



References

Acronyms

Glossary

Index

Planning Team, Contributors, Consultants,
and Acknowledgements

Selected Bibliography



Overleaf and This Page:

Re-enactors of all ages find meaning in the Valley Forge encampment.

References: Acronyms

AADT	Average Annual Daily Traffic Volumes
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing material
AHERA	Asbestos Hazard Emergency Response Act
AOC	area of concern
ARC	American Revolution Center
ARS	Asbestos Release Site
ASHARA	Asbestos School Hazard Abatement Reauthorization Act
ASMIS	Archeological Sites Management Information System
AST	aboveground storage tank
ATR	Automatic Traffic Recorder
ATS	Alternate Transportation System
BP	before present
BSA	Boy Scouts of America
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	cubic feet per second
CLI	Cultural Landscape Inventory
CLR	Cultural Landscape Report
CMA	Centennial and Memorial Association
CO	carbon monoxide
CSG	Commodore Semiconductor Group
dba	decibels on the A-weighted scale
DCE	dichloroethylene
DEP	Pennsylvania Department of Environmental Protection
DOT	Department of Transportation
DRBC	Delaware River Basin Commission
DVRPC	Delaware Valley Regional Planning Commission
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ERA	Economics Research Associates
EV	Exceptional Value

FEMA	Federal Emergency Management Agency
FHPM	Federal Highway Program Manual
FHWA	Federal Highway Administration
FIRE	Finance, Insurance, and Real Estate
FOH	U.S. Public Health Service – Federal Occupational Health
FTE	Full Time Equivalency
FY	Fiscal Year
GIS	Geographic Information System
GMP	General Management Plan
GMP/EIS	General Management Plan/Environmental Impact Statement
GPTMC	Greater Philadelphia Tourism Marketing Corporation
HCM	Highway Capacity Manual
HRS	Hazard Ranking Score
HVAC	Heating, ventilation, and air conditioning
ICFP	Interim Clean Fill Policy
IFO	Interpretive Field Office
IOGCC	Interstate Oil and Gas Compact Commission
IRP	Integrated Resource Plan
ITS	Intelligent Transportation Systems
Kg/ha	kilograms/hectare
L_{eq}	Equivalent noise levels
LBP	lead based paint
LCS	List of Classified Structures
LOS	Level of Service
MCL	maximum concentration level
mg/L	milligram/liter
MGD	million gallons per day
ml	milliliter
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
NAAQS	National Ambient Air Quality Standards
National Register	National Register of Historic Places
NCAR	National Center for the American Revolution

NCP	National Oil and Hazardous Substances Contingency Plan
NEPA	National Environmental Policy Act of 1969
NGVD	National Geodetic Vertical Datum of 1929
NHP	National Historical Park
NHPA	National Historic Preservation Act
NO₂	nitrogen dioxide
NPCA	National Parks Conservation Association
NPL	National Priorities List
NPS	National Park Service
O₃	Ozone
O&M	operation and maintenance
OSHA	Occupational Safety and Health Administration
PA	Programmatic Agreement
PAH	polycyclic aromatic hydrocarbon
pc/L	picocuries per liter
PCB	polychlorinated biphenyls
PCE	Tetrachloroethylene
PECO	Philadelphia Electric Company
PennDOT	Pennsylvania Department of Transportation
PHF	Peak Hour Factor
ppm	parts per million
RCC	River Crossing Complex
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
ROD	Record of Decision
SEPTA	Southeastern Pennsylvania Transportation Authority
SHPO	State Historic Preservation Officer
SI	site investigation
SIP	State Implementation Plans
SO₂	sulfur dioxide
SR	State Route
SVM	Schuylkill Valley Metro
TCA	trichloroethane
TCE	trichloroethylene
TIP	Transportation Improvement Program

TIS	traveler information station
TMA	Transportation Management Associations
TSCA	Toxic Substances Control Act
TSM	Transit Systems Management
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USDA-SCS	United States Department of Agriculture, Soils Conservation Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
VAFO	Valley Forge National Historical Park
VFATPS	Valley Forge Area Transportation Planning Study
VFCVB	Valley Forge Convention and Visitors' Bureau
VFHS	Valley Forge Historical Society
VFPC	Valley Forge Park Commission
VFR	Visiting Friends and Relatives
VFSA	Valley Forge Sewer Authority
VMT	Vehicle Miles of Travel
VOC	Volatile Organic Compound
vpd	vehicles per day
WASO	Washington Office

References: Glossary

303(d) Impaired Waterway. A water body that does not meet water quality standards and designated uses because of pollutant(s), pollution, or unknown causes of impairment. The Clean Water Act requires all states to prepare an annual list (303 (d)) of all of its impaired water bodies.

A

Aboveground storage tank. Any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of potential ground water contaminants and the volume of which (including the volume of underground pipes connected thereto) is less than ten (10) percent beneath the surface of the ground. Flow-through process tanks are excluded from the definition of above ground storage tanks.

Acceleration lane. A paved auxiliary lane, including tapered areas, allowing vehicles to accelerate when entering the through traffic lane of the roadway.

Affected environment. The existing biological, physical, cultural, social, and economic conditions that are subject to direct and indirect changes which result from actions described in alternatives under consideration.

Alternative. A possible course of action, one of several ways to achieve an objective or vision. The term is used in this document to describe different management options.

Annual Average Daily Traffic (AADT). The total volume of traffic passing a point or segment of a highway facility in both directions for one year divided by the number of days in the year.

Archaic Period. The Archaic Period involved a continent wide shift in subsistence from Paleo-Indian dependence on large game animals to the exploitation of a broad variety of faunal and floral food resources and is accordingly referred to as the "Wide Spectrum Revolution."

Asbestos Release Site (ARS). An exposed area with the potential for airborne release of asbestos from contaminated soils.

B

Basic Freeway Segment. A length of freeway facility whose operations are unaffected by weaving, diverging, or merging.

Biodiversity. The number and variety of organisms found within a specified geographic region.

C

Cambrian age. Of or belonging to the geologic time, system of rocks, or sedimentary deposits of the first period of the Paleozoic Era, characterized by desert land areas, warm seas, and rapid early diversification of marine life resulting in the rise of almost all modern animal phyla.

Capacity. The capacity of a facility is the maximum hourly rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, traffic and control conditions.

Capacity analysis. Capacity analysis is a set of procedures for estimating the traffic carrying ability of facilities over a range of defined operation conditions. It provides tools to assess facilities and to plan and design improved facilities.

Carrying capacity. The measure used by the National Park Service to ensure that visitors do not harm the integrity of cultural and natural resources and that inappropriate uses do not diminish the quality of the visitor experience.

Class I Soils. Soils with no erosion or other use limiting features.

Class II Soils. Soils with moderate potential for erosion.

Class 3 stream. A stream with a width less than 10 meters.

Class A trout stream. A stream with an excellent standing stock of wild trout.

Conservation Value. A reflection of subject's contribution to sustaining features of ecological, heritage, landscape or recreational interests.

Control delay. The component of delay that results when a control signal causes a lane group to reduce speed or to stop; it is measured by comparison with the uncontrolled condition.

Cultural landscape. A geographic area (including cultural and natural resources and wild and domestic animals) that is associated with a historic event, activity, or person, or that shows other cultural or aesthetic values.

Cultural Landscape Inventory. A baseline survey and database that identifies and evaluates the location, historical development, existing conditions and management of cultural landscapes in the national park system. It can also be used to determine National Register eligibility for previously undocumented cultural landscapes.

Cultural Landscape Report. The primary treatment document for landscape resources and is comprised of three parts: Part I—Site History, Analysis and Evaluation; Part II—Treatment and Design Alternatives; and Part III—Record of Treatment. No reports included in this bibliography include Part III. The inclusion of this section in the new format recognizes the changes between the proposed and actual treatment and the need to provide an articulate account of the alterations made to a landscape as part of the historical record.

Cultural Resources. Resources that are usually greater than 50 years of age and have archeological, architectural, ethnographic, historic, scientific, or other value. Such resources include landscapes, sites, buildings, and structures, as well as archival material, objects, or cultural practices.

Cumulative impacts. Direct and indirect 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 who undertakes them. Cumulative impacts can result from individually minor, but collectively significant, actions occurring over time.

D

Deceleration lane. A paved auxiliary lane, including tapered areas, allowing vehicles leaving the through traffic lane of the roadway to decelerate.

Density (as related to traffic analysis). The number of vehicles on a roadway segment averaged over space, usually expressed as vehicles per mile or vehicles per mile lane.

Direct Impacts. Impacts that are caused by the alternatives at the same time and in the same place as the action.

E

Endangered/threatened species. Any species in danger of extinction through all or a significant part of its range [16 USC 1532 (6)].

Environmental consequences. The scientific and analytic basis for comparing alternatives in an environmental impact statement, based on their environmental effects, including any unavoidable adverse effects. Environmental consequences include short-term, long-term, and cumulative impacts to ecological, aesthetic, historical, cultural, economic, and social environments.

Environmental controls. Devices designed to maintain or protect against temperature, humidity, light levels, Ultraviolet rays, pests, and air pollution.

Environmental impact statement (EIS). A detailed public statement that must be made when a federal agency proposes a major action that has the potential to significantly affect the quality of the human environment. EISs are required by the National Environmental Policy Act (NEPA).

Environmentally preferred alternative. The alternative that best satisfies Section 101 of the National Environmental Policy Act (NEPA) and that best fulfills “the responsibilities of each generation as trustees of the environment” [42 USC 4331].

