### **APPENDIXES**

DRAFT NATIONAL MALL PLAN / ENVIRONMENTAL IMPACT STATEMENT THE NATIONAL MALL



KOREAN WAR VETERANS MEMORIAL

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### **APPENDIXES**



# APPENDIX A: THE NATIONAL MALL AND MEMORIAL PARKS: FOUNDATION STATEMENT

The National Mall and Memorial Parks, an organizational unit of the National Park Service's National Capital Region, manages several areas within Washington, D.C., including the National Mall, Pennsylvania Avenue National Historic Park, Ford's Theater National Historic Site, and numerous circles and squares throughout the city containing monuments, memorials, and fountains, such as those at DuPont, Logan, and Washington circles. To develop foundation elements for the National Mall plan, the first step was to understand the purpose and significance of the National Mall and Memorial Parks. The following purpose and significance statements were derived from court decisions; congressional statements; the laws, regulations, and policies that guide the National Park Service; and other laws and plans for Washington, D.C.

### **PURPOSE**

The following are the purposes of the National Mall and Memorial Parks:

- Preserve, interpret, and manage federal park lands in the national capital on the land delineated by the L'Enfant plan and the 1902 Senate Park Improvement Plan (commonly referred to as the McMillan plan), including green spaces, vistas, monuments, memorials, statues, historic sites, cultural landscapes, and natural and recreation areas.
- Preserve places where important events in U.S. history occurred (e.g., Ford's Theater, the Petersen House, Pennsylvania Avenue).
- Provide opportunities for visitor contemplation, celebration, commemoration, citizen participation, recreation, and demonstration, where the full expression of the constitutional rights of speech and peaceful assembly occur.
- Maintain space for the symbols and icons of our nation and its ideals (e.g., equality, freedom, and democracy).
- "Washington, D.C. is more than the seat of government and residence of nearly one million citizens. It is a second home to every American, and the symbol of this nation to the world."

### **SIGNIFICANCE**

The National Mall and Memorial Parks are significant for the following reasons:

- The areas under NPS stewardship are some of the oldest public lands in our nation, dating from 1791 when the District was established; the L'Enfant plan guided the creation and development of park areas.
- Much of the area managed by the National Mall and Memorial Parks reflects the physical expression of the historic L'Enfant and McMillan plans for the federal city.
  - The L'Enfant plan of the capital represents the states as bound together by the constitutional authority.
- The areas managed by the National Mall and Memorial Parks are vital components of the historic federal city — the singular designed urban core that from inception has physically expressed its political role as the American national capital city and seat of government.
  - The park retains the major design features of the historic plan of Washington, the sole American example of a comprehensive baroque city plan with a coordinated system of radiating avenues, parks, and vistas laid over an orthogonal grid, which was both symbolic and innovative for the new nation.
  - The McMillan plan, the first comprehensive plan for modern city development, resulted in the most elegant example of City Beautiful tenets.
  - In the 1870s a major public works project enclosed Tiber Creek within the sewer system and created West Potomac Park.
     The McMillan plan conceived ideas for West Potomac Park on the reclaimed Potomac Flats with gardens and spaces for commemoration.
- The National Mall and Memorial Parks preserve the stage upon which historic events of national significance occurred, such as the assassination of President Lincoln at Ford's Theater in 1865 and the "I Have a Dream"

- speech of Dr. Martin Luther King, Jr., at the Lincoln Memorial in 1963.
- The iconography, architecture, and open spaces within the National Mall and Memorial Parks are a source of national pride, and they commemorate individuals and events that symbolize our cherished values and ideals: democracy, freedom, justice, compassion, equality, unity, diversity, service, healing, citizenship, civil rights, liberty, service, dedication, courage, sacrifice, innovation, unity, and diversity, as well as struggles of the international community for freedom and democracy. A visit to the park sites is a pilgrimage to find inspiration among the principal symbols of America's heritage.
- The National Mall and Memorial Parks are the setting for national celebrations, parades, festivals, ceremonies, and rallies, as well as local and regional events.
- The National Mall and Memorial Parks comprise a globally recognized platform to exercise democratic First Amendment rights.
- The states within our nation are illustrated in:
  - street names and layout from the L'Enfant plan and successor plans
  - state stones in the Washington Monument
  - state listings on the Lincoln Memorial façade, the World War II Memorial, and the 56 Signers of the Declaration of Independence
  - · state flags at Columbus Circle
- African American personages, history, and events have taken place or are commemorated here (Benjamin Banneker, Pearl Incident, segregation and desegregation, Marian Anderson, 1963 March of Washington, Dr. Martin Luther King Jr., Rosa Parks state funeral, headquarters of the National Council of Negro Women).
- The District of Columbia, as the capital of the nation, is an international city that is a melting pot where many cultures and languages come together.

### **FUNDAMENTAL RESOURCES**

- The landmark L'Enfant and McMillan plans have become preeminent international examples of land use planning and design.
  - Pierre L'Enfant designed the plan of the City of Washington in 1791, and Andrew Ellicott mapped it the following year.
     Vistas for the most part relate to the course of avenues, street grid, monuments, and sites within the parks and the airspace up to the legal heightlimit of Washington, D.C.
  - The McMillan plan components include the Lincoln Memorial and the reflecting pool, a site for a hero (the Thomas Jefferson Memorial), and the Arlington Memorial Bridge.
- There are numerous commemorative sites, such as Ford's Theater National Historic Site, Pershing Park, Freedom Plaza, the U.S. Navy Memorial, the General Meade statue, the Mellon Fountain, the Franklin Delano Roosevelt Memorial, the Benjamin Franklin statue, the Pulaski statue, and the General Pershing statue.

### **FUNDAMENTAL VALUES**

- Park aesthetics contribute to the character of the capital city and its relationship with the people of the United States.
- Monuments and memorials honor individuals and events and reflect the core values of the country (citizenship, freedom, diversity, equality, civil rights, liberty, service, dedication, courage, sacrifice, innovation, unity, emotional healing, and struggles of the international community for freedom and democracy).
- Citizenship activities, visitor enjoyment, educational and recreational activities, as defined by the Constitution, laws, regulations, and judicial rulings.
- Opportunities for personal or emotional connections to the park.
- Public access and ownership and a sense of belonging.

### **PRIMARY INTERPRETIVE THEMES**

- The national capital belongs to all citizens, and it provides citizens a sense of belonging to a nation.
- The National Mall and Memorial Parks tell stories about ideas, people, and events that have changed and guided our nation and that are commemorated here.
- Sites managed by the National Mall and Memorial Parks offer fundamental citizenship experiences so that all may understand, celebrate, and participate in being American.
- The National Mall and Memorial Parks provide the stage where constitutional rights of free speech and assembly find their fullest expression.

- The L'Enfant and McMillan plans guided city development.
- The park is a <u>national</u> park, part of the larger national park system of public ownership and stewardship of America's treasures.

# OTHER IMPORTANT RESOURCES AND VALUES

- The river systems surrounding the park are critical to the city's setting. The confluence of the Potomac and Anacostia rivers is at Hains Point.
- Park roads generally provide scenic driving experiences and open and unimpeded access across public land in the middle of the District of Columbia, in accordance with historic plans.

### APPENDIX B: BEST PRACTICES

Best management practices used by others were researched to provide a foundation for determining what steps could be taken to improve maintenance and operations for the National Mall. The review of best practices has been an ongoing process as alternatives were developed, and the most applicable practices were included in the action alternatives. The best practices that have been considered are summarized below.

