and sizes.

- g. Other alternatives not requiring a permit, including "No Action".

The "No Action" alternative is not practical or reasonable because it would not fulfill the basic project purpose to provide public access;

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mooring facilities; shoreline erosion control; improve water quality; support maritime commercial activities; and to provide observation and improved public safety of the area and public access would not be accomplished. In addition, existing deteriorated structures could continue to pose a hazard to navigation in the future as a consequence of breakage/damage resulting from wind and weather conditions. The in-kind replacement of the existing fixed and floating structures, including buildings and the bulkhead within the boundary of the existing marinas is considered to be the least intrusive alternative; however this alternative, since it would not improve public access or provide additional mooring spaces, does not meet the purpose of the project and is therefore not a practicable alternative. The Washington Channel is a traditionally navigable waterway with a Federal navigation project, and the entire waterbody is under the Corps jurisdiction pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.

h. Alternatives not practicable or reasonable.

Non-structural and other structural forms of shoreline erosion control other than repair of the existing bulkhead are not considered practicable since repair of the existing bulkhead would result in minimal encroachment within the waterway and other forms of shoreline erosion control would require further channelward encroachment of proposed structures to accommodate for the loss of currently usable boat slips adjacent to the existing bulkhead.

Expansion of the existing marinas and structures through construction of structures including piers with reduced channelward encroachment into the waterway would require structures to be built to the north and/or south of the currently proposed project area. These project alternatives are not considered feasible due to the presence of the Washington Marina and I-395 Bridge to the north of the Fish Market and Federally-owned land to the south of the existing Police Pier, where public access is limited.

i. Least environmentally damaging practicable alternative pursuant to the Clean Water Act 404 (b)(1) Guidelines .

The proposed fill activity to replace a portion of the bulkhead and the associated backfill, approximately 18 inches channelward of the existing deteriorated bulkhead is the least environmentally damaging practicable alternative because it would result in the smallest square footage of fill impact.

Overall, the proposed fixed and floating piers to be constructed on pilings,

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would allow public access to more modernized marina facilities within an existing marina/waterfront area and would result in no fill related impacts that would be regulated under Section 404 of the Clean Water Act. Therefore, the project would have limited environmental impacts to aquatic resources in accordance with the Clean Water Act 404 (b)(1) Guidelines.

4. Evaluation of the 404(b) (1) Guidelines.

a. Factual determinations.

Physical Substrate. <input checked="" type="checkbox"/> See Existing Conditions, paragraph 1 <input type="checkbox"/>
Water circulation, fluctuation, and salinity. <input type="checkbox"/> Addressed in the Water Quality Certification <input checked="" type="checkbox"/> The replacement of approximately 240 linear feet of bulkhead approximately 18 inches channelward of the existing bulkhead would likely have little if any effect on water circulation, fluctuation, and salinity since the construction of a replacement bulkhead would not change these characteristics.
Suspended particulate/turbidity. <input checked="" type="checkbox"/> Turbidity controls in Water Quality Certification. <input checked="" type="checkbox"/> See Section 7 below.
Contaminant availability. <input checked="" type="checkbox"/> General Condition requires clean fill. <input type="checkbox"/> See section 7 below
Aquatic ecosystem and organisms: The entire area immediately landward of the bulkhead would be backfilled for development, which includes the clean earth backfill that would be placed behind the 240 linear feet of replacement bulkhead. The backfill is not expected to have a substantial impact on the aquatic ecosystem or on aquatic organisms. See Avoidance and Minimization Information on Pages 12 and 13.
Proposed disposal site: N/A. The project site is not being used as a disposal site for dredged material. The discharge of fill material is associated with backfill for a replacement bulkhead.
Cumulative effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e. <input type="checkbox"/>
Secondary effects on the aquatic ecosystem. <input checked="" type="checkbox"/> See Paragraph 7.e. <input type="checkbox"/>

b. Restrictions on discharges (230.10).

(1) It has been demonstrated in paragraph 3 that there are no practicable

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or less damaging alternatives which could satisfy the project's basic purpose. The backfill for the bulkhead replacement activity is not located in a special aquatic site (wetlands, sanctuaries, and refuges, mudflats, vegetated shallows, coral reefs, and riffle & pool complexes). The proposed activity is not, and does not need to be located in a special aquatic site to fulfill its basic purpose.

- (2) The proposed activity does not violate applicable State water quality standards or Section 307 prohibitions or effluent standards. The proposed activity does not jeopardize the continued existence of federally listed threatened or endangered species and does not affect their critical habitat. The proposed activity does not violate the requirements of a federally designated marine sanctuary.
 - (3) The activity would not cause or contribute to substantial degradation of waters of the United States, including adverse effects on human health; life stages of aquatic organisms' ecosystem diversity, productivity and stability; and recreation, aesthetic, and economic values.
 - (4) Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.
5. Public Interest Review: All public interest review factors have been reviewed in accordance with 33 CFR § 320.4. The PIR in 33 CFR § 320.4 is applicable to the evaluation of all applications for DA permits. The PIR requires the Corps to decide whether to issue a permit based upon an evaluation of the probable impacts, including cumulative impacts, of the proposed activity and its intended use on the public interest. Evaluation of the probable impact which the proposed activity may have on the public interest requires a careful weighing of all those factors which become relevant in each particular case. The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. The decision whether to authorize a proposal, and if so, the conditions under which it would be allowed to occur, are therefore determined by the outcome of this general balancing process. That decision should reflect the national concern for both protection and utilization of important resources. All factors which may be relevant to the proposal must be considered including the cumulative effects thereof. As required by 33 CFR § 320.4(a)(2), the following general criteria would be considered in the evaluation of every application: (i) The relative extent of the public and private need for the proposed structure or work; (ii) Where there are unresolved conflicts as to resource use, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work; and (iii) The extent and permanence of the beneficial and/or detrimental effects which the

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proposed structure or work is likely to have on the public and private uses to which the area is suited.

				+ Beneficial effect
				0 Negligible effect
				- Adverse effect
				M Neutral as result of mitigative action
+	0	-	M	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Conservation.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Economics.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Aesthetics.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	General environmental concerns.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Wetlands.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Historic properties.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fish and wildlife values
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flood hazards.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Floodplain values.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Land use.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Navigation.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shore erosion and accretion.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recreation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water supply and conservation.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water quality.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Energy needs.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Safety.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Food and fiber production.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Mineral needs.
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Considerations of property ownership.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Needs and welfare of the people.

6. Effects, policies and other laws.

a. NA

7. Public Interest Factors. The Corps Regulatory Program considers the full public interest by balancing the beneficial impacts of a proposal against its reasonably foreseeable detrimental impacts. All public interest factors have been reviewed as summarized here. In addition, secondary and cumulative impacts associated with the proposal were considered.

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a. Conservation:

The project area waters would remain the same depth and habitat after project implementation. Under Section 303(d) of the 1972 Clean Water Act, states, territories, and authorized tribes are required to develop lists of impaired waters which describes that these impaired waters do not meet water quality standards set by local jurisdictions. The Waterbody Quality Assessment Report, 2010 Waterbody Report for Washington Ship Channel indicated that the overall status of the waterbody is Impaired for the designated use Protection Of Human Health Related To Consumption of Fish And Shellfish and the designated use group aquatic life harvesting. Within the proposed project area, the waterway is approximately 69 acres. No tidal wetlands exist within the project area. The existing structures cover approximately 4.2% of this area and the proposed project would cover approximately 7.9%. The extent of the encroachment of existing structures into the waterway averages approximately 32% of the width of the waterway and the average extent of the proposed structures would encroach approximately 55% of the total width of the waterway.

The upland development is designed to be a Leadership in Energy and Environmental Design (LEED) Neighborhood Development Gold project under which the rating is based upon credit allocated points based on the relative importance of the building-related impacts that it addresses. The result is a weighted average that combines building impacts and the relative value of the impact categories. The project also includes floating wetlands which would provide some wetland habitat and water quality benefits. Based on the LEED development and with the implementation of modern stormwater management strategies at the upland project site, the reduction of runoff flows and erosive sediments and release of water at non-erosive velocities at strategic locations into the waterway would provide benefits that may facilitate improvement of the habitat of the Washington Channel.

No adverse impacts are anticipated on conservation since the proposed project footprint on the waterway bottom is limited to additional pilings to support the proposed pier facilities, much of which would be floating structures. The pilings would provide additional diverse substrate for sessile vertebrate and invertebrate species to attach to. The in-water structures would not substantially alter existing flow or circulation patterns and those impacts may not be discernible from normal waterway evolution.

The proposed work would result in an 87% increase in structures being located over the waterway from the existing conditions and would result in less open water being available for boating and anchorage. The purpose of the pier construction/expansion is to provide an increase in slips while the mooring area is proposed to more orderly address the needs for providing an

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area for mooring/anchorage outside of the Federal Navigation Project.

b. Economics:

The overall project has been proposed in conjunction with an upland development project along the waterfront directly adjacent to the northern bulkhead of the Washington Channel. "The Wharf" is a public-private partnership between the District of Columbia's Office of the Deputy Mayor for Planning and Economic Development (the applicant) and Hoffman-Madison Waterfront. The applicant proposes to construct a major new mixed-use urban development which would include five new public parks, four new public piers and a half mile promenade.

The project is a result of many years of planning and multi-jurisdictional development, beginning with the Anacostia Waterfront Corporation and the Anacostia Waterfront Initiative that created the vision and environmental guidelines for development in the area. The local and federal public agency participants have included: District Government, Office of Planning, District of Columbia's Office of the Deputy Mayor for Planning and Economic Development, District of Columbia Council, NPS, National Capital Planning Commission, Department of Defense, General Services Administration, Department of the Interior, Homeland Security, House of Representatives, Senate, Office of the Mayor of the District of Columbia, Council of the District of Columbia, US Commission on Fine Arts, and the Office of Congresswoman Eleanor Holmes Norton.

The overall project includes a comprehensive redevelopment of the existing wharf areas and waterfront including expansion of existing marinas; construction of new piers; buildings on piers; and a new mooring area, as well as redevelopment of the adjacent uplands, including construction of new plazas, promenades, shopping areas and restaurants in conjunction with the proposed waterfront development.

The project proposes to provide a location for public transportation services by water taxi at the proposed Transit Pier, which could result in additional revenue and increased tourism to this location. The project would also result in an increase of the local tax income to the District through development of the promenade and waterfront. The project would also likely provide positive and beneficial effects such as increased community access and recreational opportunities for the DC area. The project is expected to have a beneficial effect on the local economy. As a result of project construction, a positive impact on the local economy may be experienced based on the improved and expanded uses of the redevelopment project. It may generate revenue for local supply stores; jobs for local residents; and revenue for local contractors

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and vendors as well as additional revenue from increased tourism along the redeveloped waterfront. Additional economic benefits may be realized by local marinas and yacht clubs through increased number of available slips to be rented.

c. Aesthetics:

No adverse impacts are anticipated on aesthetics and the project would be expected to have a beneficial effect on the visual image of the Southwest Waterfront area. The in-water work for the redevelopment project which includes reconfiguration, replacement and expansion of structures would alter the visual character of the waterway from older marina facilities that extend an average of approximately 32% of the width of the waterway to the new facilities that would extend approximately 55% of the waterway. The existing waterfront area consists of assorted old deteriorated buildings and marina facilities, which may be perceived as dilapidated and unsightly. The originally proposed multi-story new buildings on piers were eliminated from the project, thus addressing some concerns about the viewshed. In comparison to the probable continued degradation of waterfront facilities, the redevelopment project would provide modern development and design dissimilar from the aged residential and commercial developments that already exists in the vicinity of the project area. The work equipment would be visible and the work barge may alter the visual character of the waterway during project construction.

The reconfiguration and replacement of structures and overall development would alter the visual character of the waterway; however, similar commercial developments already exist in the vicinity of the project area. The replacement of the deteriorated structures may enhance their aesthetic value to some; however the extent and perception of the alteration would vary depending upon the aesthetic values of the public, riparian, commercial, and residential property owners, and other individuals using the waterway and visiting the area.

d. General Environmental Concerns:

No substantial or major adverse impacts on the general environment are anticipated to result from the proposed work. The Washington Channel waterway was originally constructed by dredging shallow waters along the bank of the Potomac River to depths of -24 feet at mean low water. East Potomac Park along the western shoreline was created by depositing the dredged material into the Potomac River. The existing Southwest Waterfront development area is deteriorated and outmoded. The upland areas were constructed prior to modern stormwater management standards and the

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facilities in the waterway are deteriorated and do not adequately support use by modern day vessels. The waterway shorelines are protected by old deteriorated bulkheads and there are no tidal wetlands in the waterway within the project area. The impaired Washington Channel waters do not meet DC water quality standards.

The upland development proposes to use best management practices and has incorporated into the construction plans, use of environmentally sustainable materials where possible, and marina reconfigurations are designed for operation as certified clean marinas according to United States and international standards. The proposed water quality improvements include the reuse of the stormwater from 3.2-inch storm events within a majority of the project area in the on-site cogeneration plant and filtration and reuse of stormwater from a 1.2-inch storm event through Low Impact Development measures to promote groundwater discharge and landscape irrigation and to reduce pollution of the Washington Channel. The project would include the retention of approximately 90% of stormwater and includes removal of garbage and debris from stormwater discharges. The project proposal includes increased restroom and laundry facilities to reduce sewage generation on boats; improved sewage pumps at each slip; public sewage pump-outs; the removal of toxic piles within the project area and replacement with more environmentally sustainable materials; sequestering of piles within the existing seawall; and replacement of all open-core Styrofoam floating docks with contained-core floating docks.

In addition, marina reconfigurations, such as that proposed by the applicant, are typically designed to meet certain operational and safety guidelines and for the purpose of being designated as a Certified Clean Marina meaning that the marina has satisfied the standards set by the United States and other countries, and is often used for marketing and for purposes of showing environmental sensitivity.

The proposal was revised to include approximately 2,900 square feet of floating wetland that would be likely to improve water quality within the project area. The proposed floating docks and piles would provide additional habitat to support sessile organisms. The overall redevelopment is expected to improve the environmental conditions of the upland areas and waterway with the implementation of modern stormwater management; use of modern materials; control of potential pollutions sources; encouragement of behaviors that stress sound practices to reduce introduction of harmful materials into the waterway; and removal of old structures made of materials that are detrimental to the environment.

e. Wetlands:

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No wetlands exist within the project site boundaries and therefore, no impacts to any wetland would occur as a result of the proposed project. The proposed floating wetlands, though limited in size, may provide some benefits including water quality enhancement and habitat for fish and other aquatic organisms and to a lesser extent wildlife. It is expected that aquatic invertebrates, zooplankton and phytoplankton would utilize the water column below the floating platforms. The water column in the area of the floating wetlands would likely attract aquatic species, providing hiding areas, shade and possibly nesting areas.

f. Historic Properties:

No adverse impacts are anticipated on historic values as a result of the proposed project. DC SHPO stated that the proposed project would have no effect on historic and cultural resources provided conditions are imposed to avoid an adverse effect. A special condition would be included in the permit, if issued, that, in accordance with Section 106 of the Historic Preservation Act and local historic preservation legislation, the permittee must coordinate plans for future phases of the authorized project; must ensure treatment of the Lunch Room and Fish Cleaning Building/Oyster Shucking Shed proceeds in accordance with required procedures under DC preservation law; and must ensure that the archeological testing, evaluation and identification of appropriate treatments for any National Register eligible resources would be carried out in consultation with the DC SHPO. Consequently, the Corps considers that Section 106 of the NHPA has been satisfied by development and implementation of this special condition.

g. Fish and Wildlife Values:

The proposed project would not impact any listed endangered or threatened species or their identified critical habitat, since no endangered or threatened species or critical habitats are known to occur or exist within the project area. No adverse impacts are expected to anadromous fish spawning and nursery activities since no shallow water habitat is proposed to be impacted. Generally, no notable long-term ecological damage to the waterway is expected to result from constructing a replacement bulkhead and installing pilings for pier facility projects. The disturbance created by the project, including sediment re-suspension, could temporarily disturb fish and wildlife in the area. The proposed project could reduce the benefits and habitat that open water areas provide; however, the impacts are largely considered to be minimal for motile species, since those species can move out of the project area during project construction, and would be expected to return following completion of the project. There would be a loss of approximately 360 square

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feet of open water and associated benthic habitat as a result of the bulkhead replacement, however, the impact to benthic species would also be expected to be minimal, since benthic re-population is expected to occur and the bulkhead and pilings could provide some additional substrate for benthic species. The overall effects of the pile-driving and bulkhead work on the ecosystem and fish and wildlife resources are temporary. The potential resultant increase in recreational activities on the waterway may discourage raptors, wading birds, and other wildlife from frequenting the area; however, roaming species are expected to return during periods of low activity. The fish and wildlife resources could be minimally impacted; however, the impacts are not expected to be permanent or detrimental to the existence of fish and wildlife resources or habitat in the Washington Channel. Notwithstanding the waterway defined impacts, the overall impacts are minimal since the project influence area is small compared to all water habitat areas in the Washington Channel, the Potomac River, and its tributaries.

h. Flood Hazards:

The proposed project would not cause flood hazards since the project is located along an open waterway. The East Potomac Park shoreline is frequently subject to flooding as a result of high water events from the Potomac River. The proposed project is not expected to exacerbate flood hazards in the area, given the location of the project site along the Potomac River.

i. Floodplain Values:

The project is proposed to be constructed in a navigable waterway and the work is not expected to adversely affect any areas designated as floodplain or have an adverse affect on floodplain values. In addition, the work is not expected to contribute to any increases in flood heights or drift as a result of the project construction.

j. Land Use:

Public Law 112-143 included transfer from the United States to the District of Columbia Redevelopment Land Agency title to real property located at the Southwest Waterfront Project site. The existing development at the Southwest Waterfront consists of commercial and residential buildings; restaurants; marina facilities; and marina related buildings. The originally proposed project included the construction of a new four-story residential building on Pier 4 and a large 2-story commercial building at Pier 3, which would have restricted public access to the waterway; would have impacted the viewshed of nearby residential buildings; and would have been in conflict

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with the current land use in that area. The proposed residential and commercial development on piers has been removed from the project. The existing one-story building on Pier 4 and the two-story building on Pier 3 would be renovated within the existing roofline footprint. The Pier 4 building would include the addition of a second story to provide public services and security for cruise vessels that would utilize the Washington Channel. The proposed development would be consistent with the current land and waterway use in providing public services, tourist attractions, and public access to the waterway. The proposed project is anticipated to improve public access to the waterway by improving existing infrastructure and providing additional pier access. The proposed project is compatible with current land uses in the area and no adverse impacts are anticipated as a result of the proposed project.

The proposed residential development has been deleted and the existing one-story building would be renovated within the existing roofline footprint with the addition of a second story to provide public services and security for cruise vessels that would utilize the Washington Channel. The proposed development would be consistent with the current land and waterway use in providing public services, tourist attractions, and public access to the waterway. The proposed project is anticipated to improve public access to the waterway by improving existing infrastructure and providing additional pier access.

The DC Government is the applicant for this project. The proposed upland development is consistent with the land use plans of the DC Government. No land or real estate interests are now owned by the Corps of Engineers at this site, beyond rights of navigational servitude within the channel itself. The NPS East Potomac Park lands would not change with construction of this project; however, the riparian waters of the property would be utilized by the proposed mooring area and the submerged bottom of the Washington Channel waterway is under the jurisdiction of the NPS up to the existing DC pier head line.

k. Navigation:

Background:

The project site is located in an area that has been designated as a port and commercial facility since the 1870's. The Washington Channel was formed in the 1880s as a part of a large reclamation project that created the East Potomac Park, Washington Channel, and Tidal Basin. The intent of the Channel was to provide flood relief, commercial navigability, and public health improvements as a result of increased circulation and the elimination of

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the large tidal flats in the area. In the early 1900s through the 1920s the Washington Channel became a commercial center and established the Municipal Fish Market, freight houses, and train connections to various markets. The Rivers and Harbors Act of August 30, 1935 appropriated funding to dredge the Washington Harbor Federal Navigation Project, a 400-foot wide and 24-foot deep channel, and the work was completed in 1938. It also established three yacht harbors, two wharves for DC use, three wharves for commercial transportation, and the construction of the bulkhead wall.

By the 1940's however, the pressures of the expanding city and alternative modes of trade resulted in the decline of the Southwest Waterfront's population and reputation. The Urban Renewal programs of the 1950's displaced 1500 businesses and 23,000 residents from the area and permanently changed the Southwest Waterfront from a commercial center to a residential area. Presently there is little active trade or commerce that utilizes the Washington Channel. Even today, the Historic Municipal Fish Market receives its goods from overland sources.

The Washington Harbor Federal Navigation Project has not been dredged for over 75 years since the original dredging in 1938, and a review of the historical charts from 1887 until 2011 and the Corps Bathymetric Records from 1940 until 2011 clearly indicates the apparent stability of the channel with little siltation or infill. Presently, there are no resident vessels that require the full authorized 24-foot channel depth and there are no plans to dredge.

Existing Conditions & Setting:

The existing Washington Harbor Federal Navigation Project has a design width of 400 feet, which has remained unchanged since the channel's formation more than 100 years ago. It is maintained by the Corps, but it has never required maintenance dredging. Historically, the channel was sized and designed to accommodate commercial traffic; however, the present primary use is for recreational vessels. Current practices include anchoring of transient vessels within the limits of the Federal Navigation Project and boats tying up to the ends of piers and consequently extending into limits of the Federal Navigation Project, both of which limit the effective navigational width of the channel. Three marinas (Washington Marina, Capital Yacht Club, Gangplank Marina); four commercial piers (Fish Market, Odyssey/Spirit Pier, Pier 4); and a public safety pier (Police/Fire pier) are located within the project site. The Capital Yacht Club currently has 87 slips and the Gangplank Marina currently has 297 slips for a total slip count of 384. Currently the slips at both marinas are 100% leased and there is a waiting list for slips at both marinas.

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The users of the Federal Channel include the Washington Marina, the Municipal Fish Market, the Capital Yacht Club Marina, the Gangplank Marina, Entertainment Vessels (dinner boat cruises) that originate and return from/to Pier 3 and Pier 4, and the Police and Fire Commands are stationed at the Police Pier. Previously, several of the structures associated with these entities are within the original Federal Navigation Project prior to partial deauthorization. A wide variety of boats that have slips presently and transient vessels use the waterway at the project site. The typical recreational vessels using the waters at the project site range in size from approximately 20 feet to approximately 65 feet in length, and beams (width) ranging, respectively from approximately 8 feet to 20 feet.

In addition, other vessels such as the 34-foot wide by 150-foot long Peacemaker tall ship; the 28-foot wide by 87-foot long Patriot II catamaran which conducts tours of the Washington area waterways; the 63-65-foot wide and 240-foot long Odyssey , with an 18 foot air draft (masts down) for clearing the 14th street bridges and 30 feet with her masts up; the Entertainment vessels 40-foot wide by 165-foot long Spirit of Washington with a 56 foot air draft; the 35-foot wide by 175-foot long Spirit of Mount Vernon which is with a 42 foot air draft; the 25-foot wide by 124-foot long National Elite with a 38 foot air draft; and the 18-foot wide by 70-foot long Capital Elite with a 25 foot air draft; and the 104-foot long Sequoia use the waters in the project area.

All of the entertainment vessels that tour the Washington Channel have twin engines which can almost turn around in their own length and are Captained and Crewed by experienced professionals with the ability to navigate the Washington Channel in the new configuration and maneuver into our present and planned docking configuration at Pier 3/4. Specifically all of our vessels except for the 72-foot long Capital Elite are equipped with Bow Thrusters and the new National Elite is also equipped with a stern thruster. Their present locations on piers 3 and 4 would remain as their berths, until full build-out in about 2018 when everything would dock at pier 4. Odyssey currently docks at pier 3/Gangplank pier at the southern end of the project. Their new boat is based out of National Harbor (National Elite), not DC. Spirit of Washington, Spirit of Mt. Vernon, and Capital Elite all depart from Pier 4/Spirit Pier. All depart these piers and travel south, away from the deauthorized portion of the Federal Navigation Project and the project location.