Exceptional Value waterway. The chemical and biological quality exceeds the federal “fishable and swimmable” standards.

F

Floodplain. A plain along a river formed from sediment left by flooding.

100-year, 500-year flood zones. Areas where the probability of being inundated is once in 100 years or 500 years.

Forested wetland. Wetland area dominated by woody vegetation taller than 6 meters (20 feet).

Freeway. A multilane, divided highway with a minimum of two lanes for the exclusive use of traffic in each direction and full control of access without traffic interruption.

Freshwater. Water with a salt concentration less than 0.05 parts per thousand.

G

Gore area. The area located immediately between the left edge of a ramp pavement and the right edge of the roadway pavement at a merge or diverge area.

H

Herbaceous wetland. A nontidal or tidal wetland dominated by non-woody vegetation such as grasses, sedges, and rushes.

Herpetofauna. A collective term for reptiles and amphibians.

Hydric soils. A soil that in its undrained condition is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation.

I

Impounding basin. A basin constructed to trap sediment eroded from a slope or being transported by a river.

Indirect impact. Impacts caused by the alternatives that occur later in time or farther in distances than the action.

Interpretation. Activities or media designed to help people understand, appreciate, enjoy, and care for the natural and cultural environment.

Infrastructure. The systems and facilities needed to support park operations and visitor services (e.g., sewer and water systems, stormwater management, electric systems, communication lines, roads and trails, and support buildings and structures).

Invasive species. Species that are not native to the area, and whose presence may be harmful to native species.

L

Leachate. Liquid that percolates through the ground, such as water seeping through a landfill.

Level of Service (LOS). A quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience.

Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions. Safety is not included in the measures that establish service levels."

As shown on Page 23_3 of HCM 2000, LOS thresholds for a basic freeway segment are:

Level of Service (LOS)	Density Range (pass. car/mi/ln)
A	0_11
B	> 11_18
C	> 18_26
D	> 26_35
E	> 35_45
F	> 45

As shown on Exhibit 25_4 on Page 25_5 of HCM 2000, LOS criteria for merge and diverge areas are:

Level of Service (LOS)	Density Range (pass. car/mi/ln)
A	0_10
B	> 10_20
C	> 20_28
D	> 28_35
E	> 35
F	Demand Exceeds Capacity

As shown on Exhibit 16_2 on Page 16_2 of HCM 2000, LOS criteria for signalized intersections are:

Level of Service (LOS)	Control Delay per Vehicle (s/veh)
A	0_10
B	> 10_20
C	> 20_35
D	> 35_55
E	> 55_80
F	80

M

Maximum Contaminant Level (MCL). The maximum contaminant level permitted by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act.

Mitigation. Any action designed to avoid, minimize, reduce, rectify, compensate for, or eliminate adverse impacts of a proposed action.

N

National Geodetic Vertical Datum of 1929 (NGVD). A geodetic reference for elevations, completed and adjusted in 1929. These elevations were used to define the mean sea level datum.

National Register of Historic Places (National Register). A comprehensive list of districts, sites, buildings, and structures of national, regional, state, and local significance in American history, architecture, archaeology, engineering, and culture. The list is maintained by the National Park Service under the authority of the National Historic Preservation Act of 1966.

No-Action Alternative. An alternative in an environmental impact statement that continues the current management direction. This alternative serves as a benchmark against which action alternatives are compared.

Non-attainment: A region, determined by population density in accordance with the U.S. Census Bureau, which exceeds minimum acceptable National Ambient Air Quality Standards for one or more pollutants.

Non-point source pollution. Pollution discharged over a wide land area rather than from a specific location.

P

Peak Hour Factor. The hourly volume during the maximum volume hour of the day divided by the peak 15 min flow rate within the peak hour; a measure of traffic demand fluctuation within the peak hour.

Parts per million (ppm). A unit of concentration often used when measuring levels of pollutants in air, water, body fluids, etc. One ppm is 1 part in 1,000,000. The common unit **mg/liter** is equal to ppm. Four drops of ink in a 55-gallon barrel of water would produce an "ink concentration" of 1 ppm.

Perennial tributary. A stream that runs all year, except during unseasonably dry conditions.

Pennsylvania Scenic River. Free-flowing river capable of, or under restoration, to support water-based recreation, fish and aquatic life. The view from the river or its banks shall be predominately wild, but may reveal some pastoral countryside. The segment may be intermittently accessible by road.

Point source. Pollution emitted from a specific pipe, drain, or other conduit.

Polychlorinated biphenyl (PCBs). Any of several compounds that are produced by replacing hydrogen atoms in biphenyl with chlorine, have various industrial applications, and are poisonous environmental pollutants that tend to accumulate in tissues of animals, including humans.

Preferred alternative. The alternative that a National Park Service decision maker has identified as the favored approach at the draft plan stage.

Prime farmland. Land that is best suited to producing food, feed, forage, fiber, and oilseed crops.

Prime farmland soils. Soil types with a combination of characteristics that make them particularly productive for agriculture.

R

Ramp. A short segment of roadway connecting two traffic facilities.

Record of decision (ROD). The public document that follows the preparation of an environmental impact statement. It reflects the preparing agency's final decision and the rationale behind that decision.

Redoubts. A small, usually temporary, enclosed defensive work.

Riparian zone. The land between the water's edge and the upper edge of the flood plain; transition zone between water and land.

S

Scoping. Early consultation with interested and affected members of the public, as well as with staff and other federal, state, and local agencies having regulatory or planning responsibilities to identify issues to be considered in a plan.

Signalized intersection. An intersection controlled by traffic signals.

Socioeconomic. Of or involving both social and economic factors.

State champion tree. The largest known tree of its species in the state.

Stripper Well. The Interstate Oil and Gas Compact Commission (IOGCC) defines a stripper well as a well that produces less than 10 barrels of oil a day, and operates on the lower end of profitability. The term has more to do with profitability and production in the oil industry. The well is defined by a very small jack. They are often decorated with images that can be illustrated by the swinging jack, such as the cow jumping over the moon.

T

Threatened and endangered species. Plants and animals that are listed by the U.S. Fish and Wildlife Service or state government as being offered protection under the Endangered Species Act or state law.

Threatened Species. Any species that is likely to become endangered in the foreseeable future [16 USC 1532 (20)].

U

Underground storage tank. A large metal or fiberglass container designed to be buried in the ground and store liquid chemicals and other materials.

Urban. An area typified by high densities of development or concentrations of population, drawing people from several areas within a region.

V

Viewshed. The area visible from a location, including near and distant views.

Visitor experience. The perceptions, feelings, and interactions that visitors have with a park's environment and programs. The experience is affected by the setting, the types and levels of activities permitted, and the interpretive techniques used to convey park themes.

Volatile Organic Compound (VOC). A group of organic compounds characterized by their tendency to evaporate easily at room temperature. Some familiar substances containing VOCs are solvents, gasoline, paint thinners, and nail polish remover. Dichloroethylene (DCE), tetrachloroethylene (PCE), trichloroethane (TCA), and trichloroethylene (TCE) are all VOCs.

Volume (As it relates to traffic analysis). The number of persons or vehicles passing a point on a lane, roadway, or other traffic way during some time interval, often one hour, expressed in vehicles, bicycles, or persons per hour.

Vernal ponds. Derived from the Latin word for spring; temporary pools of water created by snowmelt and spring rains.

W

Washingtonia. Artifacts and collections relating to the life of General George Washington.

Watershed. A region or area over which water flows into a particular, lake, reservoir, stream, or river; a drainage basin.

Weaving. The crossing of two or more traffic streams traveling in the same direction along a significant length of highway, without aid or traffic control devices (except for guide signs).

Wetland. Areas saturated or inundated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil. Wetlands generally include swamps, marshes, bogs, and similar areas [33 CFR 328.3(b)].

References: Index

A

Affected Environment: 1-25, 2-53, 3-1, 4-1, 4-37, Ref-5

Air Quality: ix, 1-25, 2-26, 2-53, 2-58, 2-71, 2-91, 3-51, 4-3, 4-4, 4-54, 4-56, 4-57, 4-58, 4-59, 4-60, 4-61, 4-66, 4-92, Ref-10, C-3

