

## CHAPTER I

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## 1.0 PURPOSE AND NEED

### 1.1 Introduction

Georgetown University (the University) proposes to construct a boathouse along the Potomac River, in the Georgetown portion of Washington, D.C. The proposed project site (Tract 102-114) is located within the Chesapeake and Ohio Canal National Historical Park (C&O Canal NHP) that is managed by the National Park Service (NPS).

The proposed site would be made available to the University by NPS in exchange for property that the University owns approximately one mile upstream. The NPS is interested in protecting the 1.09 acre upstream parcel due to the presence of remnants of the historic incline plane and sensitive natural resources at that site, in addition to eliminating the University's right to drive vehicles along the Capital Crescent Trail (CCT) to access the site. The land exchange is also intended to provide the University an area for constructing a non-motorized boat facility within a designated boathouse zone rather than on the upstream site.<sup>1</sup>

Since the property belongs to NPS and is being exchanged solely for the purpose of constructing a boathouse, the proposal must comply with all applicable Federal laws and procedures governing a proposed project by NPS in the National Capital Region. As a result, this Environmental Assessment (EA) is being prepared by NPS in compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA [40 Code of Federal Regulations (CFR) 1500 – 1508], and the environmental policies and procedures of the NPS including NPS Environmental Compliance Field Guide- Director's Order 12 (DO-12). The EA characterizes the potential direct, indirect, and cumulative environmental impacts of the proposed boathouse alternatives and the No Action Alternative and identifies mitigation measures to avoid, offset, or minimize the impacts that would be generated. The EA also provides information to be used in fulfilling Section 106 of the National Historic Preservation Act (NHPA).