The Washington Channel, from bulkhead to bulkhead ranges from approximately 850 to 925 feet in width at the project location. The distance from the channelward end of the existing piers to the East Potomac Park bulkhead ranges from approximately 560-feet to approximately 670-feet while the distance from the channelward end of the exiting piers to the southern

edge of the federal channel ranges from approximately 384-feet to approximately 544-feet. Water depths in project the area range from approximately 6 feet to approximately 27 feet at MLW overall, and more specifically at depths ranging from approximately 20 feet to 27 feet at MLW along the channelward end of the existing piers along the northern side of the Federal Navigation Project, to a variable depth of approximately 6 to 12 feet MLW within an area located approximately 40 to 50 feet adjacent to the East Potomac Park bulkhead. The NOAA Navigation Chart for this area of Washington Channel identifies a wreck symbol adjacent to the East Potomac Park, however, the available bathymetric data doesn't identify any variation in depths in this area so there may have been a wreck in this area at some time in the past, but it is not clear whether it remains today. The entire Channel has a designated No-Wake zone from the Police Pier to the Washington Marina and harbor regulations for the Washington Channel stipulate 6 miles per hour (MPH). The District of Columbia Harbor Master, who is the officer commanding the Harbor Precinct of the Metropolitan Police Department regulates the operation, navigation, mooring, and anchoring of all vessels within the waters of the District of Columbia. The Washington Channel is also used for anchorage by transient vessels that do not wish to dock, or are not able to get dockage space at local marinas. However while there is limited area available to accommodate anchorage of boats, in the past boats have used the channel for the purpose of anchorage.

With respect to transient vessel use of the waterway, in 2011 the Gangplank Marina accommodated 134 transient boaters. The Capital Yacht Club has 7 designated slips for transient boaters at the dock T-heads which are typically full for the 8-month boating season and the Harbor Master reported approximately 90 vessels requested anchorage for greater than 24 hours in 2011.

Proposed Project Information

Several objectives of the project, as advanced by the applicant, were to provide improved public access to the water, increase slip capacity, and upgrade slip sizes to more easily accommodate newer, more modern boats, as well as boats designed in the future, with varying lengths and beams (widths), and thereby increase the versatility of the slips. The present dock system construction, layout, slip mix, and length/width ratios of the slips do not meet the requirements of modern boats and marina operators/tenants.

The applicant has indicated that a fundamental goal of the project is to increase public access to the water while still providing an equivalent number but upgraded slip sizes to provide for the requirements of present and future boats. Further the applicant has advanced that in order to provide an equal number of slips, scaled to fit modern boat dimensions and add public access,

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and since the Capital Yacht Club and Gangplank Marina occupy 100% of the area along the bulkhead, the existing pier head line in Washington Channel must be extended channelward from the existing location. Further, the applicant explained, since there is limited space, as a result of the Fish Market located to the North and the Police Pier to the south of the project site, that the proposed piers needed to be extended channelward. The applicant stated that the width of the waterway was adequate for safe navigation, based upon the analysis that they performed using industry standards that considered vessel size; maneuverability; speed; effects of wind, waves, and currents; and traffic congestion. The applicant also stated that the Southwest Waterfront including the Federal Navigation Project was originally designed to support commercial traffic, and that over time the waterway use has changed to mostly recreational vessels, which would not require a 400-foot wide channel. The plans have been revised to include a 40 to 75-foot setback from the 200-foot wide Federal Navigation Project to allow for more maneuverability within the waterway.

The applicant has advised that the alignments of piers and docks were established and designed based on complimentary positioning with the upland development; existing access/egress points and public transportation nodes; existing infrastructure such as the WMATA subway lines; and to ensure continued navigable access under the I-395 Bridge; and that fixed pier dimensions (lengths and elevations) were established to accommodate the widest variation in boat lengths, boarding levels, and to fully utilize the area outside of the Federal Navigation Project to allow each pier to have multiple uses, operational flexibility, and minimize the requirement for additional construction or expansion in the future, and also to minimize the total number of piles needed and the impact of their footprint on the channel bottom and associated mud-line disturbances and water flow impacts beneath the structures. The width of each pier is the minimum width that can support the pier's functions while maintaining safe pedestrian, ADA, vessel support and emergency access. Floating dock dimensions were established using industry standards and finger piers were designed to require the minimum number of piles to reduce the impact of their footprint on the bottom and associated mud-line disturbances and water flow impacts beneath the structures.

The applicant has advanced that the total amount of water coverage and general extent of the in-water construction is considered to be the minimum required to meet the project goals. Finally, the applicant advised that while the project was designed in order to meet both the basic and overall project purposes, its design was also highly dependent and predicated upon Federal de-authorization of a 200-foot wide 17.84-acre area of the Washington Channel and subsequent extension of the existing piers to the edge of the channel setback requirements.

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The applicant stated that, not only would the proposed configuration of the project assist in the day-to-day command and control of the Washington Channel, but the project would also provide additional safety benefits to the general public and other benefits as follows:

For the District Pier,

- Larger vessels can be accommodated

Vessels considered for this pier design include those which commonly attend Tall Ship and Military “parade of boats” type events. These vessels include Class A and Class B Tall ships, military vessels, and other miscellaneous vessels (fire boats, police boats, et cetera). For the District Pier, the vessel size is primarily constrained by the draft of the navigable channel (24 feet) and the air draft of the Governor Harry Nice Bridge (135 feet). Even with these limiting factors, there are numerous vessels in the Classes discussed above which could berth at the District Pier.

Table 1 presents a list of vessels attending the 2012 OPSAIL events in Norfolk and Baltimore. The vessels in the table have been chosen based on meeting the draft and air draft criteria, and the list is arranged in order of decreasing overall length (LOA). The actual length of the ships could be greater if the vessels chose to report LOA from stern to bow, instead of “sparred length” of the vessel. Table 2 presents the Average and Median dimensions of the vessels. It is apparent that length of the District Pier should be maximized to accommodate the largest variety and combination of ships that are likely to visit.

Table 1: Vessels Participating in 2012 Operation Sail Events

NAME	TYPE	LOA (ft)	BEAM (ft)	DRAFT (ft)
HMCS Ville de Quebec	Canadian Navy Frigate	440	54	23
HNoMS Thor Heyerdahl	Naval Vessel - Frigate	437	55	16
HMCS Iroquois	Tribal Class Destroyer	426	50	15
BNS Independencia	Naval Vessel – Frigate	424	44	18
BAP Villavisencio	Naval Vessel - Frigate	371	37	12
Cuauhtemoc	Tall ship – Barque	297	39	18
Gloria	Tall ship – Barque	249	35	16
Dewaruci	Tall ship – Barquentine	196	31	16
HMCS Goose Bay M-707	Naval Coastal Defense Vessel	182	37	11
HMCS Moncton M-708	Naval Coastal Defense Vessel	182	37	11
Almirante Didiez Burgos	Dominican Navy Patrol	180	37	15

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Bounty	Tall ship – Full Rigged Ship	180	30	13
Picton Castle	Tall ship – Barque	179	24	15
USS Constellation	Tall ship – Frigate	179	41	21
USS Monsoon	Cyclone class Coastal Patrol Boat	179	25	8
Gazela	Tall ship – Barquentine	177	28	17
Pride of Baltimore II	Tall ship – Square Topsail Schooner	157	26	13
Kalmar Nyckel	Tall ship – Full Rigged Ship	141	25	13
American Rover	Tall ship – Schooner	135	24	9
Virginia	Tall ship – Schooner	126	24	12
Lynx	Tall ship – Square Topsail Schooner	122	23	9
A.J. Meerwald	Tall ship – Schooner	115	25	6
Spirit of Bermuda	Tall ship – Bermuda Sloop	112	23	10
Alliance	Tall ship – Schooner	105	20	8
Lady Maryland	Tall ship – Bay Pungy Schooner	104	22	7
Sultana	Tall ship – Square Topsail Schooner	97	17	9
Godspeed	Tall ship – Barque	88	15	7
Hindu	Tall ship – Schooner	79	-	9
Sigsbee	Tall ship – Chesapeake Bay Skipjack	76	17	3
Wolf	Tall ship – Topsail Schooner	74	15	8
Appledore V	Tall ship – Schooner	68	14	9
Elf	Tall ship – Sailing Yacht	68	12	-
Witchcraft	Tall ship – Sailing Yacht	66	13	6
Adventurer	Tall ship – Schooner	65	-	8
Serenity	Tall ship – Schooner	65	-	6
Farewell	Tall ship – Schooner	47	11	5
Celebration	Tall ship – Schooner	40	-	-

Table 2: Average and Median Vessel Length for 2012 Operation Sail Events

	Average (ft)			Median (ft)		
	LOA	Beam	Draft	LOA	Beam	Draft
Historic	141	26	11	119	24	9
Military	406	56	e	432	50	19
All Vessels	229	37	14	179	32	13

- **Ease of Berthing Operations**

The longer pier allows a greater bow to stern clearance between berthed vessels. This increased clearance is beneficial to berthing operations for large vessels because auxiliary tugboat support would not be available at the District Pier. This provides the Captains with increased area to maneuver into and out of the berths. In addition to a larger maneuvering area, the increased clearance decreases the likelihood of crossing berthing lines. This provides a safer and easier berthing process, and can help prevent multiple lines on a single bollard. Generally, the increased clearance reduces the risk of public injuries due to line failure and assists in preventing unnecessary damage to the vessels or the Pier structure. The size of the pier directly relates to the space available for the ship's crews to safely handle, recover, and secure the ship's berthing lines.

- **Increased visibility for the Dock Master**

The current layout provides the Dock Master with suitable distance from shore to permit unobstructed observation of the channel. The line of site provided by having the Dock Master Building 75 feet from the navigable channel facilitates; observation and security over both the vessels passing through the channel and the vessels in their berths; and the visibility available to the Dock Master would provide a safer and more secure waterfront and channel.

- **Public Benefits**

The general public also benefits from a longer pier. The longer Pier would provide a better view of the local waterfront and offers a more scenic view to the average visitor, whether they are looking towards the water, East Potomac Park, or back towards the Southwest Waterfront. From this distance, the public would be able to see the Washington Monument, Jefferson Memorial, and Capitol Building. The increased distance over the water also increases the square footage of the pier, meaning that the pier would be less crowded during events and other high-occupancy times. This provides a safer environment and would make the average visitor feel more secure, increasing the tourist draw of District Pier. In the case of an upland emergency, natural disaster, or terrorist attack on the upland, a longer and larger pier would provide more distance from the land and a larger staging area for rescue and evacuation purposes.

The applicant also cited the following as benefits of the overall project:

- **Navigation benefits of project**

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- Fairways and slips are sized for vessels to improve navigation access and safety
- Controlled and defined mooring area to prevent reduction of navigability in the channel
- Solar powered navigational lighting
- Specific Boater Benefits
 - Additional 125+ transient boating slips for vessels up to 300 feet
 - Dedicated recreational small boat access
 - Increased public access to the water via four fixed public piers
 - Dedicated low cost mooring field that prevents anchor dragging, navigational conflicts, illegal discharges, and environmental damage
 - Sewage pump-out facilities for all transient and permanent slips.
 - Gasoline and diesel fuels sale
 - Upgraded electrical and fire-fighting capability on all docks
 - Upgraded winterization of docks
 - ADA access to all marinas and piers
 - Increased opportunities for community-based and non-profit boating programs
 - Improved water quality. All marinas to be operated as “Designated Clean Marinas”
 - Enhanced recreational, cultural, and education opportunities for boaters
 - Upland provides a unique and interesting destination for visiting boaters with dedicated maritime events and attractions
 - Increased connectivity between local marinas and harbors via ferry and water taxi services
 - Enhanced operational facilities for dinner cruise boats
 - Increased safety and security via the Dock Master’s oversight and program
- Waterside Benefits of Marina Operations
 - Designed and operated as certified clean marina according to US and International Standards

Federal Action to Deauthorize a Portion of the Washington Harbor Federal Navigation Project:

Since the overall redevelopment plan for the area necessitated that the proposed piers extend into the limits of the existing authorized Washington Harbor Federal Navigation Project, deauthorization of a 200-foot wide portion of the Federal Navigation Project was proposed, via administrative change

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and a corresponding expansion of the present pier head line through the District Department of Environment (DDOE). This deauthorization was approved by the United States House of Representatives in the 111th Congress and supported by the U.S. Army Corps of Engineers, the USCG and the U.S. Navy(USN); however due to the Congressional calendar it never came up for a vote in the Senate. However, the deauthorization was re-introduced in the 112th Congress on February 15th as H.R. Bill 723, which was referred to the Committee of Transportation and Infrastructure.

Since the requirement to maintain the Washington Harbor to its' original design width for commercial purposes was no longer warranted and the determination that reduction in width for 400 feet to 200 feet would be sufficient to support navigation, the Corps, USCG, and the USN supported the proposed deauthorization which encompassed a riparian waterway/channel area of approximately 17.8 acres. HR 2297 was passed by the Senate on 29 March 2012, and was passed by the House on 26 June 2012. Congress enacted House Bill 2297 Sec. 4, on 26 June 2012, to reduce the Federal Navigation Project from the authorized width of 400 feet to 200 feet.

The Enrolled Bill H.R.2297 to promote the development of the Southwest waterfront in the District of Columbia (DC) and for other purposes, passed both the House and Senate, One Hundred Twelfth Congress of the United States of America, and included transfer from the United States to the District of Columbia Redevelopment Land Agency title to real property located at the Southwest Waterfront Project site and deauthorization of a portion of the Project For Navigation, Washington Channel, District Of Columbia. It was presented to the President on 29 June 2012. President Obama signed Bill H.R.2297 on 9 July 2012 and it became Public Law 112-143 thereby approving the de-authorization of a portion of the Federal Channel project limits as specified below.

H. R. 2297 SEC. 4. PROJECT FOR NAVIGATION, WASHINGTON CHANNEL, DISTRICT OF COLUMBIA the portion of the project for navigation of the Corps of Engineers at Potomac River, Washington Channel, District of Columbia, as authorized by the Act of August 30, 1935 (chapter 831; 49 Stat. 1028) is deauthorized as described: the de-authorized portion of the project for navigation is as follows: Beginning at Washington Harbor Channel Geometry Centerline of the 400-foot-wide main navigational ship channel, Centerline Station No. 103+73.12, coordinates North 441948.20, East 1303969.30, as stated and depicted on the Condition Survey Anacostia, Virginia, Washington and Magazine Bar Shoal Channels, Washington, DC, Sheet 6 of 6, prepared by the United States Army Corps of Engineers, Baltimore District, July 2007; thence departing the aforementioned centerline traveling the following courses and distances: N. 40 degrees 10 minutes 45

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seconds E., 200.00 feet to a point, on the outline of said 400-foot-wide channel thence binding on said outline the following 3 courses and distances: S. 49 degrees 49 minutes 15 seconds E., 1,507.86 feet to a point, thence; S. 29 degrees 44 minutes 42 seconds E., 2,083.17 feet to a point, thence; S. 11 degrees 27 minutes 04 seconds E., 363.00 feet to a point, thence; S. 78 degrees 32 minutes 56 seconds W., 200.00 feet to a point binding on the centerline of the 400-foot-wide main navigational channel at computed Centerline Station No. 65+54.31, coordinates North 438923.9874, East 1306159.9738, thence; continuing with the aforementioned centerline the following courses and distances: N. 11 degrees 27 minutes 04 seconds W., 330.80 feet to a point, Centerline Station No. 68+85.10, thence; N. 29 degrees 44 minutes 42 seconds W., 2,015.56 feet to a point, Centerline Station No. 89+00.67, thence; N. 49 degrees 49 minutes 15 seconds W., 1,472.26 feet to the point of beginning, the area in total containing a computed area of 777,284 square feet or 17.84399 acres of riparian water way.

The effect of this action means that the deauthorized portion of the Federal Navigation Project no longer has constraints preventing any construction activities, which has been the case since the project was authorized in 1935. This action also means that the Federal government, through the Corps, no longer has the responsibility to provide maintenance dredging of the deauthorized portion of the waterway. Further, the effect of the deauthorization means that the Corps could consider applications proposing structures or work within the deauthorized area, such as has been proposed in this subject application, whereas previously, the existence of the Federal Navigation Project required the Corps to reject from consideration and permit decision any permit applications proposing this type of work in this area. However, regardless of the deauthorization action, the Corps retains responsibility for preventing obstructions to navigation on the waterway and within the area as deauthorized.

While the Washington Harbor Federal Navigation Project was reduced to 200 feet in width by Bill H.R.2297, the Corps has imposed a variable 40 to 75 foot setback from the edge of the Federal Project channels for any structures that may be proposed adjacent to an authorized Federal Navigation Project. The setback criteria is identified in the Memorandum for Record, dated 10 February 2011, Subject: U.S. Army Corps of Engineers, Baltimore District, Setback Guidance for Structures along Federally Authorized Channels, and is intended for several purposes, including: to ensure that structures adjacent to the channel would not suffer undermining or instability due a slope being generated from maintenance dredging to the authorized project depth; to ensure that any maintenance dredging can be performed if needed without structures affecting the dredging effort; and finally to more greatly ensure that general navigation, and navigational safety are maintained on the waterway as

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well as to minimize potential conflicts and to prevent obstructions or hazards to navigation resulting from proposed structures or vessels using the waterway.

Project Revisions Since Publication of Corps Public Notice 11-50

15 June 2012 Revisions

In an effort to address navigation and other concerns raised by the Corps and in response to comments from members of the concerned public, the applicant submitted revised plans on 15 June 2012, which showed reductions in the channelward encroachment of the piers as proposed originally by PN 11-50. The plan also includes a mooring area to provide transient boaters with a location within the Washington Channel that is outside of the Federal Navigation Project.

The applicant revised the work description to provide for a 40 to 75-foot setback between all proposed fixed and floating structures and the edge of the 200-foot wide Federal Navigation Project; reduced the area and impacts of in-water bulkhead replacement; re-configured the proposed expansion of the Gangplank Marina; removed the proposed 4-story residential development on Pier 4; incorporated a 2-story commercial building on Pier 4; removed additional floating platforms and slips at Pier 4; shortened the proposed Transit Pier length; relocated and reconfigured the proposed Market Pier docks, reduced slip widths, and reduced pier lengths to increase navigational access near the 1-395 bridge; removed the day-use dock near the East Potomac Park; and incorporated approximately 2,900 square feet of floating wetlands near the proposed 7th Street pier. The applicant also reduced the linear footage of bulkhead replacement from 2,370 linear feet to 240 linear feet; reduced the total amount of proposed fixed piers from 134,525 square feet to 82,775 square feet; and reduced the total amount of proposed floating structures from 172,255 square feet to 152,565 square feet.

The proposed Pier3 as revised relocates all of the entertainment cruises away from the Police Pier and prohibits vessel mooring on the Police Pier side of Pier 4 per the request of the Metropolitan Police. Navigational lighting is proposed to be placed at the outer edge of Pier 4 docks. As required by the USCG, the District Pier would be strictly marked with no less than three slow flashing amber (yellow) lights of sufficient intensity to have an operational range of one nautical mile, each spaced approximately 100 feet apart.

The total number of proposed slips by this revision was 515, (409 slips, 83 side ties and 23 end ties). The side ties and end ties were calculated assuming a slip length of approximately 50 feet. The proposed project would result in an

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increase of 131 slips which is an increase of approximately 34% compared to existing. There is a combination of single-loaded and double-loaded slips in the proposed plan; the total slip number accounts for the double-loaded slips.

The applicant's revised proposal also included a mooring field/area located within two areas of the waterway and within the 75 foot setback line of the Washington Harbor Federal Navigation Channel adjacent to the East Potomac Park bulkhead. Water depths in this area range from approximately 6 feet to 25 feet. The mooring field/area is separated by the turning area and encompasses approximately 110,700 square feet, (2.54 acres), located within an area between the East Potomac Park bulkhead and approximately 82-87 feet channelward of the existing bulkhead, and would include installation of 15 single-mooring buoys. This mooring field/area would accommodate 15 vessels ranging in size from 25 to 50 feet in length spaced approximately 85 to 110 feet apart.

The applicants revised plans dated 15 June 2012 included an elliptically shaped turning area, with a diameter of 500 to 600 feet located adjacent to the Market Pier Docks, the Transit Pier, and the District Pier, that was made part of the overall project design to facilitate larger vessels, such as cruise ships, tall ships, catamarans etcetera to more easily and more safely maneuver within the upper reaches of the Washington Channel.

Based upon the expected future navigational uses in the waterway, the applicant has proposed to create a new Dock Master Program located at the Dock Master station on the District Pier. The location and elevation of the building were designed to facilitate observation and control of the Washington Channel and turning basin. The Dock master Station was purposely designed to be of glass, and to be outfitted with large windows to facilitate visibility from and through the building. There would also be visibility around and below the District Pier for boats that are leaving the pier area and entering the channel or vice versa. Therefore, the location of the Dock Master Station would enable an optimal vantage point and clear view for personnel to observe the waterway, including the marinas, mooring field/area, turning area, and in general the boating activities on the waterway to supplement on-water patrols. The duties of the Dock Master would include working in conjunction with the Harbormaster, the Harbor Precinct of the Metropolitan Police Department and the USCG, all located at the Police Pier, to provide additional safety, on-water assistance, and observation of the waterway as well as welcoming visiting vessels; assigning permanent and transient slips; enforcing mooring area stay limits; enforcing on-water policies and regulations such as enforcement of the established the "No Wake" and "6 MPH" speed limits; and monitoring potential fuel and oil discharges. Overall, while the DC Harbormaster has jurisdiction over the water in the Washington Channel, and

the Dockmaster would assist the Harbormaster with maintaining safe boating conditions in the area.

Additional Corps Navigation Concerns at the I-395 Bridge

The Corps identified on 16 July 2012 another concern from a navigation standpoint regarding the relationship/closeness (approximately 225-feet) of the proposed Market Docks to the I-395 Bridge and the presence of an established lighted navigation channel under the I-395 Bridge. This established channel, which has a 93 foot wide horizontal clearance and a 37 foot vertical clearance at MHW, leads upriver adjacent to the Washington Marina and points further up-river near the tidal basin, and the channel is marked with aids to navigation (green and red) on the bridge piers, signifying a designated USCG channel for purposes of navigating under the bridge. In effect the construction of the bridge with a corresponding 37 foot vertical clearance as the highest point of the bridge over the waterway established this as the location of the channel for purposes of navigating under the bridge. This channel while complimentary to the Corps Federal Navigation Project, is not a part of that designation but was established in the location as it exists due to the presence of the Federal Navigation Project and the deep water it provided for navigation. Accordingly due to the applicant's Market Pier and Docks design and its' close proximity to this channel at the I -395 bridge, coupled with the adverse effects to navigation that the Market Docks would cause to vessels trying to negotiate past and around the Market Docks before trying to pass under the I-395 bridge, the Corps advised the applicant that the Market Docks could not be approved as proposed by the 15 July 2012 plans. Accordingly the applicant further revised the Market Docks by relocation and redesign away from this channel.