## **Design Features for Public Use and Maintenance**

Destinations should be convenient and flexible, and they should be well used throughout the day so people are comfortable being there. Best practices for design include:

- Create a sense of place and enhance the landscape appearance through a hierarchy of design for site furniture (benches, trash cans, information stations, light fixtures, and orientation signs), with coordinated logos, color systems, signage, uniforms, and messages.
- Use high-quality and durable materials and details to attract users, contribute to respect and user stewardship, and deter vandalism. Quality is the result of design, construction, facility condition, and maintenance. All four are needed components to achieve the desired standards. Quality places are pleasant to be in and appeal to all five senses. Quality, comfort, cleanliness, and feelings of safety make a good first impression.
- Use design elements such as planting beds, cobblestone borders, raised curbs, placement of seating, mobile carts, groundcovers, and decorative or post-and-chain fencing to manage the movement of people and to protect landscape areas and reduce social trails and damage to trees and turf.
- Design public areas that incorporate the attributes of successful places:
  - Access and linkages good visual access, walking environment, defined access routes that are convenient to entries, multimodal access, and convenient transit stops
  - Comfort and image cleanliness, safety, places to sit

- Uses and activities many types of activities that appeal to diverse users and mixed ages, space for singles and groups, areas used throughout the day, and a management presence
- Sociability meeting places for singles and groups, pride in features, destinations that bring people together, smiling people who make eye contact
- Plan for certain types of visitor amenities that go together, such as signs, seating areas, cafés, restrooms, and places where paths cross.
   Functioning together, these elements have a bigger impact than they would alone.
   Combining activities and uses in one area can help create a comfortable and social place for people to relax, spend time, and attend to several needs at once (PPS 2008).
- Encourage visitors to linger at visitor service locations by making them pleasant places.
   This will help concentrate trash where it can be handled efficiently and reduce trash at memorials or other trash-free zones. For example, the following groupings of amenities would be suitable for areas of the National Mall:
  - Entries identification and welcome signs, orientation /directional / wayfinding signs, seating, trash / recycling containers
  - Memorials commemorative works, education and information, bookstores, restrooms / drinking water, seating for contemplation
  - Connections / on-the-way experiences —
     orientation maps, directional signs, walks,
     pleasant surroundings for enjoyment, seating, shade, education, interactive water
     features, restrooms / drinking water, food
     carts, refreshment stands with outdoor
     seating and tables, trash / recycling containers, limited retail, bike parking, transit
     access (sightseeing, tour bus, etc.)
  - Visitor facility areas destinations where visitors can linger and recharge, views, food, gifts, bookstores, restrooms / drinking water, performance / entertainment areas, trash / recycling containers, gardens, water features (including interactive

- features), seating and tables, convenient transit access (sightseeing and tour buses, etc.)
- Events convenient to entries, programmable space for events, portable restrooms, event logistics, utilities, defined access routes
- Restrooms seating, trash containers, walks, drinking water, wayfinding, and education
- Consider ease of maintenance and typical uses, and incorporate ergonomics that support employee safety.
- Ensure that access and circulation routes accommodate staff and maintenance vehicles, as well as pedestrians and other types of use.

### **Natural Resources**

#### Soils

- Maintain or restore soil function to support healthy plants, biological communities, infiltration, and water storage.
- Alleviate erosion and compaction.
- Maintain or improve soil conditions in the top 12 inches of soil (constituting the root zone). Soils should contain the appropriate amount of organic matter to support infiltration and water storage. The least harmful soil amendments, such as compost, should be used, and conditions should be created to restore soil organisms (American Society of Landscape Architects [ASLA] et al. 2008).

#### Vegetation

- Green, organic landscapes are often safer, cleaner, and healthier for everyone. The public should understand "green" goals.
- Select plants that are suitable for the area to ensure that they will grow and that they can be easily maintained.

### **Event Management**

To better accommodate events, spaces should be designed to sustainably accommodate events. This would include the following best management practices

· Pave surfaces in event venues.

- Design routes and areas to accommodate access and facilities such as stages or portable restrooms.
- Provide utility infrastructure and connections in certain areas to minimize resource damage.
- Provide permanent, regularly spaced tent anchor locations to eliminate the need for tent stakes.
- Replace turf with a sand-based soil system combined with an efficient irrigation system.
- Design areas to support temporary events fencing.

Successful event permit processing, operations, and management look at ways to address or control the impacts of high levels of use. Best practices include

- Develop on-line processes for permits and payment.
- Write an events policy that identifies the physical capacity of each area (numbers of people who can safely fit into the space).
- Limit the number, location, or duration of events (17–21 days is typical).
- Allow or prioritize events that have some relationship to specific identified goals or locations.
- Schedule events at non-peak times or seasons to attract use when resources can absorb more use.
- Require back-up plans in case of inclement or extreme climatic conditions (hot or cold, wet or dry).
- Provide maps or onsite marking for utilities and infrastructure, as well as resources that are to be protected.
- Build post-event recovery time into the event scheduling process.
- Use a tiered permit fee system.
- Recover the full costs to restore or repair

Best practices for operations and management during events are varied and extensive. They include:

 Monitor events constantly and document preand post-event conditions.

- Utilize checklists to record compliance with permits.
- Prohibit event infrastructure or facilities within drip lines of trees
- Identify locations for temporary event facilities, such as trucks with portable restrooms or temporary walkways.
- Systematically provide information about and improve access to public transportation.
- Close roads to accommodate events.
- · Limit events on turf or in vegetated areas.
- After events, quickly restore areas.

### **Public Access**

*Pedestrian Environments* — Walking environments should be safe, comfortable, convenient, efficient, and welcoming.

- Provide seating, human-scale street furniture, and interesting pedestrian amenities that make walking a pleasure.
- Ensure street crossings are safe, and use various traffic-calming measures.
- Treat motorists and pedestrians equitably; for example, make waits at stoplights equal for both pedestrians and drivers, and do not give vehicles priority in walkable urban areas.

*Traffic Calming* — Traffic calming is the use of techniques such as engineering design, education, and enforcement to reduce traffic speeds and improve conditions for nonmotorized users.

- Provide speed humps, raised crosswalks, raised intersections, textured surfaces, midblock crosswalks, and traffic circles at intersections.
- Engineer design solutions to reduce the volume of vehicles in an area by controlling directional movement.

**Bicycling** — Bicycling is a nonpolluting, healthy and sustainable mode of transportation, as well as a recreational activity.

- Promote bicycling through more equitable use of road space by converting some road lanes to bike use.
- Provide bike racks along with other should be provided, along with close-in bicycle parking spaces and valet parking for events.

- Give priority to clearing snow from bike trails.
- Foster bike-sharing rental programs to make bicycling more convenient.

*Public Transportation* — Better public transportation access equates with improved quality of life and better environmental quality.

- Facilitate connections between different modes of transit (subways, buses).
- Increase bicycle use and alternative public transportation as important components of sustainable, green urban areas.
- Use transit-oriented development to reduce automobile dependency and emphasize pedestrian-friendly experiences, quality of public spaces, place identity and character, and sustainable development.
- Concentrate development along transit corridors, generally within a 10-minute walk from subway, light rail, heavy rail, or commuter stations or along heavily used bus or bus rapid transit corridors.

*Travel Demand Management* — The goal of travel demand management is to manage congestion, improve air quality, and enhance quality of life.

- Reduce private vehicle use and use variable price parking meters.
- Use parking controls to reduce vehicle numbers in urban core areas, and discourage less efficient automobiles through parking policy.
- Provide parking cost incentives to promote free or close-in parking for green vehicles.

*Tour Bus Management* — Best practices to manage tour buses include

- Designate curbside loading / unloading areas, as well as prohibited parking/stopping areas.
- Enforce time limits for stopping or idling (3–10 minutes).
- Provide long-term parking in peripheral areas or at centrally located off-street, multi-modal parking facilities, or provide parking locations with a single parking fee that allows in and out parking.
- Control use through daily permits, by prohibiting access to some roads or requiring the use of designated routes, limiting the

- number of buses, and developing a tour bus registration system.
- Require tour bus users to transfer to local transit to reduce tour bus congestion in certain areas.

### **Visitor Experience**

Memorable visitor experiences can be created by considering all aspects of how visitors get to the park, find out where to go, learn about what they are seeing, and move through the site. In addition, providing quality places that are pleasant to be in can help visitors enjoy being on site, knowing that they are in a safe environment and that they can easily take care of personal needs. Onsite staff, settings, and programs should all support memorable visitor experiences.