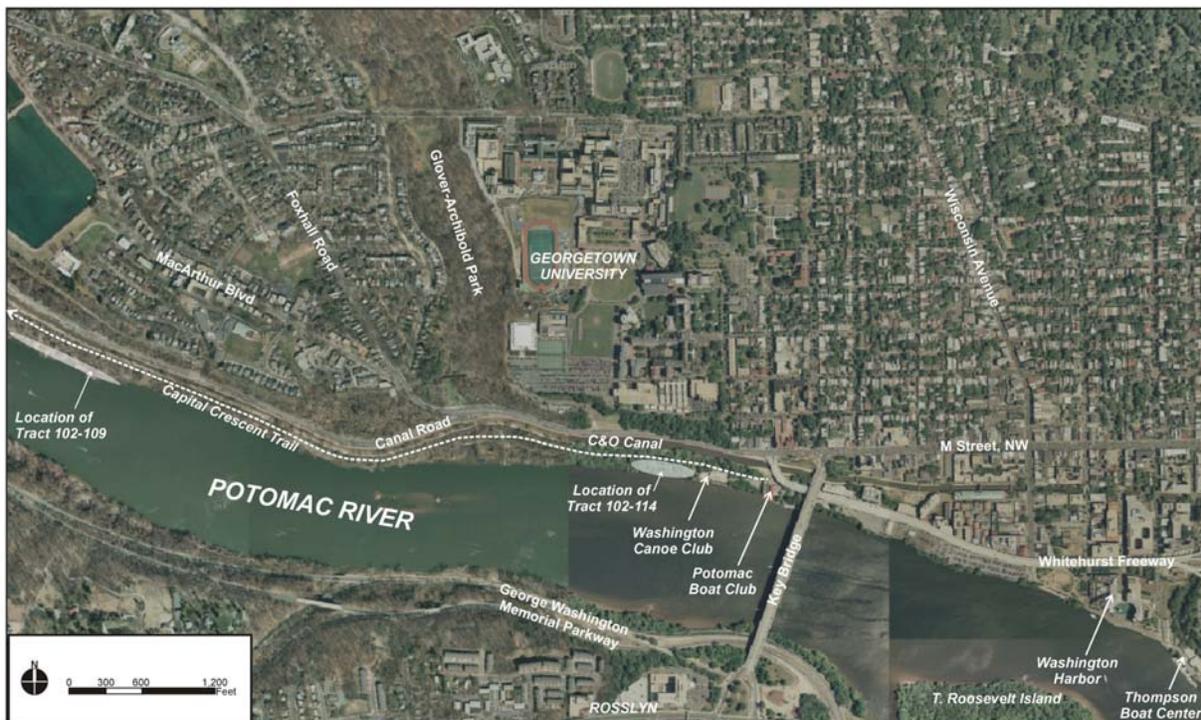
### 1.2 Background

The project site is located within the C&O Canal NHP that was established by Congressional Legislation in 1971 “to preserve and interpret the historic and scenic features of the Chesapeake and Ohio Canal, and to develop the potential of the canal for public recreation.”<sup>2</sup> Prior to the establishment of C&O Canal NHP, this portion of the riverfront was part of the Potomac Palisades Park that was planned in 1927 and approved by the National Capital Park Commission to protect and preserve the shoreline of the Potomac River upstream from Georgetown.

To further preserve the shoreline along the Potomac River, the National Park Service acquired approximately 34 acres along 4.3 miles of railroad property in the District of Columbia from CSX Railroad in 1988. Prior to conveying this land to NPS, CSX Railroad had transferred a 1.09-acre parcel to Georgetown University. This parcel, Tract 102-109, is located approximately one mile upriver from Key Bridge (see Figure 1-1).

<sup>1</sup> Environmental Assessment, Proposed Exchange of Properties between the NPS and Georgetown University within the District of Columbia and within the Boundary of Potomac Palisades Park within the Chesapeake and Ohio Canal National Historical Park, 1995.

<sup>2</sup> Ibid.



Source: EDAW, 2005.

Figure 1-1: Location Map

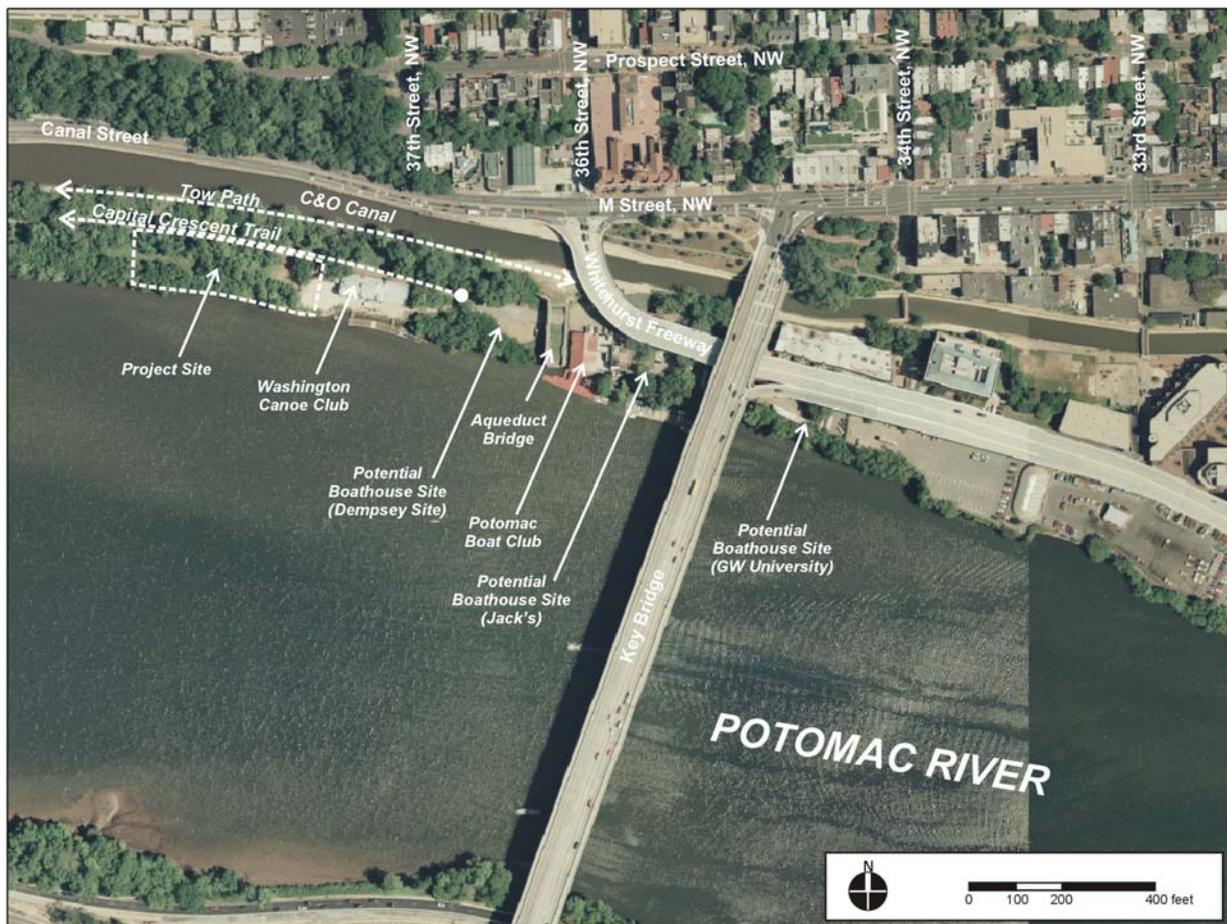
The National Park Service conducted a study in 1985 (updated in 1989 and subsequently in 2000) that identified a growing interest in non-motorized boating, particularly rowing, in the Washington, D.C. metropolitan area.<sup>3</sup> According to the study, there is sufficient demand from university and high school rowing programs, as well as individual rowers in the area, to sustain the addition of several boathouses along the Georgetown waterfront.