20 July 2012 Revisions

As a result of the Corps navigation concerns regarding the Market Docks as shown by the 15 July 2012 plans, and discussed above, the applicant provided revised plans dated 20 July 2012 to relocate and reconfigure the Market Docks to address the Corps' navigation concerns. The revised plans reduced the total number of proposed slips from 515 to 494 slips (385 slips, 88 side ties and 21 end ties). The side ties and end ties were calculated assuming a slip length of approximately 50 feet. The proposed project would result in an increase of 110 slips which is an increase of approximately 29% compared to existing. There is a combination of single-loaded and double-loaded slips in the proposed plan; the total slip number accounts for the double-loaded slips. The applicant's 20 July 2012 plans eliminated all "Pitchfork Docks," which is the term used to describe finger piers where boats are required to back in and out perpendicular to the inner channel flow.

The overwater coverage of existing structures in the project area is approximately 125,860 square feet. The overwater coverage for the proposed full build-out of the piers and docks is 232,670 square feet, which is an 85% increase from the existing overwater coverage. The proposed project includes approximately 82,775 square feet for fixed piers and 149,895 square feet for floating docks.

Navigation and Safety Concerns:

Comments and concerns were received from members of the concerned public, associated with the proposed project, both originally and as revised. The objections and concerns over the proposed work have centered around navigation, safety, lack of anchorage areas, conflicts over resource use (use of navigable waters), and private gain/ use of public waterway for commercial purposes.

Generally the comments and concerns regarding navigation were that the extension of existing piers; expansion of existing marinas; construction of new piers; and the reduction of the width of the Washington Harbor Federal Navigation Project from 400 feet to 200 feet would adversely impact navigation, and adversely affect efforts to effectively and efficiently evacuate people during a public emergency such as a terrorist attack or other disaster; and that a harbor traffic study survey should be completed by the applicant to determine the appropriate maintained channel width for the traffic volume in the Washington Channel.

Further, it is was expressed that the proposed mooring field/area would be inadequate for the size and type of vessels that may wish to moor in the area since the originally proposed length of vessels was 30 feet whereas the average size of vessels that utilize the Washington Channel for mooring/anchorage are 40 to 60 feet; and that the reduction of the Channel would force large vessels including tall ships and yachts to dock in close proximity to the FAA established helicopter corridor H1.

Concerns were also expressed regarding the lack of anchorage areas in the applicant's proposal for sail boats and other vessels, including vessels that from around the world that visit the "Nation's Capital", and would prefer to anchor within the Southwest Waterfront area and outside of the Washington Channel, than moor their boats at marina slip nearby.

Comments/Views from the National Park Service (NPS), USCG, and Corps' Navigation Branch (CENAB-OP-N):

National Park Service (NPS)

The NPS is the owner of East Potomac Park and the bottom of the Washington Channel, up to the edge of the Washington DC Pier head line. The applicant has received a letter of support from the NPS for the placement of the moorings on NPS property. There is very limited potential for the NPS to develop docks, piers, or marinas on their side of the Washington Channel due to the 75-foot setback for the Federal Channel. In the event that the NPS develops docks or piers or requires access to maintain their shoreline and the moorings interfere, the moorings would be removed.

USCG

The USCG did not respond initially to the Corps Public Notice; however the Corps contacted them to confirm their position by telephone subsequent to the Public Notice comment period. The USCG Water Management Section advised that since there were no USCG Aids to Navigation in that area of the Washington Channel, they had no concerns with respect to the project from a standpoint of USCG Aids to Navigation. Further The USCG advised that the applicant would need to coordinate with them regarding the mooring buoys since these would need to be reviewed and approved by the USCG through a PATON application process, prior to installation of these moorings. Also the USCG advised that the applicant would need to coordinate with them before work commenced so that an LNM could be published, and to ensure that all aspects of the project had proper USCG approvals, such as the lights that are proposed for the District Pier.

The Corps also contacted the USCG Bridge Section concerning the impact of the Market Pier and Docks, as shown by the 15 June 2012 revised plans, and their relationship and proximity to the I-395 Bridge and specifically to the fairway that runs under the bridge. The Corps had identified according to the NOAA navigation chart for that area, that there was a notation on the chart that identified a 37 foot vertical clearance at MHW, and a horizontal clearance of 93 feet, indentifying that area as the fairway for navigation which was established when the I-395 Bridge was approved in the past. The USCG Bridge Section agreed with the Corps and advised that they too had concerns and both the Corps and the USCG concluded that the Market Pier and Docks as proposed were unacceptable with regards to impacts to navigation and safety. Accordingly, the Corps advised the applicant of these concerns and the applicant provided revised plans dated 20 July 2012 which showed a relocation/reorientation of the Market Pier and Docks to address the navigation and safety impacts that had been identified by both the Corps and the USCG. The Corps provided the applicant's revised plan dated 20 July 2012 to the USCG Bridge Section for review and comment, and the USCG

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advised that they no longer had objections to Market Pier and Docks as revised. The USCG requested that the Corps assist them in reaching out to the owner of the bridge, possibly through the applicant, to get all appropriate markings on the bridge, including a gauge for telling boaters the stage of the tide with respect to the water level and available vertical clearance at the bridge for purposes of helping the boating public when they are traversing the waters under the bridge. The Corps advised the USCG that we would make the applicant aware, and request that they work with the DC Government and others to address this matter. Although this water level gauge is outside the Corps purview, and doesn't directly factor into the Corps permit evaluation, it is none the less an important item that needs to be addressed from a standpoint of boater safety. We suggested that the applicant make the DC Harbor Master aware of the USCG concern, and the applicant agreed to do so.

Corps' Navigation Branch (CENAB-OP-N):

The CENAB-OP-N previously recommended a 75-foot setback requirement in response to the structures originally proposed adjacent to the Washington Channel and shown by PN # 11-50. In response, the applicant requested that CENAB-OP-N consider granting a variance to the 75-foot setback from the authorized Washington Federal Navigation Project in view of the revised plans and requested that the setback be reduce from 75 feet to 40 feet for floating structures (piers, docks, and mooring buoys) due to their ease of removal) and for the District Pier, which requires close proximity to the channel edge to provide better waterway observation by the Dock Master.

Applicant's Response to the Corps Navigation Branch regarding Setback and District Pier Design

Variance to 40 Foot Setback

The applicant provided the following justification why the District pier should be allowed to extend into the 40-foot setback: due to its singular role as a large ship berthing pier and as the location for the Dock Master's office, since as designed in the revised plans it is configured to provide a 40-foot setback from the existing Federal Navigation Project, giving the Dock Master Building an actual 75 feet of clearance from the channel. The applicant further advised that, not only would the proposed configuration assist in the day-to-day command and control of the Washington Channel, it also provided additional safety benefits to the general public.

The applicant also provided justification in support for the design and location of the proposed District Pier. The applicant advised that the District Pier is considered the gateway to the District and would provide permanent and

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transient berthing for the flag ships of foreign countries, tall ships, military vessels, antique/historic ships, and other larger display ships; has been reduced from 490 feet long to 456 feet long to provide additional navigational safety and to conform to the 40-foot setback; is 55 feet wide and has an area of 24,888 square; is supported by approximately 124 piles and has a deck at elevation varying from +11 feet to +8 feet DCDPW; has a 2,147 square foot (footprint) Dock Master Building proposed to be located on the outer end of the pier; that the building supports the maritime commercial activities by providing a security check point, ticketing, passenger staging, and restroom areas; functions similar to the combined functions of an airport conning tower, communications center, security checkpoint, and boarding gates; that adjacent to the inshore side of the building is a multi-level staging and boarding area intended to facilitate the embarkation of passengers to and from a range of vessels with differing freeboards; that the Dock Master's office is purposely located at the offshore end of the building and would be outfitted with large windows to allow a clear view of the channel as well as the marinas, the mooring field/area, turning area, and boats entering and leaving the piers and docks allowing the Dock Master to assist in the coordination of the response to Fire, Police, and Homeland Security emergencies; that the building would provide a security check point and screening protocols at a controlled access point from the land to the water as required by the Maritime Transportation Security Act (MTSA) of 2002; and that the size of the security checkpoint area would be based on the extent of the screening activities required during the highest USCG MARSEC alert levels. (Note that specific information within the MARSEC Directives is designated sensitive security information (SSI) and is not subject to public release; however, there is a requirement to provide a security checkpoint and screening area with a secured access corridor.)⁶. The applicant further advised that the Dock Master Building has a staging, reception and comfort area for the ship's crew for use upon arrival/departure and be used as a gathering place for the visitors to the ships on display; and that the location and elevation of the building was specifically designed to facilitate observation and control of the Washington Channel turning area and other areas of the waterway; that a large portion of the building was designed to be glass to facilitate visibility from and through the building thereby providing visibility around and below the pier for boats that are leaving the pier area and entering the channel.

⁶ Maritime Security Directives (MARSEC Directives) 104-1, 104-2, 104-3, 104-4, 105-1, 105-2, 105-3 and 106-1; Performance Standards for Cruise Ships and Facilities, Passenger Vessels/Ferryboats and Facilities, Cargo/Other Commercial Vessels and Facilities, Mobile Oil Drilling Units/Off-Shore Supply Vessels, and Outer Continental Shelf (OCS) Facilities. <https://www.federalregister.gov/articles/2003/12/22/03-31390/maritime-security-directives-marsec-directives-104-1-104-2-104-3-104-4-105-1-105-2-105-3-and-106-1#p-3>

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With respect to justification to allow floating docks to extend into the 40-foot setback, the applicant advised that floating docks are typically retained by guide piles that are of modular design, and that if the floating docks were found to interfere with navigation or the ability to maintain the Federal Navigation Project, they could be easily removed.

Variance to the 75 foot setback

Accordingly, the applicant requested that the Corps consider a variance to the 75-foot setback from the authorized Washington Harbor Federal Navigation Project and requested that the setback be reduced from 75 feet to 40 feet for floating structures (due to their ease of removal) and the District Pier, both as described and discussed above. The applicant suggested that the navigability of the Channel at 200 feet wide has been demonstrated through a variety of published guidelines as well as through the support of the Harbor Master and the existing commercial, recreational, and live-aboard users located in the area. In addition the applicant advanced that since the Federal channel has not been dredged for over 75 years and a review of the historical charts from 1887 until 2011 and the USACE Bathymetric Records from 1940 until 2011 demonstrates the stability of the channel; that since at present there are no resident vessels that require the full authorized 24 feet channel depth, and there are no plans to dredge; plus given that the Government has the sovereign power, by way of Navigation Servitude, to remove any structures, within the Servitude, at the owner's cost, if deemed necessary in the interest of the federal government, for channel maintenance, or other purposes, including where structures create unreasonable obstructions to navigation. Therefore the applicant concluded that there were no risks to the Government's ability to address any problems in the future with respect to navigational impacts if the setback were approved

The applicant advanced several justifications in support for the position to request that the Corps consider and approve for this project as revised a variable setback from the authorized Federal Navigation Channel for the proposed structures since the proposed structures are not expected to adversely impact the navigable capacity of the Federal Navigation Project or the Federal Government's ability to maintain the Washington Harbor Navigation Project, and that, a variable setback for the structures proposed adjacent to the channel would not pose an unacceptable risk or impact to safe navigation in the area.

CENAB-OP-N reviewed the applicant's revised plans and request for a variance of the 75-foot setback, and determined that a variable setback could be approved for this project as revised provided the District pier would not

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extend beyond the 40-foot setback, and since the floating structures (piers and mooring buoys) would not extend beyond the 40-foot setback and that, if in the future maintenance dredging of the Federal portion of the Washington Channel was determined necessary, these floating structures could be moved if it was determined that these structures constituted an obstruction or if these structures were impeding the Corps ability to perform maintenance dredging. The CENAB-OP-N has required that the applicant provide as-built coordinates of the channelward most points of any and all structures upon completion of the work if authorized.

Channel width and overall navigability criteria -Published Guidelines

Published guidelines, regarding determination of channel width and overall navigability criteria, both of which are highly variable, combined with lack of frequent or consistent consensus with regards to required channel width as a function of marina size, and the fact that none of the published guidelines include the combined effects of boat size, speed, travel distance, intersections, and environmental conditions, make exact calculations regarding channel widths problematic. In addition, the guidelines do not provide means for modifications due to the addition of a turning basin. They do, however represent relationships that have been used in the design of marina channels, and they are typically used to provide a first-order of magnitude estimate of potential channel size requirements.

Generally, for average conditions, design of a turning basin should allow for 2.25 feet times the length of the longest boat as a reasonable number to use, or 2.5 to 2.75 times the longest boat for large numbers of single screw vessels or in areas with onshore winds. A factor of 1.5 to 1.75 times the length of the slip is generally used when designing slips to allow for turning, so for a 40 foot long boat there would need to be between 60 feet and 70 feet of open water in front of the slip or between rows of slips/structures. Generally, navigation channels should be at least 60 feet in width while 100 feet is better and if passing vessels are frequently expected then the channel design needs to be a minimum of 4 times beam width of the widest vessel with 5 being preferred and recommended.

In published guidelines, the following items are typically considered when evaluating channel width and overall channel navigability: vessel size; vessel maneuverability; effects of wind, waves, and currents; and traffic congestion.

Due to the wide variation of vessels traveling the waterway for this project, several different sizes are used to evaluate channel width. The typical recreational vessel for the project site is a 65-foot yacht measuring approximately 20 feet in beam (width) or less. Occasionally, Tall Ships and

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other historic vessels visit the Southwest Waterfront (SWWF). One such vessel currently visits the SWWF, the S/V Peacemaker. The Peacemaker measures 150 feet in length and 34 feet in width and is representative of a typical Tall Ship. Another vessel currently moored at Gangplank Marina (future dock at Transit or District Pier) is the Patriot II, an 28-foot wide by 87-foot long catamaran which conducts tours of the Washington area waterways. These three vessels are used to evaluate the navigability of the channel width of the Washington Channel.

All of the entertainment vessels that tour the Washington Channel waterway have twin engines which can almost turn around in their own length and are Captained and Crewed by experienced professionals with the ability to navigate the Washington Channel in the new configuration and maneuver into our present and planned docking configuration at Pier 3/4. Specifically all of our vessels except for the 72-foot Capital Elite are equipped with Bow Thrusters and the new National Elite, a 124-foot Skipper liner, is also equipped with a stern thruster. Their present locations on Piers 3 and 4 would remain as their berths, until full build-out in about 2018 when everything would be docked at Pier 4. The Odyssey currently docks at Pier 3/gangplank pier at the southern end of the project. Their new boat is based out of National Harbor (National Elite), not DC. Spirit of Washington, Spirit of Mt. Vernon, and Capital Elite all depart from Pier 4/Spirit Pier. All depart these piers and travel south, away from the deauthorized portion of the channel away from the project location.

Published guidelines used to evaluate the Washington Channel width are as follows. The first four are written with recreational marinas in mind and would be used to evaluate the proposed work while the fifth is geared towards commercial boat traffic in a port setting.

- Tobiasson and Kollemeyer, Marinas and Small Craft Harbors, 2000 (Tobiasson)
- California Department of Boating and Waterways, Layout and Design Guidelines for Marina Berthing Facilities, 2005 (CDBW)
- American Society of Civil Engineers, Planning and Design Guidelines for Small Craft Harbors, 2000 (ASCE)
- Nichol, J.M., "Observations in Small Boat Harbors – Harbor Design Concepts," Proceedings West Coastal Regional Coastal Design Conference, American Society of Civil Engineers, Oakland, CA, 1985 (Nichol)
- PIANC Maritime Navigation Commission Working Group 30, Approach Channels – A Guide for Design, 1997 (PIANC)

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The width of the channel is generally determined based on two vessel patterns: 1) width to allow safe passage of two vessels traveling opposite directions on a waterway; 2) width to allow safe vessel maneuvering to and from docks. In addition, larger vessels cannot travel under the I-395 Bridge at the north end of the project due to low vertical clearances and therefore, accommodation for vessel turning is considered.

Tobiasson recommends a minimum fairway (travel distance between piers) width of 1.5 times the longest boat length for vessels in slips (or width for vessels at side ties). It further recommends an increase to 1.75 times the longest boat length (or width) in conditions that reduce maneuverability - i.e. wind, sailboats under sail, novice boaters, etc. The recreational vessels would be moored in slips and as side ties; therefore their length is used resulting in a minimum fairway width of 95 to 115 feet. Both the Patriot II and Peacemaker would be moored as side ties; therefore, their width is used resulting in a minimum fairway width of 40 to 50 feet for the Patriot II and 50 to 60 feet for the Peacemaker. In addition, Tobiasson recommends a minimum entrance width of 75 feet with 100 feet being preferred for any entrance channel for a marina. CDBW guidelines are similar to Tobiasson with a minimum recommended width of 75 feet at the bottom of the channel.

Nichol presents a relationship for interior channels based on Southern California Harbor observations and the total number of boats present in the basin. The relationship is:

$$W_{INT} = (50' \text{ to } 90') + \frac{N}{10}$$

where W_{INT} - Width of the interior channel in feet, 50 feet to 90 feet is the suggested minimum width regardless of boat count, and N is the number of boats in the basin.

For The Wharf, the total boat (slip) count is approximately 400; therefore, the corresponding channel width is 90 to 130 feet. Note that since this particular relationship is independent of boat size, type, and speed, the proposed configurations require reduced channel widths even though the average boat size increases. The width of the channel is determined based on two vessel patterns: width to allow safe passage of two vessels travelling opposite directions and width to allow safe vessel maneuvering to and from docks.

ASCE recommends a minimum width of five times the beam of the widest vessel to be berthed in the Harbor to accommodate two-way traffic and vessel turning of recreational craft. For the 65 foot vessel, this correlates to a minimum width of 100 feet, for the Patriot II 140 feet, and for the Tall Ships 170 feet.

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The PIANC guidelines are used for channel design for larger commercial vessels (up to container ship size). These guidelines while intended more for port approach channels, include vessel handling and environmental factors to provide a recommended navigation channel width in terms of the beam width of the design vessel using the channel. While these guidelines are very conservative for the vessel mix for the SWWF project, they are a valuable tool in determining a range of channel widths for commercial vessels. One-way and two-way boat traffic lane widths are determined using the following formulas:

$$\begin{aligned} \text{One-way traffic:} \quad w_1 &= w_{BM} + \sum_{i=1}^n w_i + w_{Br} + w_{Bg} \\ \text{Two-way traffic:} \quad w_2 &= 2w_{BM} + 2 \sum_{i=1}^n w_i + w_{Br} + w_{Bg} + \sum w_p \end{aligned}$$

where the width factors, w , are as follows for the SWWF:

B = beam of vessel

w_{BM} = Basic Maneuvering Lane, for moderate vessel maneuvering = $1.5B$

w_i = Additional Widths for Straight Channel Sections, $0.0B$ (slow vessel speed) + $0.5B$ (moderate cross wind) + $0.0B$ (negligible cross current) + $0.0B$ (low longitudinal current) + $0.0B$ (significant wave height) + $0.0B$ (AtoN) + $0.0B$ (bottom surface) + $0.0B$ (depth) + $0.0B$ (cargo hazard) = $0.5B$

w_{Br}, w_{Bg} = Width for Bank Clearance, Steep and hard embankments, structures – slow speed – inner channel = $0.5B$

w_p = Width for Passing Distance, $1.0B$ (inner channel, slow speed) + $0.2B$ (moderate encounter traffic)

When applied to traffic conditions on the Washington Channel, the PIANC guidelines suggest navigation channels on the order of 3.0 for one-way traffic and 6.2 for two-way traffic. For the Peacemaker, this correlates to 102 feet for one-way traffic and 211 feet for two-way traffic. For the Patriot II, this correlates to 84 and 174 feet for one-way and two-way traffic, respectively. For the 65-foot vessel, this correlates to 60 and 124 feet for one-way and two-way traffic, respectively.

Table-3 presents a summary of the recommended fairway widths based on the above referenced guidelines.

Table 3: Recommended Fairway widths for various vessels

PUBLISHED GUIDELINES	FAIRWAY WIDTH				Channel Width
	Recreational Vessel (65-FT)	Patriot II Vessel	Peacemaker Vessel	Tall Ship	
Tobiasson and Kollemeyer	95' TO 115'	40' TO 50'	50' TO 60'		

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California Department of Boating and Waterways (CBDW)	95' TO 115'	40' TO 50'	50' TO 60'		
American Society of Civil Engineers (ASCE)	100' MIN	140' MIN		170' MIN	
Nichol, J.M.					90' TO 130'
PIANC Maritime Navigation Commission Working Group 30	60' (One-Way Traffic) 124' (Two-Way Traffic)	84' (One-Way Traffic) 174' (Two-Way Traffic)	102' (One-Way Traffic) 211' (Two-Way Traffic)		

Using the published guidelines for marinas and harbors, a 200 foot wide navigation channel with a 500 to 600 foot diameter elliptical turning area would accommodate the current and anticipated boat traffic on the Washington Channel. The majority of the watercraft can maneuver within the limits of the 200-foot wide channel including two-way traffic and turning. Moreover, the 500 to 600-foot diameter elliptical turning basin, offers additional maneuvering space for the larger vessels moored at the Transit and District Piers. The Dock Master, located at the District Pier, together with the Harbor Master would monitor vessel movement, especially for the larger vessels on high traffic days.

The only vessel that may face limited restricted maneuverability during high traffic days in the channel is the M/V Odyssey, a dinner cruise vessel operated by Entertainment Cruises, which operates out of Pier 4. This vessel measures approximately 240-feet in length (LOA) and has a beam (width) of approximately 65-feet, and is considered an outlier in the analysis. Navigation in the Washington Channel upstream of the Pier 4 is often impeded due to vessels anchoring in illegally in the channel, which may not happen as frequently with the proposed project. Based on discussions with Entertainment Cruises, two times its length (500 feet) is preferred for safe turning of the vessel near the bridge. The proposed configuration exceeds this with a 500 foot to 600 foot diameter elliptical turning area to accommodate larger vessels.

Applicant's Consideration of Alternatives Related to Navigation

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- No-action – two individual marinas, one private and the other private would be utilized in current condition.

This does not meet the project purpose and objectives and is not considered a reasonable alternative. However, this alternative would mean that there would be approximately 17.8 acres of open waters available for anchorage or other usages and for general navigation outside the limits of the Federal Navigation Project as a result of the deauthorization of a portion of the Federal Navigation Project.

- Replace or repair in-kind of existing docks – to mitigate known structural deficiencies and ongoing deterioration to extend the service life of the existing assets:

The present dock system construction, layout, slip mix, and length/width ratios of the slips do not meet the requirements of modern boats and marina operators/tenants. This alternative would not satisfy the public access, modernization of facilities, housing or economic development objectives and would result in an under-utilized facility that was obsolete on delivery. This does not meet the project purpose and objectives and is not considered a reasonable alternative.

However, just as with the “No Action” alternative, this alternative would mean that there would be approximately 17.8 acres of open waters available for anchorage or other usages and for general navigation outside the limits of the Federal Navigation Project as a result of the deauthorization of a portion of the Federal Navigation Project.

- Alternative layouts and dimensions:

The applicant developed many different layouts and dimensions for the piers and docks, all predicated on the Federal de-authorization of a portion of the Washington Harbor Federal Navigation Project and a subsequent extension of the pier head line to the edge of the channel. Alternatives that do not occupy this portion of the water were considered to underutilize the resources available, lack sufficient critical mass to support the upland development, and put the project at risk of requiring future expansion and causing associated environmental impacts.

- General considerations:

The revised project as proposed provides for a balance between public access, safety, commercial opportunities, private docking space, navigational requirements and budgetary restrictions.

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- Alternative locations:

No other location exists for this project because: since 1956, the Federal government and now the District of Columbia have sought to redevelop and repurpose the Southwest Waterfront and Washington Channel; that the present project location is an existing harbor with a Federal Navigation Project which has been designated as a port and commercial facility since the 1870's; and since the site currently has three marinas (Washington Marina, Capital Yacht Club, Gangplank Marina); four commercial piers (Fish Market, Odyssey/Spirit Pier, Pier 4); and a public safety pier (Police/Fire pier).