Alternatives: iii, iv, v, vi, vii, viii, ix, xi, 1-1, 1-8, 1-11, 1-12, 1-19, 1-20, 1-23, 1-24, 1-28, 1-29, 1-31, 1-32, 1-34, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20, 2-21, 2-22, 2-23, 2-24, 2-25, 2-26, 2-27, 2-28, 2-29, 2-30, 2-31, 2-32, 2-33, 2-34, 2-35, 2-36, 2-37, 2-38, 2-39, 2-40, 2-41, 2-42, 2-43, 2-44, 2-45, 2-46, 2-47, 2-48, 2-49, 2-50, 2-51, 2-52, 2-53, 2-54, 2-55, 2-56, 2-57, 2-58, 2-59, 2-60, 2-61, 2-62, 2-63, 2-64, 2-65, 2-67, 2-68, 2-69, 2-70, 2-71, 2-72, 2-73, 2-74, 2-75, 2-76, 2-77, 2-78, 2-79, 2-80, 2-81, 2-82, 2-83, 2-84, 2-85, 2-87, 2-88, 2-89, 2-90, 2-91, 2-92, 2-93, 2-94, 2-95, 2-96, 2-97, 2-98, 2-99, 2-100, 2-101, 2-102, 2-103, 2-104, 2-105, 2-106, 2-107, 2-108, 3-1, 3-74, 3-79, 3-85, 5-1, 5-2, 5-3, 5-4, 5-5, 4-1, 4-2, 4-4, 4-5, 4-6, 4-9, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-18, 4-19, 4-20, 4-21, 4-23, 4-24, 4-25, 4-26, 4-27, 4-28, 4-29, 4-30, 4-31, 4-32, 4-33, 4-34, 4-35, 4-36, 4-37, 4-38, 4-39, 4-40, 4-41, 4-42, 4-43, 4-44, 4-45, 4-46, 4-47, 4-49, 4-50, 4-51, 4-52, 4-53, 4-54, 4-55, 4-56, 4-57, 4-58, 4-59, 4-60, 4-61, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-68, 4-69, 4-70, 4-71, 4-72, 4-73, 4-74, 4-75, 4-76, 4-77, 4-78, 4-79, 4-80, 4-81, 4-82, 4-83, 4-84, 4-85, 4-86, 4-87, 4-88, 4-89, 4-90, 4-91, 4-92, 4-93, 5-1, 5-2, 5-3, 5-4, 5-5, 5-15, 5-16, Ref-5, Ref-6, Ref-7, Ref-10, J-1, J-2, J-3

American Revolution Center (or ARC): 1-6, 1-33, 1-34, 3-2, 3-62, 3-85, 3-88, 4-71, 5-11, C-1, C-4, C-5

Amphitheater: 1-27, 2-85, 2-108, 3-63, 4-4, C-7

Archeological Resources: 1-13, 1-18, 1-19, 1-20, 1-25, 2-3, 2-6, 2-8, 2-15, 2-26, 2-33, 2-40, 2-51, 2-53, 2-57, 2-58, 2-67, 2-69, 2-75, 2-87, 2-89, 2-96, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-20, 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-28, 3-38, 3-61, 3-63, 3-86, 4-4, 4-6, 4-19, 4-20, 4-21, 4-22, 4-23, 4-24, 4-25, 4-45, 4-50, 4-54, 4-80, 4-82, 4-83, 4-88, C-1, C-3, G-2, G-4, G-6, G-8

Archives and Collections: iv, 1-3, 1-8, 1-14, 1-25, 1-34, 2-6, 2-24, 2-26, 2-27, 2-28, 2-31, 2-33, 2-35, 2-38, 2-40, 2-42, 2-43, 2-46, 2-53, 2-58, 2-62, 2-63, 2-69, 2-77, 2-85, 2-89, 2-96, 2-99, 2-108, 3-1, 3-12, 3-21, 3-27, 3-28, 3-76, 3-83, 3-86, 4-24, 4-25, 4-26, 4-27, 4-32, 4-33, 4-53, 4-70, 4-71, 4-72, 4-73, 4-85, 4-91, G-6, G-7

Asbestos Release Site (or ARS): 1-27, 1-28, 2-62, 2-78, 2-100, 3-30, 3-36, 3-83, 4-4, Ref-5, C-1, C-3

C

Children's Programs: 3-61, 3-62, 3-63, 3-76

Climate: 1-3, 2-10, 3-29

Cost, v, vi, vii, viii, 1-11, 1-12, 1-23, 2-15, 2-19, 2-20, 2-23, 2-38, 2-46, 2-47, 2-48, 2-84, 2-106, 2-107, 3-83, 3-84, 4-4, 4-75, 4-87, 4-88, 4-90, C-2, Appendix H

Cultural Landscape(s): iv, v, vi, viii, ix, 1-3, 1-12, 1-13, 1-15, 1-25, 2-2, 2-13, 2-15, 2-23, 2-27, 2-28, 2-32, 2-39, 2-50, 2-51, 2-52, 2-53, 2-60, 2-67, 2-73, 2-74, 2-75, 2-76, 2-87, 2-93, 2-94, 2-95, 2-97, 2-103, 3-10, 3-13, 3-38, 3-83, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9, 4-10, 4-11, 4-12, 4-13, 4-14, 4-15, 4-47, 4-49, 4-50, 4-66, 4-70, 4-92, 4-93, Ref-6, G-2, G-4, G-5, G-6

Cultural Resource Management: 2-1, 2-47, 2-50, 4-9, 4-11, 4-12, 4-15, 4-16, 4-18, 4-20, 4-21, 4-23, 4-25, 4-26, 4-28, 4-29, 4-30, 4-32, 4-33, 4-35, 4-37, 4-39, 4-40, 4-42, 4-43, 4-44, 4-45, 4-46, 4-47, 4-49, 4-50, 4-52, 4-54, 4-55, 4-58, 4-59, 4-60, 4-63, 4-64, 4-67, 4-68, 4-70, 4-71, 4-73, 4-75, 4-76, 4-77, 4-80, 4-82, 4-83, 4-84, 4-87, 4-88, 4-90, G-2, G-6, G-7

D

Deer or white-tailed deer: iii, 1-2, 1-10, 1-15, 2-3, 2-13, 2-31, 2-33, 2-34, 2-40, 2-50, 2-51, 2-70, 2-90, 3-36, 3-41, 3-42, 3-44, 3-47, 3-48, 3-49, 3-51, 3-60, 3-86, 4-7, 4-9, 4-11, 4-13, 4-30, 4-31, 4-32, 4-48, 4-49, 4-51, 4-53, 4-54, 4-55, 4-56, 4-80, 4-82, 4-84, C-3, C-4, C-5, C-11, I-10

Demographics: 1-32, 3-28, 3-70, 3-71, 3-73

E

Economy: 2-9, 3-13, 3-14, 3-16, 3-68, 3-78, 4-74, 4-75, 4-76, 4-77

Encampment: iii, vii, 1-1, 1-2, 1-3, 1-4, 1-5, 1-7, 1-8, 1-12, 1-13, 1-14, 1-15, 1-17, 1-18, 1-25, 1-36, 2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-11, 2-12, 2-13, 2-14, 2-21, 2-22, 2-25, 2-26, 2-27, 2-28, 2-32, 2-33, 2-34, 2-35, 2-38, 2-39, 2-40, 2-41, 2-42, 2-43, 2-46, 2-49, 2-52, 2-57, 2-58, 2-59, 2-60, 2-61, 2-68, 2-69, 2-70, 2-73, 2-74, 2-75, 2-76, 2-77, 2-87, 2-88, 2-89, 2-90, 2-93, 2-94, 2-95, 2-96, 2-97, 2-98, 2-99, 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-27, 3-28, 3-29, 3-38, 3-39, 3-41, 3-43, 3-44, 3-55, 3-58, 3-59, 3-61, 3-62, 3-80, 3-83, 3-84, 3-85, 3-86, 3-87, 3-88, 4-7, 4-14, 4-15, 4-16, 4-17, 4-19, 5-6, C-8, C-9, G-1

Encampment Store: 3-55, 3-59, 3-61, 3-62, 3-83, 3-84, 3-85

Environmental Consequences: viii, xi, 1-25, 2-52, 2-53, 3-1, 4-1, 4-2, 4-4, 4-6, 4-8, 4-10, 4-12, 4-14, 4-16, 4-18, 4-20, 4-22, 4-24, 4-26, 4-28, 4-30, 4-32, 4-34, 4-36, 4-38, 4-40, 4-42, 4-44, 4-46, 4-48, 4-50, 4-52, 4-54, 4-56, 4-58, 4-60, 4-62, 4-64, 4-66, 4-68, 4-70, 4-72, 4-74, 4-76, 4-78, 4-80, 4-82, 4-84, 4-86, 4-88, 4-90, 4-92, Ref-7

Environmentally Preferred Alternative: vii, 2-50, 2-51, 2-52, 2-53, Ref-7

F

Floodplains: viii, ix, 1-20, 1-25, 2-53, 3-17, 3-32, 3-35, 3-36, 3-37, 3-38, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-47, 4-3, 4-5, 4-6, 4-40, 4-41, 4-42, 4-43, 4-92, Ref-7, Ref-11, C-6

Forest: iii, vii, viii, 1-2, 1-4, 1-10, 1-12, 1-13, 1-14, 1-15, 1-19, 2-2, 2-10, 2-22, 2-25, 2-26, 2-33, 2-40, 2-47, 2-49, 2-50, 2-51, 2-52, 2-60, 2-67, 2-70, 2-75, 2-87, 2-90, 2-95, 3-34, 3-35, 3-36, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-46, 3-47, 3-48, 3-49, 4-7, 4-9, 4-11, 4-12, 4-13, 4-14, 5-15, 4-20, 4-47, 4-48, 4-49, 4-50, 4-51, 4-54, 4-55, 4-70, 4-92, C-2, C-4, G-5

Funding: iii, v, vii, viii, ix, 1-1, 1-7, 1-8, 1-10, 1-23, 1-28, 2-1, 2-19, 2-23, 2-31, 2-33, 2-39, 2-47, 2-48, 2-50, 2-51, 2-58, 3-19, 3-20, 3-39, 3-84, 4-3, 4-4, 4-15, 4-25, 4-53, 4-72, 4-74, 4-89, 4-90, 4-92, 5-8, 5-15, C-1, C-3, C-12

G

Geological Resources (or Geology): ix, 1-8, 1-25, 2-10, 2-27, 2-34, 2-39, 2-41, 2-53, 2-93, 3-29, 3-31, 3-36, 3-60, 3-67, 4-3, 4-4, 4-5, 4-6, 4-27, 4-28, 4-29, 4-30, 4-36, 4-92, Ref-6, C-9