The subsequent *Georgetown Waterfront Park Plan* completed by NPS in 1987 designated an area both above and below Francis Scott Key Bridge for new boathouse construction. The rationale for this boathouse zone and its boundaries evolved out of extensive deliberation between the approval bodies and included the following: boathouses should be located where they were located historically, they should be clustered together so as to create a “boathouse row,” and they should be located west of 34<sup>th</sup> Street, N.W. Six separate sites for boathouse facilities were identified in the Plan; two of the six are existing boathouses and two others have potential designated sponsors or owners identified (see Figure 1-2). The site for the proposed Georgetown University boathouse is one of the identified sites (as discussed in greater detail under Section 4.1.3 of this document) and is the closest site with direct pedestrian access to the University.

In 1998, the NPS and Georgetown University entered into a preliminary agreement to exchange properties within the boundaries of the C&O Canal NHP. Under this agreement, Tract 102-114, under the ownership of the Federal government (and the project site for the proposed

<sup>3</sup> Survey of Non-Motorized Boating Activities Along the Georgetown Waterfront, NPS, 1985; Non-motorized Boating in the Potomac and Anacostia Rivers, Washington D.C., NPS, 1989; Draft Supplemental Report, Non-Motorized Boating on the Potomac River in Georgetown, NPS 2000.

boathouse) would be exchanged for Tract 102-109, owned by Georgetown University. According to the preliminary agreement, it is the intent of Georgetown University and NPS, “to establish, in perpetuity, a non-motorized recreational boathouse facility that is acceptable to both parties, on Tract 102-114.”<sup>4</sup> In addition to the actual tract, Georgetown University would relinquish a 15-foot wide access easement that it holds concurrent with the CCT for the distance of approximately one mile between the two parcels. In turn, NPS would allow a private facility to be constructed and operated within its park boundaries.



Source: EDAW, 2005.

Figure 1-2: Project Site

In 1995, an Environmental Assessment and subsequent Finding of No Significant Impact (FONSI) were prepared by the NPS that concluded that the proposed exchange of property between the NPS and Georgetown University “does not appear to constitute a major Federal action significantly affecting the quality of the human environment, as described in Section 102(2) (C) of the NEPA of 1969.”<sup>5</sup> The FONSI also identified that the land exchange would allow the NPS to accomplish several goals, including:

- <sup>4</sup> Preliminary Agreement to Exchange Real Property. Signatories – Vice-President and Treasurer of Georgetown University and Regional Director, National Capital Region, NPS, October 1998.
- <sup>5</sup> Finding of No Significant Impact, Exchange of Properties, Chesapeake and Ohio National Historic Park in the District of Columbia, NPS, 1995.

- 1) “the acquisition by the NPS of a wooded, prime wetland site along the shore of the Potomac River, thereby precluding from development, a largely undisturbed inholding of natural and scenic character;
- 2) the acquisition and extinguishment of nearly a mile of private access rights along a public trail; and
- 3) the implementation of the long-term goal of the NPS to enhance the opportunities for non-motorized boating on the Potomac River.”<sup>6</sup>

This land exchange EA and FONSI are included for reference purposes in the Appendix.