Mitigation Measures

The following list provides potential mitigation measures that could be implemented to effectively reduce or eliminate any perceived negative impacts on boating that may result from the proposed work. Small Day-Use vessel operations within the waterway can be one of the larger influences on traffic flow, and it must be remembered that a harbor is designed as a safe haven to “park” and store boats in the water.

1. Individual education may be required for day rental kayakers as they tend to be less aware of typical boating considerations than more experienced operators.
2. The Harbor Patrol is presently enforcing and maintaining a “slow speed/no wake” environment within the Washington Harbor, which should continue for safety reasons. However, the speeds in the area need to be maintained at a steady rate of 4-5 knots to maintain flow and steerage. There should be no stopping in the main channel in high traffic conditions. An active Harbor Master and patrols are some of the most effective tools for traffic control in a harbor.
3. In addition to enforcement activities, an effective mitigation measure for potential traffic congestion is to educate new and existing boaters on rules of the road and boating etiquette. Educating boaters about the wide range of harbor users and their usage patterns and characteristics should be an important element of the program. In addition, all boats leaving the fairways and entering the Washington Channel should be instructed to come to a stop before proceeding to merge into the channel. This is especially important at the locations where visibility, especially of kayaks, may be reduced.
4. Signage can also be an effective educational tool, cautioning boaters to be

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aware of both traffic and ocean conditions before leaving the Washington Channel.

5. If multi-hull vessels occupy end ties within the Washington Channel, their location and width should be carefully considered in order to minimize impacts to boat traffic.
6. Larger boats and yachts greater than 65 feet (LOA) must be skippered by USCG professionally licensed captains Boat speed should be overseen by the Harbor Master.
7. The Washington Channel has a minimum design width of approximately 200 feet and a slightly greater effective navigable width in areas.
8. The major factors that generally influence congestion are more likely uneducated boaters and other uneducated users of other vessels such as kayakers, Personal Watercraft (PWCs), and total boat count.
9. Perceptions of boat traffic and congestion can be influenced by isolated events such as a poorly operated vessel, speeding boats, loss of power/steering, or an unorganized group of kayakers or PWCs, which can crowd a channel and reduce maneuverability.
10. Mitigation measures for potential impacts include increased enforcement of present statutes as required and additional boater education.

Definition of Terms- Anchoring, Mooring fields, Mooring, and Anchorages

Anchoring refers to the boater's practice of seeking and utilizing safe harbor on the public waterway system for an undefined duration. This is accomplished utilizing an anchor carried on the vessel, fastened to a line or chain to hold a vessel in a desired position. Anchoring that is incidental to the exercise of the rights of navigation is considered to be a "right incidental to navigation," and hence is protected by federal law.

Mooring fields are areas designated and used for a system of properly spaced moorings where permanent ground tackle affixed to the bottom is utilized to provide multiple vessel moorings.

A mooring is a place where vessels are kept at anchor by permanent ground tackle.

Anchorages are areas that boaters regularly use for anchoring or mooring, whether designated as harbor area or managed as one or not, where vessels

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may anchor.

Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats. That authority rests with the USCG.

Federal Constitutional Authority over Navigable Waters

Under the Commerce Clause of the United States Constitution, the Federal Government has authority to control the navigable waters of the nation. Federal rights to navigation are protected by the Commerce Clause and the Federal navigation servitude. There are two related aspects to this authority. First, there is a Federal power to regulate activities affecting navigable waters because of their relationship to interstate commerce. Second, there is a Federal navigational servitude, which was recognized in some of the earliest decisions examining the scope of Congressional authority under the Commerce Clause. The navigational servitude encompasses the power of Congress to regulate navigation, prohibit or remove obstructions to navigation, and improve or destroy the navigable capacity of the nation's waters. When Congress acts within the scope of the navigational servitude, state regulatory power and private riparian rights must give way. One purpose of the navigational servitude is to protect the rights of private parties to access and use navigable waters. In that sense it constitutes a right of navigation. Congress can protect those rights, but the extent to which private parties can assert a right of navigation under the navigation servitude is not as clear. Even if private parties could bring an action to assert rights to navigate under the Federal navigational servitude, they may still be subject to reasonable regulation. The right to navigate, moor, or anchor a vessel has never been recognized as a "fundamental right." Restrictions on the exercise of that right would likely be upheld if there is any rational basis for them.

The Rivers and Harbors Act (approved March 3, 1899) – Sections 9, 10, 11 and 15

Through the Rivers and Harbors Act, the federal government exercises control over activities which relate to maritime commerce and navigation.

Section 9 of the Rivers and Harbors Act, (33 U.S.C. 401) prohibits the construction of any dam or dike across any navigable water of the United States in the absence of Congressional consent and approval of the plans by the Chief of Engineers and the Secretary of the Army. Where the navigable portions of the waterbody lie wholly within the limits of a single state, the structure may be built under authority of the legislature of that state, if the location and plans or any modification thereof are approved by the Chief of Engineers and by the Secretary of the Army. Section 9 also pertains to bridges

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and causeways but the authority of the Secretary of the Army and Chief of Engineers with respect to bridges and causeways was transferred to the Secretary of Transportation under the Department of Transportation Act of October 15, 1966.

Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water of the United States. This section provides that the construction of any structure in or over any navigable water of the United States, or the accomplishment of any other work affecting the course, location, condition, or physical capacity of such waters is unlawful unless the work has been recommended by the Chief of Engineers and authorized by the Secretary of the Army. The Secretary's approval authority has since been delegated to the Chief of Engineers.

Section 11 - That where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors he may, and is hereby, authorized to cause such lines to be established, beyond which no piers, wharves, bulkheads, or other works shall be extended or deposits made, except under such regulations as may be prescribed from time to time by him. Provided, that whenever the Secretary of War grants to any person or persons permission to extend piers, wharves, bulkheads, or other works, or to make deposits in any tidal harbor or river of the United States beyond any harbor lines established under authority of the United States, he shall cause to be ascertained the amount of tide water displaced by any such structure or by any such deposits, and he shall, if he deems it necessary, require the parties to whom the permission is given to make compensation for such displacement either by excavating in some part of the harbor, including tide water channels between high and low water mark, to such an extent as to create a basin for as much tidewater as may be displaced by such structure or by such deposits, or in any other mode that may be satisfactory to him. (33 U.S.C. 404)

Section 15 - That it shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft; or to sink, or permit or cause to be sunk, vessels or other craft in navigable channels; or to float loose timber and logs, or to float what is known as sack rafts of timber and logs in streams or channels actually navigated by steamboats in such manners as to obstruct, impede, or endanger navigation. And whenever a vessel, raft, or other craft is wrecked and sunk in a navigable channel, it shall be the duty of the owner, lessee, or operator of such sunken craft to immediately mark it with a buoy or beacon during the day and a lighted lantern at night, and to maintain such marks until the sunken craft is removed or abandoned, and the neglect or failure of the said owner, lessee, or operator so to do shall be unlawful; and it shall be the duty of the

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owner, lessee, or operator of such sunken craft to commence the immediate removal of the same, and prosecute such removal diligently, and failure to do so shall be considered as an abandonment of such craft and subject the same to removal by the United States as hereinafter provided for.

Special Anchorage Areas, Anchorage Grounds. 33 CFR, Parts 109

Special anchorage areas § 109.10.

The Secretary of Transportation, through the USCG, is authorized to establish both “anchorage grounds” and “special anchorage areas.” Anchorage grounds may be established on navigable waters of the United States wherever “the maritime or commercial interests of the United States require such anchorage grounds for safe navigation. In addition, the Secretary is granted the authority to adopt “suitable rules and regulations” governing their use.

Designated Special Anchorage Areas are USCG designated anchorage areas where the Secretary of Transportation determined such anchorage grounds are necessary due to maritime or commercial interests. Of significance to recreational boaters, the Act also provides for special anchorage areas, in which vessels less than sixty-five feet in length are not required to display the anchorage lights otherwise required by the USCG’s Navigation Rules. Other rules may also apply to these areas. The USCG has designated a number of special anchorage areas in Florida. Beyond designating special anchorages and anchorage grounds, however, the USCG has construed its jurisdiction relatively narrowly under the Rivers and Harbors Act and has deferred to local law with regard to the regulation of anchorages in Florida.

An Act of Congress of April 22, 1940, provides for the designation of special anchorage areas wherein vessels not more than sixty-five feet in length, when at anchor, would not be required to carry or exhibit anchorage lights. Such designation is to be made after investigation, by rule, regulation, or order, the procedure for which would be similar to that followed for anchorage grounds under section 7 of the Rivers and Harbors Act of March 4, 1915, as referred to in §109.05. The areas so designated should be well removed from the fairways and located where general navigation would not endanger or be endangered by unlighted vessels. The authority to designate special anchorage areas was transferred to and vested in the Secretary of Homeland Security by section 902(j) of the USCG and Maritime Transportation Act of 2006 (Pub. L. 109–241, 120 Stat 516), and delegated to the Commandant of the USCG in Department of Homeland Security Delegation No. 0170.1. The Commandant re-delegated the authority to establish anchorage grounds to each USCG District Commander as provided in 33 CFR 1.05–1(e)(1)(i).

Anchorage grounds. § 109.05

(a) Section 7 of the Rivers and Harbors Act of March 4, 1915 (33 U.S.C. 471), authorizes the establishment of anchorage grounds for vessels in navigable waters of the United States whenever it is apparent that these are required by the maritime or commercial interests of the United States for safe navigation. The statute also authorizes the adoption of suitable rules and regulations regarding the establishment of anchorage grounds, which are enforced by the USCG. The authority conferred by this statute was transferred to and vested in the Secretary of Homeland Security by section 902(j) of the USCG and Maritime Transportation Act of 2006 (Pub. L. 109-241, 120 Stat. 516), and delegated to the Commandant of the USCG in Department of Homeland Security Delegation No. 0170.1. The Commandant re-delegated the authority to establish anchorage grounds to each USCG District Commander as provided in 33 CFR 1.05-1(e)(1)(i).

(b) District Commanders will, whenever matters relating to the anchorage of vessels are under consideration, ascertain the view of the District and Division Engineer, Corps of Engineers, U.S. Army, and the proper representatives of other departments likely to be interested, including the Commandant of the Naval District concerned and the medical officer in charge of the quarantine station at localities where quarantine anchorages are involved, in order that they may arrange for suitable representation at such hearings. The views of the medical officer in charge of the quarantine station relating to the proposed location and boundaries of the quarantine anchorage will be accepted insofar as practicable and consistent with the establishment of other anchorage areas. (An Act of Congress approved July 1, 1944, as amended (42 U.S.C. 267), authorizes the Surgeon General, with the approval of the Secretary of Health, Education, and Welfare, to designate the boundaries of the quarantine grounds and quarantine anchorages for vessels which are reserved for use at each United States quarantine station.) A notice of public hearing concerning changes to the Anchorage Regulations will be issued by the District Commander and will be mailed to all known interested parties. After providing an opportunity for public participation, the District Commander will, if circumstances so warrant, issue changes to the Anchorage Regulations, or in appropriate cases forward recommendations for such changes to the Commandant.

(c) As soon as publication has been noted in the Federal Register, the District Commander will publish changes to the Anchorage Regulations in the Local Notice to Mariners.

Obstructions to Navigation

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The Corps of Engineers also exercises jurisdiction under the Rivers and Harbors Act. Under the Act, the Corps has authority to regulate the construction of structures and to prevent obstructions to the navigable capacity of any of the waters of the United States. Corps regulations define “permanent mooring structures and a “permanently moored floating vessel” as structures subject to regulation.

"Obstruction" is defined by regulation as "anything that restricts, endangers, or interferes with navigation." 33 C.F.R. 245.5.

From the Corps regulatory perspective under Section 10 of the RHA, an 'obstruction' is interpreted quite broadly, to mean the diminution or decrease of the navigable capacity of a waterway in any respect. That's a very low threshold to meet, and allows the Corps to regulate all manner of structures in, under and over navigable waters. Under that standard, the Corps can regulate anything from an elevated power line to a floating milk jug tied to a crab pot. The bar gets raised with regards to obstructions in the sense of Section 15 of the RHA, wherein the Corps regards obstructions as anything that restricts, endangers or interferes with navigation.

Although the limits for defining when a temporarily anchored vessel becomes permanent have not yet been established, several decisions in Florida have upheld the regulation of moored houseboats. In recognition that these activities sometimes have minimal impacts, the Corps has established Nationwide Permits for installation of some types of moorings. Permanent moorings and moored vessels that do not qualify for Nationwide Permits must be individually permitted.

In the Indian River special anchorage at Vero Beach, Florida, the rules provide that “[v]essels shall be so anchored so that no part of the vessel obstructs the turning basin or channels adjacent to the special anchorage areas.” ' See 33 C.F.R. ' 110.73b(c) (2005).

Other rules contain “notes.” For example, the rule for the Marco Island, Florida, special anchorage area contains the following note: “The area is principally for use by yachts and other recreational craft. Fore and aft moorings will be allowed. Temporary floats or buoys for marking anchors in place will be allowed. Fixed mooring piles or stakes are prohibited. All moorings shall be so placed that no vessel, when anchored, shall at any time extend beyond the limits of the area.” See 33 C.F.R. ' 110.74 (2005).

Federal Limits on State and Local Authority to Regulate Anchorages

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As previously noted, the U.S. Congress has authority to regulate matters affecting interstate commerce, and the Federal navigational servitude is constitutionally derived from the Commerce Clause. Under the Supremacy Clause of the U.S. Constitution, federal law governs over conflicting state law, and Congress may preempt local laws pursuant to this authority.

Three distinct limits on state regulatory authority are derived from these principles. First, where a state law regulating anchorages actually conflicts with a federal law, the state law will be void. Second, where the Congress has “spoken” so as to preclude state regulation in a given area of law, state regulation is preempted. Third, even where local regulation is neither in conflict nor preempted, the Dormant Commerce Clause prohibits states from unduly burdening interstate commerce. The following sections address the potential impact of these limits on state and local efforts to regulate anchoring and anchorages.

1. Actual Conflict with Federal Laws

The Supremacy Clause of the U.S. Constitution places federal law above state law when conflicts arise between the two. Therefore, any state regulation of anchorages which conflicts with validly exercised federal law will be invalid. A conflict will be found when either it is not possible to comply with both the state and federal law at the same time, or the state law prevents implementation of the federal law.

At present, there are few federal anchorage regulations with which state laws and regulations might conflict. In a legal opinion, the USCG asserted that neither the Rivers & Harbors Act nor its implementing regulation provide any substantive anchorage regulation, and characterized its own authority as merely “the authority to establish general and special anchorage areas where and when needed.” In *Murphy v. Department of Natural Resources*, the USCG’s position was accepted to mean that “no Federal law exists in the area of anchorage and mooring.”

2. Preemption: *Barber v. State of Hawaii* and Local Anchoring Regulations

Preemption, like actual conflict, is founded on the supremacy of federal regulatory authority. Preemption occurs where Congress has evidenced an intent to exclusively occupy an area of law. If such intent is contained in the language of the federal law at issue, the preemption is said to be express. If, however, such intent is inferred from a pervasive legislative scheme dominating an entire field of law, the preemption is considered

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implied. In either case, preemption will not occur unless it is determined to be “the clear and manifest purpose of Congress.”

The relatively sparse body of federal law concerning anchoring does not contain any provision expressly preempting state authority. Several analysts have extensively surveyed federal law and concluded that Congress never intended to preempt state authority to regulate anchorages. The Coastal Zone Management Act of 1972, and Executive Order 12612 of October 26, 1987 support that conclusion.

State authority to regulate anchorages was upheld against a preemption challenge in a landmark case originating in the Hawaiian Islands. In *Barber v. State of Hawaii*, a citizens group known as the Hawaiian Navigable Waters Preservation Society (Preservation Society), acting on behalf of boaters, brought suit challenging the constitutionality of state regulations affecting their rights of navigation, including anchoring. The state’s Department of Transportation had promulgated rules requiring boaters to obtain a permit and moor only in designated locations if the vessel were to remain for longer than seventy-two hours. The rules were adopted to provide for the safety of boaters and other recreational users of the area. The district court granted summary judgment in favor of the state, and the Preservation Society appealed.

On appeal, the Preservation Society argued that Hawaii’s regulations were in conflict with federal regulations, and that even absent conflict, federal regulation was so extensive that Congress intended to preempt state action. The United States Court of Appeals, Ninth Circuit, found neither argument persuasive. The court noted that the Submerged Lands Act was not intended to reserve exclusive federal jurisdiction over waters above submerged lands, but to confer concurrent jurisdiction on the state. The court was also unwilling to find implicit preemption based on what it deemed the “far from extensive” body of federal law affecting anchorages. The court indicated that the Secretary of Transportation and the USCG had discretionary authority and “may act to affect all navigational issues, but they need not and they have not.”

It is unlikely that federal law expressly preempts local anchorage regulation (except, for example, as with special anchorage areas established by the USCG). However, an implied intent to preempt may not be as clear. While the Ninth Circuit found no implied preemption in *Barber*, it is unclear how other federal circuits or the Supreme Court would rule, especially if faced with different facts. For example, a stronger set of facts supporting preemption would have existed if the anchorage at issue was a USCG designated “special anchorage area” or “anchorage grounds.”

The federal government may preempt state and local anchorage regulation and there is ample federal authority to suggest that Congress intended for states to assume a substantial role in the regulation of navigation, including anchoring, as long as it does not unduly circumscribe the protected federal interests. However, federal law offers little guidance concerning how far a state or local government may regulate anchoring before it interferes with the federal navigation interest.

3. Dormant Commerce Clause Impact on State Regulation of Anchorages

Even in the absence of direct conflict or express or implied preemption by Congress, the Commerce Clause may still restrict state laws that operate to excessively burden interstate commerce. The Commerce Clause is said to be “dormant” because Congress has not made active use of its power; however, courts interpret the Dormant Commerce Clause to limit states’ ability to regulate interstate commerce.

In order to evaluate whether state regulation violates the Dormant Commerce Clause, courts have followed a fact-based balancing test which weighs the local benefits of the state regulation against the burden on interstate commerce. To determine the local benefits, courts evaluate whether the state had a rational basis, such as safety, for enacting the law. Courts then assess the local need for the law against the burden of the law on interstate commerce. Finally, courts also evaluate whether the state law is evenhanded in its application or whether it applies differently to intrastate commerce than to interstate commerce.

In addition to not finding direct conflict or express or implied preemption with federal law, the Ninth Circuit in *Barber* refused to invalidate the state regulation based on the Dormant Commerce Clause. The court found that the state’s interest in the regulation was substantial, while the burden on interstate commerce was minor. The court was swayed by evidence of the substantial threat to public safety that the regulations were designed to avoid. The court evaluated the direct and indirect impact on interstate commerce of Hawaii’s anchoring and mooring regulations. First, the court determined that there was no direct regulation of interstate commerce because the regulation did not specifically target interstate vessels. The court next explained that, even if there was an indirect impact on interstate commerce, it would be per se invalid if it was applied in a discriminatory manner. The court concluded, however, that the fee differentials prescribed by the regulations were not discriminatory toward out-of-state vessels. Finding no discriminatory impact, the court applied a balancing test to determine whether any indirect impact on interstate commerce

outweighed the state's interest. The court found that Hawaii's public safety interest in regulating "the conflicting uses between recreational ocean users and vessels conducting passive mooring activities" outweighed any small burden on interstate commerce. Therefore, the court concluded that the mooring regulation was not a violation of the Commerce Clause.

Overall, the results in this case indicate that local regulation of anchoring is not preempted by federal law. Judicial decisions addressing the various enactments have consistently indicated that Congress has not occupied the field, thereby refusing to find an implied intent to preempt state regulation. The position of the USCG is that "[u]p to this point, Congress has not demonstrated an express or implied intent to preempt state regulation of anchorages." On the other hand, the Dormant Commerce Clause may generate different results depending on the type of state or local regulation involved and its impact on interstate commerce.

The State's Inherent Police Power

States have an inherent police power to protect the public's health, safety, and welfare through regulation. Many local governments and political subdivisions share the police power, including the authority to regulate anchorages. Local regulations affecting navigation have long been upheld. The United States Supreme Court in 1858 addressed whether a local government could prohibit vessels from remaining in a "harbor thoroughfare" or require those vessels to display a light after dark. The Court called such regulations "necessary and indispensable in every commercial port, for the convenience and safety of commerce". The Court also noted that "local authorities have a right to prescribe at what wharf a vessel may lie, and how long she may remain there, ... where she may anchor in the harbor, and for what time." Local governments may only invoke their police power to regulate anchorages, however, if the regulation is necessary to protect the public health, safety and welfare.

Managed Anchorage and Mooring Fields (MAMF)

Non-regulatory measures are not always sufficient; to better manage and accommodate anchoring activities within their jurisdictions. MAMFs are often used to encourage tourism by creating convenient and safe opportunities for cruisers to stop in an area by either anchoring or tying to a mooring. Those mooring closest to shore, and the restaurants, shops and pubs of a waterfront community, may be reserved for short term use. Those staying for a longer duration or merely storing vessels, do not require the easiest access. A well-designed MAMF includes amenities such as dingy docks, fueling stations, holding tank pump-out stations, garbage disposal facilities, and

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shower and restroom facilities. Many MAMFs provide 24 hour security through an on-site Harbor Master.

A local government may choose to operate the MAMF itself, enter into a concession agreement with a private company allowing for private management, or allow management by a non-profit organization. The operation of a MAMF is typically governed by the adoption of an ordinance or resolution. Activities typically addressed in ordinances include the length of time a vessel may remain in the MAMF, the establishment of fees, safety and insurance, operational hours for noise and machinery, the display of signs, sanitation requirements, fishing, swimming, and other recreational activities, and the feeding of wildlife. Anchoring within the mooring field is typically prohibited. Anchoring outside of the mooring field may also be regulated, subject to the limitations of state law.

A MAMF is an area specially designated and managed by a local government or some other entity for the mooring and anchoring of vessels. There is a difference between "anchorage" and "mooring fields." Anchorages are areas designated for the anchoring of vessels using ground tackle carried on the vessel; mooring fields are areas where vessels tie up to a buoy attached to ground tackle that is maintained in place. Many local governments in the country have established MAMFs many others are in the process of establishing them.

If a State or local jurisdiction desires to implement Local Harbor Management Plans they should be tailored to ensure that there is adequate anchoring and/or mooring capacity for transient boaters and that adequate provisions are made for "safe harbor" shelter during storms. If however, the State or local jurisdiction does not provide adequate anchoring and/or mooring capacity for transient boaters then the boating community when transiting in the area will need to remain vigilant and situation ally aware for changes in weather and as necessary make adjustments in their "float plans" for purposes of securing "shelter and safe harbor".

USCG's "Rules of the Road"

Rule 9 of the USCG's Inland Navigation Rules provides that "every vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel." 33 C.F.R. 83.09(g).

Two terms are used throughout the Rule that are not defined. They are "narrow channel" (namesake of the Rule) and "(narrow) fairway." We must assume that the drafters of the Rules either believed their meanings to be obvious or else were not able to formulate suitably concise definitions.

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Rule 9 applies only on waters described by the two terms. What is "narrow" depends on the type of vessel and the circumstances.

A "channel" is a natural or dredged lane restricted on either side by shallow water; it is often marked by buoys.

A "fairway" is generally in open water, and the water on either side is not much shallower than within the fairway. Fairways are used to route vessels away from natural or man-made hazards.

Although anchoring in the channel is not absolutely prohibited, it is severely limited by Rule 9 of the USCG's Inland Navigation Rules and Section 15 of the Rivers and Harbors Act. Rule 9 provides that "every vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel." 33 C.F.R. 83.09(g). The USCG has stated that the Washington Channel is a narrow channel to which Rule 9 would apply.