Groundwater: 1-25, 2-53, 2-59, 2-72, 2-92, 3-30, 3-31, 3-33, 3-36, 3-37, 3-49, 4-3, 4-4, 4-5, 4-6, 4-35, 4-36, 4-37, 4-38, 4-39, 4-40

H

Hazardous Materials: 2-70, 2-78, 2-90, 2-100

High-Value Habitat: 1-14, 1-15, 1-32, 4-47

Historic Buildings (or Structures): iv, vi, viii, 1-1, 1-2, 1-3, 1-10, 1-12, 1-13, 1-23, 1-25, 1-34, 2-2, 2-24, 2-25, 2-27, 2-30, 2-31, 2-32, 2-33, 2-35, 2-37, 2-38, 2-39, 2-42, 2-44, 2-46, 2-50, 2-51, 2-52, 2-53, 2-58, 2-60, 2-65, 2-68, 2-74, 2-75, 2-85, 2-89, 2-94, 2-95, 2-108, 3-12, 3-13, 3-18, 3-19, 3-20, 3-28, 3-39, 3-55, 3-56, 3-60, 3-65, 3-73, 3-76, 3-77, 3-78, 3-83, 3-86, 3-87, 3-88, 4-4, 4-5, 4-6, 4-8, 4-14, 4-15, 4-16, 4-17, 4-18, 4-19, 4-20, 4-24, 4-25, 4-70, 4-71, 4-72, 4-73, 4-88, 4-89, 4-91, 4-92, C-1, C-3, C-4, C-7, G-2, G-3, G-4, G-5, G-6, G-7

I

Interpretive and Thematic Framework: v, 2-1, 2-3

Interpretive Programs: iii, 1-6, 1-10, 1-17, 1-18, 1-23, 1-24, 2-14, 2-31, 2-36, 2-43, 3-57, 3-65, 3-66, 4-70, 4-73, 4-76, 5-6

L

Legislative History of Park: 1-4

Lightscares: viii, ix, 1-25, 2-26, 2-53, 2-59, 2-72, 2-92, 3-52, 4-3, 4-4, 4-54, 4-66, 4-67, 4-68, 4-69, 4-92

Living History Programs: 2-41, 3-57, 3-60, 3-61, 3-85

M

Management Framework: v, 2-1

Management Zones: 2-21, 2-25, 2-26, 2-27, 2-28, 2-29, 2-30, 2-57, 2-58, 2-59, 2-60, 2-61, 2-62, 2-63, 2-64, 2-65, 2-67, 2-68, 2-69, 2-70, 2-71, 2-72, 2-73, 2-74, 2-75, 2-76, 2-77, 2-78, 2-79, 2-80, 2-81, 2-82, 2-83, 2-84, 2-85, 2-87, 2-88, 2-89, 2-90, 2-91, 2-92, 2-93, 2-94, 2-95, 2-96, 2-97, 2-98, 2-99, 2-100, 2-101, 2-102, 2-103, 2-104, 2-105, 2-106, 2-107, 2-108, C-8

Meadow: iii, iv, vii, viii, 1-4, 1-10, 1-13, 1-14, 1-15, 1-16, 1-19, 2-10, 2-21, 2-22, 2-25, 2-27, 2-33, 2-40, 2-47, 2-50, 2-51, 2-52, 2-59, 2-67, 2-73, 2-87, 2-93, 3-16, 3-17, 3-19, 3-25, 3-43, 3-44, 3-46, 3-47, 3-64, 3-76, 4-9, 4-11, 4-12, 4-47, 4-48, 4-49, 4-50, 4-51, 4-53, 4-54, 4-55, C-3, C-9

Mission Goals: iv, v, xi, 1-7, 1-8, 1-9, 1-10, 1-12, 1-17, 1-22, 1-23, 2-1, 2-2, 2-23, 2-25, 2-27, 2-31, 2-32, 2-34, 2-37, 2-39, 2-41, 2-44, 2-57, 2-58, 2-59, 2-60, 2-61, 2-62, 2-63, 2-64, 2-65, 2-67, 2-68, 2-69, 2-70, 2-71, 2-72, 2-73, 2-74, 2-75, 2-76, 2-77, 2-78, 2-79, 2-80, 2-81, 2-82, 2-83, 2-84, 2-85, 2-87, 2-88, 2-90, 2-91, 2-92, 2-93, 2-94, 2-95, 2-96, 2-97, 2-98, 2-99, 2-100, 2-101, 2-102, 2-103, 2-104, 2-105, 2-106, 2-107, 2-108

Mitigation: 3-22, 3-33, 3-51, 3-52, 4-15, 4-17, 4-18, 4-22, 4-37, 4-40, 4-45, 4-46, 4-49, 4-52, 4-54, 4-62, 4-63, 4-67, 4-68, 4-79, 4-80, Ref-9, C-2, C-6, G-4, G-6, G-9

Monuments and Markers: 1-6, 1-8, 1-13, 2-2, 2-9, 2-21, 2-26, 2-58, 2-69, 2-90, 3-12, 3-18, 3-19, 3-20, 3-53, 3-60, 3-61, 3-62, 3-64, 4-15, 4-17, 4-18, G-3, G-7

N

National Historic Landmark (or NHL): 1-7, 1-31, 3-19, C-8, C-10, G-2

National Register of Historic Places (or National Register): 1-16, 2-2, 2-25, 2-27, 2-28, 2-33, 2-38, 2-40, 2-46, 2-57, 2-60, 2-61, 2-68, 2-74, 2-77, 2-85, 2-88, 2-94, 2-95, 2-99, 2-108, 3-10, 4-8, 4-9, 4-11, 4-12, 4-13, 4-14, 4-15, 4-16, 4-17, 4-19, 4-20, 4-21, 4-22, Ref-6, Ref-10, G-1, G-2, G-3, G-9

Natural Resource Management: 2-13, 3-27, 2-64, 2-106, 4-9, 4-11, 4-12, 4-15, 4-17, 4-18, 4-20, 4-22, 4-23, 4-25, 4-26,, 4-28, 4-29, 4-31, 4-32, 4-33, 4-35, 4-37, 4-39, 4-41, 4-42, 4-43, 4-44, 4-45, 4-46, 4-48, 4-49, 4-50, 4-52, 4-54, 4-55, 4-58, 4-59, 4-60, 4-63, 4-65, 4-67, 4-68, 4-70, 4-72, 4-73, 4-75, 4-76, 4-77, 4-80, 4-82, 4-84, 4-87, 4-88, 4-90

P

Park Mission: vi, vii, 1-8, 1-10, 1-23, 1-24, 2-1, 2-17, 2-25, 2-30, 2-57, 2-67, 2-83, 2-87, 2-105, 4-87, G-1

Park Operations: viii, ix, 1-25, 2-2, 2-6, 2-21, 2-30, 2-38, 2-46, 2-53, 2-65, 2-85, 2-108, 3-82, 3-83, 3-85, 3-86, 3-87, 4-1, 4-3, 4-4, 4-5, 4-7, 4-9, 4-12, 4-13, 4-15, 4-18, 4-20, 4-22, 4-23, 4-25, 4-26, 4-28, 4-29, 4-31, 4-33, 4-34, 4-36, 4-38, 4-39, 4-41, 4-42, 4-43, 4-44, 4-46, 4-48, 4-50, 4-51, 4-53, 4-55, 4-56, 4-58, 4-59, 4-60, 4-63, 4-64, 4-65, 4-67, 4-68, 4-71, 4-72, 4-74, 4-76, 4-77, 4-81, 4-83, 4-86, 4-87, 4-88, 4-89, 4-90, 4-91, 4-92, 4-93, Ref-8, C-2

Park Purpose: v, 1-7, 1-9, 4-6, 4-69, 4-78, C-2, G-1, G-4

Park Significance: 1-8, 1-9, 1-16, 1-17, 1-18, 1-30, 1-31, 1-33, 1-34, 3-1, 3-2, 3-18, 3-21, 4-11, 4-16, 4-17, 4-69, G-2

Partnerships: v, vi, vii, viii, ix, 1-2, 1-9, 1-10, 1-12, 1-23, 1-24, 1-32, 2-14, 2-19, 2-25, 2-28, 2-29, 2-30, 2-32, 2-36, 2-37, 2-44, 2-45, 2-47, 2-48, 2-57, 2-59, 2-62, 2-64, 2-67, 2-71, 2-77, 2-78, 2-81, 2-83, 2-87, 2-91, 2-92, 2-99, 2-100, 2-106, 3-35, 3-39, 3-49, 3-50, 3-84, 3-85, 3-87, 4-6, 4-17, 4-35, 4-55, 4-72, 4-74, 4-87, 4-89, 4-90, 4-92, 5-4, C-2, C-4, C-12, C-13

Personal Services: 3-61

Physiography: 1-25, 1-32

Post-encampment: 1-13, 2-25, 2-58, 2-68, 2-74, 2-89, 2-94, 2-95, 3-9, 3-19, 3-25, 4-15, 4-16, 4-19

Pre-encampment: 3-1, 3-12, 3-22, 3-23

Preferred Alternative: vii, ix, xi, 1-28, 1-35, 2-48, 2-50, 2-51, 2-52, 2-53, 4-1, 4-6, 4-12, 4-18, 4-23, 4-26, 4-29, 4-39, 4-46, 4-50, 4-55, 4-59, 4-64, 4-68, 4-73, 4-77, 4-83, 4-90, 4-93, 5-16, Ref-10, J-1, J-2, J-3