### **1.3 Purpose and Need**

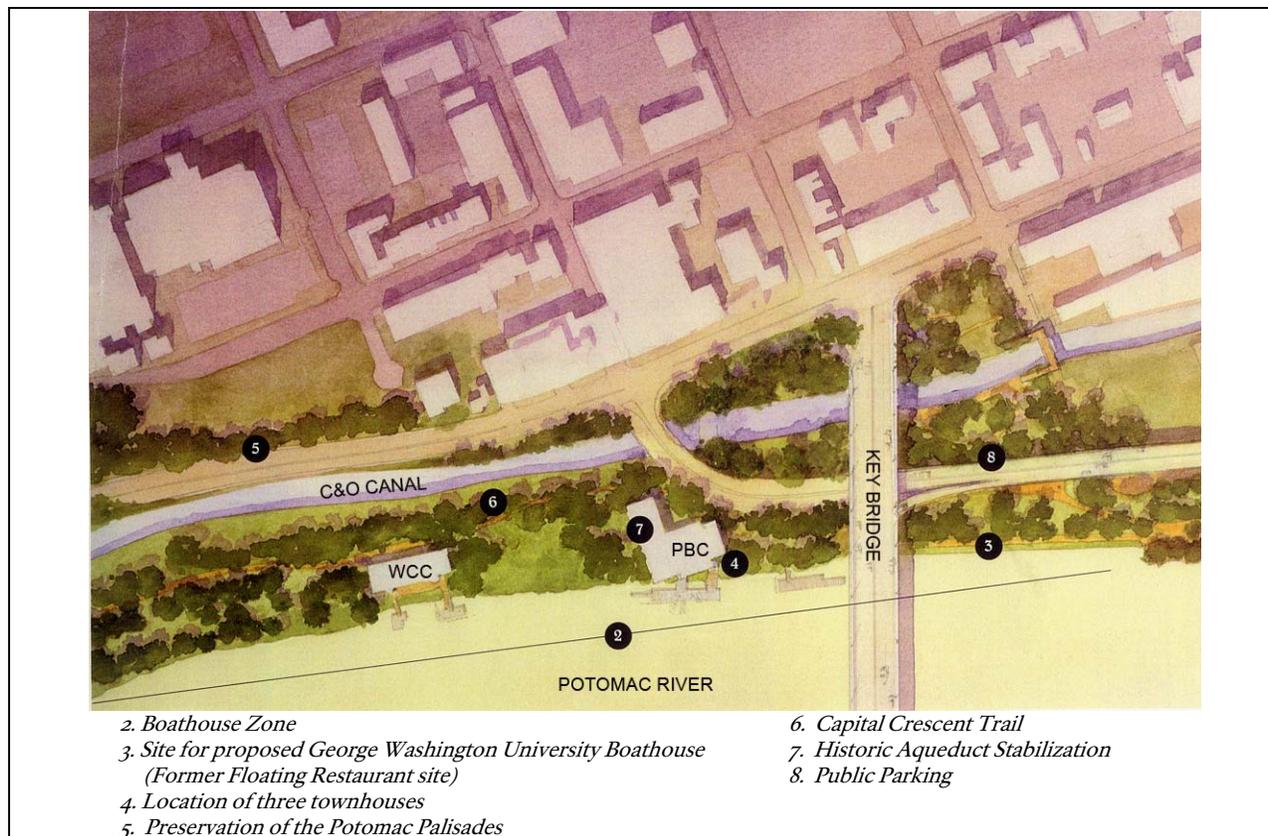
The purpose of the proposed action is to construct a modern boathouse facility that would provide training and boat storage space for Georgetown University’s rowing program and enable the program to successfully compete in National Collegiate Athletic Association (NCAA) rowing events. Georgetown University’s crew currently rows out of Thompson Boat Center (TBC) where the University rents boat storage space and space for exercise machines. In addition to Georgetown University, a number of colleges and high schools row out of TBC. These include George Washington University and Trinity College, as well as the following public and private secondary schools: Bethesda-Chevy Chase, Bishop O’Connell, Holton Arms, Georgetown Day School, Georgetown Visitation, McLean High School, National Cathedral School, Saint Albans, Sidwell Friends, Walt Whitman, Wilson, and Yorktown.