Anchoring in the Federal Navigation Project

The Rivers and Harbors Act prohibits anchoring in any channel in such a manner as to prevent or obstruct navigation. Similarly, the USCG's "Rules of the Road" require that vessels shall avoid anchoring in a narrow channel if circumstances permit. Neither is an absolute ban on anchoring in a channel.

"Obstruction" is defined by regulation as "anything that restricts, endangers, or interferes with navigation." 33 C.F.R. 245.5.

Section 15 of the Rivers and Harbors Act provides that "[i]t shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft" 33 U.S.C. 409.

Section 15 is not a complete ban on anchoring in the channel or an absolute prohibition on anchorage in channels, but is intended to prevent anchorage in such a way as to monopolize the channel. Conversely, anchoring in a channel where sufficient passageway is left for other vessels is not a violation of Section 15.

Notably, the term "channel" in the context of Section 15 has been interpreted as broader than the federally maintained channel, and includes any navigable part of a river. See *United States v. Osage Co., Inc.*, 414 F. Supp. 1097 (W.D. Pa. 1976).

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Section 17 of the Rivers and Harbors Act provides that the Department of Justice shall conduct the legal proceedings necessary to enforce Section 15 (among other sections) whenever requested by the Secretary of the Army or other designated officials (33 U.S.C. 413). Section 17 further provides that the "officers and agents of the United States in charge of river and harbor improvements, and the assistant engineers and inspectors employed under them by authority of the Secretary of the Army, and the United States collectors of customs and other revenue officers shall have power and authority to swear out process, and to arrest and take into custody, with or without process, any person or persons who may commit any of the acts or offenses prohibited by the said sections [including Section 15], or who may violate any of the provisions of the same.

There are other more specific regulations that prohibit anchoring in the channel in certain bodies of water (e.g., the C&D Canal and South of the Chesapeake Bay), but none appear to apply to the Washington Channel.

Anchoring in Washington Harbor

In responding to concerns expressed by [a mariner] that the project would provide insufficient anchorage for boaters, the applicant replied that anchoring in the Federal Navigation Project is illegal. Although anchoring in the channel is not absolutely prohibited, it is severely limited by Rule 9 of the USCG's Inland Navigation Rules and Section 15 of the Rivers and Harbors Act. Rule 9 provides that "every vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel." (33 C.F.R. 83.09(g)). The USCG has stated that the Washington Channel is a narrow channel to which Rule 9 would apply.

Section 15 of the Rivers and Harbors Act provides that "[i]t shall not be lawful to tie up or anchor vessels or other craft in navigable channels in such a manner as to prevent or obstruct the passage of other vessels or craft" 33 U.S.C. 409.

As cited above, "Obstruction" is defined by regulation as "anything that restricts, endangers, or interferes with navigation." 33 C.F.R. 245.5.

The applicant has stated that the Harbor Master has permitted anchorage in the Washington Harbor Federal Navigation Project when he deems it appropriate and when circumstances permit, pursuant to authority in DC regulations, which provide:

1028.4 No vessel or amphibian aircraft shall be anchored in a manner or location that obstructs channels in District of Columbia waters, or in portions

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of District of Columbia waters designated by the Harbor Master as areas where anchorage is prohibited.

1028.5 No vessel or amphibian aircraft shall be anchored in District of Columbia waters, other than in established anchorage areas, in excess of twenty-four (24) hours without the prior approval of the Harbor Master.

The courts have held that Section 15 of the Rivers and Harbors Act supersedes conflicting state statutes, but does not supersede state statutes that do not conflict with Section 15. See *City of Norfolk*, 266 F. 641 (4th Cir. 1920); *The Margaret J. Sanford*, 203 F. 331 (E.D. Va. 1913).

The District of Columbia regulations do not appear to conflict with Rule 9 or Section 15 of the Rivers and Harbors Act on their face, but to the extent the Harbor Master has, in practice, permitted anchorage in the channel in violation of Rule 9 and/or Section 15, the federal law would govern.

In this case, the D.C. Municipal Code does not appear to conflict with Section 15 of the Rivers and Harbors Act. The Code provides, among other things:

1028.4 No vessel or amphibian aircraft shall be anchored in a manner or location that obstructs channels in District of Columbia waters, or in portions of District of Columbia waters designated by the Harbor Master as areas where anchorage is prohibited.

1028.5 No vessel or amphibian aircraft shall be anchored in District of Columbia waters, other than in established anchorage areas, in excess of twenty-four hours without the prior approval of the Harbor Master.

D.C. Policy Regarding the Washington Channel

Adopted District policy encourages increased use of the water itself by a variety of users. The Anacostia Waterfront Framework Plan (AWF Plan) says specifically about the Southwest Waterfront that there is "broad community support for a more public, active, and environmentally improved waterfront" It goes on to state that in any redevelopment of the Southwest Waterfront "public piers would extend from each of the major streets, providing expansive water views and public access to the water itself".

The Southwest Waterfront Plan (SWW Plan) goes into more detail. One of that document's Planning Principles is to "Improve public access to the water itself". The proposed piers and docks would help achieve another policy of the plan that says that the new design should "better connect the neighborhood and visitors to the Channel". The SWW Plan encourages the construction of

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facilities for new waterside transportation options such as a water taxi and ferry service, and identifies that piers at 7th and 9th Streets would "allow the public to launch small boats, fish, and enjoy unique views of the Channel that are currently inaccessible without access to private marina piers". The SWW Plan also states that public docking locations would encourage visitors, and that increased boating activity would provide passive and active entertainment. Finally, the SWW Plan calls for mooring points along East Potomac Park to accommodate larger ships. Overall, the applicant's proposed waterside development plan furthers the goals of adopted District policy.

D.C. Harbor Master Comments

The applicant provided two letters from the Harbor Master dated 20 December 2011 and 10 July 2012. The 20 December 2011 letter states the Harbor Master's support for the proposed 200-foot wide channel and the reply identified that it would accommodate the majority of vessel traffic even during high traffic events.

The Harbor Master provided the following information regarding their authorities, functions and practices:

- The Harbor Patrol Section of the Metropolitan Police Department is located at the southernmost pier on the Washington Channel, termed the Police Pier.
- Responsibilities include monitoring and regulation of vessel traffic and dockage within the Washington Channel.
- Have the authority to dictate the movement of vessels in this waterway including overnight anchorage. The Washington Channel is primarily used by recreational vessels with a mix of visiting and permanent boats and a few commercial passenger vessels (dinner cruises, tour boats, et cetera). Under DC authority, vessels are permitted to anchor within the waterway during slower boating days/seasons.
- Harbor Patrol Section met with the developers and consultants to discuss the proposed plans, and after review supported the improvements as proposed including deauthorization of a portion of the Federal Navigation Project, reconfiguration of existing docks, and expansion of piers.
- The creation of a mooring field/area was not supported by the Harbor Master, but instead it was recommended that a designated area for normal temporary anchoring be established in lieu of a mooring field.

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- The Harbor Master advised the applicant's consultants that recreational vessels should not be moored in the waters between Pier 4 and the Pier 5 since the Police Pier which is located within an area that is considered and designated by Homeland Security, as "secure waters".
- Lastly, the Harbor Master advised that overall, he could concur with the recommendation (and subsequent approval by the Navigation Divisions of the USACE and USCG) to deauthorize half of the existing 400-foot wide Federal Navigation Project, since the need for a 400-foot wide channel is no longer applicable for the Washington Harbor vessel traffic and the proposed 200-foot wide channel would accommodate the majority of vessel traffic even during high traffic events, as well as the 500-foot wide turning basin would be expected to provide much needed additional maneuvering space for the larger commercial vessels; and that while vessels are allowed to anchor in the Federal Navigation Project and waterway by the Harbor Master, during high traffic events or at other times, such as when visiting vessels such as the Tall Ship is expected, anchored vessels can pose a risk to navigation. Therefore, the Harbor Master's view was that designating an anchorage area for temporary visiting vessels would help alleviate navigation concerns in the channel especially near the District and Transit Piers and the turning basin, and lastly that the proposed channel modifications and anchorage area should aid in improving navigation safety in the Washington Channel. In conclusion, the Harbor Patrol Section of the Metropolitan Police, advised that they support the Southwest Waterfront project.

The second letter from the Harbor Master dated 10 July 2012 modifies the 20 December 2011 letter whereby the Harbor Master's provided the following information:

The DC Harbor Master has:

- Jurisdiction of the navigable waterways of the Washington Harbor and the Potomac River from Jones Point to Hains Point. The Washington Harbor is comprised of the Anacostia River, Washington Channel, and Georgetown Channel, the portion of the Potomac River extending from Hains Point to the Chain Bridge.
- Supported creation of a mooring field, since it would provide a type of anchorage for visiting boaters, and when compared to the current configurations, the new proposed pier and dock configuration "would provide a wider variety of docking options for visiting recreational

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boaters to the Washington Channel."

- DC Harbor Patrol policy is to provide maximum access and maximum safe enjoyment for the largest number of boaters possible. The law states that no vessel or amphibian aircraft shall be anchored in District of Columbia waters, other than in established anchorage areas, in excess of twenty-four (24) hours other than in established anchorage areas, in excess of twenty-four (24) hours without the prior approval of the Harbor Master. Currently, there are no established anchorage areas in the District of Columbia. However, since 22 April 1981, the policy of the Harbor Master is to permit anchorage of transient vessels or vessels waiting for permanent mooring to anchor for up to seven calendar days in designated locations. Unless unusual circumstances exist, all vessels coming to anchor for more than 24 hours shall anchor fore and aft and display a 32-point anchor light during the hours between sunset to sunrise.
- All vessels requesting to anchor for more than 24 hours shall be directed to one of the following areas:
 - Washington Channel, upstream of the Gangplank Marina between mid channel and Hains Point
 - Washington Sailing Marina Lagoon
 - Columbia Island Lagoon
 - Anacostia River, upstream of the 11th Street Bridge
 - Georgetown Channel, north of Memorial Bridge
- Hoffman-Madison Waterfront (HMW) plans to obtain a permit from the National Park Service (NPS) and append the USACE permit in order to include the mooring field in the first phase of waterside work for this project and that the USACE is aware of this modification, and that according to current understandings, the District received grant funding through the Boating Infrastructure Grant Program for the construction of the proposed mooring field.
- In the Washington Channel, the river bottom outside of the District pier head line is under the jurisdiction of the NPS and any construction within its limits requires approval by both the NPS and the USACE. Additionally, the USCG should review any construction within the waterway during either the USACE or NPS permit review.
- This method of free access to boaters has worked successfully and safely for more than 30 years. In rare instances of vessels breaking free

from their anchoring positions during heavy storms, the majority of cases were the result of vessel owners not following the requirement to anchor fore and aft. These rare occasions are normally rectified by deployment of Harbor Patrol officers to the scene to secure the vessel and contact the owner.

- This past year, a total of approximately 90 vessels registered with the Harbor Master to anchor in the Washington Channel. While the proposed plans for the Southwest Waterfront may impact current anchoring practices in the Washington Channel, the proposed mooring field should replicate the current capacity for anchored vessels. Additionally, the proposed waterside plan includes more dockage for transient vessels at the new Market Pier Docks and at the expanded Gangplank Marina.
- The net result would provide a greater quantity and a wider variety of docking options for visiting recreational boaters in the Washington Channel, and that while there were reservations regarding a private entity operating a mooring field within the limits of the Washington Channel, further review of the materials included in the aforementioned USAGE application and letter address many of my concerns.
- The Harbor Master supports the proposed mooring field with the understanding that HMW implement the following permitting, construction, management and operational procedures:
 - HMW secures the appropriate permits/approvals from NPS, USACE, and USCG, as required.
 - HMW installs moorings in accordance with requirements of the permits, utilizing best management procedures for waterside construction.
 - Moorings are available to the public on first-come, first-serve basis.
 - Public pump-out facilities are made available to visiting boats and a "No discharge" policy is enforced.
 - Mooring tackle is inspected upon boat arrival.
 - Vessels are not left unattended overnight.

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- HMW prepares a Removal Plan for the moorings should HMW cease to operate the mooring field. The Plan should be submitted to DC Harbor Master prior to installation of moorings.
- HMW prepares a Maintenance Plan, including inspection by divers, for buoys and ground tackle. The Plan should be submitted to DC Harbor Master prior to installation of moorings.
- HMW employs a Dock Master to manage transient boating facilities and employ the policies stated above.
- The DC Harbor Patrol is provided the right to determine when moorings may be used.

The applicant provided the following information in support of the proposed work:

- Anchoring in the Channel is under Harbor Master's jurisdiction and control and he sets the number of boats that can anchor in the channel at any given time
- The factors the Harbor Master would take into account would be the size of the boats, weather, potential events, and number of boats already anchored.
- That these factors combined with the location of the anchored boats, anchor dragging, and the varying swing orientations of the boats to complicate navigation in the channel, mostly for the larger tour vessels.
- That the entire waterway upstream of the Police Pier is designated as a "No Wake" zone, so the vessels in questions are traveling below 5 knots.
- That sailors would always anchor towards the middle of the channel, offset from the boat upwind of them, with a lot of anchor scope if possible, that it is good seamanship, and allows them to swing around their anchor with any wind changes and reduces the risk of dragging the anchor in the poor holding ground that the Washington Channel provides, and that by not aligning with the boat in front, the risk of being hit if the anchor drags is reduced
- That the biggest problem for commercial operators is consistency and reliability of the their route and program, and that although they would

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employ experienced and competent Captains and Crews, they would much prefer a nice straight Channel with a large turning basin, than having to “slalom” through boats that have variable spacing, and are changing their position and potentially dragging anchor when the wind shifts.

- When speaking to the commercial operators, they have stated that they do not go up the Washington Channel on certain days, depending on the weather and number/location/orientation of the boats in the channel, along with the number of trips they have scheduled for the day, and that in accordance with their understanding, it is more of an annoyance on most days, and does impact their operations.
- That if all of the anchored boats were in one line and oriented along the length of the channel and they stayed that way, navigation and safety would be better for everyone. (Except the anchored boats that would be running the risk of having the upwind boat drag in to them.) Given that the problem is that the wind is not always oriented along the channel and boats and long anchor lines end up aligned perpendicular to the channel, in an offset pattern, ends up occupying much more space. Traveling vessels must then navigate around and through both boats and their hidden anchor lines. With the mooring field, the vessels would not have to worry about anchor dragging or being located in an active channel
- The proposed mooring field/area is designed to provide better order and increased safety for the anchored boats, and also for those navigating the channel, by providing an open channel and turning area for navigation.
- These are the same reasons that the Capital Yacht Club proposed installing a mooring field as well.
- The Harbor Master would still have the authority to allow boats to anchor in the channel when conditions permit, and the USCG would still have the authority to move or remove these vessels if they feel that they are posing a safety or navigational hazard.
- On Seasonal weekends, Holidays and during the Cherry Blossom Festival, the channel would switch from being a channel and would look more like an anchorage as it does today.
- The mooring field/area is simply an additional option for boaters and a tool for control and safety for the enforcement agencies.

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- The boaters would have the choice to anchor in the channel when appropriate and allowed, anchor upstream or downstream of the project, tie up to a mooring, or take a transient slip.
- The project's goal is to provide additional boating/mooring/transient slips/water access options while improving safety/emergency staging/enforcement assistance (Dock Master Program – Mooring Field) to limit any potential impacts.

D.C. Municipal Code, ANCHORING AND MOORING Section 1028

1028.1 The Mayor is authorized to abolish existing anchorage areas in District of Columbia waters, whether established by law in the D.C. Code or by local regulation, and to establish new anchorage areas in such locations as the Mayor shall determine pursuant to section 895 of An Act to establish a code of law for the District of Columbia, approved March 3, 1901 (31 Stat. 1331; D.C. Code § 22-1701 (1996 Repl.)).

1028.2 In abolishing or establishing anchorage and mooring areas, the Mayor shall comply with section 105 of the D.C. Administrative Procedure Act (D.C. Code § 1- 1505 (1999 Repl. Vol.)).

1028.3 The Mayor is authorized to promulgate regulations relating to the proper use of anchorage areas in District of Columbia waters.

1028.4 No vessel or amphibian aircraft shall be anchored in a manner or location that obstructs channels in District of Columbia waters, or in portions of District of Columbia waters designated by the Harbor Master as areas where anchorage is prohibited.

1028.5 No vessel or amphibian aircraft shall be anchored in District of Columbia waters, other than in established anchorage areas, in excess of twenty-four (24) hours without the prior approval of the Harbor Master.

1028.6 No vessel or amphibian aircraft shall be anchored in portions of the District of Columbia waters designated by the Harbor Master as areas where anchorage is prohibited.

1028.7 Vessels coming up to anchor within District of Columbia waters shall comply with applicable federal laws and regulations requiring anchor lights on vessels at anchor on navigable waters of the United States.

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1028.8 No person other than the Harbor Master shall place mooring buoys in District of Columbia waters; provided, that nothing contained in this subsection shall be construed as prohibiting the continued use and maintenance of mooring buoys placed prior to the effective date of the "Harbor and Boating Safety Emergency Act of 1979," subject to regulations that the Mayor may prescribe.

1028.9 The Harbor Master is authorized to remove any mooring buoy that is placed, used, and maintained in violation of § 1028.8 or any regulations promulgated under that subsection.

SOURCE: Article 29 § 8 of the Police Regulations of the District of Columbia (January 1983).

Insufficient Anchorage for Boats

Several boating groups opposing the project provided comments to the Corps regarding concerns that the proposed Southwest Waterfront project would not allow sufficient anchorage for boats in that area although that practice of anchoring in the Washington Channel has occurred historically in past. Despite the fact that the Harbor Master has historically allowed boaters to anchor within the limits of the Federal Navigation Project when circumstances permitted pursuant to authority under the DC Municipal Code, the applicant suggested that the Corps should not be concerned about this practice of anchoring in the Washington Harbor Federal Navigation Project because it is illegal.

Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats. That authority rests with the USCG.

However, according to the USCG, the Washington Channel would be considered a narrow channel, and therefore Navigation Rule 9 would apply.

Future Obstructions

The courts have held that, even a structure erected under and in accordance with a properly issued Corps permit can, over the course of time, become an unreasonable obstruction because of the changing nature of the traffic seeking to use the waterway, and the owner of the structure can be required to alter or replace it so as to remove the interference with navigation. See, e.g., *Monongahela Bridge Co. v. United States*, 216 U.S. 177, 189, 193-194 (1910); *Union Bridge Co. v. United States*, 204 U.S. 364 (1907).

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In cases where the Corps has this concern, typically special conditions would be included in any permit that would be issued, stating that the project is subject to the United States' navigational servitude and that the Corps reserves the right to order removal should the project become an obstruction to navigation.

The Corps responsibility is to prevent obstructions to navigation and therefore prevent the boaters from having to worry about that in addition to worrying about how to prevent collisions. The boaters responsibility under the Rules of the Road is to prevent collisions and defines/describes how best to navigate in certain situations and during certain conditions. That responsibility is tantamount to boater safety as is the Corps regulatory program responsibility to prevent hazards and obstructions to navigation as a result of Corps permit decisions for structures/work in navigable waters. Therefore while Rule 9 and other rules of the road as may be relevant during the actual operation of vessels and interactions between vessels, the Corps authority extends before that and requires the Corps to determine on a case by case basis whether a proposed project would have an adverse effect on general navigation in the waterway, create a hazard, or interfere with navigation.

Permit Special Conditions

Permit special conditions that would be attached to the Corps permit if authorized:

1. Projects authorized under this permit shall not cause interference with navigation, and no attempt shall be made by the permittee to prevent the full and free use by the public of all navigable waters at or adjacent to projects authorized hereto. Nothing shall in any way restrict the District Engineer, U.S. Army Engineer District, Baltimore, from exercising his legal authority to protect the public interest in navigation or from exercising his authority under the Navigation Servitude of the United States.
2. If future operations by the United States require removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work causes an unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States, and that no claim shall be made against the United States on account of any such removal or alteration."

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3. The permittee acknowledges by acceptance of the permit terms and conditions that due to the close proximity of permitted work to a federal navigation channel, the United States will in no case be held liable for any damage or injury to the structures or work authorized under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act which may be caused by, or result from, future operations undertaken by the Government for the conservation or improvement of navigation or for other purposes, and that no claims or right to compensation will accrue from any such damage.

The applicant would also be advised of the following if the Corps permit is authorized:

The project location is within the vicinity of an authorized federal navigation project that may be subject to periodic maintenance dredging. In accordance with 33 CFR 320.4, the United States will in no case be held liable for any damage or injury to the structures or work authorized under Section 10 of the Rivers and Harbors Act of 1899, or Section 404 of the Clean Water Act which may be caused by, or result from, future operations undertaken by the Government for the conservation or improvement of navigation or for other purposes, and no claims or right to compensation will accrue from any such damage."

Corps Analysis of Comments Regarding Navigational Concerns:

Existing structures extend approximately 32% the width of the waterway. The applicant's revised plans also showed proposed piers extending approximately 55 % the width of the waterway from the existing bulkhead located along the northern shoreline at the project site., The project as proposed including associated maritime activities would occupy approximately 7.1 acres , which is 39.8% of the total 17.84-acre deauthorized portion of the Washington Harbor Federal Navigation Project. A total of 1.37 acres of structures are proposed within approximately 7.7% of the deauthorized portion of the Federal Navigation Project. The project would eliminate for navigation purposes 50.4% of the deauthorized portion of the Federal Navigation Project, which is approximately 9 acres of open water areas, proposed structures, and areas utilized for maritime activities. The overwater coverage of existing structures in the project area is approximately 125,860 square feet or 4.2 % of the waterway in the vicinity of the project. The overwater coverage for the proposed full build-out of the piers and docks is 232,670 square feet, which is an 87% increase from the existing overwater coverage. The proposed project includes approximately 82,775 square feet for fixed piers and 149,895 square feet for floating docks. The project proposed project would occupy approximately 7.9% of the waterway in the vicinity of the project. Currently

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within the project area there are 384 total slips, and the applicant is proposing 494, resulting in a 29% increase in total slips

Overall since the project was originally proposed the applicant has reduced the area of proposed piers/structures by approx. 24% compared to the original proposal.

All of the entertainment vessels that tour the Washington Channel waterway have twin engines which can almost turn around in their own length and are Captained and Crewed by experienced professionals with the ability to navigate the Washington Channel in the new configuration and maneuver into our present and planned docking configuration at Pier 3/4. Specifically all of the vessels except for the 72-foot Capital Elite are equipped with Bow Thrusters and the new National Elite is also equipped with a stern thruster. Their present locations on Piers 3 and 4 would remain as their berths, until full build-out in about 2018 when everything would be docked at Pier 4. The Odyssey currently docks at pier 3/gangplank pier at the southern end of the project. Their new boat is based out of National Harbor (National Elite), not DC. Spirit of Washington, Spirit of Mt. Vernon, and Capital Elite all depart from Pier 4/Spirit Pier. All depart these piers and travel south, away from the deauthorized portion of the channel.

The permittee stated that anchoring in a Federal Navigation Project is illegal; however during low traffic volume, the Harbor Master may allow vessels to anchor within the Washington Channel; that a mooring field has been proposed to provide a safe location for boats that do not wish to dock but would like to access the waterfront; that the depiction on the proposed plans would be the maximum possible number of mooring buoys that could be in the water at any given time; that in Phase 1 of the project, the permittee would place mooring buoys between the 7th Street pier and the turning basin only; that additional mooring buoys would be installed if necessary within the waterway as shown on the revised project plans (between the northern end of the turning area and the I-395 bridge), and that vessels could still anchor near the proposed mooring field in the upper reaches of the Washington Channel.

Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats. That authority rests with the USCG.

The fore-aft mooring system is not commonly used along the eastern coast of the United States and would not accommodate the size of vessels that typically utilize the upper Washington Channel for anchorage, which average 40 to 60 feet in length.

Channel and Fairway

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A "channel" is a natural or dredged lane restricted on either side by shallow water; it is often marked by buoys.

A "fairway" can generally mean an area in open water, where the water on either side is not much shallower than within the fairway. Buoys are often used and located, when necessary for navigation, where the water depths change sharply – this water area used for navigation is often called “best available water”, or the area between rows of slips, so in the context of boat lengths for purposes of slip design.

Based on the 20 July 2012 revised plan, the waterway at the project site, when measured from the channelward end of the proposed pier facilities, to the NPS shoreline/bulkhead, ranges from approximately 330 feet to 630 feet along the waterway. The available navigational fairway width, within the Washington Channel, as a result of the deauthorization action, provides for a minimum of a 200-foot wide channel. The revised plans show a navigational fairway ranging in width from 240 to 440-feet when measured from the channelward end of the proposed piers to the 12-foot water depth contour adjacent to NPS - East Potomac Park bulkhead that is available for purposes of general navigation. In addition, water depths generally range from approximately 10 feet to 27 feet in the project area.

The Corps' Washington Drift Crew Chief, a USCG licensed boat captain that uses the waterway and oversees the operation of other Corps Drift Boat Captains and crew that operate on the waterway collecting drift, advised after reviewing the revised plans dated 20 July 2012, that the realignment of the Market Docks would not pose an adverse impact to general navigation in the area of the I-395 Bridge nor would other work that was proposed create an adverse impact to general navigation, or obstruct or interfere with navigation, due to the presence of the remaining 200-foot wide Federal Navigation Project (J. Peacock, personal communication).

The available area for navigation within the waters at the project site including the area of the Federal Navigation Project before deauthorization was 33 acres and the area available remaining for navigation after deauthorization and, as shown by the applicant's 20 July 2012 revised plans, is approximately 24 acres. This area is identified on the revised project plans and is described roughly as follows: an area with a western/southern boundary demarcation that borders the NPS property and follows the 12 foot water depth contour line to an area across the waterway in a generally northerly/easterly direction to a line drawn from the channelward end of each the proposed piers and back across the waterway to the boundary demarcation that borders the NPS property and follows the 12 foot water depth contour line. The distance between this western/southern boundary demarcation that borders the NPS

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property and follows the 12 foot water depth contour line to the channelward end of a line drawn connecting to the ends of all of the proposed piers, thus forming essentially a new pier head line(not recognized by the Corps as an officially designated pier head line, merely for descriptive and illustrative purposes for providing clarification), ranges from approximately 240 to 440 feet when boats are not moored. When boats would be tied to the ends of the proposed piers and essentially extend beyond the so-call "pier head line" the distances would range from 200 to 400-feet, but overall regardless of whether boats are moored at the ends of the piers, the available open water distance and remaining width of the federal channel would be 200 feet at a minimum free and clear for purposes of general navigation.

Boat traffic analysis and congestion can be a subjective and relative subject. The degree of congestion and its impact on the function of Washington Harbor would largely depend on the vessel operator skill and tolerance, vessel type, frequency of congested conditions and impacts of the vessel operator's use of the waterway. Typically, congestion and traffic conflicts tend to be the result of small Day-Use Vessels, novice boaters, and/or failure to obey the "Rules of the Road".

It is recognized that a single, poorly operated vessel, speeding boats, loss of power/steering, or an unorganized group of kayakers, for example, may crowd a channel and reduce its area for navigation.

Roadway traffic models provide a framework for a statistical approach. Observations of boat traffic patterns in small craft harbors indicate similarities to roadway traffic with some modifications to account for lack of discrete channelization in boat channels and more general freedom of movement. Boat traffic also differs from highway traffic in that boats must make headway to maneuver and boat operator proficiency is more widely varied.

Analysis of the boat traffic capacity within areas like the Washington Channel is analogous to roadway traffic capacity. Roadway capacity is defined as the maximum number of vehicles that can pass over a given section of a lane or roadway during a given time period under prevailing roadway and traffic conditions. It is the maximum rate of flow that has a reasonable expectation of occurring. Capacity is typically reported as an hourly volume.

For boat traffic analysis purposes, boat channel capacity is defined in analogous terms to roadway capacity. It is the maximum number of boats that can pass through a given segment of channel during a given time period under prevailing traffic conditions. It is the maximum rate of flow that has a reasonable expectation of occurring.

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Approximation of one-way channel capacity must consider the following parameters:

1. Equivalent lane width: Since typical channels are not separated into individual “lanes” as on the highway, assumptions must be made regarding “equivalent lane width” and the fact that boats tend to follow the rules of the road and travel in lanes. Observations and review of other channel capacity studies indicate typical vessels would navigate in equivalent lanes approximately 50 feet wide. In practice, however, boaters would tend to adjust their lateral spacing to accommodate changes up to the point that they must start making avoidance maneuvers.
2. Average boat spacing: Based on boat channel capacity studies an average clear spacing of 2.5 boat-lengths between boats has corroborated.
3. Average boat length and boat speed: Channel capacity, expressed in terms of boats per hour, is controlled by the average boat length and its speed. The larger the average vessel length, the lower the number of vessels that can traverse a given reach of channel for a given speed. Similarly, increased vessel velocity increases channel capacity.

“Pitchfork” is the term used to describe finger piers that have their outboard docks aligned perpendicular to the Inner Channel direction. They play a significant role in traffic flow because boats are required to back in/out perpendicular to the Inner Channel flow, which requires more time and space than a boat transiting the same space and/or turning in to a fairway.

The total number of slips is the primary issue. Boat traffic should be secondary. The encroachment is an adaptation that people should be able to make. Safety is a primary concern and the responsibility of the boater – a reduced width should not increase the danger.

Holiday traffic conditions are known causes of surges in boat traffic conditions, and users tend to be more tolerant of congestion during these few peak summer Holiday weekends. The majority of boaters recognize that there is going to be holiday traffic and either modify their schedule or increase their tolerance level for slow-downs, and during these Holiday occasions, boat speeds often need to be reduced to take into account the generally higher number of vessels using the waterway, whereby navigation can typically proceed in an orderly, linear manner, during times and during other more heavily used periods when there are higher numbers of boats than during non holiday times, while weekdays generally have less boaters than on weekends.

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- The proposed pier extensions, reducing the navigable channel to 200 feet would result in limited space for navigation and anchorage.

The objectives of the project are to provide public access to the water and to upgrade slip sizes to provide for the requirements of present and future boats. The Capital Yacht Club and Gangplank Marina currently occupy 100 % of the area along the bulkhead and that the piers must be extended channelward to accommodate modern-sized boat slips since there is limited lateral space because the project location is limited to the area between the Fish Market to the north and the Police Pier to the south. The plans were revised to reduce the channelward encroachment of all the originally proposed structures. The Washington Channel ranges from 850 to 925 feet in width, bulkhead to bulkhead, at the project location. The revised project would allow a navigational fairway that ranges in width from 240 to 440 feet measured from the channelward end of the proposed piers to the southern edge of the Federal Channel remaining after deauthorization and channel width is, at a minimum, 200-foot wide throughout.

- The project as proposed would eliminate all anchorage within the upper Washington Channel area.

The applicant stated that mooring in a Federal Navigation Project is illegal; however during low traffic volume, the Harbor Master may allow vessels to anchor within the Washington Channel; that a mooring field was originally proposed to provide a safe location for boats that do not wish to dock but would like to access the waterfront; and that the proposed mooring field has been revised. The applicant's proposal does not include plans for anchorage beyond the 15 moorings that are proposed adjacent to the NPS property and the fact that the Washington Channel remains authorized, anchorage is not allowed within the limits of the Federal Navigation Project so any anchorage that existed previously was being undertaken in violation of federal regulations/laws. The Corps of Engineers Regulatory program does not have jurisdiction over anchoring of vessels.

- The fore-aft mooring system is not commonly used along the eastern coast of the United States and would not accommodate the size of vessels that typically utilize the upper Washington Channel for anchorage, which average 40 to 60 feet in length.

The mooring field has been revised to designate approximately 110,700 square feet, 2.54 acres, of mooring field within a maximum of 150 feet channelward of the existing bulkhead along the western shoreline, including

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installation of 15 single-point moorings, with spacing ranging from 85 to 110 feet within a maximum of approximately 82 to 87 feet channelward of the existing bulkhead. This mooring field would accommodate approximately 15 vessels ranging in size from 25 to 50 feet in length.

The proposed mooring field provides for a controlled and safe location for boaters that do not wish to be at the dock. The arrangement of the mooring field as proposed is the maximum the space can accommodate.

- No harbor boat traffic study was completed to justify the proposed changes to the Washington Channel.

The amount of actual traffic isn't substantial enough to warrant a boat traffic analysis and none of the baseline usage curves would be applicable. Industry guidelines and formulas were utilized to determine the appropriate width and setbacks for the changes to the Federal Navigation Project. The Washington Harbor Federal Navigation Project was originally authorized as a 400-foot wide channel for commercial vessels that may utilize the waterway; however, the waterway is currently used by large recreational vessels. Variables that were evaluated to determine the necessary navigable channel include vessel size; vessel maneuverability; vessel speed; effects of wind, waves and currents; and vessel traffic. Vessels including a 20-foot wide by 65-foot long yacht, a 28-foot wide by 87-foot long catamaran, and a 34-foot wide by 150-foot long tall ship were used to determine the appropriate navigable channel dimensions based on industry standard equations.

With respect to channel width, the existing 200-foot channel meets the minimum guidelines for channel widths for recreational and small commercial facilities. The 500 to 600-foot diameter elliptical turning area improves access for larger passenger vessels by providing a designated zone for maneuvering. Previously, the 400-foot wide channel had vessels moored at times throughout, potentially limiting the available maneuverable space for vessels.

There may also be the occasion when the M/V Odyssey III a dinner cruise vessel operated by Entertainment Cruises, which operates out of Pier 4, would have a charter from the proposed public pier at the north end of the channel. In that case when the vessel is departing or docking, approximately 400 feet of open water is needed. This vessel is the only vessel that presently uses the waterway that may face limited restricted maneuverability in the channel during high traffic days. This vessel measures approximately 240 feet in length (LOA) and has a beam (width) of approximately 65 feet, and was considered an outlier in the analysis. Navigation in the Washington Channel upstream of the Pier 4 is often impeded due to vessels being anchored illegally

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in the Federal Navigation Project, which may not happen as frequently with the proposed project. Based on discussions with Entertainment Cruises, two times its length (500 feet) is preferred for safe turning of the vessel near the bridge. The proposed configuration exceeds this with a 500-foot by 600-foot diameter elliptical turning area to accommodate larger vessels.

The width of the channel is determined based on two vessel patterns: width to allow safe passage of two vessels travelling opposite directions and width to allow safe vessel maneuvering to and from docks.

ASCE recommends a minimum width of five times the beam of the widest vessel to be berthed in the Harbor to accommodate two-way traffic and vessel turning of recreational craft. For the 65 foot vessel, this correlates to a minimum width of 100 feet, for the Patriot II 140 feet, and for the Tall Ships 170 feet.

Using the published guidelines for marinas and harbors, a 200-foot wide navigation channel with a 500-foot by 600-foot diameter elliptical turning area would accommodate the current and anticipated boat traffic on the Washington Channel. The majority of the watercraft can maneuver within the limits of the 200-foot wide channel including two-way traffic and turning. Moreover, the 500 to 600-foot diameter elliptical turning area, offers additional maneuvering space for the larger vessels moored at the Transit and District Piers. The Dock Master, located at the District Pier, together with the Washington Channel Harbor Master would monitor vessel movement, especially for the larger vessels on high traffic days.

Generally, for average conditions, design of a turning area should allow for 2.25 times the length of the longest boat as a reasonable number to use, or 2.5 to 2.75 times longest boat for large numbers of single screw vessels or in areas with on shore winds. A factor of 1.5 to 1.75 times the length of the slip is generally used when designing slips to allow for turning, so for a 40 foot long boat there would need to be between 60 feet and 70 feet of open water in front of the slip or between rows of slips/structures. Generally, navigation channels should be at least 60 feet in width while 100 feet is better and if passing vessels are frequently expected then the channel design needs to be a minimum of 4 times beam width of widest vessel with 5 being preferred and recommended.

One commenter misapplied the design parameters used when designing slips to allow for turning, as stated above (1.75 factor) and multiplied it against the length of the longest vessel that uses the Washington Channel, the Odyssey (240-foot LOA) to determine incorrectly the necessary width of the channel

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for general navigation. The 1.75 factor is applied to vessel length for purposes of slip design and turning not channel design.

The project as revised is not expected to adversely affect general navigation in this area of the Washington Channel because all pier construction would maintain a 40 to 75-foot buffer between all structures and the Federal Navigation Project, and a minimum 200-foot wide channel would be available for general navigation. The waterway, measured from the channelward end of the proposed piers to the southern edge of the Federal Navigation Project is approximately 240-feet when boats are not moored, and approximately 440-foot wide measured from the channelward end of Pier 4, to the 12 foot water depth contour line adjacent to the NPS property. When boats are tied to the ends of the proposed piers and essentially extend beyond the so-call "pier head line" the navigable fairway distances would range from 200 to 440feet, but overall, regardless if boats are moored at the ends of the piers, the available open water distance and remaining width of the federal channel would be 200 feet at a minimum free and clear for purposes of general navigation.

The reconfiguration of structures may provide easier navigation for larger vessels within the marinas. Removal of existing deteriorated structures may decrease the potential hazards to navigation that would likely be created if any portion of the existing structures would break free, such as during a storm event. Navigation within the waterway could also be temporarily impacted during project construction; however these impacts would be expected to be both short term and minimal.

As a result of the steps taken by the applicant to reduce channelward encroachment into the waterway, the maintenance of a setback from the Federal Navigation Project, and the special conditions proposed to be included in the permit document the project is not expected to adversely impact general navigation or navigational ingress and egress to the piers, docks, and marinas within the Washington Channel.

Therefore, the Corps has determined based upon available information, that the 200-foot wide navigation channel along with the approximate 500-foot to 600-foot diameter turning basin is adequate for general navigation in the project area of the Washington Channel. The only vessel which regularly uses the Washington Channel that may face restricted maneuverability during high traffic days could be the M/V Odyssey III.

1. Shoreline Erosion and Accretion:

The proposed project is not expected to result in any adverse effect on shore

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erosion or accretion since the project site shorelines are protected by existing bulkheads. The replacement bulkhead placed approximately 18 inches channelward of the existing deteriorated bulkhead is expected to have a beneficial effect by providing improved erosion control. Along shorelines that are protected by bulkheads, increased wave energy may cause scouring at the base of bulkheads and may reduce the life of the structures; however the project includes bulkhead repair and maintenance along the eastern shoreline. It is expected that bulkhead along the NPS property would not be appreciably impacted by any increases in boat use and any corresponding wave energy from boat wakes particularly since the waterway is subject to “no wake” and speed controls. Erosion and accretion could result to some extent as a result of the proposed work and the increases in boating activity. Any boat wakes that would be generated would not be expected to affect tidal circulation or disturbance of bottom sediments since the depths of the waterway in the project area are approximately -24 feet MLW.

m. Recreation:

The project is expected to have a beneficial effect on recreation since it would provide a designated location for recreational vessels to moor and would increase the number of slips available to transient and other vessels that utilize the waterway. The project would reduce the amount of space available for anchorage within the waterway since vessels would no longer be allowed to continue present practices of illegal mooring within the Washington Channel Navigation Project (Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats. That authority rests with the USCG); however, 15 mooring spaces could be available to owners of vessels if they don't want to dock at the pier facilities. The project could, to a limited extent temporarily impact recreational use of the waterway during project construction; however the impact is expected to be minimal and of short duration.

n. Water Supply and Conservation:

The proposed project is not expected to cause any adverse effects on water supply since the project site is not a source of potable water no adverse affects on this parameter are anticipated. Other portions of the Potomac River upriver of the project site are used for water supply.

o. Water Quality:

The proposed in-water activities include pile-driving and bulkhead construction. Although some limited increase in turbidity is expected to occur during construction, such as during removal of existing structures;

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construction of new structures; and during construction of the bulkhead replacement, however, any increases in turbidity beyond ambient conditions would be expected to be temporary and turbidity levels would be expected to return to pre-construction conditions as the construction activities cease and once the project is completed. Changes to water quality during construction are anticipated to be minimal. The proposed floating wetlands, though limited in size, may provide some water quality benefits. The overall redevelopment is expected to improve water quality with the implementation of best management practices incorporated into the construction plans and use of environmentally sustainable materials where possible. Water quality improvements that have been incorporated into the project designs include the reuse of the stormwater from 3.2-inch storm events within a majority of the project area in an on-site co-generation/filtration plant where stormwater reuse from a 1.2-inch storm event would supplement the Low Impact Development measures that were incorporated into the project design as a means to promote groundwater discharge and facilitate irrigation of the landscape and to reduce stormwater pollution of the Washington Channel. The project would include the retention of approximately 90% of stormwater and includes removal of garbage and debris from stormwater discharges. In addition, the marinas would be designed for the purpose of being designated as a Certified Clean Marina with the adoption of pollution prevention practices associated with marina operations and boating practices that include certain vessel cleaning and maintenance measures; petroleum control; sewage handling; and waste containment and disposal.

Boat traffic in the area varies from small vessels to sailboats to tourist cruise vessels, including commercial users, local residents, marina users, and transient boaters. Use of the waterway may result in the discharge of small amounts of gas, oil, and grease from inboard and outboard motors, as well as littering of the waterway with debris. It is expected that vessel traffic in the area and any associated pollutant contributions may increase somewhat due to increased use of the project area as a result of improvements to the area from the project construction. Water quality is not expected to change appreciably due to project construction. Generally, the in-water project activities and resultant uses could have some minimal impacts on water quality and those impacts may not be discernible from normal water quality fluctuations. The DDOE has indicated that a water quality certificate would be issued for the project.

Although some limited increase in turbidity is expected to occur during construction, such as during removal of existing structures, construction of new structures, and during construction of the bulkhead replacement, it is expected that any increases in turbidity beyond ambient conditions would be temporary, and turbidity levels would be expected to return to pre-

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construction conditions as the construction activities cease and once the project is completed. Overall, changes to water quality during construction are anticipated to be minimal.

p. Energy Needs:

No adverse impacts are anticipated on energy needs as a result of the proposed project, since the project site is not used in the production of energy products. The project would require the use of petroleum products for operation of construction equipment, resulting in a competing use of energy resources, and increased boat traffic resulting from improved navigation could result in an increase in fuel and oil use by boaters that would use the facilities at the project site, but overall the proposed project is not expected to have an adverse impact on energy needs.

q. Safety:

Recreational boaters must operate according to established navigation rules. Yet, each year, USCG boating accident statistics for the country show that there are numerous violations of navigation and safety rules by recreational boaters. The most common violations are caused by excessive speed, not maintaining a proper lookout, or not following other established navigation rules.

2009 USCG Statistics

- In 2009, the USCG counted 4,730 accidents that involved 736 deaths, 3,358 injuries and approximately \$36 million of damage to property as a result of recreational boating accidents.
- The fatality rate was 5.8 deaths per 100,000 registered recreational vessels. This rate represents a 3.6% increase from last year's fatality rate of 5.6 deaths per 100,000 registered recreational vessels.
- Compared to 2008, the number of accidents decreased 1.23%, the number of deaths increased 3.81% and the number of injuries increased 0.81%.
- Almost three-fourths of all fatal boating accident victims drowned, and of those, 84% were not reported as wearing a life jacket.
- Only 14% of deaths occurred on boats where the operator had received boating safety instruction.
- Seven out of every ten boaters who drowned were using boats less than 21 feet in length.
- Operator inattention, operator inexperience, excessive speed, improper lookout, and alcohol use rank as the top five primary contributing factors in accidents.

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- Alcohol use is the leading contributing factor in fatal boating accidents, and was listed as the leading factor in 16% of the deaths.
- Eighteen children under age thirteen lost their lives while boating in 2009. 50% of the children who died in 2009 died from drowning and 44% of those who drowned were wearing a life jacket as required by state law.
- The most common types of vessels involved in reported accidents were open motorboats (46%), personal watercraft (22%), and cabin motorboats (14%).
- The 12,721,541 boats registered by the states in 2009 represent a 0.23% increase from last year when 12,692,892 boats were registered.

Boater awareness and boater education are also keys to assuring boaters are knowledgeable in operating their vessels and in making judgments to safely navigate in less than ideal conditions. Since 2006, there have been 7 boating related accidents in the Washington Channel.

District of Columbia Laws, Marine Law Enforcement, and Safety

The following information was obtained from the District of Columbia:

It is the policy of the District of Columbia to promote safety for persons and property in connection with the use and operation of vessels in District waters.

The District's Harbor Master regulates the operation, navigation, mooring, and anchoring of all vessels and amphibian aircraft in the District waters, and shall enforce all laws and regulations relating to those waters.

Any person who violates any provision of DC law for which no specific penalty is otherwise provided, or who violates any provision of the regulations promulgated pursuant to this chapter, shall, upon conviction, be punished by a fine of not more than three hundred dollars (\$300) or by imprisonment for not more than ten (10) days, or both.

Any person who violates any provision of DC law for which no specific penalty is otherwise provided or who violates any provision of the regulations promulgated pursuant to DC law shall, upon conviction, be punished by a fine of not more than \$300.00 or by imprisonment for not more than ten days, or both. The penalties imposed by this chapter shall be in addition to, and not in lieu of, any penalties imposed by any other law or regulation.

The Harbor Master is authorized and empowered to:

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- Stop and board any vessel subject to the provisions of this chapter for the purpose of inspecting or determining compliance with this chapter.
- Make a summary arrest, or to issue a summons for appearance in court, for all violations of the boating laws.

Law enforcement vessels shall be marked so as to identify them as law enforcement vessels.

While underway and upon being hailed by the Harbor Master or Fire Chief, each vessel subject to the provisions of the boating laws shall stop immediately and lay to, or shall maneuver in such a way as to, permit the Harbor Master or Fire Chief to come aboard. All vessels shall yield and lay to any emergency law enforcement or fire vessel.

Definitions

- **Channels:** marked or unmarked waterways commonly used for navigation.
- **Charts:** official scale maps that designate the anchorage areas, channels, and other areas and matters specified in this chapter.
- **District Waters:** the area of all navigable waters within the District of Columbia and the shores and structures adjacent to those waters.
- **Harbor lines:** those limiting lines within the District of Columbia beyond which no piers, wharves, bulkheads, or other works shall extend or deposits be made as established by the Chief of Engineers, Corps of Engineers, U.S. Army, and the Mayor; approved by the Secretary of the Department of the Army; and on file with the Mayor.
- **Harbor Master:** the official of the Metropolitan Police Department who commands the Harbor Unit or its successor, and his or her authorized representatives, including any police officer acting for the Harbor Master.
- **Navigation Lights/Anchor Lights:** All boats are required to display navigation lights from sunset to sunrise and during periods of restricted visibility. When at anchor at night, boats must display an unobstructed all-round white light visible in all directions (360 degrees).

Safe Boat Operation

Speed

Except for police and fire vessels responding to an emergency, the speed of all power vessels shall be regulated to avoid danger or injury, either directly or by

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the effect of the wash or wake the vessels raise through their speed or otherwise, to persons or to other vessels, whether these vessels are floating, anchored, or underway to piers, wharves, bulkheads, bridges, or other waterfront construction.