Preservation Treatments: 2-2, 3-10

R

Rare, Threatened, and Endangered Species: 1-25, 2-58, 2-70, 2-90, 3-43, 3-45, 3-47, 3-50, 4-47, 4-52, 5-2, Ref-7, Ref-11

Riparian Buffers: 1-4, 1-14, 3-38, 3-39, 3-41, 3-86, 3-87, 4-45, 4-54

Roads (including highways and routes): vi, vii, ix, 1-1, 1-4, 1-7, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-22, 1-23, 1-29, 1-32, 2-6, 2-11, 2-12, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-23, 2-25, 2-29, 2-31, 2-36, 2-43, 2-44, 2-62, 2-64, 2-67, 2-68, 2-73, 2-79, 2-81, 2-82, 2-88, 2-91, 2-93, 2-94, 2-95, 2-97, 2-100, 2-101, 2-103, 2-104, 2-105, 2-108, 3-9, 3-11, 3-12, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-24, 3-25, 3-26, 3-35, 3-37, 3-39, 3-40, 3-45, 3-49, 3-51, 3-52, 3-53, 3-56, 3-58, 3-59, 3-60, 3-62, 3-63, 3-64, 3-66, 3-67, 3-79, 3-80, 3-81, 3-82, 3-84, 4-3, 4-4, 4-9, 4-11, 4-12, 4-15, 4-20, 4-31, 4-36, 4-37, 4-41, 4-44, 4-48, 4-52, 4-53, 4-54, 4-56, 4-57, 4-58, 4-59, 4-60, 4-61, 4-62, 4-63, 4-64, 4-65, 4-66, 4-67, 4-71, 4-72, 4-73, 4-74, 4-76, 4-77, 4-78, 4-79, 4-80, 4-81, 4-82, 4-83, 4-84, 4-85, 4-86, 4-93, 5-8, 5-12, 5-13, Ref-5, Ref-6, Ref-7, Ref-8, Ref-10, Ref-11, Ref-12, C-2, C-5, C-6, C-7, C-10, G-4, G-5, G-6

S

Schuylkill River: 1-13, 1-16, 1-19, 1-20, 1-21, 1-22, 1-25, 1-27, 1-30, 1-31, 1-32, 2-8, 2-10, 2-13, 2-14, 2-15, 2-16, 2-18, 2-22, 2-26, 2-29, 2-34, 2-36, 2-41, 2-43, 2-63, 2-64, 2-71, 2-80, 2-81, 2-82, 2-83, 2-91, 2-102, 2-103, 2-104, 2-105, 2-106, 3-4, 3-5, 3-8, 3-12, 3-13, 3-15, 3-16, 3-17, 3-18, 3-19, 3-22, 3-25, 3-26, 3-29, 3-30, 3-31, 3-32, 3-33, 3-34, 3-35, 3-36, 3-37, 3-38, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-45, 3-47, 3-48, 3-49, 3-51, 3-52, 3-53, 3-56, 3-61, 3-63, 3-64, 3-65, 3-66, 3-67, 3-81, 3-84, 5-3, 4-2, 4-4, 4-11, 4-13, 4-22, 4-28, 4-32, 4-34, 4-36, 4-38, 4-41, 4-42, 4-45, 4-46, 4-48, 4-50, 4-53, 4-83, 5-3, 5-17, C-2, C-5, C-6, C-7, C-8, C-11, G-5

Soils: 1-3, 1-19, 1-25, 1-27, 2-53, 2-69, 2-89, 3-1, 3-9, 3-16, 3-31, 3-32, 3-33, 3-37, 4-3, 4-4, 4-5, 4-6, 4-28, 4-30, 4-31, 4-32, 4-33, 4-34, 4-36, 4-38, 4-43, 4-49, 4-56, 5-16, Ref-5, Ref-6, Ref-8, Ref-11, Ref-12

Soundscapes: ix, 1-25, 2-26, 2-53, 2-59, 2-73, 2-93, 3-52, 4-3, 4-4, 4-54, 4-61, 4-42, 4-63, 4-64, 4-65, 4-66, 4-92

Special Events: 3-61, 3-62, 3-88

Special Populations: 1-9, 3-63

Staffing: viii, 1-17, 2-23, 2-30, 2-32, 2-33, 2-37, 2-38, 2-39, 2-40, 2-44, 2-46, 2-47, 2-48, 2-51, 2-65, 2-83, 2-85, 2-105, 2-106, 2-108, 3-58, 3-60, 3-61, 3-84, 4-9, 4-25, 4-26, 4-35, 4-38, 4-70, 4-74, 4-75, 4-76, 4-86, 4-87, 4-92, C-12

Surface Waters: iv, viii, 1-25, 2-51, 2-53, 3-33, 3-35, 3-36, 4-3, 4-4, 4-5, 4-6, 4-35, 4-36, 4-37, 4-38, 4-39, 4-40, 4-41, 4-92

T

Topography: ix, 1-25, 2-34, 2-41, 2-53, 2-61, 3-12, 3-25, 3-29, 3-30, 3-38, 4-3, 4-4, 4-5, 4-6, 4-8, 4-27, 4-28, 4-29, 4-30, 4-33, 4-34, 4-36, 4-38, 4-62, 4-93

Tourism: 1-24, 1-31, 1-32, 2-19, 3-72, 3-74, C-4, C-5, J-2, J-3

Tours: vii, 1-7, 1-13, 1-17, 1-19, 1-31, 1-32, 2-5, 2-6, 2-17, 2-18, 2-21, 2-25, 2-27, 2-29, 2-31, 2-36, 2-44, 2-49, 2-61, 2-63, 2-67, 2-73, 2-75, 2-76, 2-77, 2-80, 2-81, 2-93, 2-96, 2-97, 2-99, 2-100, 2-107, 3-12, 3-55, 3-56, 3-58, 3-59, 3-60, 3-61, 3-62, 3-63, 3-76, 3-77, 3-80, 3-84, 3-85, 3-88, 4-9, 4-11, 4-62, 4-73, 4-86, 5-2, 5-3, 5-4, 5-5, C-8, C-9, C-11, C-12, G-6

Trail(s): vi, 1-1, 1-9, 1-13, 1-15, 1-16, 1-18, 1-19, 1-20, 1-23, 1-24, 1-30, 2-15, 2-16, 2-18, 2-22, 2-23, 2-24, 2-27, 2-28, 2-29, 2-31, 2-33, 2-35, 2-36, 2-40, 2-42, 2-43, 2-51, 2-58, 2-60, 2-62, 2-63, 2-64, 2-68, 2-69, 2-70, 2-71, 2-73, 2-74, 2-75, 2-79, 2-80, 2-81, 2-82, 2-83, 2-88, 2-89, 2-90, 2-91, 2-94, 2-95, 2-96, 2-101, 2-102, 2-103, 2-104, 2-105, 2-106, 3-13, 3-15, 3-18, 3-19, 3-22, 3-38, 3-40, 3-43, 3-45, 3-52, 3-56, 3-60, 3-61, 3-63, 3-64, 3-65, 3-66, 3-67, 3-79, 3-82, 3-84, 3-86, 3-87, 3-88, 4-11, 4-13, 4-15, 4-16, 4-17, 4-20, 4-22, 4-23, 4-31, 4-32, 4-33, 4-34, 4-36, 4-38, 4-41, 4-42, 4-44, 4-46, 4-50, 4-53, 4-55, 4-58, 4-59, 4-60, 4-63, 4-64, 4-65, 4-70, 4-71, 4-72, 4-73, 4-75, 4-76, 4-82, 4-83, 4-84, 4-86, 4-89, 4-90, 5-1, 5-3, 5-10, 5-11, 5-12, Ref-8, C-10, C-11, C-12, C-13, G-4, G-5, G-6

Transportation: v, vi, ix, 1-18, 1-21, 1-22, 1-25, 1-27, 1-28, 1-29, 1-30, 1-31, 1-32, 2-1, 2-6, 2-14, 2-15, 2-16, 2-17, 2-18, 2-19, 2-20, 2-21, 2-23, 2-24, 2-29, 2-31, 2-34, 2-36, 2-41, 2-43, 2-44, 2-49, 2-53, 2-58, 2-65, 2-71, 2-81, 2-83, 2-91, 2-106, 3-10, 3-15, 3-16, 3-22, 3-26, 3-30, 3-55, 3-56, 3-66, 3-67, 3-69, 3-79, 3-80, 3-81, 3-84, 3-88, 4-1, 4-2, 4-3, 4-4, 4-7, 4-9, 4-11, 4-12, 4-13, 4-36, 4-55, 4-56, 4-57, 4-58, 4-60, 4-63, 4-64, 4-65, 4-71, 4-74, 4-77, 4-78, 4-79, 4-80, 4-81, 4-82, 4-83, 4-84, 4-85, 4-86, 4-88, 4-93, 5-1, 5-2, 5-3, 5-5, 5-7, 5-8, 5-9, 5-10, 5-11, 5-12, 5-13, 5-14, 5-15, 5-16, 5-17, C-12, J-2

U

Utilities: 1-4, 1-13, 1-29, 2-2, 2-14, 2-21, 2-30, 2-47, 2-48, 2-57, 2-65, 2-68, 2-73, 2-84, 2-88, 2-93, 2-107, 3-25, 3-66, 3-69, 3-82, 3-83, 3-84, 3-85, 4-12, 4-13, 4-22, C-13