- Make visitor amenities (rest areas, water, bathrooms, food service, gift shops, and stroller and locker rentals) convenient, accessible, and sized and configured to meet the visitation levels on high-volume days.
- Incorporate educational messages into facilities.
- Provide many types of activities and choices of things to appeal to diverse users and mixed ages.
- To reduce congestion, encourage use during non-peak time with incentives and programs, such as pricing breaks, advanced reservation systems, timed ticketing, coordination with tour companies, and scheduling special events and programs during non-peak times or at locations that can accommodate more use.
- Utilize multiple types of food service, ranging from mobile carts, refreshment stands, concentration of fast food choices (food courts), order-ahead picnic or pickup food, and full service restaurants, to meet a variety of user needs. The recommended split between fast-food and full-service facilities is 80% fast-food to 20% full service. Mobile carts are generally around 5% of the 80%.
- Provide quality retail merchandise at all price ranges and ensure that it relates directly to the desired visitor experience.

### **Operations and Maintenance**

Building public support and encouraging positive visitor behavior can help achieve higher mainte-

nance standards. Well-maintained and clean areas encourage a higher standard of behavior.

- Prominently display visitor rules of behavior, and provide a visible management and staff presence.
- Take time to help users understand regulations, limits, and maintenance goals to help gain their cooperation and support.
- Use simple but visually unobtrusive systems, such as flags, to identify areas closed for restoration.
- To foster a greater sense of stewardship, involve the public in activities such as planting, volunteer projects, and cleanup.
- Develop written standards of care and criteria for all areas and types of facilities, ensuring that they are clear and understandable.
- Use photos to illustrate desired or satisfactory conditions as well as unsatisfactory conditions. Make sure all staff understand the desired standards or level of care and know their role in achieving them.
- To ensure that standards are achieved, use daily checklists, surprise or scheduled walkthrough inspections, and peer reviews.
- When feasible, use or modify recognized standards developed or sanctioned by professional associations or organizations.
- Ensure that all staff members support standards through actions such as picking up trash.
- · Make clean and "green" the goal.
- Assign staff to certain areas to help build pride as they take care of "their" site.
- Supplement geographic area teams with quick response teams to address immediate and high-profile needs.
- Have staff members ask visitors for immediate feedback that can be used to recognize good work as well as identify areas for improvement.
- Focus employee development on needed skills and building expertise to handle prominent activities.
- Use specialists for trees, horticulture, organic turf, irrigation, or display fountain pumps to supplement core staff functions.

- Take advantage of specialized training programs provided by organizations with historic landscape preservation experience, such as the nonprofit Olmsted Center for Landscape Preservation, to draw on their expertise.
- Cross train staff to maximize learning from best practices or to ensure a common knowledge and understanding of related tasks (e.g., grounds maintenance crews or those who provide directions and visitor information).
- For waste management, concentrate trashgenerating activities at specific places, such as food service locations or refreshment stands so visitors will be more inclined to stay there to eat or take care of other needs and then deposit their trash and recyclables in appropriate receptacles.
- Locate trash and recycling containers together, and make sure they have restricted openings so the containers are not misused.
- Use highly visible symbols and messages on trash and recycling containers.
- Locate trash and recycling containers so that visitors can see them clearly and are not tempted to litter.

- Thank visitors for putting trash in containers, recycling, or picking up trash.
- Mechanize trash and recyclable pickups to promote efficiency and reduce the potential for staff injuries.
- Strategically locate pickup areas so they are easily accessible and make operations as efficient as possible.
- Conduct major trash pickups at night so the park is clean every morning.
- Provide regular maintenance during open hours.
- Monitor use levels in facilities such as restrooms so that facilities are cleaned in a timely fashion and the desired standard of care is achieved.
- Use electronic monitoring to identify maintenance needs (burned out light bulbs) or to set regular maintenance schedules (such as self-cleaning restrooms).
- Create a public website to help identify maintenance and repair needs, as well as to respond to public concerns.
- To simplify work and limit the types of expertise needed, standardize furnishings, component parts, and equipment to the extent feasible.

# APPENDIX C: NATIONAL REGISTER PROPERTIES ON THE NATIONAL MALL

### **HISTORIC DISTRICTS NEAR PLAN AREA**

17th Street

Downtown

East and West Potomac Park

Federal Triangle

Fifteenth Street Financial

Lafayette Square

L'Enfant Plan of the City of Washington, District of Columbia

Northwest Rectangle (determined eligible)

Pennsylvania Avenue National Historic Site

Potomac Annex (determined eligible)

Rock Creek and Potomac Parkway

The Mall

## PLAN AREA — IDENTIFIED CULTURAL LANDSCAPES

Constitution Gardens

D.C. War Memorial

Lincoln Memorial Grounds

The Mall

Thomas Jefferson Memorial

Washington Monument and Grounds

Union Square

West Potomac Park

### PLAN AREA — HISTORIC STRUCTURES

- 1. 56 Signers Memorial
- 2. Arts of Peace (Literature & Aspiration)
- 3. Arts of Peace (Music & Harvest)
- 4. Braddock's Memorial Rock Well
- 5. Canal Lockkeeper's House
- 6. Capitol Reflecting Pool
- 7. Constitution Avenue (Corridor)

- 8. D.C. War Memorial
- 9. D.C. War Memorial Pathway
- 10. Downing (Andrew Jackson) Urn
- 11. Ericcson (John) Monument
- 12. First Airmail Flight Marker
- 13. Franklin Delano Roosevelt Memorial
- 14. George Mason Memorial
- 15. George Mason Memorial Fountain 4
- 16. German American Friendship Garden
- 17. Grant (General Ulysses S.) Memorial
- 18. Henry (Joseph) Memorial
- 19. Independence Avenue, SW (Corridor)
- 20. Japanese Lantern
- 21. Japanese Pagoda
- 22. Jefferson Drive, SW
- 23. Jefferson Memorial
- 24. Jefferson Memorial Statue
- 25. Jefferson Pier
- 26. Jones (John Paul) Memorial
- 27. Korean War Veterans Memorial
- 28. Kutz Memorial Bridge
- 29. Lady Bird Johnson Beautification Program Plague
- 30. Lincoln Memorial Approachway
- 31. Lincoln Memorial
  - a. Alaska-Hawaii Stone
  - b. MLK Inscription
- 32. Lincoln Memorial Statue
- 33. Lockkeeper's House Plaque
- 34. Lockkeeper's House Mounting Block
- 35. Madison Drive, NW
- 36. Mall Olmsted Lights
- 37. National Grange Marker

- 38. Reflecting Pool (Lincoln)
- 39. Stone Seawalls West Potomac Park
- 40. Survey Lodge
- 41. Sylvan Theatre
- 42. Tidal Basin
- 43. Tidal Basin Seawalls
- 44. Tidal Basin Inlet Bridge
- 45. Tidal Basin Outlet Bridge
- 46. Union Square
- 47. Bulfinch Gatepost (East)
- 48. Bulfinch Gatepost (West)
- 49. Vietnam Veteran's Memorial
  - a. In Memory Plaque
- 50. Vietnam Veteran's Memorial Statue
- 51. Women's Vietnam Veteran's Memorial
- 52. Washington Monument
  - a. Washington Monument Dedication Plaque
  - b. Elevation Benchmark
- 53. Washington Monument Lodge

- 54. Watergate Steps
- 55. World War II Memorial
- 56. Constitution Avenue Belvedere
- 57. Parkway Drive / Rock Creek and Potomac Parkway
- 58. Constitution Gardens

### **ADDITIONAL NPS RESOURCES NEARBY**

- 59. Meade (General George C.) Statue
- 60. Mellon (Andrew) Park Fountain
- 61. Mellon (Andrew) Park Bench
- 62. Cuban American Friendship Urn
- 63. Stone Seawalls East Potomac Park
- 64. U.S. Engineer's Storehouse East Potomac Park

## GEORGE WASHINGTON MEMORIAL PARKWAY

- 65. Memorial Bridge
- 66. Arts of War (Sacrifice)
- 67. Arts of War (Valor)

map 1

11x17



map 2

11x17



map 3

11x17



### **APPENDIX D: PARK FACILITIES GUIDANCE**

### **POLICY GUIDANCE**

The National Park Service provides visitor and administrative facilities and has policy guidance that relates to park facilities. The NPS *Management Policies 2006* address park facilities in chapter 9, which begins with the following statement.