The proposed action would allow Georgetown University’s rowing program to move its boats and training equipment out of TBC into an area that is designated for boathouses in the *Georgetown Waterfront Park Plan* (see Figure 1-3). Removal of Georgetown University’s boats would allow some of the shells that are currently stored outside to be relocated within TBC. This would be consistent with the *Georgetown Waterfront Park Plan*, which ultimately seeks the removal of all outside boat storage along the Georgetown waterfront.

The proposed boathouse would also provide new and modernized training facilities for Georgetown University men and women participating in the University’s crew program in a single facility. Currently, training equipment is limited due to space constraints at TBC and is shared with other schools and private citizens using the facility. Existing athletic facilities and training equipment at Georgetown are limited due to competing needs of other University sports programs. Specialized equipment for indoor rowing training, as used for other similar collegiate rowing programs, is not available due to lack of athletic facility space elsewhere on the campus.

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<sup>6</sup> Finding of No Significant Impact, Exchange of Properties, Chesapeake and Ohio National Historic Park in the District of Columbia, NPS, 1995.



Source: NPS, 1997.

**Figure 1-3: Detailed Portion of Georgetown Waterfront Park Plan**

#### **1.4 Program for the Proposed Boathouse**

An analysis of the space and facility program for the proposed boathouse has been conducted for the purpose of this EA. The following paragraphs detail the program components for the proposed boathouse, which was an issue raised in the scoping process and has received considerable interest from local citizens and interest groups.

##### Program Elements

The boathouse facility is being proposed to accommodate the immediate and long-term needs of the University's men's and women's teams. The University's crew program currently has an average of 180 athletes, equally represented by men and women. There are eight teams: men and women heavyweight varsity teams, men and women lightweight varsity teams, men and women heavyweight freshmen teams, and men and women lightweight freshmen teams.

To meet the Federal requirements of Title IX (Education Amendments of 1972) relating to gender equity, Georgetown University is required and intends to provide men's and women's teams with access to comparable facilities. To accommodate eight teams consisting of crew members similar to current conditions, the University has identified a minimum of five bays for boat storage (to store 40 eight-oared shells for the eight teams).

In addition, the University has identified the need to accommodate an exercise area with ergometers, a rowing tank, and locker rooms adjacent to the boat storage area. A rowing tank and ergometers are necessary to improve the training and skills of the crew. Also, situating these in proximity to the boat storage areas would provide a single location for all of the program's facilities, offering efficiency and flexibility in training during a session, and saving time which the crew would otherwise spend moving between multiple facilities during a session. In most cases, similar collegiate crew programs have indoor training facilities co-located in a single facility adjacent to their on-the-water practice and race location to enhance warm-up, cool-down, and cross-training activities.

The proposed boathouse would also include crew coaches' offices, a boat repair shop, bathrooms, a kitchenette, an observation deck, and other ancillary storage spaces to support the teams' training and racing needs.

Under the current arrangement, the University rents two storage bays at TBC where it stores the majority of its rowing shells. In addition to TBC, the University also stores rowing shells on campus and at the Capital Rowing Club on the Anacostia River. If the boathouse is constructed, the University would store all of its rowing shells inside this new facility, which would provide additional space for other schools at TBC. Boathouse facilities in the Georgetown Waterfront Park will not include outside boat storage or equipment in order to facilitate use of the surrounding grounds by the general public.

### Factors Influencing Boathouse Design

Typical factors that influence the space requirements of a rowing facility include the space needed for storing rowing shells, along with ancillary uses that support the functioning of crew programs. A typical shell storage area includes boat-racks for storing shells. These shells vary in length between 24' - 6" and 58 feet, and affect the depth of a storage space. Typically, boat-racks have five to six shelves, with the lowermost shelf 2'-9" above the ground, and each additional shelf two feet above. This can result in a typical total floor-to-ceiling height requirement of 14 feet on the first floor. Storage bays (space between racks) are typically 20 to 25 feet wide to allow for removing or stacking shells from the racks, as well as providing space for repairing shells. A rigged shell varies between 6 feet and 6'-8" wide and affects the width of a storage bay. The internal height of a shell storage area is also dictated by the length of an oar (12.5') that is typically stored vertically. Another challenge in designing a boathouse is ensuring that the longest shells (eights), that are 58 feet long on average, can be maneuvered into and out of the storage bays.