The speed limits specified below shall not apply to vessels of the DC government or U.S. government that are responding to or engaging in any emergency condition, or to hydrofoil or air cushion vessels or vehicles that are operated for demonstration or experimentation purposes under the authority of a permit issued by the Chief of Police.

Except in the case of an emergency, no power-driven vessel shall be propelled or operated at a rate greater than six (6) statute miles per hour in the Washington Channel upstream from Hains Point.

No operator of any personal watercraft while underway and within one hundred (100) yards of another vessel shall jump any other vessel's wake while operating or in physical control of watercraft while on the District of Columbia's waterway.

When two (2) or more personal water operators are operating at a speed greater than ten (10) miles per hour, the operators shall steer their craft so as to be at least twenty-five (25) yards apart from any vessel to include any other personal watercraft.

Except in the case of an emergency or except as otherwise provided by the Mayor, no operator of any personal watercraft shall operate or be in physical control of watercraft at a rate greater than six (6) statute miles per hour between the hours of 4:00 p.m. and 12:00 p.m. on the date of the annual Independence Day fireworks display while on the Potomac River, in the Washington Channel from Hains Point north. No hydrofoil or air cushion vessel or vehicle shall exceed a speed of six (6) statute miles per hour in the Washington Channel.

Operator and Age Requirements

Boating education enhances the knowledge of boat operators and is a fundamental component of knowing how to safely, and legally, operate your boat. Over half of the states require proof of passing a boater education safety course in order to legally operate a powerboat or PWC. Even if not required by law, taking a safe boating course would help make boating experiences much more enjoyable, and may result in a premium discount on boat insurance rates.

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DC Laws

- No person under eighteen (18) years of age shall operate or navigate any vessel sixteen feet or more in length of any kind in DC waters, unless the person has successfully completed a boating safety course approved by the Harbor Master, or unless the person under eighteen (18) years of age is under the supervision of a person who has reached eighteen (18) years of age and who has successfully completed a boating safety course.
- Any person who is operating or navigating any vessel shall have in his or her possession satisfactory evidence of having completed an approved boating safety course, or the person shall make evidence of having completed a boating safety course available to the Harbor Master at the vessel's launching or berthing point on the shore adjacent to DC waters.

Age Requirements

No person, or agent or employee of a person, who owns, leases, or controls any wharf, pier, bulkhead; or structure on a wharf, pier, or bulkhead; or waters adjacent to a wharf, pier, or bulkhead; or any basin, slip, dock, waterfront, land under water; or any structure on any of these places shall rent, lease, or hire any vessel to a person who is under eighteen (18) years of age, unless the person under eighteen (18) years of age has successfully completed a boating safety course approved by the Harbor Master, or unless the person would be under the constant supervision of a person at least eighteen (18) years of age who has successfully completed a boating safety course.

Reckless Operation

Upon observing any vessel being used in violation of the boating laws in any of the following ways, the Harbor Master may order the operator to take any immediate reasonable steps that may be necessary for the safety of those aboard the vessel, including ordering the operator to proceed to a location designated by the Harbor Master, and to remain there until the situation creating the hazard is remedied or ended;

- Without sufficient lifesaving equipment;
- With improper navigation light display;
- In an overloaded condition;
- With an accumulation of fuel in the bilge compartment;
- With leaky fuel lines;
- Without sufficient firefighting equipment;
- Without a USCG-approved backflame arrester;

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- With inadequate ventilation; or
- With any other unsafe condition, and when, in his judgment, such use creates a hazardous condition, may order the operator to take such immediate reasonable steps as may be necessary for the safety of those aboard the vessel, including ordering the operator to proceed to a location designated by him and to remain there until the situation creating the hazard is remedied or ended.

Upon observing any vessel being used in violation of this chapter in any of the following ways, the Fire Chief may order the operator to take any immediate reasonable steps that may be necessary for the safety of those aboard the vessel, including ordering the operator to proceed to a location designated by the Fire Chief, and to remain there until the situation creating the hazard is remedied or ended:

- With an accumulation of fuel in the bilge compartment;
- With leaky fuel lines;
- Without sufficient firefighting equipment;
- Without a USCG-approved backflame arrester;
- With inadequate ventilation; or
- With any other unsafe condition that, in the Fire Chief's judgment, created a hazardous condition.

Entering Designated or Restricted Areas

Except with the permission of the Harbor Master, no owner, operator, or person otherwise in charge or control of any vessel shall allow that vessel to enter into or remain in any area in DC waters designated by the Mayor or other proper authority as a restricted area for use for a regatta, race, marine parade, marine tournament, marine exhibition, or similar organized aquatic event, or designated by the Harbor Master or other proper authority as a restricted area in the vicinity of an emergency.

The Harbor Master shall remove, or cause to be removed, and may impound any vessel entering into or remaining in any restricted area without his or her permission.

- Any owner, operator, or person otherwise in charge or control of a vessel who enters into a restricted area, or fails or refuses to remove the vessel from a restricted area, shall be in violation of this section.
- Nothing contained in this section shall be construed as prohibiting the passage through restricted areas of vessels operated by the governments of the United States or District of Columbia.

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- This section and other applicable provisions of this chapter shall be controlling as to any aquatic event held in DC waters, except to the extent that they are inconsistent or in conflict with any laws or regulations administered by the USCG relating to a particular aquatic event held under the supervision of the USCG.
- Nothing contained in this section shall be construed as amending, superseding, or in any way changing the prohibition against diving.

Navigation Rules

The navigational rules, commonly called the "Rules of the Road," direct the operation of boats and specify light and sound signals in order to prevent collisions.

Rules Applicable to all Vessels at all Times

- **Rule of Responsibility**

The rule of responsibility requires all boat operators to act in a reasonable and careful manner consistent with the ordinary practices of recreational boating. All boat operators must abide by the navigation rules at all times.

- **Depart from Rules**

There are times when a boat operator may have to depart from the established navigation rules when necessary to avoid danger. Situations arising from dangers of navigation and collisions require special attention. While the boat operator is obligated to follow the rules in nearly all established circumstances, there are times when a departure from the rules becomes necessary to avoid immediate danger.

- **Proper Lookout**

The best way to prevent a collision is to maintain a proper lookout at all times. A boat operator must know what is happening around the vessel at all times. By maintaining a proper lookout, a boat operator would be able to react to the presence of other boats in a timely manner.

- **Safe Speed**

Every vessel must operate at a safe speed so that it can take proper and effective action to avoid collision and stop, or turn away from other boats, within a distance appropriate to the prevailing circumstances and conditions.

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In establishing a safe operating speed, the operator shall take into account: visibility; traffic density; ability to maneuver the vessel; stopping distance; turning ability; background light at night; proximity of navigational hazards; draft of the vessel; limitations of radar equipment; and the state of the wind, sea, and current.

- **Risk of Collision**

The main goal of the navigation rules is to prevent collision between boats. For this reason, it is essential for boaters to use all available means to determine if any risk of collision exists.

Steering and Sailing Rules for Clear Daylight Hours

Narrow Channels

To help prevent collisions while operating in narrow channels, all boaters need to stay to the right hand side of the channel as is safe and practicable. Wide sweeping turns around bends should not be made, and recreational boats may not interfere with the passage of a vessel that can safely navigate only within a narrow channel or fairway and vessels should never anchor in a narrow channel.

Navigation Lights

Navigation lights must be turned on from sunset to sunrise and when a vessel is in, or near, areas of restricted visibility. Restricted visibility means vessels cannot see each other due to any type of inclement weather.

It is extremely important that boaters be informed and aware of what individual navigation lights represent, as the lights may be the only visible object that can be seen on a boat at night.

Lights for Nighttime and Restricted Visibility Operation:

- A "Masthead light" is a white light placed on the centerline of the vessel showing an arc of the horizon of 225 degrees.
- "Stern light" means a white light placed as near at the stern as possible showing an arc of the horizon of 135 degrees.
- "All-round light" means a light showing an unbroken light over an arc of the horizon of 360 degrees. On most recreational powerboats, the all-round white light takes the place of the masthead and stern light.

Power-driven Vessels

The manufacturers of recreational powerboats install navigation lights according to USCG specifications and the boat operator should not change the location of the lights.

The typical lighting configuration, for powerboats less than 39.4 feet/12 meters in length, consists of a combination bow light and all-round white light. However, the red and green running lights can be offset from the bow and placed on the side of the vessel. In either example, the colored lights show from straight ahead to 22 ½ degrees behind the beam of the boat.

The white light is usually an all-round light that shows an unbroken arc of 360-degrees, or it can be two separate lights (a masthead light plus a stern light), that when shown together create the same lighting pattern as the all-round light. The masthead or all-round white light must be at least 1 meter above the sidelights and show an unbroken arc of light around the horizon.

On International waters, powerboats less than 23 feet/7 meters in length with a maximum speed of 7 knots, may, in lieu of showing a masthead and stern light, display an all-round white light, and if practicable, sidelights.

Sailing Vessels

As with powerboats, the manufacturers of sailing vessels install navigation lights according to USCG specifications.

A sailing vessel less than 65.6 feet/20 meters in length has three different options of displaying navigation lights:

1. The lights may be combined in one lantern and displayed at the top of the mast.
2. Red and green sidelights and a stern light.
3. Combination bow light, a red over green light at the top of the mast, and a stern light.

The major difference between a powerboat and a sailboat is that the sailboat does not show a white light facing forward when underway. To help identify a sailing vessel, remember the saying “red over green, sailing machine”.

A sailboat less than 23 feet/7 meters in length, should attempt to show standard navigation lights for sailboats, but as an option may show just a white light in sufficient time to prevent collision.

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If your vessel is under oars, then it should display lights for a sailboat. As an option, your vessel may show a white light in sufficient time to prevent collision.

When anchored between sunset and sunrise and during periods of restricted visibility, all vessels must display 360-degrees of white light visible where it can best be seen from all directions.

Restricted Visibility: Conduct of Vessels in Restricted Visibility

This Rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.

- All vessels must operate at a safe speed equal to the current situation and surroundings. Power-driven vessels must have engines ready for instant maneuver.
- All vessels must take into consideration the conditions of the restricted visibility.
- If your vessel is equipped with radar, you must use it to determine if there is any risk of collision. If there is a risk of collision, the vessel may turn to starboard for a vessel forward of the beam, and should never turn towards a vessel to your side or behind you.
- If you hear another vessel that is in a position from either beam to dead ahead of your vessel, you must reduce speed to bare minimum, or stop, to assess the situation and prevent any possibility of collision.
- If at some point you observe the other vessel (it breaks through the fog), you then operate as directed for when vessels are in sight of each other.

DC General Definitions

- “Vessel” includes every description of watercraft used or capable of being used as a means of transportation on water
- “Power-driven vessel” means any vessel propelled by machinery
- “Sailing-vessel” means any vessel under sail provided that propelling machinery, if fitted, is not being used.
- “Underway” means that a vessel is not at anchor, or made fast to the shore, or aground.
- “Western Rivers” means the Mississippi River, its tributaries.
- “Great Lakes” means the Great Lakes and their connecting and tributary waters including the Calumet River as far as the Thomas J. O’Brien Lock and Controlling Works (between mile 326 and 327), the Chicago River as far as the east side of the Ashland Avenue Bridge

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(between mile 321 and 322), and the Saint Lawrence River as far east as the lower exit of Saint Lambert Lock.

- “Vessel engaged in fishing” means any vessel fishing with nets, lines, trawls, or other fishing apparatus which restricts maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability
- “Seaplane” includes any aircraft designed to maneuver on the water.
- “Restricted visibility” means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sand-storms, and any other similar causes.

Evacuation plan

At present, the entire waterfront is private, gate controlled, and has limited staging space at Pier 3, the Odyssey Pier, Pier 4, the Police Pier, and along the bulkhead from Pier 3 to the Police Pier for people to gather off of the land. If there were not people available to unlock the gates, this entire waterfront would be useless for evacuation.

In contrast to this scenario, the Market Pier and Docks, Transit Pier, District Pier, the 7th Street Pier, Pier 3, Pier 4, the Police Pier, and an increased amount of seawall would be available for access to the water and more importantly, orderly staging of evacuees. In addition, the revised configuration would provide additional location along the seawall at the upstream portion of the project near the I-395 Bridge for staging of evacuees. Even at an extremely conservative estimate of 10 square feet per person, and discounting the CYC and Gangplank marina docks, more than 5000 people could gather at one time for evacuation, than on the existing piers and docks, and according to what we understand, the limitation in 911 was access, not navigable water.

Washington Channel Navigation Safety

Regarding safety, the concerns expressed by the public were that the extension of piers; the increased boat traffic associated with the proposed redevelopment and expansion; and the reduction in width of the Washington Harbor Federal Navigation Project would result in difficulty to maneuver within the channel and lead to increased boat collisions, especially of larger vessels such as cruise ships, sail boats, and large yachts. Comments were provided suggesting that the applicant’s project did not allow for adequate channel width and that the relationship between adequate channel width and the length of the longest channel-berthed boat should be applied for this project and that a relationship concerning the inadequate channel width since the relationship multiplier for rough-water is 1.75 and given the length of the

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Odyssey being 240-feet long, the channel width here should be at least 420 feet, which is greater than distances between ends of the proposed pier ends and East Potomac Park.

With respect to the comment concerning the length of the Odyssey and the 1.75 factor, cited above, the commenter misapplied the design parameters used when designing slips to allow for turning, as stated above (1.75 factor) and multiplied it against the length of the longest vessel that uses the Washington Channel, the Odyssey to determine incorrectly the necessary width of the channel for general navigation. The 1.75 factor is applied to vessel length for purposes of slip design and vessel turning not channel design.

Overall, the proposed project has been designed to incorporate features with safety as a primary objective. A positive effect from a safety standpoint is expected since the proposed reconstruction and reconfiguration of the existing slips and pier structures would allow easier navigation and improved sightlines as well as the presence of the Harbor Master/Dock Master, concerns regarding the projects effect on safety in the area being compromised appear to be without foundation. The applicant has proposed to create a new Dock Master Program located at the Dock Master station on the District Pier. The duties of the Dock Master would include working in conjunction with the Harbormaster, the Harbor Precinct of the Metropolitan Police Department and the USCG, all located at the Police Pier, to provide additional safety, on-water assistance, and observation of the waterway as well as welcoming visiting vessels; assigning permanent and transient slips; enforcing mooring area stay limits; enforcing on-water policies and regulations; and monitoring potential fuel and oil discharges. During large on-water events, the Dock Master would provide on-water observation, boater assistance, and enforcement.

The applicant has provided revised plans to maintain a 40 to 75-foot setback between all structures and the Washington Harbor Federal Navigation Project to ensure safe navigation in the area and stated that the proposed improvement of marina facilities would provide additional mooring facilities that would provide safer docking spaces in boat slips or mooring fields to safeguard vessels navigating through the channel.

The project, after construction, would increase the number of boat slips available from 384 to 494, a 29% increase, and reduce the amount of area available for general navigation and anchorage that exists at present. Currently, pier structures extend approximately 32% the width of the waterway and proposed structures would extend approximately 55% the width of the waterway. The proposed project would occupy approximately 50.4% of the deauthorized Federal Navigation Project. The existing 200-foot wide

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Washington Harbor Federal Navigation Project would remain unobstructed by the proposed project and all moored vessels at the end of pier heads would not encroach into this 200-foot wide navigable fairway. However, it is also recognized that the project site is located in an area that is used as a harbor, or in effect is within an area where boats are docked. At times, especially during special events and holidays, where greater boat traffic is expected, such as special events and holidays, there would likely be greater risks for boat collisions and near misses, but as in all cases involving boaters and navigation, caution and using prudent judgment along with following the "Rules of the Road" are essential to assure safe navigation. Boater awareness and boater education are also keys to assuring boaters are knowledgeable in operating their vessels and in making prudent judgments to safely navigate.

Special conditions would be included in the Corps authorization if approved to ensure that all structures would be marked in accordance with USCG requirements; a Local Notice to Mariners would be published, as appropriate, prior to the completion of each construction phase and prior to any maintenance or repair, and the coordinates for all perimeter corners and the project plans would be coordinated with NOAA for inclusion in the NOAA Nautical Charts. Any and all debris introduced into the waterway as a result of any demolition, construction, and maintenance activities, or during a storm event would also be required to be immediately and completely removed and properly disposed of. The District Pier would be marked with, no less than three, slow flashing amber (yellow) lights, of sufficient intensity to have an operational range of one nautical mile, and each would be spaced approximately 100 feet apart.

Due to the requirement to mark the proposed structures and with inclusion of these proposed structures on NOAA Navigation Charts, along with the creation of the Dock Master program, and since the waterway at the project site is designation as "no wake" and has a 6 MPH speed limit designation, the effects on public safety are not expected to be a problem and it is anticipated that the project would, overall, provide benefits from a safety standpoint.

r. Food/Fiber Production:

The proposed project would not be expected to cause any adverse impacts on food or fiber production, since the project site is not currently being used in the production of either, or any agricultural products. The proposed work would not have negative impacts to the seafood industry relative to the loss and degradation of habitat that supports shellfish and finfish populations since the Washington Channel does not support these activities.

s. Mineral Needs:

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The proposed project is not expected to cause any adverse impacts on mineral needs, since the project site is not used in the mining of mineral products.

t. Considerations of Property Ownership:

The project site within portions of the Washington Channel, and upland area adjacent is owned by DC. Public Law 86-736 in 1960 authorized the original transfer of Southwest Waterfront property from the United States to the District of Columbia Redevelopment Land Agency⁷. H.R. 2297 To Promote the Development of the Southwest Waterfront in DC, and For Other Purposes, also identified other upland properties within the Southwest Waterfront that have been obtained by DC.

The DC Government is the applicant for this project. The proposed upland development is consistent with the land use plans of the DC Government. No land or real estate interests are now owned by the Corps of Engineers at this site, beyond rights of navigational servitude within the channel itself. The NPS East Potomac Park lands would not change with construction of this project; however, the riparian waters of the property would be utilized by the proposed mooring area and the submerged bottom of the Washington Channel waterway is under the jurisdiction of the NPS up to the existing DC pier head line.

u. Need and Welfare of the People:

The overall redevelopment project is public-private partnership between Hoffman-Madison Waterfront LLC and the District of Columbia Office of the Deputy Mayor for Planning and Economic Development. DC indicated that the vision for the proposed Southwest Redevelopment project is to create an urban destination where maritime activity and commerce mixes with culture and housing to form a vibrant neighborhood in close proximity to the National Mall. The criterion included direct public access lined by cafes and restaurants; active public spaces with public art and outdoor activities and festivities; waterfront theater where boats, public piers, pedestrians, cyclists, retail patrons, and cultural programs come together; and economically and socially integrated residences, commercial office space, hotels, and destination and neighborhood oriented retail. The project purposed to provide

⁷ 112-154: Report of the Homeland Security and Governmental Affairs, United States Senate to Accompany H.R. 2297 To Promote the Development of the Southwest Waterfront in the District of Columbia, and For Other Purposes dated 29 March 2012. Accessed 3 July 2012 from <http://thomas.loc.gov/cgi-bin/cpquery/T?&report=sr154&dbname=112&>

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a vibrant, world-class waterfront neighborhood in one of the most economically depressed areas of the District while also creating public access to the waterfront for its residents and visitors and providing secure, sanitary marine facilities in an environmentally sensitive manner.

The overall project would fulfill the goals of DC and the work in the Washington Channel would be expected to positively contribute in satisfying public needs for improved access, additional docking space, and mooring facilities within the project area; access to the water and maritime vessels; improved procedures for boarding cruise vessels and water taxis; and more controlled navigation and anchoring within the waterway. The beneficial effects associated with the proposed project would be expected to be permanent, provided the proposed project is successful and would thus improve the Southwest Waterfront area for use by the public.

The project location has several existing marinas with outdated infrastructure. Replacement of previously existing piers and the addition of new piers would have a beneficial impact and provide needed mooring locations within the Washington Channel for both transient and local vessels.

8. Endangered Species Act. NA

The proposed project:

- (1) Will not affect any threatened or endangered species: NMFS PRD advised that Shortnose sturgeon, due to their habitat preferences, and lack of this preferred habitat at the project site, was unlikely to be present within the action area.
- (2) The FWS did not respond to the public notice.

9. Essential Fish Habitat. The Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), as amended by the Sustainable Fisheries Act of 1996 (Public Law 04-267), requires all Federal agencies to consult with the National Marine Fisheries Service (NMFS) on all actions, or proposed actions, permitted, funded, or undertaken by the agency that may adversely affect Essential Fish Habitat (EFH). Any project in tidal waters within and below the mixing water/brackish ($0.5\% < \text{salinity} < 25.0\%$) salinity zone requires an EFH Assessment. The project site does not have the potential to adversely affect EFH or the species of concern by loss of spawning, nursery, forage, and/or shelter habitat since the project site waterway and nearshore areas along the eastern shoreline are protected by bulkheads and the activities associated with the existing marina facilities, including floating piers, moored barges and concrete-decked piers do not provide optimal conditions for these fishery resources. The waterway

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is impaired; the waterway depths within the open water and the areas near the bulkheaded shorelines are not shallow water habitat; the habitat at the project site does not support submerged aquatic vegetation and the project site is not in or adjacent to EFH as described under the MSFCMA, thus no adverse impacts to EFH would be expected to occur as a result of project construction. The Corps prepared an EFH assessment and requested an abbreviated EFH consultation. The NMFS did not contest the Corps' EFH Assessment, nor did the agency offer any objections overall.

10. Historic Properties. The proposed project would not have any effect on any sites listed, or eligible for listing, in the National Register of Historic Places, or otherwise of national, state, or local significance. The DC SHPO determined that undertaking would have "no adverse effect" on historic properties provided the applicant complied with the following: to coordinate future phases as well assure that treatment of the Lunch Room and Fish Cleaning Building/Oyster Shucking Shed proceeds in accordance with procedures that have been established and provided that the archeological testing, evaluation and identification of appropriate treatments for any National Register eligible resources is carried out in consultation with DC SHPO.
11. Cumulative & Secondary Impacts. The geographic area for this assessment is the Potomac River (HUC 02070010) watershed.
 - a. Baseline. The Potomac River watershed covers approximately 14,679 square miles in four states and DC. The river is more than 380 miles long from its start in West Virginia to Point Lookout on the Chesapeake Bay. The Potomac River provides 75 percent of the metropolitan Washington drinking water and all of the District's drinking water. The river also receives discharges from wastewater treatment plants, including the District's Blue Plains Plant and treatment plants for Arlington and Alexandria located just upstream of the DC/MD line. There are no drinking water intakes downstream of the District. The Washington Channel is a man-made water-body located east of the Potomac River and was built in the late 19th century by the Army Corps of Engineers. The Washington Channel runs from Hains Point at the confluence of the Anacostia and Potomac Rivers to the Tidal Basin. Fifty-three percent of the Washington Channel watershed is comprised of government, commercial, and residential development. Open space and parklands are found along the southern bank of the Washington Channel⁸. The

⁸DC Department of Health. "Final Total Maximum Daily Load for pH in Washington Ship Channel." Environmental Health Administration. 2004. District Of Columbia. December. 2004 <<http://ddoe.dc.gov/publication/ph-tmdl-washington-ship-channel-final>>

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projection is that authorizations will continue at the current rate due to the need for repairs of existing structures and the public and private need for new developments within the area.