The National Park Service will provide visitor and administrative facilities that are necessary, appropriate, and consistent with the conservation of park resources and values. Facilities will be harmonious with park resources, compatible with natural processes, [a]esthetically pleasing, functional, energy- and water-efficient, cost-effective, universally designed, and as welcoming as possible to all segments of the population. NPS facilities and operations will demonstrate environmental leadership by incorporating sustainable practices to the maximum extent practicable in planning, design, siting, construction, and maintenance.

#### **NECESSARY AND APPROPRIATE FACILITIES**

Policy. Visitor facilities for park use and enjoyment will be limited to what is necessary and appropriate (*Management Policies 2006*, sec. 9.3). Necessary and appropriate are important criteria for determining whether facilities are needed. Park managers should consider whether a facility needs to be located within the park, or whether it could be provided or located outside the park boundary. Policies recommend that public input be sought at the earliest stages of decision-making, particularly in those areas where controversy is likely (*Management Policies 2006*, sec. 9.1.1). Guidance is provided for specific types of facilities.

Background. The National Mall provides a limited number and variety of visitor facilities, such as restrooms, food service facilities, bookstores, information stations, and retail. Many are located at or near memorials. In addition there are numerous small-scale site furnishings, such as seating, orientation maps, signs, and lighting.

Public facilities are also provided at adjacent visitor destinations, such as museums, galleries, and the National Archives. Adjacent destinations typically provide information, restrooms, a variety of food service, and merchandise (books, retail, postcards,

convenience items) related to their purpose or theme. However, visitors need to clear security checkpoints to use these facilities, and hours of operation are shorter than on the National Mall.

The park has received repeated complaints about the lack, location, and quality of facilities. When planning for the National Mall plan began in November 2006, the National Park Service sought public comment on necessary and appropriate facilities.

Best Practices. In order to limit the development footprint, a best practice is to co-locate visitor services such as restrooms, bookstores, food, and retail. Additionally, it is a best practice to merge information, stewardship messages, and education throughout all visitor facilities, including restrooms.

### **LOCATION OF FACILITIES**

**Policy.** A preferred location for visitor facilities within park boundaries minimizes impacts on resources and should be situated to stimulate use of alternative transportation systems, bicycle routes, and pedestrian walkways. Facility locations should be identified in an approved plan (*Management Policies 2006*, sec. 9.1.1.2).

Management facilities will be located outside the park whenever necessary functions can be adequately supported. When located inside the park, they will be located away from primary resources and features so as not to adversely affect resources and values or to detract from visitor experience. Historic properties will be adaptively reused (i.e., used for another purpose) to the maximum extent practicable if it does not affect their significance (*Management Policies* 2006, sec. 9.4).

Background. The National Mall facilities are generally located in accordance with policy, and several historic buildings are being adaptively reused for visitor services and office space. Because walking is the primary means of visiting multiple destinations on the National Mall, it is important to understand reasonable walking distances and necessary pedestrian site furnishings. Reasonable walking distances are assumed to range from 800 feet to 1,700 feet (1/3 mile) for most visitors.

### HARMONIOUS, AESTHETICALLY PLEASING FACILITIES

Policy. If determined necessary within park boundaries, facilities will be integrated into the park landscape with sustainable designs and systems to minimize environmental impacts. Development or facilities will not compete with or dominate park features. Any desired cohesive design theme will reflect the park's purpose and character, whether for the whole park or an individual developed area (*Management Policies 2006*, sec. 9.1.1.2).

When important cultural resources are present, efforts will be made to use existing contributing structures. New structures will harmonize with the area and the cultural resources in proportion, color, and texture. No attempt will be made to duplicate or mimic a historic design, nor will any modern construction be portrayed to the public as being historic. However, vernacular styles of architecture are appropriate when they provide visual compatibility with the cultural landscape (*Management Policies* 2006, sec. 9.1.1.3).

Background / Existing Character. The character of Washington, D.C., and the National Mall is monumental and symbolic. Much of the character can be traced to the historic L'Enfant and McMillan plans, which identified locations for iconic structures such as the U.S. Capitol and the Lincoln Memorial. Each monument or memorial and its surrounding area have a unique character and may contain or provide facilities for visitors such as information, exhibits, restrooms, bookstores, or retail. In two cases historic structures (Monument Lodge and Survey Lodge at the Washington Monument) have been adaptively reused to provide visitor information, bookstores, and restrooms.

There are three general architectural styles of park facilities:

- Circular, flat roofed, restroom buildings date from the 1970s and are located on the Washington Monument grounds and at Constitution Gardens and Ash Woods. The exterior finishes and building sizes vary, and the modern design is not harmonious or sensitive to the context of the historic landscape.
- Small circular structures with metal roofs have been used for information and refreshment stands. While the roofs are higher quality materials, they project a somewhat circus tent appearance, and the exterior walls are painted.

 The most recent architectural style for visitor service facilities is a simple, square cruciform with hipped copper metal roofs, wood trim, and stucco walls. There are several variations and sizes on the National Mall. The quality, materials, colors, texture, scale, and detailing are compatible with the historic landscape.

Smaller scale site furnishings are diverse and reflect numerous uncoordinated designs. There are more than 1,000 benches or chairs in 10 or more styles, 9 styles of drinking fountains, 7 types of paved surfaces, and 8 types of trash containers. There are more than 1,000 light fixtures, with different sizes of bulbs. There are also more than 400 signs, but there is no comprehensive pedestrian guide or wayfinding system. The park is currently updating the sign system.

Best Practices. A cost-effective best practice is to use a recurring and recognizable architectural theme for visitor facilities. An easily identifiable style improves visitor experiences because visitors know what to look for, making them more self-sufficient and increasing their comfort level. High-quality and context-sensitive facilities and buildings generate visitor respect as well as encourage stewardship behavior on the part of visitors and staff.

### **R**ESTROOMS

**Policy.** NPS policies state that the level of use determines the size of facilities (*Management Policies* 2006, sec. 9.3.3).

Background. As a biological and public health necessity, restrooms within parks are both necessary and appropriate. The fact that the National Mall is a large area with multiple destinations, consistently high levels of visitation, and a number of large annual celebrations and events underscores the need for restrooms.

There are 10 restrooms west of 15th Street, including 5 that are within or part of memorials (the Lincoln, Thomas Jefferson, World War II, and Franklin Delano Roosevelt memorials) and 2 that are within information areas or bookstores (at the Washington Monument Lodge and Survey Lodge). These restrooms have 102 toilets (including 23 urinals). Family restrooms are provided in three locations (Survey Lodge and the World War II and Thomas Jefferson memorials). There are no NPS public restrooms east of 15th Street. While restrooms are available in nearby museums (see Table D-1), as previously mentioned users must go

through a security checkpoint and the hours of operation are limited.

TABLE D-1: PUBLIC RESTROOM AVAILABILITY
ON AND NEAR THE NATIONAL MALL

	Number of Toilets / Urinals			
	Women	Men	Family	Total
National Park Service	52	46	4	102
Adjacent Museums and the National				
Archives	299	307	129	735

NOTE: This count does not include the Capitol Visitor Center, which will also have food service, restrooms, and retail.

Visitors are generally equally divided between males and females (a comprehensive survey in 2003 showed 51% of visitors were female). No restrooms are available near food service, a common requirement to support good public hygiene.

Best Practices. Several standards may provide useful guidance about the distribution and number of restrooms needed. One common best practice is to co-locate drinking fountains near restrooms. According to the National Standard Plumbing Code, there should be one drinking fountain for every 1,000 visitors.