V

Valley Creek: 1-15, 1-16, 1-21, 1-31, 1-32, 1-33, 2-10, 2-13, 2-18, 2-26, 2-34, 2-41, 2-59, 2-64, 2-70, 2-71, 2-72, 2-83, 2-90, 2-91, 2-92, 2-106, 3-1, 3-12, 3-13, 3-14, 3-18, 3-23, 3-25, 3-29, 3-33, 3-34, 3-35, 3-36, 3-37, 3-38, 3-39, 3-42, 3-43, 3-44, 3-45, 3-47, 3-49, 3-50, 3-56, 3-60, 3-61, 3-79, 3-81, 3-86, 3-87, 4-5, 4-6, 4-10, 4-16, 4-21, 4-28, 4-31, 4-32, 4-34, 4-35, 4-36, 4-37, 4-38, 4-40, 4-41, 4-42, 4-44, 4-45, 4-46, 4-48, 4-49, 4-50, 4-54, 4-71, 4-76, C-2, C-4, C-10, C-13, G-5

Vegetation: viii, ix, 1-25, 1-27, 2-26, 2-33, 2-40, 2-51, 2-53, 2-69, 2-70, 2-73, 2-74, 2-75, 2-89, 2-90, 2-93, 2-94, 2-95, 2-98, 3-32, 3-39, 3-40, 3-41, 3-42, 3-43, 3-44, 3-48, 3-49, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-11, 4-13, 4-31, 4-32, 4-38, 4-45, 4-46, 4-47, 4-48, 4-49, 4-50, 4-51, 4-53, 4-54, 4-92, Ref-8, Ref-12, I-1, I-2

Viewsheds: 2-94, Ref-12, G-6

Visitor Use and Experience: iii, v, vi, vii, viii, ix, 1-2, 1-3, 1-8, 1-9, 1-10, 1-11, 1-17, 1-18, 1-19, 1-20, 1-21, 1-22, 1-25, 1-28, 1-31, 1-32, 1-34, 2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 2-14, 2-15, 2-20, 2-21, 2-22, 2-23, 2-24, 2-25, 2-26, 2-27, 2-28, 2-29, 2-32, 2-33, 2-34, 2-35, 2-37, 2-38, 2-39, 2-40, 2-41, 2-42, 2-43, 2-53, 2-57, 2-63, 2-69, 2-74, 2-77, 2-80, 2-81, 2-82, 2-84, 2-87, 2-89, 2-96, 2-99, 2-102, 2-103, 2-104, 2-105, 2-107, 3-53, 3-55, 3-56, 3-57, 3-58, 3-59, 3-61, 3-63, 3-64, 3-65, 3-70, 3-79, 4-1, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9, 4-15, 4-20, 4-21, 4-23, 4-35, 4-46, 4-52, 4-54, 4-58, 4-59, 4-61, 4-64, 4-65, 4-66, 4-69, 4-70, 4-71, 4-73, 4-74, 4-87, 4-88, 4-92, 4-93, Ref-6, Ref-12, C-1, C-7, C-10, J-1

W

Water Quality: 1-16, 1-32, 1-33, 2-26, 2-34, 2-41, 2-59, 2-71, 2-91, 3-33, 3-34, 3-35, 3-36, 3-37, 3-48, 3-49, 4-5, 4-35, 4-36, 4-37, 4-38, 4-53, 4-56, Ref-5

Waysides: 2-13, 2-47, 2-61, 3-61, 4-45, C-9, G-4

Welcome Center: 1-4, 1-13, 1-14, 1-16, 1-25, 2-61, 2-62, 2-69, 2-5, 2-6, 2-11, 2-13, 2-14, 2-19, 2-24, 2-26, 2-27, 2-28, 2-29, 2-31, 2-33, 2-34, 2-35, 2-37, 2-39, 2-40, 2-42, 2-44, 2-61, 2-62, 2-69, 2-75, 2-76, 2-77, 2-79, 2-82, 2-85, 2-89, 2-96, 2-97, 2-99, 2-101, 2-108, 3-27, 3-28, 3-31, 3-44, 3-53, 3-54, 3-55, 3-56, 3-57, 3-58, 3-59, 3-60, 3-61, 3-62, 3-63, 3-64, 3-70, 3-71, 3-79, 3-80, 3-81, 3-82, 3-83, 3-84, 3-85, 3-86, 3-87, 3-88, 4-25, 4-26, 4-71, 4-72, 4-73, 4-87, 4-89, 4-91, C-6, J-1

Wetlands: 1-4, 1-13, 1-14, 1-16, 1-25, 2-10, 2-15, 2-26, 2-50, 2-51, 2-53, 2-70, 2-75, 2-90, 2-95, 3-32, 3-33, 3-36, 3-39, 3-40, 3-43, 3-44, 3-46, 3-47, 4-3, 4-5, 4-6, 4-43, 4-44, 4-45, 4-46, 5-7, Ref-8, Ref-12, C-2, C-4, C-11

Wildlife: viii, ix, 1-14, 1-15, 1-25, 2-4, 2-10, 2-51, 2-53, 2-70, 2-72, 2-78, 2-90, 2-92, 2-100, 3-32, 3-38, 3-43, 3-44, 3-60, 3-88, 4-3, 4-4, 4-5, 4-6, 4-7, 4-35, 4-44, 4-48, 4-52, 4-53, 4-54, 4-55, 4-56, 4-66, 4-92, 5-16, I-1, I-3, I-4, I-5, I-6, I-7, I-8, I-9, I-10, I-11, I-12

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References: Selected Bibliography

A selected list of the publications, technical reports, policy documents, public sources of information and interviews, and correspondence that provided the most useful information in the preparation of this document is included below.

Affleck, Richard M., Jennifer Marston, and Ingrid Wuebber. September 2005. *Phase I Archeological Investigations for the Proposed American Revolution Center Museum in Valley Forge National Historical Park, Montgomery County, Pennsylvania.*

Allen, Raymond. August 20, 1981. *State Land Title Objections.*

American Forests. 1993. *1993 Catalog of Famous & Historic Trees.*

Appalachian Tales. Accessed on October 16, 2002. *Geologic History of the Appalachian Mountains.* Available on the Internet at www.appalachiantales.com/geologic_history.htm

Arnold, David. May 28, 2002. *Fragile Beauty: National Parks Show Wear and Tear.*

Associated Press. April 29, 2002. *Valley Forge.*

Barnes, John H. 1991. *Rocks and Minerals of Pennsylvania.*

Bechtel, T.D., J. L. Hojdila, S. H. Baughman II, T. DeMayo, and E. Doheny. 2005. *Re-Lost and Re-Found: Detection of a Paleontologically-, Historically-, Cinematically-, and Environmentally-Important Solution Feature in Carbonate Belt of Southeastern Pennsylvania.*

Boatner, Mark M., III. 1994. *Encyclopedia of American Revolution, 3rd Ed.*

Bodle, Wayne. 2002. *The Valley Forge Winter Civilian and Soldiers in War.*

Bodle, Wayne K. and Jacqueline Thibaut. May 1980. *Valley Forge Historical Research Report.*

Boles, Smyth Associates, Inc. 2002. *Final Report of the Range of Options, Valley Forge Area Transportation Planning Study, Chester and Montgomery Counties, PA.*

Bowersox, T.W. and D.S. Larrick. 1999. *Long-term Vegetation Monitoring of Forested Ecosystems at Hopewell Furnace NHS and Valley Forge NHP.*

Bureau of Topographic and Geologic Survey. 1993. *Pennsylvania Park Guide 8: Trail of Geology: Valley Forge State Park: History of the Rocks.*

- Bureau of Wildlife Management, Pennsylvania Game Commission. 2002. *Management Plan for White-tailed Deer in Pennsylvania*. Available on the Internet at http://sites.state.pa.us/PA_Exec/PGC/deer/mgtPlan/v_01/.
- Cahill Associates. 1997. *Stormwater Management with Reduction and Prevention of Urban Nonpoint Source Pollution in the Valley Creek Watershed Schuylkill River Basin, Chester County, Pennsylvania*.
- Campbell Thomas & Co. April 6, 2001. *Schuylkill River Trail Extension: Betzwood Picnic Area to Pawlings Road Valley Forge NHP Environmental Assessment*.
- Carfioli, Margaret A. March 14, 2002. *Assess Status and Distribution of State Listed Species, Develop Species Profiles and Interpret*.
- Carp, E. Wayne. 1984. *To Starve the Army at Pleasure: Continental Army Administration and American Political Culture 1775-1783*.
- Center for Park Management. 2005. *VAFO-ARCVF Combined Expected Operational Budget*.
- Chester County Health Department. 1999. *Chester County Health Dept. Lyme Disease Summary Report 1988-1999*.
- Chester County Planning Commission. February 2002a. *Linking Landscape: A Plan for the Protected Open Space Network in Chester County, Pennsylvania*.
- . September 2002b. *Watersheds: An Integrated Water Resources Plan for Chester County, Pennsylvania and its Watersheds*.
- Clough, Harbour and Associates, LLP. 2003. *Valley Forge National Historic Park, Proposed Streambank Stabilization, Valley Creek, Draft Environmental Assessment*.
- Commonwealth of Pennsylvania. 1906. An Act providing for the acquisition by the State of certain ground at Valley Forge for a public park, and making an appropriation therefore. In *By-Laws of the Valley Forge Park Commission*.
- Commonwealth of Pennsylvania and the Pennsylvania Geological Society. 1993. *Pennsylvania Trail of Geology: Valley Forge NHP, Montgomery and Chester Counties, The Geologic History*.
- Cypher, Ellan, Richard H. Yahner, Gerald L. Storm, and Brian Cypher. April 30, 1985. *Valley Forge NHP Proposed Pawling Recreation Area Flora and Fauna Survey: 21 May 1984 – 30 April 1985*.
- Daeschler, Edward, Earle E. Spamer, and David C. Parris. 1993. *Review and New Data on the Port Kennedy Local Fauna and Flora (Late Irvingtonian), Valley Forge*.
- Delaware Valley Regional Planning Commission. 1997. *How Do We Get There? Improving Mobility for Tourists and Visitors*
- . 2000. *Year 2025 County and Municipal Population and Employment Forecasts*.