Besides providing adequate space for crew equipment and training functions and ancillary support spaces, site factors including zoning requirements and floodplain issues have a direct influence on boathouse design. Zoning requirements were established by the D.C. Zoning Commission in 2003 for Tract 102-114 following a detailed review of Georgetown's zoning application for a boathouse at this site. Special exceptions, a variance and a map amendment to the W-O (Waterfront Open Space) zone were granted by the Commission for the boathouse that meets the following requirements: a 0.75 Floor Area Ratio (FAR); 50% lot occupancy, a maximum height of 40 feet (to the ceiling of the uppermost story as defined by the Zoning Commission); and a waterfront setback of 15 feet. (This is discussed in more detail in Section 3.1.2).

Since the project site is within a 100-year floodplain, the Federal Emergency Management Agency (FEMA) regulates construction at this location. According to FEMA requirements, habitable spaces and related mechanical and electrical equipment must be above the base flood elevation (BFE) which is 19 feet above mean sea level at this location.<sup>7</sup> FEMA approval is required for all uses proposed within the floodplain.

### Program Comparisons

Boathouses for university and college crew programs vary in size due to the size of the school's crew program, shared space with other uses or crew teams, site constraints, financial resources, and other factors. It is also difficult to compare other programs because crew sizes (the number of teams or squads) and the number of men and women rowing in the spring and fall can vary from school to school. Based on the research done for this EA, only two other schools have crew programs with eight teams similar to Georgetown: Princeton and Harvard Universities. Compared to Georgetown's proposed footprint size of approximately 15,000-18,700 square feet, Princeton has a boathouse with a footprint of approximately 18,200 square feet, which also includes space for the U.S. National Crew team, and Harvard has two boathouses (for their men's and women's programs, respectively) at two different locations that have footprints of approximately 9,500 square feet each, totaling approximately 19,000 square feet. Other programs that have smaller crew programs (four or six teams) typically have smaller boathouses, although the footprint sizes for these facilities vary considerably from 8,000 to approximately 18,000 square feet. Thompson Boat Center, which provides space for a number of schools in addition to Georgetown as well as other NPS facilities, has a footprint of 17,300 square feet, with over 37,000 square feet used outside for boat storage.

### **1.5 Public Involvement**

The CEQ Guidelines for the implementation of NEPA recommend that federal agencies that have made a decision to prepare an EA engage in a public scoping process. The purpose of the scoping process is to allow citizens and public agencies to identify issues that should be addressed in the EA, including but not limited to, alternatives, potential impacts, and recommended mitigation measures. A letter was sent in December 2004 to government and local non-governmental organizations, as well as individual residents, to notify them about the preparation of an EA for the Georgetown Boathouse project, and to seek comments regarding any environmental issues that should be addressed in the EA. In addition, a scoping meeting was held on January 11, 2005 at the Latham Hotel in Georgetown. Approximately 125 persons attended this meeting and provided feedback in a facilitated workshop format. Also, 153 comment letters/emails were received during the comment period.

A Scoping Report providing all comments received during the scoping process is available upon request from NPS. This includes both written summaries of the comments received at the January 11<sup>th</sup>, 2005 scoping meeting, and comments separately submitted in writing to NPS. As a brief summary, the comments raised generally fall into the following categories:

- Legal and feasibility issues related to the Land Exchange

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<sup>7</sup> FEMA Technical Bulletin 1-93, *Openings in Foundation Walls Required for Buildings Located in Special Flood Hazard Areas*. 1993.

- The NEPA process to be used for this project, (e.g., Environmental Assessment vs. Environmental Impact Statement)
- The boathouse program and space requirements
- Potential cumulative impacts of other boathouses and nearby projects
- Alternatives that should be considered in the EA
- Existing land use and socio-economic conditions
- Previous and existing plans and policies affecting use of the property
- Historic/archeological resource issues
- Visual/aesthetic issues, including views to the site
- Vehicular traffic and parking issues, including impacts to the Capital Crescent Trail
- Navigation and river use issues, including boating conflicts with other river users
- Hydrological resource issues, including impacts on wetlands, floodplains, flooding, water pollution, etc.
- Geology/soils issues, including potential impacts to the C&O Canal, siltation, etc.
- Terrestrial/aquatic resources, including potential impacts to wildlife, waterfowl, etc.
- Utilities and infrastructure, including potential impact on the Dulles interceptor sewer
- Other miscellaneous comments such as planned construction period, public access provisions, etc.