The National Recreation and Park Association's *Park, Recreation and Leisure Facility Site Planning Guidelines* recommend that restrooms be located every 800 feet (1,000 feet at a maximum) at major tourist sites (such as National Mall memorials) and adjacent to food service. Restrooms should be located near entries at minor tourist sites (smaller or single destinations that attract tourists), or every 1,000 feet when minor tourist sites are dispersed. According to the American Restroom Association, for outdoor sites with more than 2,000 visitors daily, the maximum distance between public restrooms is 0.3 mile. At highly visited theme parks, such as Disneyworld, with very densely concentrated attractions, restrooms are located every 300 feet.

The American Restroom Association, the National Standard Plumbing Code, and the International Plumbing Code have criteria for numbers of toilets and urinals (see Table D-2). Typically more facilities should be provided for women than for men. Considering the National Plumbing Code, the National Mall may be most comparable to the category of museums / exhibits / food courts, or outdoor assembly areas / fairs.

TABLE D-2: NATIONAL GUIDELINES FOR PUBLIC RESTROOM FACILITIES

**American Restroom Association Guidelines** 

Hourly Visitation	Toilets/Urinals for Men	Toilets for Women
<500	1/2	6
500-1,000	2/4	9
1,000-2,000	4/8	12
2,000-3,000	6/15	18
3,000-5,000	8/25	30

**International Plumbing Code Guidelines** 

	Ratio of Facilities to Visitors		
	Men	Women	Generic
Assembly Areas	1/125	1/65	
Restaurants			1/75
Transportation			1/500
Facilities			

National Standard Plumbing Code Guidelines

	Number of Facilities for Men	Number of Facilities for Women		
Outdoor Assembly / Fairs (peak hour)				
400	6	10		
2,600	8	14		
20,000	64	130		
40,000	132	263		
60,000	199	396		
Museums, Exhibits, Food Courts				
100	2	2		
300	2	3		
900	5	9		
1,500	7	13		
3,000	11	21		

#### **FOOD SERVICES**

Policy. Food and lodging may be provided if necessary and appropriate to achieve the park purpose, or in-park facilities or services may be justified when the distance and travel time are too great or leaving the park would detract from the overall visitor experience (*Management Policies* 2006, sec. 9.3.2)

**Background.** The pedestrian nature of the National Mall justifies the need for food service. Distances to facilities off the National Mall are not convenient for visitors during the day, and the capacity of food service venues at adjacent museums and the National Archives is limited (see Table D-3).

Currently the National Mall has 10 refreshment stands (none with restrooms located nearby), which also provide retail/souvenirs and convenience items such as rain ponchos, film, water bottles, and aspirin. Seven refreshment stands have outdoor

TABLE D-3: PUBLIC FOOD SERVICE AT ADJACENT
MUSEUMS AND THE NATIONAL ARCHIVES

Venue	Seating	
Café/Food Courts	1,155	
Restaurants	824	
Outdoor Cafés	116	
Total Seating	2,095	
Outdoor Carts	5 locations	

NOTE: Does not include the Capitol Visitor Center, which will have food service, restrooms, and retail.

seating. Refreshment stands are supplemented by mobile food carts during the peak season.

A restaurant was planned and approved in the 1970s for Constitution Gardens but was not built because of inadequate funding. Commercial service plans examine in more detail the feasibility of alternative services.

Best Practices. The National Recreation and Park Association emphasizes that "eating out for pleasure is one of the primary leisure activities of many people" and that indoor and outdoor restaurants (food service) can enhance the visitor experience. Encouraging people to linger at food service locations can help concentrate waste at these locations and help protect memorials. (Recently, eating and drinking near cultural tourist destinations in Italy, such as memorials and fountains, were restricted for preservation reasons.) To get people to linger, pleasant environments, amenities, and seating are essential.

#### **VISITOR CENTERS**

Legislation. A law enacted in 2003 prohibits the addition of visitor centers within the Reserve, which contains the National Mall, except for the Vietnam Veterans Memorial Center, which was authorized in that same law. The memorial center is to provide for appropriate educational and interpretive functions.

Policy. Visitor centers may be provided when needed for visitor information and interpretive services. Visitor centers are not substitutes for onsite interpretation and will be constructed only when it has been determined that indoor media are the most effective means of communicating major elements of the park story. The size and scope of visitor centers will be evaluated using an NPS planning model tool (*Management Policies 2006*, sec. 9.3.1.3).

Visitor centers may provide indoor media, audiovisual programs, museums, museum collection storage, exhibits, information services, sales of

educational materials and theme-related items, self-help programs, and spaces necessary for high-quality visitor experiences (*Management Policies* 2006, sec. 9.3.1.3).

Visitor centers have traditionally been used to encourage visitors to explore a full range of park resources. NPS visitor centers have been located near park entrances or near special attractions to provide an overview of resources, educate visitors about park resources, and inform visitors about the range of opportunities. Additionally, parks may have outdoor education areas, orientation / welcome areas, and amphitheaters. Today, there is widespread availability of websites that facilitate advance planning, understanding of park resources, and an overview of visitor opportunities. Multipurpose facilities provide information and education that may be integrated with other visitor services.

Background. A National Visitor Center was provided at Union Station for the 1976 Bicentennial but was later removed. When the Washington Monument was restored, a temporary visitor center was provided. Neither of these facilities proved to be well used.

There is no single entry point to the National Mall, and destinations are widespread, with visitors primarily walking to them. NPS information and education has been provided at major memorial destinations — the Thomas Jefferson Memorial, the Washington Monument, the Lincoln Memorial, the Vietnam Veterans Memorial, the World War II Memorial, the Korean War Veterans Memorial, and the Franklin Delano Roosevelt Memorial. Temporary and permanent wayside exhibits have been provided, along with small audiovisual components, at the Thomas Jefferson and Lincoln memorials, and interactive components have been provided at the World War II and Korean War Veterans memorials. Maps, area brochures, educational wayside panels, onsite radio information, guided walks, scheduled programs, and cell-phone tours are other means of providing information. Additional educational waysides are being developed. Currently, a cohesive system of National Mall signs, orientation maps, and pedestrian guide signs is being developed to update orientation signs and maps and to provide wayfinding information.

The Smithsonian Metro station is a primary pedestrian entrance to the National Mall. Surrounding museums and galleries also provide visitor information.

Best Practices. A best practice is to provide some level of information, stewardship messages, and education at all visitor facilities. Traditional visitor centers, with auditoriums and extensive media or museum exhibits, have been occasionally replaced by open air facilities that provide these functions.

## ACCESSIBILITY FOR PERSONS WITH DISABILITIES

**Policy.** New and altered facilities will be accessible and comply with accessibility standards. They will incorporate universal design (*Management Policies 2006*, sec. 9.1.1) and be accessible and usable to the greatest extent reasonable (*Management Policies 2006*, sec. 9.1.2).

Background. Some memorials have elevators to provide access for visitors with disabilities. Wheelchairs are available upon request. The park provides more parking for the disabled than standards require, and staff are working to improve the park website to make it accessible for people with visual disabilities.

### **SUSTAINABLE PRINCIPLES AND PRACTICES**

**Policy.** The National Park Service will incorporate sustainable principles and practices into design, siting, construction, building materials, utility systems, recycling of all unusable materials, and waste management (*Management Policies 2006*, sec. 9.1.3).

Reduced greenhouse gases and improved energy efficiency are required for all facility designs. The incorporation of solar, photovoltaic, insulation, and glazing strategies, along with energy-efficient lighting and appliances and renewable energy

technologies, are also recommended. Visitors should be educated about sustainable approaches. All projects must incorporate LEED (Leadership in Energy and Environmental Design) standards to achieve a silver level (*Management Policies 2006*, sec. 9.1.1.6).

**Background.** Refreshment stands near the Lincoln Memorial, completed in 2006 and 2007, meet these standards and include geothermal technology for cooling and ice making, saving millions of gallons of water annually.

Public comments indicate a common expectation that the government and the National Park Service should set an example of using sustainable, green development, including recycling. The park is working with the Environmental Protection Agency to examine trash makeup, identify ways to reduce waste, and improve recycling and solid waste management on a daily basis as well as during events.