- . January 2003. *Phoenixville Area Intermodal Transportation Study, Year 2025 Planning Corridors Report, Report 7.*
- . March 2005. *Traffic Forecasting for the Valley Forge Area Transportation Planning Study Implementation Phase.*
- Deweese, William. 1785. *Petition to Congress, The Papers of the Continental Congress.*
- Dodd, John and Cherry. 1981. *List of Classified Structures Reports, Valley Forge National Historical Park.*
- Donohoe, Howard V. June 1, 1966. *The Geology of the Valley Forge, Pennsylvania Area.*
- Economics Research Associates and Wallace Roberts & Todd, LLC. 2002. *Schuylkill River Valley National Heritage Area Management Plan and Environmental Impact Statement Market Analysis.*
- Environmental News Network. October 25, 2000. *Acid Rain Eats Away at Virginia Streams.* Available on the Internet at <http://www.cnn.com/2000/NATURE/10/25/acid.rain.enn/>.
- Environmental Protection Agency. Accessed 2004. *State Ozone Designations.* Available on the Internet at <http://www.epa.gov/ozonedesignations/>.
- Federal Emergency Management Agency. 1996a. *Flood Insurance Rate Map, Chester County, Pennsylvania (All Jurisdictions).*
- . 1996b. *Flood Insurance Rate Map, Montgomery County, Pennsylvania (All Jurisdictions).*
- Fleeger, Gary M. 1999. *The Geology of Pennsylvania's Groundwater.*
- Franklin, Jerry F. and Reed F. Noss. September 24, 2002. *Total Biodiversity: Franklin-Noss Model of Biodiversity.*
- Fraker, Mark A. et al. October 23, 2001. *Long-Lasting, Single-Dose Immunocontraception of Feral Fallow Deer in British Columbia.*
- Greenwich Conservation Commission. 2001. *White Tailed Deer Fact Sheet.*
- Heister, Kristina M. 1995. *White-tailed Deer Data Summary: 1984-1995 Valley Forge NHP.*
- Heister, Kristina M., Dr. G. Winfield Fairchild, and Ann M. Faulds. 2000. *Analysis of Understory Vegetation in Fenced and Unfenced Plots, at Valley Forge NHP 1993-1998.*
- HNTB Architecture, et. al. November 19, 2004. *Sustainability Review of Museum Programs The American Revolution Center at Valley Forge National Historical Park.*
- Haley Sharpe Design. 2004. *Interpretive Design Concept Report and Final Conceptual Master Plan for Museum Exhibits.*

- ICON Architecture. 2000. *Facility Assessment Study*.
- John Milner Associates, Inc. 2003. *Valley Forge National Historical Park National Register Nomination Update, 75% Draft Submission*. Prepared for the National Park Service Philadelphia Support Office. April 25.
- Kaplan, Robert S. and David P. Norton. 1996. *Using the Balanced Scorecard as a Strategic Management System*
- Kinzua Quality Deer Cooperative Committee. 2000. *Kinzua Quality Deer Cooperative Management Plan*. Available on the Internet at http://www.fs.fed.us/r9/allegHENY/recreation/wildlife_viewing/hunting/QHE_Management_Plan.pdf.
- Koch, Frank Henry, Jr. Accessed on April 7, 2003. *A comparison of digital vegetation mapping and image orthorectification methods using aerial photography of Valley Forge NHP*. Available on the Internet at <http://www.cobblestoneconcepts.com/ucgis2summer/koch/koch.htm>
- Krueger, Michael et al. Accessed on April 7, 2003. *Developing a Deer Management Plan*. Available on the Internet at http://www.tpwd.state.tx.us/wildlife_pubs/devoping_a_deer_mgmt_plan.pdf.
- Lambert, Brian. September 12, 1995. *Specimen Trees*.
- . June 3, 2000. *Interrogatory 9(b) Valley Creek Angler Use*.
- . March 7, 2001a. *Evaluate Effectiveness of Single Pin Meadow Sampler*.
- . March 8, 2001b. *Develop Alternatives for Managing Steep Eroding Streambanks*.
- . April 26, 2002a. *Control Invasive Nonnative Woody Vegetation in Forested Areas*.
- . September 5, 2002b. *Reproduce and Interpret Pleistocene Fossils*.
- Lord Cultural Resources. 2004. *Valley Forge: American Revolution Center and Collection Resource Facility Strategy*.
- Lovallo, M.J. and W.M. Tzilkowski. February 2003. *Abundance and Movements of White-tailed Deer (Odocoileus Virginianus) Within Valley Forge NHP and Surrounding Private Lands*.
- Lundgren, J., G. Podniesinski, and L. Sneddon. 2002. *Vegetation Classification of Valley Forge National Historical Park*.
- Lynch, James A., Kevin S. Horner, and Jeffrey W. Grimm. 2001a. *Atmospheric Deposition: Spatial and Temporal Variations in Pennsylvania – 2000*.
- . 2001b. *Mercury Deposition in Pennsylvania: Status Report*.

- Main Street Design. 2001. *Reinventing Valley Forge: Building a Shared Vision for the Future*.
- Mayer, Holly A. 1996. *Belonging to the Army: Camp Followers and Community during the American Revolution*.
- McBride, Steven B. 1994. *Adjacent Land Use Study for Valley Forge NHP: Final Report*.
- McDonnell, Michael. 2002. "Valley Forge Site Visit." Unpublished trip report.
- McGuire, Thomas J. 1994. *The Surprise of Germantown, or, The Battle of Cliveden, October 4, 1777*.
- . 2000. *Battle of Paoli*.
- McManus, B. Craig. 1995. *Altitude and Configuration of the Potentiometric Surface in Part of Lower Province Township*.
- Mellon, Richard. 1996. *Habitat Classification Report for Valley Forge National Historic Park, Phase I: North of the Schuylkill River*.
- Miller, Lowell, Ph.D. December 6, 2002. *Summary of PZP Research on White-tailed Deer*.
- Montgomery County Deer Management Work Group. 1995. *Comprehensive Management Plan for White-tailed Deer in Montgomery County, Maryland*. Available on the Internet at <http://www.mc-mncppc.org/environment/deer/deermgmtplan.pdf>.
- Montgomery County Health Department. 1996. *Lyme Disease Environmental Surveillance Study, 1996*.
- Montgomery County Planning Commission. 1996. *Creating an Open Space Legacy: Montgomery County Open Space Plan*.
- Moser, Charles and Kristina M. Heister. 1997. *Distribution and Borrelia Burgdorferi Infection Rates in Ixodes Scapularis at Valley Forge NHP, June – November 1997*.
- National Park Service. 1980. *Environmental Assessment for Draft General Management Plan, Valley Forge National Historical Park*.
- . 1982. *Valley Forge National Historical Park General Management Plan*.
- . 1992. *Memorandum of Agreement between the American Forestry Association and the National Park Service*. Natural Resource Management files.
- . 1996. *Management Guidelines for Valley Creek, Valley Forge NHP, Pennsylvania*.
- . 1999. *Cooperation Agreement Between U.S. Department of the Interior, National Park Service and the Valley Forge Historical Society*.

- . March 15, 2002. *Valley Forge National Historical Park General Management Plan Cultural and Natural Resources Discussion Meeting*.
- . September 9, 2002c. *USDA Wildlife Services Will Conduct Deer Management at Gettysburg and Eisenhower Parks this Season*.
- . December 6, 2002d. *Memorandum of Understanding between the National Park Service and the U.S. Fish and Wildlife Service*.
- . 2005. *Business Plan: Valley Forge National Historical Park*.
- . 2006. *NPS Management Policies 2006*.
- National Park Service Northeast Museum Services Center. 2003. *Collections Management Plan Addendum*.
- National Parks Conservation Association. 2002. *10 Most Endangered National Parks*. Available on the Internet at http://www.npca.org/media_center/valley_forge.asp.
- National Trust for Historic Preservation. 2000. *America's 11 Most Endangered Historic Places in 2000*. Available on the Internet at <http://www.nationaltrust.org/11most/2000/INDEX.HTML>.
- Neimeyer, Charles Patrick. 1996. *America Goes to War: A Social History of the Continental Army*.
- Ness, Erik. 2003. *Oh, Dear: Exploding Populations of white-tailed deer are stripping our forests of life*.
- New England Chapter of the Wildlife Society. 1996. *An Evaluation of Deer Management Options*.
- Newbold, Ann. 1994. *Report of Wetlands Vegetation Study 1994: Valley Forge National Historic Park*.
- Oculus. 2002. *Valley Forge NHP Draft Historic Documentation Summary & Cultural Landscape Plan Data*.
- The Olmsted Center for Landscape Preservation. May 2003. *Trails Assessment for Valley Forge National Historical Park*.
- Pennsylvania Bureau of Engineering. 1973. *Hydrologic Study of Valley Creek at Valley Forge State Park*.
- Pennsylvania Department of Conservation and Natural Resources. May 31, 2001. *Schuylkill Watershed Conservation Plan*.
- . 2002. *The Geological Story of Pennsylvania*.
- Pennsylvania Department of Environmental Protection. 2002. *Bacteriological Report for Drinking Water*.
- . 2003. *Bacteriological Report for Drinking Water*.