A more detailed summary of comments received during scoping are included in the Appendix, and available at the following website: <http://parkplanning.nps.gov/choh>

Agencies and the public are encouraged to review and comment on the contents of this EA. As identified in the Notice of Availability announcing the release of the EA for public comments, the EA is available electronically at the following website: <http://parkplanning.nps.gov/choh>

Written comments must be submitted during the official comment period through the website identified above, transmitted via fax, or mailed to the following address:

Kevin Brandt, Superintendent  
Chesapeake and Ohio Canal National Historical Park  
1850 Dual Highway, Suite 100  
Hagerstown, MD 21742  
Fax: 301-739-5275

## I.6 Relationship to Other Projects and Plans

To analyze and consider potential cumulative impacts, other past, present and reasonably foreseeable future projects in the area have to be identified. The following projects in the vicinity of the site could potentially result in cumulative impacts:

- Proposed Arlington County boathouse – A boathouse is proposed on the Virginia side of the Potomac River for the three public high schools in Arlington County. Wakefield High School currently rows out of the Capital Rowing Club on the Anacostia River; Washington-Lee High School currently rows out of the Potomac Boat Club; and Yorktown High School currently rows out of the TBC. Two sites are under consideration at this time to locate a boathouse that could vary between 14,000 to 19,000 gross square feet. One of these sites is located on the hill above the George Washington Memorial Parkway in Rosslyn with a footbridge for access to a dock on the river, and one site is located adjacent to Gravelly Point (near the 14<sup>th</sup> Street Bridge).
- Proposed George Washington University Boathouse – George Washington University is currently considering constructing a boathouse within NPS property in the Boathouse Zone identified in NPS’s *Georgetown Waterfront Park Plan*. The proposed site for this boathouse is located between Key Bridge and 34<sup>th</sup> Street, NW, the original site for the floating restaurant that is no longer being considered (see Figure I-3). This proposal will be undertaken as a land exchange similar to the Georgetown University proposal described in this EA. The George Washington University currently owns two townhouses on the waterfront adjacent to Jack’s Boathouse which will be transferred to NPS as part of the Georgetown Waterfront Park.
- Georgetown Waterfront Park – Later in 2006, construction is scheduled to start on Phase I of the Georgetown Waterfront Park located between 34<sup>th</sup> Street and Wisconsin Avenue. The first phase of this park has been designed in accordance with the *Georgetown Waterfront Park Plan* approved in 1987. The park will be a passive open park, allowing public access to the water and to the waterfront trail system extending to the north and south. A separate bike trail, which will relocate the CCT off of K Street, will be built in the park. Phase I of the park is located in an area now used as a public parking lot between K Street and the river. Phase II, which is located between Wisconsin Avenue and 31<sup>st</sup> Street, NW, will be constructed as funds become available.

## 1.7 Impact Topics Included in this Document

This EA examines the potential impacts of the proposed boathouse on the following broad resource disciplines: Socio-Economic Resources, Cultural Resources, Transportation Resources, Physical and Biological Resources, and Utilities/Infrastructure. Through the scoping process, together with Federal laws, regulations, Executive Orders and NPS Management Policies (2001), the following impact areas were determined to warrant detailed study in this EA:

- Land Use Patterns and Property Ownership
- Planning Controls and Policies
- Community Facilities, including recreational facilities
- Historic Resource
- Visual Resources
- Visitor Experience
- Vehicular Traffic and Parking
- Public & Transit Service
- Pedestrian and Bicycle Facilities
- Water Resources, including wetlands, floodplains and flooding, surface and ground water quality
- Noise Levels
- Geology, Topography and Soils
- Terrestrial Vegetation and Wildlife
- Aquatic Vegetation
- Stormwater Systems
- Sanitary Sewer Systems, including the Dulles Interceptor sewer line
- Water Supply Systems
- Energy Systems
- Solid Waste

## 1.8 Impact Topics Dismissed from Further Analysis

It has been determined that five topics would not be substantially affected by the proposed boathouse construction. Therefore, these topics were determined not to require detailed analysis in this EA.