Best Practices. Capital cities are expected to exemplify wise or sustainable development.

Efficient solid waste management systems utilize mechanized trash pickup, locate trash containers conveniently along visual lines of sight, use strong stewardship education messages, co-locate recycling and trash containers, but focus recycling containers near areas where recyclable materials are generated. Also, trash and recycling containers should be available in various sizes to meet demands in different areas, and they should be designed in coordinated, attractive styles so that they are immediately recognizable.

# APPENDIX E: DRAFT STATEMENT OF FINDINGS FOR FLOODPLAINS

### Draft

**Statement of Findings** 

for

Executive Order 11988: Floodplain Management

Management Plan

The National Mall

Washington, D.C.

Executive Order 11988 ("Floodplain Management") requires the National Park Service and other agencies to evaluate the likely impacts of actions in floodplains. This statement of findings (SOF) has been prepared to comply with EO 11988.

In managing floodplains on park lands, the National Park Service policy is to (1) manage for the preservation of floodplain values; (2) minimize potentially hazardous conditions associated with flooding; and (3) comply with the NPS Organic Act and all other federal laws and Executive Orders related to the management of activities in flood-prone areas (*Management Policies* Sec. 4.6.4). This SOF is considered a part of the Environmental Impact Assessment associated with the *National Mall Plan*.

#### **PROPOSED ACTION**

The National Park Service would propose to impleent the preferred alternative of the *National Mall Plan / Environmental Impact Statement*.

The *National Mall Plan* performs two critical functions for Park Service managers. First, by describing specific desirable resource conditions and visitor experiences for the National Mall, it establishes a clear direction for management of resources and visitation. Second, the management plan provides a framework to guide park management decision-making for up to 50 years. The *National Mall Plan* was developed in consultation with interested parties including federal, state, and local agencies as well as the public.

The plan provides overall direction for park management but specific actions needed to implement the plan will be provided in subsequent plans. Because the plan is general in nature, floodplain analysis is also general. Site-specific environmental analysis would be completed for individual actions prescribed in the plan.

The preferred alternative would continue use and retain existing facilities in floodplain areas within the park. Three additional visitor facilities are planned within the floodplain. Other construction would be replacement of existing facilities. Land use patterns and visitation levels would not change appreciably from current situations.

### SITE DESCRIPTION AND BACKGROUND

The National Mall is located along the Atlantic seaboard. The majority of precipitation comes in the form of rains with some typically minor winter snows. Extended storms are capable of dropping several inches of rain in a 24 to 48 hour period which can cause temporary flooding of low-lying areas.

Floodplains in the planning area are associated with the Potomac and Anacostia rivers. Most of the southern portions of the planning area were created from fill dredged from the rivers or the Washington Channel. These areas remain as low-elevation flats within the identified floodplains. Occasionally, extreme high tides will result in a tidal flow up the Potomac River from Chesapeake Bay and cause overflowing of the river banks or the Tidal Basin. High water events have led to inundation of relatively small areas of open lawns and playing fields.

The Federal Emergency Management Agency (FEMA) has identified 100-year and 500-year flood hazard areas in the District of Columbia (floodplains map, the 500-year floodplain is slightly larger than that shown).

Development within the floodplains include primary and secondary roads, monuments, visitor services (restrooms, information kiosks, food services, etc.), sidewalks, and park operation facilities. Some structures are historic and moving them would be considered an adverse effect. The Lincoln Memorial, Thomas Jefferson Memorial, and Washington Monument are built on elevated ground and are out of the floodplain.

These facilities are determined to be in Action Class I according to the definitions in Director's Order 77-2: "Class I includes the location or construction of administrative, residential, warehouse and maintenance buildings, non-excepted parking lots or other man-made features, which by their nature entice or require individuals to occupy the site, are prone to flood damage, or result in impacts to natural floodplain values. Actions in this class are subject to the floodplain policies and procedures if they lie within the 100-year regulatory floodplain (the base floodplain)."

## JUSTIFICATION FOR CONTINUED USE OF THE FLOODPLAIN

As described above, some of the park development is in the 100-year or 500-year floodplains. Development and public use in these areas has been in place for many years. The situations that lead up to flooding of the rivers, and the scope and duration of high water events are well known by park staff.

Actions proposed in the preferred alternative include the retention of roads, monuments, visitor services, and park operation facilities within 100-

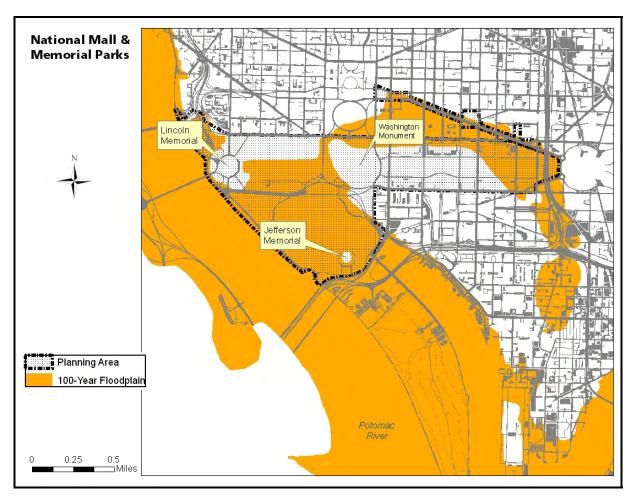


FIGURE SOF-1. FLOODPLAINS MAP

year and 500-year floodplains. The facilities are historically and functionally dependent on their locations.

Moving entire developed areas out of the floodplains would be cost-prohibitive and would adversely affect historic resources.

### **SPECIFIC FLOOD RISKS**

Conditions associated with flooding in the locations discussed in this statement are not considered particularly hazardous to people or property. Flooding generally occurs gradually in the planning area as a result of prolonged rainfall, making warning and evacuation a practical option for protection of human life.

Park development in the floodplains has been in place for many decades and the situations, scope, and duration of flooding of the rivers are well known by park staff. The timing, depth, and velocity of floodwaters will be considered when preparing evacuation plans.

An evacuation plan would be prepared to identify high ground safe areas and evacuation routes for each area of visitor concentration. In the event that it should become necessary to evacuate visitors and NPS personnel, it could be readily accomplished along the many access roads.

There would be no additional storage facilities for fuels or toxic materials, or museum collections in a floodplain as a result of the preferred alternative.

#### **MITIGATION**

The National Park Service is working with the District of Columbia and the Army Corps of Engineers to implement flood control measures by creating a movable barrier across 17th Street. This will complete a raised levee and help prevent flood-

waters from inundating the northern side of the National Mall and the adjacent neighborhood.

An evacuation plan for each developed area in a floodplain would be prepared to identify high ground safe areas and evacuation strategies. Water levels would be monitored by park staff and, if flooding is imminent, visitors would be informed of evacuation procedures.

No major new construction in floodplains is prescribed in the preferred alternative. Nonetheless, site-specific environmental analysis would be conducted for all construction and would address potential impacts to floodplains.

#### SUMMARY

The National Park Service has determined that implementing the preferred alternative would not result in any additional disruption of floodplains. Risk to life from flooding is minimal and can be mitigated. The National Park Service would allow existing structures to remain in their current locations because there are no reasonable alternative locations. Three additional visitor facilities are planned within the floodplain. Other construction

would be replacement of existing facilities. Water levels would continue to be monitored by park staff. Visitors would be informed of changes caused by heavy precipitation events through regular interpretation and local media.

Therefore, the proposed action would not have any additional adverse impacts on floodplains and their associated values.

The environmental impact statement, this statement of findings for Executive Order 11988, and the signed record of decision would complete the requirements of the National Environmental Policy Act for the *National Mall Plan*.