- b. Context. The proposed project is typical of activities in the watershed. The Washington Channel and Tidal Basin are man-made water bodies located in the southwest section of Washington D.C. along the Potomac River. The Tidal Basin was built in the late 19th century by the Army Corps of Engineers as a part of the comprehensive management of the Potomac River and land development of Washington D.C. The main function of the Tidal Basin is to flush the Washington Channel with the freshwater from the Potomac River. Two sets of floodgates exist in the flushing system, one linking the Tidal Basin and the Potomac River, and the other linking the Tidal Basin and the Washington Channel. Freshwater flows into the Tidal Basin through the flap gates when the tidal elevation changes and the elevation in the Potomac River is higher than that in the Tidal Basin. In the same way, the freshwater flushes in to the Washington Channel as the water surface elevation becomes higher in the Tidal Basin. The purpose of the gates is to direct flow from the Potomac River to the Tidal Basin then to the Washington Channel. The Tidal Basin is shallow with an average depth of around 6.5 feet (2 meters) and a surface area of about 0.15 square miles (0.4km²). The Washington Channel, except where deauthorized, is approximately 400 feet (122 meters) wide and the depth varies from 3 feet (1 meter) to 26 feet (8 meter) (Velinsky et al. 1994). The land use around the Washington Channel is dominated by governmental, commercial, and residential develop and use along the northern bank of the water-body covering about 53 percent of the watershed. The area along the southern bank is characterized by open space and parklands, with the Washington Channel itself covering about 25 percent of the watershed. The channel, along the northern banks between the Tidal Basin and Fort McNair, is used as docking for small personal and larger commercial vessels and touring boats. There is a large fish market and series of seafood restaurants along the docking areas. There is no reason to believe that in the future conditions would change appreciably

Natural resource changes and stresses within the watershed include shading of habitat by fixed and floating pier structures, which would affect to some degree light availability for some organisms; however, this change would not be expected to impact SAV because there is no SAV located or mapped within the project footprint or general area. Pier structures may also provide an edge community and vertical reef type

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habitat that could provide for shelter, predation and forage activities. Some minor changes in water quality may result during construction, but would be expected to be minor and temporary and other potential impacts have been minimized through project redesign efforts by the applicant.

Additional key issues of concern in this watershed are the decrease in water quality; shoreline erosion; and sea level rise resulting in wetland loss. It is not anticipated that the proposed project would contribute cumulatively to these conditions or otherwise have an adverse impact on existing conditions of the waterway in this area of the Washington Channel or beyond within the action area of the project.

12. Corps Wetland Policy: This project is not proposed within wetlands; therefore, the project is in accordance with the Corps wetland policy.
13. Water Quality Certification under Section 401 of the Clean Water Act: the DDOE advised the Corps that upon receipt of the Corps' authorization, WQC would be issued.
14. Coastal Zone Management (CZM) consistency/permit: There is no approved CZM Plan that is in effect for DC, and therefore, CZM is not required for this project.
15. Other authorizations. The applicant is required to coordinate the proposed in-water work with the NPS for a permit due to the projects location channelward of the DC pier head line on NPS property. In addition the applicant needs to secure a permit from DC government to extend the pier head line further channelward beyond the existing limits.

The NPS requires that any persons undertaking activities which may impact on the proprietary interests of the United States in the existing bed of the Potomac River within the original boundaries of DC (except for that portion of the bed lying within the pier head line on the DC side of the river) must have a permit from the NPS authorizing such activities.

WQC for the work is required. The DDOE advised the Corps that upon receipt of the Corps' authorization, WQC would be issued.

The DC Zoning Commission maintains and regulates applications for zoning; schedules public hearings; coordinates zoning application reviews; and provides information to the public, developers, and contractors and would be the DC decision-making body for the Southwest Waterfront Redevelopment project. All applications for building permits are reviewed by the Zoning Administrator (ZA) in the Department of Consumer and Regulatory Affairs (DCRA) for compliance

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with relevant zoning regulations. The ZC hears and decides requests for special multi-purpose projects referred to as Planned Unit Developments (PUDs). When a project is designated as a PUD, the ZC usually mandates the development of standards specifically tailored to the project. The Zoning Commission for the District of Columbia, pursuant to the authority set forth in Section 1 of the Zoning Act of 1938, approved June 20, 1938 (52 Stat. 797, 799; D.C. Code 2001 Ed. 9 6-641.01) has not issued an order for the proposed project.

16. Significant Issues of Overriding National Importance. N/A

17. Compensation and other mitigation actions.

a. Compensatory Mitigation

(1) Is compensatory mitigation required? yes no

18. General evaluation criteria under the public interest review:

Corps analysis of comments and responses:

No Federal State or local resources agencies recommended denial of the project as originally proposed. In response to the PN, the Corps received comments from a total of 89 members of the concerned public, including 7 that were in support of the project. Objections focused on vetting the project with the boating community at large; narrowing of the Washington Harbor Federal Navigation project; the amount of space for anchoring of vessels, including those visiting from other countries; buildings on piers; navigation hazards, including collisions and during times of limited visibility; and additional pollution in the waterway. Some of the comments related to issues outside of the purview of the Corps. Several members of the public requested information in Corps records and received that information in response to Freedom of Information Act requests.

The applicant provided an alternatives analysis, navigation information, and revised plans on 15 June 2012 for Corps review; additional revisions dated 20 July 2012 were received in response to requests for additional information and subsequent discussions with the Corps. Through the development of the project, part of which occurred prior to submittal of the DA application, the plans were revised to reduce impacts. During the Corps review process, the project was further revised based on the comments provided by the public, resource agencies; and concerns of the Corps. The applicant avoided and minimized impacts by eliminating new residential and commercial buildings on pier structures; reduced the encroachment of the maritime related buildings on piers; eliminated the Pier 3 and Police Pier extensions and the museum pier; eliminated the "P" Street marina and breakwater; eliminated a majority of seawall related in-water steel pile work, dredging, landward seawall modifications, and minimized cast-in-place concrete work over water; eliminated Washington

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Marina additions; eliminated fill work below the I-395 bridge; eliminated the East Potomac Park Basin; relocated and reconfigured the Market Pier Docks and decreased slip width to increase navigational space near the bridge; reduced the encroachment of the Transit Pier, District Pier, CYC Docks, 7th Street Pier, Gangplank Dock extension; and increased the setback from the Washington Channel portion of the Washington Harbor Federal Navigation Project, as deauthorized to the 200 foot width, from 0 feet to 10 feet to 40 feet for floating project elements, except the District Pier, and to 75 feet for fixed pier structures. As part of the avoidance and minimization effort, the applicant replaced some of the proposed project elements with less intrusive project components including replacing the museum pier with the Transit Pier and Market Pier Docks; replacing the Pier 3 with additional slips at Gangplank Marina; renovating the existing Pier 4 buildings to consolidate cruise-related facilities in lieu of the residential condominiums; and replacing condominium-related private residential slips with mooring piles, catwalks and boarding floats for Pier 4 cruise-facilities.

- a. The relative extent of the public and private need for the proposed structure or work:

The project is a result of many years of planning and multi-jurisdictional development, beginning with the Anacostia Waterfront Corporation and the Anacostia Waterfront Initiative that created the vision and environmental guidelines for development in the area. The local and federal public agency participants have included: District Government, Office of Planning, District of Columbia's Office of the Deputy Mayor for Planning and Economic Development, District of Columbia Council, NPS, National Capital Planning Commission, Department of Defense, General Services Administration, Department of the Interior, Homeland Security, House of Representatives, Senate, Office of the Mayor of the District of Columbia, Council of the District of Columbia, US Commission on Fine Arts, and the Office of Congresswoman Eleanor Holmes Norton⁹, and the President of the U.S as a result of his signing of the deauthorization bill passed by the Congress.

The Southwest Waterfront Plan came about through a culmination of many years of planning efforts related to the Anacostia Waterfront Initiative which was a commitment to the waterfront revitalization by DC, quasigovernmental corporations, and federal agencies under a Memorandum of Understanding that was executed in 2000 to restore and revitalize the Anacostia River and its waterfronts. Public access was a vital part of the planning for the waterfront which included pedestrian and vehicular access and increasing waterfront activity to attract tourists and provide a location to celebrate the maritime history of DC at the site of its original commercial waterfront. The applicant

⁹NAB 2011-00766 Southwest Waterfront Redevelopment "The Wharf": Maritime Alternatives Summary, 15 June 2012, Pages 1-4, Moffatt & Nichol

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proposes to construct a major new mixed-used urban development which would include five new public parks, four new public piers and a half mile promenade.

The existing promenade is underutilized due to limited activity and lack of destinations and public spaces. There is no real public access to the waterfront within the project area since commercial interests such as the marinas and cruise vessel piers take up the majority of the shoreline and free open public access is not available. The intent of the waterside portion of the project is to make public the private, non-public waterfront and to provide access to the Washington Channel. Also, the project would complete a major portion of the Anacostia Riverwalk which is a continuous 16-mile trail on both sides of the Anacostia River as part of the America's Great Outdoors Initiative.

Public gains as a result of the proposed development would include improved public access to the waterfront; mooring areas and slips that would be available to transient boaters; and improved public transportation from the Transit Pier through water taxi services. Private gains would be realized through the improvement of existing marina facilities; increase in the number of slips to rent; and the development of the existing adjacent upland areas. Public losses would include the loss of open water areas that would be available for other recreation activities, such as anchorage.

DC indicated that the proposed project represents the largest investment for an economic development project in DC history. The needs for the project are to revitalize one of the most economically depressed areas of DC and to create the opportunity for DC residents to reclaim and be connected to their waterfront resource. The waterfront location would leverage the waterside amenities and environmental features to become a financially viable commercial and community that would encourage visitors and provide economic opportunities.

The in-water project elements are necessary to reduce trash and stormwater loading; increase security, sanitary facilities and public safety; provide water-based educational, commercial, recreational and cultural opportunities; improve and control navigation and vessel anchoring; repair and modernize in infrastructure; comply with ADA, USCG and Homeland Security requirements; create intermodal transportation hubs; and increase public connectivity to the water.

DC benefits of new business and public amenity development include addition to the tax base; increased employment opportunities; increased and improved recreational opportunities; and quality of life improvements for its residents.

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Private benefits include the economic return on the property for the developer and economic opportunities for purchasers and leasers of the proposed commercial development including office space; retail and restaurant related commerce; and goods and services related commerce. In addition, the operators of the Fish Market, CYC Marina, Gangplank Marina and the cruise vessels would likely experience increased business as a result of the improved and modernized facilities in the project area likely contributing to the local tax base.

- b. Describe the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed work where there are unresolved conflicts as to resource use:

Overall, there are no reasonable alternative methods or locations that would accomplish the purpose of the proposed activity with similar benefits since the purpose of the project is to provide a single venue capable of serving the presently unmet entertainment, cultural, recreation, retail, public space, and maritime needs of the residential and business community in the Southwest Waterfront area. The project is proposed to be located within an existing harbor area with a Federal Navigation Channel. The existence of three marinas, four commercial piers and a public safety pier brands the area as the most suitable for redevelopment as opposed to creating the proposed amenities in Anacostia and Potomac River waterfront areas in DC or elsewhere if available and may not have a deep water channel or the space to accommodate the scope of the entire redevelopment project; or areas where the proposed work would not be compatible with land use; or other sites that may not be available for development or available for sale. Due to the present existence of three marinas (Washington Marina, CYC, Gangplank), four commercial Piers (Fish Market Piers, Pier 3, Pier 4) and a public safety Pier (Police/Fire Pier), the lack of available off-site alternatives at this location, and the presence of the Federal Navigation Channel maintained by the Corps, the proposed location is the most practicable alternative with the minimal environmental impacts, including those impacts regulated under Section 404 of the Clean Water Act.

Alternative on-site plan designs were ruled out because of critical mass viability and lack of visibility or synergy between upland/waterway project components. The project was redesigned to reduce impacts by removing or relocating buildings; reducing the scope of the proposed pier and public access facilities; and creating a program to monitor navigation issues in the Washington Channel. The amended project is proposed within approximately 47 acres of tidal waters of the Washington Channel. Alternative designs more constricted than that proposed would not meet the project objectives. Alternatives that do not utilize the waterway to the maximum extent were

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considered by the applicant to underutilize the resources available; lack sufficient critical mass to support the upland development; and could put the project at risk of requiring future expansion and environmental impacts.

No Federal State or local resources agencies recommended denial of the project as originally proposed. Public objections focused on vetting the project with the boating community at large; narrowing of the Washington Channel Navigation project; the amount of space for anchoring of vessels, including those visiting from other countries; buildings on piers; navigation hazards, including collisions and during times of limited visibility; and additional pollution in the waterway. Some of the comments related to issues outside of the purview of the Corps.

The width of the Washington Channel was reduced from 400 feet to 200 feet under Public Law 112-143, signed on 9 July 2012. The project includes an elliptically shaped, 500 to 600 foot diameter turning area that would allow larger vessels, such as cruise ships, tall ships, and catamarans to more easily and more safely maneuver in the Washington Channel. Also, the mooring field is designed to prevent vessel mooring within the Washington Channel Navigation project.

The project was revised to address the concerns of the public and of the Corps. The residential and commercial buildings on piers were eliminated from the project; the channelward extents of the pier facilities were reduced and the portions of the project within the setbacks were redesigned to be floating and removable to allow for maintenance of the Washington Channel Navigation project. The District Pier, the only fixed pier within the 40-foot setback, would be lighted and the building on the pier which would house the Dock Master, would be located outside the 75-foot setback.

The applicant indicated that for the fixed pier dimensions, the lengths and elevations were established to accommodate the widest variation in ship lengths, boarding levels and to fully utilize the area outside of the navigation channel to allow each pier to have multiple uses, operational flexibility and minimize the requirement for additional construction or expansion in the future. The width of each pier is the minimum width that can support the pier's functions while maintaining safe pedestrian, ADA, vessel support and emergency access.¹⁰

The applicant submitted revised plans dated 20 July 2012 that relocated and reconfigured the Market Pier Docks to reduce impacts to navigation for boats transiting within the navigable fairway underneath the I-395 Bridge. The

¹⁰ Applicant letter dated 6 March 2012

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floating docks would be approximately 301 feet from the existing bridge pylons and would not impede the path of vessels navigating upstream underneath the bridge at its highest point. The plans were also revised to show the swing radii of the mooring buoys to keep vessels that would be attached to the mooring buoys within the mooring area, and outside the limits of the Washington Harbor Federal Navigation Project.

To further address and minimize navigation concerns, the permit if approved, would include special conditions stating that all structures must be marked in accordance with USCG requirements and further conditioned to require that the permittee contact the USCG, as appropriate, for publication/issuance of a Local Notice to Mariners /Broadcast Notice to Mariners prior to the initiation of the project and during each construction phase, as well as prior to performing any maintenance or repair that would involve heavy equipment, machinery, barges, tugs, or other vessels and equipment used to effect such maintenance and repairs; the coordinates for all perimeter corners and the project plans must be coordinated with the National Oceanic and Atmospheric Administration (NOAA) National Ocean Service for inclusion on the NOAA Nautical Charts; and any and all debris introduced into the waterway as a result of any demolition, construction, and maintenance activities, or during a storm event must be immediately removed and properly disposed; and the District Pier must be marked with no less than three slow flashing amber (yellow) lights of sufficient intensity to have an operational range of one nautical mile, each spaced approximately 100 feet apart as required by the USCG regulations and rules governing lights on structures.

In addition, the project would have to remove floating structures, including mooring buoys, as necessary, for maintenance of the Washington Channel Navigation project and maintenance of the NPS bulkhead shoreline. Also, the special conditions recommended by the DC SHPO have been incorporated into the Corps permit, and the permittee would continue coordinating with the DC SHPO through all phases of construction. Further, the permittee would be required to work under conditions to prevent impacts to the WMATA tunnel.

The site is not known to be frequented by any threatened or endangered species, nor is there any known critical habitat within the project area. The no action, or permit denial alternatives would not accomplish the applicant's objective. The proposed work would meet the project goals without compromising to any substantial degree, the ecological integrity of the Washington Channel, the Potomac River, and its tributaries. No substantial impacts to the environment are foreseen as a result of permit issuance.

- c. The extent and permanence of the beneficial and/or detrimental effects, which the proposed work is likely to have on the public, and private uses to which

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the area is suited:

The proposed work would permanently impact an area within approximately 47 acres of the tidal waters within the Washington Channel along approximately 3,115 linear feet of bulkheaded shoreline. The Washington Channel currently supports three marinas, pier facilities for cruise ship boarding, and a fish market, and provided open water areas for anchoring although illegal, but subject to oversight by Harbor Master (Note: The Corps Regulatory program does not have regulatory jurisdiction over anchoring boats. that authority rests with the USCG. The Corps has made the USCG aware of this past and current practice of anchoring in the Federal Navigation Project). In addition, a police/fire pier facility exists at the southern end of the project area. Land use issues are being addressed by the DC Government. The existing project area provides limited public access and passive outdoor recreational activities since the waterfront access is private, by vendor responsibility; therefore, any such uses legally require the property vendor's permission. Public Law 112-143 included transfer from the United States to the District of Columbia Redevelopment Land Agency title to real property located at the Southwest Waterfront Project site. The proposed project would create public spaces throughout approximately 55% of the project area and would allow public access to the waterfront. While the proposed project may have some impact on water quality, DDOE has indicated that water quality certification could be issued for the project, following a Corps permit decision. Additional impacts to water quality are expected to be minimal and may not be discernible from current water quality conditions in the waterway. The project is designed to reuse and retain 90% of rainfall on-site at a cogeneration plant, thereby, promoting groundwater discharge and landscape irrigation, and reducing contaminants discharging into the Washington Channel.

The existing marina and pier facilities extend approximately 32% and occupy approximately 125,860 square feet of the waterway (approximately 4.2%). The proposed structures would extend approximately 55% of the waterway and occupy approximately 232,670 square feet of the waterway (approximately 7.9%), an 87% increase in total area occupied by structures. In addition, approximately 17.84 acres of the Washington Harbor Federal Navigation Project in this area has been deauthorized. Approximately 7.1 acres of the deauthorized area would be utilized for structures and other maritime activities. A total of 9 acres of open water area (50.4% of the total deauthorized area) would no longer be available to the public for purposes of navigation within open waters.

Benefits for boaters include additional transient slips; dedicated recreational small boat access; dedicated low-cost mooring field; sewage pump-out

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facilities for transient and permanent slips; mobile pump-out facilities for mooring area; fuel sale; upgraded electrical and fire fighting capability on docks; ADA access to marinas; increased opportunities for community-based and non-profit boating programs; water quality improvements under "Designated Clean Marinas"; enhanced recreational, cultural and educational opportunities for boaters; destination for boaters; increased connectivity between local marinas and harbors via ferry and water taxi services; enhanced operational facilities for dinner cruise vessels; and increased safety and security with the implementation of the Dock Master program.

Public gains as a result of the proposed development would include improved public access to the waterfront; mooring areas and slips that would be available to transient boaters; and improved public transportation from the Transit Pier through water taxi services. Private gains would be realized through the improvement of existing marina facilities; increase in the number of slips to rent; and the development of the existing adjacent upland areas. Public losses would include the loss of open water areas that would be available for other recreation activities, such as anchorage.

The benefits associated with utilization of the completed project would be permanent. The development would allow increased public access and would be used for various year-round business, recreation, cultural and entertainment opportunities. Public benefits would also occur in the event of emergency, natural disaster or terrorist evacuation from land via the Washington Channel to the Potomac River and points beyond.

At present, the entire waterfront is private, gate controlled, and has limited staging space at Pier 3, the Odyssey Pier, Pier 4, the Police Pier, and along the bulkhead from Pier 3 to the Police Pier for people to gather off of the land. If there were not people available to unlock the gates, this entire waterfront would be useless for evacuation.

In contrast to this scenario, the Market Pier and Docks, Transit Pier, District Pier, the 7th Street Pier, Pier 3, Pier 4, the Police Pier, and an increased amount of seawall would be available for access to the water and more importantly, orderly staging of evacuees. In addition, the revised configuration would provide additional location along the seawall at the upstream portion of the project near the I-395 Bridge for staging of evacuees. Even at an extremely conservative estimate of 10 square feet per person, and discounting the CYC and Gangplank marina docks, more than 5,000 people could gather at one time for evacuation, than on the existing piers and docks, and according to what we understand, the limitation in the September 11, 2001 terrorist attacks in New York City was access, not navigable water.

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Also, the pier facilities and open water areas could accommodate vessels seeking safe harbor during storm events. Private uses may include additional development to meet the expected economic return on the property for DC and developer; however, the current expected build-out may preclude any further development, thus limiting the additional economic potential of the land and riparian waterfront areas.

Special conditions would be added to the permit, if issued, to address navigation concerns; proximity of structures and moored vessels to the Washington Harbor Federal Navigation Project; local permitting; cultural resources; and the WMATA tunnel concerns. Under the Corps PIR, the Corps has weighed and balanced the benefits of the project against the reasonably foreseeable detriments. The Corps concludes that the project benefits outweigh the detriments. Accordingly, the proposed project is determined to be not contrary to the public interest. Therefore, issuance of a DA permit for the proposed Southwest Waterfront Redevelopment project is warranted.

19. Determinations.

- a. **Public Hearing Request:** One request for a public hearing was received in response to the Corps Public Notice; however, the Corps determined that a public hearing was not warranted or necessary to obtain additional information to assist in making a permit decision. The Corps has considered the comments and concerns expressed by those in favor of the project as well as to those in opposition and to it and the request that a public hearing be held. The Corps has determined that the concerns and objections expressed relative to impacts on the public safety, navigation, and concerns over user conflicts are not substantial when balanced against the overall benefits and merits of the revised project proposing shore erosion control; modernized and expanded marina infrastructure and mooring facilities; additional public access opportunities; and commercial business opportunities that would be created by the construction which is expected to enhance the local economy.
- b. **Section 176(c) of the Clean Air Act General Conformity Rule Review:** The proposed permit action has been analyzed for conformity applicability pursuant to regulations implementing Section 176(c) of the Clean Air Act. It has been determined that the activities proposed under this permit would not exceed de minimis levels of direct or indirect emissions of a criteria pollutant or its precursors and are exempted by 40 CFR Part 93.153. Any later indirect emissions are generally not within the Corps' continuing program responsibility and generally cannot be practicably controlled by the Corps. For these reasons a conformity determination is not required for this permit action.

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c. Relevant Presidential Executive Orders.

- (1) EO 13175, Consultation with Indian Tribes, Alaska Natives, and Native Hawaiians. This action has no substantial direct effect on one or more Indian tribes.
- (2) EO 11988, Floodplain Management. The proposed project is not in a floodplain.
- (3) EO 12898, Environmental Justice. In accordance with Title III of the Civil Rights Act of 1964 and Executive Order 12898, it has been determined that the project would not directly or through contractual or other arrangements, use criteria, methods, or practices that discriminate on the basis of race, color, or national origin nor would it have a disproportionate effect on minority or low-income communities. The project, if successful in providing redevelopment of the Southwest Waterfront with improved upland development and additional access to the Washington Channel, would create a destination available for all segments of the population.
- (4) EO 13112, Invasive Species. There were no invasive species issues involved.
- (5) EO 13212 and 13302, Energy Supply and Availability. The project was not one that would increase the production, transmission, or conservation of energy, or strengthen pipeline safety.

d. Finding of No Significant Impact (FONSI). Having reviewed the information provided by the applicant and all interested parties and an assessment of the environmental impacts, I find that this permit action will not have a significant impact on the quality of the human environment. Therefore, an Environmental Impact Statement will not be required.

e. Compliance with 404(b) (1) guidelines. Having completed the evaluation in paragraph 4, I have determined that the proposed discharge complies with the 404(b) (1) guidelines.

f. Public Interest Determination: I find that issuance of a Department of the Army permit is not contrary to the public interest.

PREPARED BY:

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Laura Shively Date: 31 July 2012
Laura B. Shively
Biologist, Maryland Section Southern

Woody Francis Date 31 July 2012
Woody Francis
Ecologist, Maryland Section Southern

REVIEWED & APPROVED BY:

Kathy B. Anderson Date 31 July 2012
Kathy B. Anderson
Chief, Maryland Section Southern