- a. *General Economics*: Since Tract 102-114 is currently under Federal control, it is not subject to property taxes. Similarly, Tract 102-109 owned by the University is not subject to property taxes. Subsequent to the land exchange, both properties would remain exempt from property taxes. The potential construction of a boathouse at the project site would not result in additional economic activities in the area since the use of the new facility would result in similar economic activities to those that are currently generated with the Georgetown crew rowing out of Thompson Boat Center. Due to the high demand for boat storage space, if the University crew were to vacate TBC, the space would be taken over by schools or individual rowers. Therefore, there would be no permanent loss of rental revenue at TBC. Due to all of these reasons, a detailed analysis of general economics was eliminated from detailed analysis in this EA.
- b. *Demographics*: The proposed development of a boathouse would not result in changing the demographic composition of the site or surrounding area as there are no residences proposed. Therefore, a study of demographics was eliminated from detailed analysis in this EA.
- c. *Environmental Justice*: Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*) requires Federal agencies to: 1) identify any disproportionately high and adverse effects on human health or human environment of minority and/or low-income populations resulting from Federal programs, policies, and activities, and 2) identify alternatives that may

mitigate these impacts. The proposed action would not have health or environmental effects on minority or low-income populations or communities as defined in the Environmental Protection Agency's Draft Environmental Justice Guidance (1997). Therefore, environmental justice was eliminated from detailed analysis in this EA.

- d. *Archaeology*: As identified in the Environmental Assessment prepared for the Proposed Exchange of Properties between the NPS and Georgetown University, there are “no existing or potential cultural resources ... identified as occurring on this Tract [102-114].” The document based its assessment on a survey that was conducted as part of the development of the CCT. Also, that EA identified “no artifacts are expected to be encountered on this site”<sup>8</sup> due to the past construction and activities on this Tract, including the construction of the Dulles Interceptor sewer during 1962-1963. In fact, this site was originally under water and consists of filled land created as a result of human activities during the 19<sup>th</sup> and 20<sup>th</sup> centuries. As identified in that EA, “in the event that any subsurface artifacts were disturbed during the activities associated with this proposed land exchange, they will be appropriately recorded pursuant to National Park Service policy.” Therefore, archaeology was eliminated from detailed analysis in this EA.
- e. *Air Quality*: Construction and operation activities would generate short-term negligible air emissions from construction of the access road and boathouse, operation of construction vehicles and equipment, and access via shuttle bus during operation. The Washington, D.C. area is not in compliance with the National Ambient Air Quality Standards for ground-level ozone. Federal agencies are required to determine if their actions are in conformity with the area's air quality compliance plan. Due to the short duration of construction activities and lack of vehicle trips and parking, annual project emission levels are estimated to be sufficiently below the *de minimis* thresholds for emissions of 25 tons per year each for ozone precursors of VOCs and NO<sub>x</sub>. This allows for an exemption from determining conformity with the Washington, D.C. area air quality attainment plan. Therefore, air quality issues were eliminated from detailed study in this EA.

## 1.9 NEPA Requirements

This environmental assessment has been prepared in accordance with NEPA and NPS guidelines. The decision to prepare an EA, as opposed to an EIS, was based on the size and scope of the proposed project, particularly in relationship to typical NPS projects that trigger EISs, such as General Management Plans. In accordance with the Park Services's DO-12 Handbook guidelines for EA preparation, an EA is required if:

- “an action is not listed as a Categorical Exclusion (CE) (i.e., in section 3.3 or 3.4), or if the action is not listed as an action normally requiring an EIS (section 4.4), and a decision to prepare an EIS has not been made;

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<sup>8</sup> Environmental Assessment, Proposed Exchange of Properties between the NPS and Georgetown University within the District of Columbia and within the Boundary of Potomac Palisades Park within the Chesapeake and Ohio Canal National Historical Park, 1995.

- additional analysis and public input is needed to know whether the potential for significant impact exists;
- preliminary analysis indicates there is no scientific basis to believe significant impacts would occur, but some level of controversy over the use of one or more environmental resources exists; or
- the action is described on the list of actions normally categorically excluded, but one of the exceptional circumstances described in section 3.5 applies.”<sup>9</sup>

The EA process is intended to determine the potential impacts of a project and identify necessary mitigation measures. Should significant impacts be identified, an EIS would be required. Based on the size and scope of the project, an EA is the appropriate course of action at this point.

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<sup>9</sup> DO-12 NEPA Handbook, National Park Service, 2003.