#### **STATEMENT OF FINDINGS REFERENCES:**

Office of the President

1980 Executive Order 11988" Floodplain Management (May 28, 1980).

National Park Service

2003 Director's Order 77-2: Floodplain Management. Washington, D.C.

2006 Management Policies. Washington D.C.

### **GLOSSARY**

Accessibility — Buildings, facilities, and programs are required to be made accessible to people with disabilities. Legislation that provides for this includes: the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973, the 1984 Uniform Federal Accessibility Standards, and the Americans with Disabilities Act of 1990.

Architect of the Capitol — The Architect of the Capitol manages the U.S. Capitol Building, the Senate and House office buildings, the U.S. Supreme Court, the Library of Congress buildings, and the U.S. Botanic Garden, as well as Pennsylvania and Maryland avenues between 1st and 3rd streets.

Area I and Area II — These are the areas designated in the Commemorative Works Act that are north and south of the Reserve and where commemorative works may be sited.

Area of potential effect — The geographic area or areas within which an undertaking could directly or indirectly cause changes in the character or use of historic properties. The area of potential effects is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking.

Assessment of effect — Documentation to assist in completing the activities required under 36 CFR 800.5, "Assessment of Adverse Effects." This documentation applies the criteria of adverse effect to each property that is within the area of potential effect and that is eligible for listing on the National Register of Historic Places.

Best management practice / best practice — A technique or methodology that, through experience and research, has proven to reliably lead to a desired result. Best management practices may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Choosing by Advantages — A process by which the differences of advantages for alternatives and their related costs are compared, ranked, and rated in order to make better and trackable decisions. The process can be used to develop alternatives that combine advantages from several alternatives while working to reduce associated costs.

Civic art — Art that is displayed in public spaces for the enjoyment of the people. In the case of the

National Mall study area, civic art includes the present landscape design, which is based on the L'Enfant and McMillan plans, plus commemorative works, water features, and landscaped areas.

Commemorative work — As defined in the Commemorative Works Act, "any statue, monument, sculpture, plaque, memorial, inscription, or other structure or landscape feature, including a garden or memorial grove, designed to perpetuate the memory of an individual, group, event, or other significant element of history."

Commemorative Works Act (40 USC 8901 et seq.) — This is the federal law that governs the establishment and placement of commemorative works and memorials on the lands administered by the National Park Service and the General Service Administration in Washington, D.C. and a portion of northern Virginia. The purposes of the act are:

- (a) to preserve the integrity of the comprehensive design of the L'Enfant and McMillan plans for the Nation's Capital;
- (b) to ensure the continued public use and enjoyment of open space in the District of Columbia;
- (c) to preserve, protect, and maintain the limited amount of open space available to residents of, and visitors to, the Nation's Capital; and
- (d) to ensure that future commemorative works in areas administered by the National Park Service and the General Services Administration in the District of Columbia and its environs (1) are appropriately designed, constructed, and located, and (2) reflect a consensus of the lasting national significance of the subjects involved.

Conservation (management) zoning — Zones or districts that correspond to a description of the desired resource and visitor experience conditions for each area of a park. Management zoning will outline the criteria for (or describe the kind of) appropriate uses and facilities necessary to support these desired conditions. Some desired conditions may apply throughout a park, but the delineation of management zones will illustrate where there are differences in intended resource conditions, visitor experiences, and management activities (NPS 2006e, sec. 2.3.1.2).

Consulting parties — Vested organizations who under section 106 of the National Historic Preservation Act provide input in protecting cultural resources.

Cooperating agency — Any federal or local agency involved in joint planning conducted pursuant to the National Environmental Policy Act

Cultural landscape — As defined by the National Park Service, a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. There are four general kinds of cultural landscape, not mutually exclusive:

- Historic site: a landscape significant for its association with a historic event, activity, or person.
- Historic designed landscape: a landscape significant as a design or work of art; was consciously designed and laid out either by a master gardener, landscape architect, architect, or horticulturist to a design principle, or by an owner or other amateur according to a recognized style or tradition; has a historical association with a significant person, trend or movement in landscape gardening or architecture, or a significant relationship to the theory or practice of landscape architecture.
- Historic vernacular landscape: a landscape whose use, construction, or physical layout reflects endemic traditions, customs, beliefs, or values; in which the expression of cultural values, social behavior, and individual actions over time is manifested in physical features and materials and their interrelationships, including patterns of spatial organization, land use, circulation, vegetation, structures, and objects; in which the physical, biological, and cultural features reflect the customs and everyday lives of people.
- Ethnographic landscape: areas containing a variety of natural and cultural resources that associated people define as heritage resources, including plant and animal communities, geographic features, and structures, each with their own special local names.

Cultural resources — As defined by the National Park Service, any archeological or historic resource, structure, statue, memorial, museum object, district, or landscape related to areas under

NPS management. Resources over 50 years old and determined to have local, regional, or national significance may be listed on the National Register of Historic Places.

Cumulative effects (impacts) — Effects on the environment that result from the incremental impacts of an action when added to other past, present, and reasonably foreseeable actions, regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

East Potomac Park — Three hundred and thirty acres of recreational open space managed by the National Mall and Memorial Parks south of the 14th Street Bridges to Hains Point. This area is not included in the planning study area. East Potomac Park, with its golf course, swimming pool, picnic areas, and thousands of cherry trees, was never considered part of the National Mall, and is not included in the planning study area.

Environmental impact statement (EIS) — A detailed analysis document that is prepared by a federal agency pursuant to the National Environmental Policy Act (NEPA) when a federally proposed action or alternatives have the potential for significant impacts on the human environment.

Federal Triangle — A triangular site bounded by Pennsylvania Avenue, Constitution Avenue, and 15th Street. Ten structures designed by different architects are located on the site, including the Old Post Office and the District Building, which were constructed between 1899 and 1908. The rest were constructed between 1926 and the 1930s except for the Ronald Reagan Building and International Trade Center, which was designed and constructed in the 1990s. The planning for the Federal Triangle was one of the last City Beautiful efforts on such a monumental scale in the nation.

First Amendment — The First Amendment to the United States Constitution protects the rights of freedom of speech and assembly.

**Historic district** — A significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

**Historic site** — The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses his-

toric, cultural, or archeological value regardless of the value of any existing structure.

Maintainability — "The relative ease and economy of time and resources with which an item can be retained in, or restored to, a specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair. In this context, it is a function of design" (U.S. Department of Defense 1997). Design for maintainability requires a product that is *serviceable* (must be easily repaired) and *supportable* (must be cost-effectively kept in or restored to a usable condition); it is better yet if the design includes a durability feature called *reliability* (absence of failures).

Mall — The area west of the United States Capitol between Madison and Jefferson Drives from 1st to 14th streets NW/SW. The east end of the Mall from 1st to 3rd streets NW/SW between Pennsylvania Avenue and Maryland Avenue and is also known as Union Square. The Mall is characterized by the east-west stretch of lawn bordered by rows of American elm trees. The Mall is managed by the National Mall and Memorial Parks.

Management Policies — The NPS directive governing management of the national park system. The current version is *Management Policies* 2006.

Management area — A planning term used by the National Park Service when referring to statements about desired resource conditions and visitor experiences, along with appropriate kinds and levels of management, use, and development for each park area.

Monumental core — A large area of land in central Washington, D.C. extending from the U.S. Capitol to the Lincoln Memorial, and including the Washington Monument; the Jefferson and Franklin Delano Roosevelt memorials; the White House complex; and the Korean War Veterans and Vietnam Veterans memorials.

Multipurpose facility — A facility that would provide more than one function, such as restrooms and food service/retail, or restrooms, information, and office space. A multipurpose space could also include flexible outdoor space that could be used for ranger programs or performances.

National Archives — The federal repository of the records of the U.S. government, located between 7th and 9th Streets NW, between Constitution and Pennsylvania avenues NW.

National Environmental Policy Act of 1969 (NEPA) — The public law that requires federal agencies to look at alternatives for proposed major

federal actions and to fully analyze the impacts of those alternatives on the human environment before a decision is made.

National Gallery of Art — The National Gallery of Art East and West Buildings, as well as the Sculpture Garden, located between Constitution Avenue and Madison Drive from 3rd to 9th streets NW.

National Mall — The area comprised of the Mall, the Washington Monument, and West Potomac Park. It is managed by the National Park Service's National Mall and Memorials Parks. Specifically the areas are:

- the Mall, which extends from the grounds of the U.S. Capitol to the Washington Monument and include Union Square
- the Washington Monument and its grounds
- West Potomac Park, which is the setting for numerous memorials, including the Lincoln Memorial, the World War II Memorial, the Thomas Jefferson Memorial, the Vietnam Veterans Memorial, the Korean War Veterans Memorial, the Franklin Delano Roosevelt Memorial, and the Tidal Basin

Often the terms National Mall and the Mall are used interchangeably, and map labeling and references to the National Mall have further created public confusion.

National Mall and Memorial Parks — The NPS manager of the National Mall, East Potomac Park, and many circles, squares, and smaller park areas within Washington, D.C.

National Register of Historic Places — The comprehensive list of districts, sites, buildings, structures, and objects of national, regional, state, and local significance in American history, architecture, archeology, engineering, and culture kept by the National Park Service under authority of the National Historic Preservation Act of 1966.

**Pedestrian** — A person on foot or using an assistive device, such as a wheelchair, electric scooter, or Segway®HT.

Rehabilitation — The act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

**Reservation** — Refers to a parcel of federal land in Washington, D.C., identified by its acquisition number.

Reserve — As defined in the 2003 amendments to the Commemorative Works Act, the great cross-axis of public space that extends west from the U.S. Capitol to the Lincoln Memorial, and from the White House to the Jefferson Memorial. Congress declared this area to be a substantially completed work of civic art.

Site furnishings — Landscape components, such as paving, lighting, seating, fencing (including bollards and post-and-chain fencing), tree grates and guards, trash containers, information stations, wayside displays, shelters, and signs.

**Smithsonian Institution** — The national museums of the Smithsonian Institution, and related grounds and gardens, flank the north and south edges of the Mall. Museums include:

National Museum of American History
National Museum of Natural History
Freer Gallery of Art
Arthur M. Sackler Gallery
S. Dillon Ripley Center
National Museum of African Art
Smithsonian Castle
Arts and Industries Building
Hirshhorn Museum and Sculpture Garden
National Air and Space Museum
National Museum of the American Indian
National Museum of African American History
and Culture (future)

**Social trail** — A user-created trail off paved pathways, which may indicate an alternative circulation path.

**Standards** — Description of what is to be achieved for maintenance of landscapes, commemorative works, other facilities, education, etc.

State historic preservation office — Office in a state or territorial government that administers the preservation programs under the National Historic Preservation Act.

Sustainable development — According to the 1983 United Nations Bruntland report, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Temporary event facilities — Facilities such as tents, stages, staging areas, and vehicles.

**Tidal Basin** — A partially man-made inlet adjacent to the Potomac River . It is part of West Potomac

Park and is flanked by the Jefferson Memorial on the south side (on axis with the White House) and the Franklin Delano Roosevelt Memorial on the west side. The future site of the Martin Luther King, Jr. Memorial is on the northwest side. Cherry trees that were a gift of Japan were planted around the basin in 1912 and are now the focus of the National Cherry Blossom Festival.

Traffic calming — Various measures used to slow traffic to the posted speed and create a safer circulation system for vehicles, pedestrians, bicyclists, and other circulation modes.

Triangulation — A concept of using signs plus other park amenities, such as benches, cafés, restrooms, and path intersections, to create mini destinations in a park, where elements functioning together have a bigger impacts than they would separately. (See Project for Public Spaces at http://www.pps.org/parks\_plazas\_squares/info/).

Trust for the National Mall — Authorized fundraising partner of the National Park Service and dedicated to improving the appearance and facilities of the National Mall.

Travel Demand Management — Programs and policies that reduce and manage the demand within transportation corridors and by transportation modes, disperse peak-period traffic, and/or encourage transit usage and capacity. Elements include encouraging employers to provide flexible work hours, staggered work schedules, and alternative work schedules; encouraging van and car pools, or bus pass programs for major employers; and creating disincentives to drive, such as increasing the cost of parking.

Turf — The upper stratum of soil bound by grass and plant roots into a thick mat.

Union Square — The east end of the Mall from 1st to 3rd street NW/SW between Pennsylvania and Maryland Avenues and containing the Ulysses S. Grant Memorial and the Capitol Reflecting Pool.

Union Station — The railroad station was designed by architect Daniel Burnham and opened on October 27, 1907, and is considered to be one of the finest examples of the Beaux-Arts style of architecture. The National Park Service manages the grounds. Union Station is not within the study area.

User (visitor) capacity — The type and level of visitor use that can be accommodated while sustaining desired resource and visitor experience conditions in a park.

Views and vistas — The prospect afforded by a range of vision in a landscape, conferred by the composition of other landscape characteristics and associated features (NPS 2001c). The National Park Service distinguishes views and vistas as follows:

- A view is the expansive and/or panoramic prospect of a broad range of vision, which may be naturally occurring or deliberately contrived.
- A vista is the controlled prospect of a discrete, linear range of vision, which is deliberately contrived.

**Vision** — A broad philosophical statement that describes what a park should be with regard to future resource conditions and human experiences.

Visitor center — Visitor centers provide indoor media, audiovisual programs (auditoriums), museums, museum collection storage, exhibits, information services, sales of educational materials and theme-related items, self-help programs, and spaces necessary for high-quality visitor experiences (*Management Policies 2006*, sec. 9.3.1.3).

Visitor facilities — Visitor facilities provide convenient services for visitors, such as information and education, restrooms, bookstores, food service, retail, and recreation equipment rentals. Some facilities, such as food and education, could be mobile (e.g., roving interpreters and refreshment carts). Existing outdoor spaces can be adaptively used for educational programs and performances.

Washington Monument — The monument is located on U.S. Reservation 2, and it extends from 14th Street NW/SW west to 17th Street NW/SW

and from Constitution Avenue NW south to the intersection of Maine Avenue and Raoul Wallenberg Place. In addition to the giant marble obelisk, facilities on the grounds include the Sylvan Theater, Survey Lodge, and NPS ranger station. It is managed by the National Mall and Memorial Parks.

Wayfinding — Systems of signs, maps, and other graphic or written materials, and audio methods, used to convey location, route finding, and directions to travelers.

Waysides / wayside exhibits — Free-standing educational exhibits about park features and structures that provide additional historic or interpretive information for visitors.

West Potomac Park — The portion of the National Mall west of the Washington Monument to the Potomac River. It contains a number of smaller commemorative works, along with the following memorials, which are managed by the National Mall and Memorial Parks:

- Constitution Gardens
- · Franklin Delano Roosevelt Memorial
- · George Mason Memorial
- · Korean War Veterans Memorial
- · Lincoln Memorial
- National World War II Memorial
- Thomas Jefferson Memorial
- · Vietnam Veterans Memorial

White House and President's Park —U.S. Reservation 1, the northern portion of the Reserve, north of Constitution Avenue NW. It is managed by the National Park Service, but is not part of the National Mall and Memorial Parks.

Witness trees — Trees that were present when an area was originally developed.

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AOC Architect of the Capitol

ASLA American Society of Landscape

Architects

CEQ Council on Environmental Quality

CFA Commission of fine Arts

FEMA Federal Emergency Management

Agency

NCPC National Capital Planning Commission

NPS National Park Service SCS Soil Conservation Service

US EPA U.S. Environmental Protection Agency

USFS U.S. Forest Service USGS U.S. Geological Survey

WMATA Washington Metropolitan Area Transit

Authority

American Society of Landscape Architects, Lady Bird Johnson Wildflower Center / University of Texas at Austin, and the United States Botanic Garden

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  - 2007 Personal communication with Matthew Stafford regarding the shortnose sturgeon in the Potomac River, June 20.
- Sherald, Jim, Chief, NPS Center for Urban Ecology 2007 Personal communication with Matthew Stafford regarding soil conditions, July 12.

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.