- . 2004. *Act 167 Watershed Stormwater Management Plan for the Valley Creek Watershed Phase I Final Report Scope of Study for Phase II.*
- Pennsylvania Geological Survey. 1981. *Map 61 – Atlas of Preliminary Geologic Quadrangle Maps of Pennsylvania, Valley Forge Quadrangle.*
- Pennsylvania State University. Accessed on October 18, 2002. *Description of the Geology of Chester County, Pennsylvania.* Available on the Internet at www.libraries.psu.edu/emsl/guides/X/chester.htm
- Podniesinski, Greg. 2001. Personal communication.
- Pollarine, Barbara. 1993. *Great and Capital Changes: An Account of the Valley Forge Encampment.*
- Porter, William F. 1991. *White-tailed Deer in Eastern Ecosystems: Implications for Management and Research in National Parks.*
- Portfolio Associates, Inc. 1997. *Valley Forge Focus Group Summary Report.*
- Quarles, Benjamin. 1961. *The Negro in the American Revolution.*
- Radeer, Herbert L. 1951. *Geology of Valley Forge Park and Vicinity, Valley Forge, Pennsylvania.*
- Reed, John F. 1980. *Campaign to Valley Forge.*
- Reed, William B. 1990. *Qualitative Evaluation of the Effects of Changing Watershed Land Uses on the Hydrology, Channel Morphology and Historical Uses of Valley reek, Valley Forge NHP, Pennsylvania.*
- Reif, Andrew G. and Ronald A. Sloto. 1997. *Metals, Pesticides, and Semivolatile Organic Compounds in Sediment in Valley Forge, NHP, Montgomery County, Pennsylvania.*
- Revkin, Andrew C. December 29, 2002. *States Seek to Restore Deer Balance.*
- Rhoads, Ann F., Douglas Ryan, and Ella W. Aderman. 1989. *Land Use Study of Valley Forge NHP, Final Report.*
- Robbin B. Sotir & Associates. March 8, 1991. *Preliminary Recommendations: Valley Creek Streambank Erosion Repairs Utilizing Soil Bioengineering Natural Means, Valley Forge NHP.*
- Robert A.M. Stern Architects. 2003. *VAFO/NCAR Collection Storage and Reuse of the Welcome Center.*
- Robert Silman Associates. 2003. *Feasibility Study for the Adaptive Reuse of the Valley Forge Visitor Center by NCAR.*
- Rosoff, Barbara. 2001. *Deer in the Headlights: An Analysis of Deer-Vehicle Collision Sites in Valley Forge NHP.*

- Royster, Charles W. 1980. *A Revolutionary People at War: The Continental Army and American Character, 1775-1783*.
- Santucci, Vincent L., Jason Kenworthy, and Ron Kerbo. 2001. *An Inventory of Paleontological Resources Associated with National Park Service Caves (excerpt)*. Available on the Internet at <http://www.aqd.nps.gov/grd/geology/paleo/pub/cavepaleo.pdf>
- Schueler, Thomas R. and Heather K. Holland. 2000. *The Practice of Watershed Protection: Techniques for Protecting Our Nation's Streams, Lakes, Rivers, and Estuaries*.
- Schuylkill River Project Engineers. 1951. *The Schuylkill River Project*.
- Sloto, Ronald A. and B. Craig McManus. 1996. *Hydrogeology and Ground-Water Quality of Valley Forge NHP, Montgomery County, Pennsylvania*.
- Shy, John. 1990. *A People Numerous and Armed: Reflections on the Military Struggle for American Independence*.
- Stager, Henry J. 1911. "Act of Incorporation of the Centennial and Memorial Association of Valley Forge." In *History of the Centennial and Memorial Association of Valley Forge*: 11-13. Philadelphia.
- Socolow, A.A. 1978. *Atlas of Preliminary Geologic Quadrangle Maps of Pennsylvania: Map 61*.
- Susan Maxman Architects and John Milner Associates, Inc. 2002. *Valley Forge National Historical Park Contextual Documentation and Cultural Landscape Plan: Volume I: 100% Draft*.
- . 2002a. *Valley Forge National Historical Park Contextual Documentation and Cultural Landscape Plan: Volume II: 100% Draft*.
- Terragraphix Incorporated. 1996. *Valley Forge, Pennsylvania: Bring the Troops!*
- Tiebout, Harry M. July 12, 2002. *Inventoring the Herpetofauna of Valley Forge NHP: Draft Report*.
- . April 11, 2002. *Ecological Significance (=Conservation Value) of Natural Resources at VAFO*.
- Thomas Comitta Associates, Inc. September 30, 1992. *Valley Forge NHP Point/Non-Point Source Pollution and Hazardous Waste Site Survey*.
- Treese, Lorett. 1995. *Valley Forge Making and Remaking a National Symbol*.
- Trussell, John B., Jr. 1983. *Birthplace of an Army: A Study of the Valley Forge Encampment*.
- United States Department of Agriculture. 2000. *Deer Damage Management in the Commonwealth of Virginia*.

- United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services. 2000. *Deer Damage Management in the Commonwealth of Virginia*. Available on the Internet at <http://www.aphis.usda.gov/ws/nepa/VAddeer.pdf>.
- United States Department of Agriculture, Soils Conservation Service. 1963. *Soil Survey Chester and Delaware Counties, Pennsylvania (excerpt)*.
- . 1967. *Soil Survey Montgomery County, Pennsylvania (excerpt)*.
- . June 1991. *Hydric Soils of the United States*.
- United States Geological Survey. 1996. *Hydrogeology and Ground-water Quality of Valley Forge National Historical Park, Montgomery County, Pennsylvania*.
- . Accessed October 9, 2002. *Major Water-Quality Issues in the Delaware River Basin*. Available on the Internet at <http://nj.usgs.gov/nawqa.delr/maj.issues.html>.
- . Accessed April 7, 2003. *United States Geological Survey*. Available on the Internet at <http://www.usgs.gov>.
- University of Idaho. 2002. *Valley Forge NHP Visitor Study: Summer 2001, Visitor Services Project Report 130*.
- Unrau, Harlan D. September 1985. *Administrative History: Valley Forge NHP Pennsylvania*. Denver: U.S. Department of Interior, National Park Service.
- Valley Creek Restoration Partnership. 2004. *Valley Creek Summit I Report*. Proceedings of the Valley Creek Summit I meeting held at Valley Forge National Historical Park on 20 April 2004.
- Valley Creek Watershed Trustee Council. August 2004. *Final Valley Creek Restoration Plan and EA*.
- Valley Forge Center for Cultural Resources. 2001a. *Archeological Inventory and Assessment: North of the Schuylkill River Valley Forge National Historical Park Valley Forge, Pennsylvania*
- . 2001b. *Archeological Inventory and Assessment: The Western Portion Valley Forge National Historical Park Valley Forge, Pennsylvania*
- Valley Forge National Historical Park. 1984. *An Administrative History*.
- . 1992a. *Field Management Plan Valley Forge National Historical Park*.
- . 1992b. *Valley Forge National Historical Park: Point/Non Point Source Pollution and Hazardous Waste Site Survey*.
- . 1994. *Valley Forge North Side Draft DCP/EA*.
- . 1995a. *Benthic Macroinvertebrate Annual Report*.
- . 1995b. *Plant and Animal Surveys: Valley Forge NHP*.

- . 1995c. *Valley Forge NHP Long Range Interpretive Plan*.
- . April 1996. *Checklist of the Butterflies of Valley Forge NHP*.
- . February 18, 1999a. *Assess Impact of Commodore Superfund Site*.
- . February 18, 1999b. *Assess Impact of Foote Mineral Superfund Site*.
- . February 18, 1999c. *Assess Impact of Knickerbocker Hazardous Waste Site*.
- . February 18, 1999d. *Assess Impact of Moyer Landfill Superfund Site*.
- . February 18, 1999e. *Assess Impact of Synthane Taylor Hazard Waste Site*.
- . February 18, 1999f. *Assess/Mitigate Impact of Paoli Superfund Site – Water Quality Management*.
- . February 24, 1999g. *Valley Forge NHP Resource Management Plan*.
- . March 31, 1999h. *Stabilize Streambank on Valley Creek*.
- . April 14, 2000a. *Strategic Plan for Valley Forge NHP, Fiscal Year 2001-2005 (October 1, 2000 – September 30, 2005)*.
- . September 30, 2000b. *Annual Performance Plan for Valley Forge NHP Fiscal Year 2001, October 1, 2000 – September 30, 2001*.
- . 2001a. *Archeological Inventory and Assessment: The Western Portion of Valley Forge National Historical Park, Valley Forge Pennsylvania*.
- . 2001b. *Valley Forge National Historical Park Business Plan 2001*.
- . June 7, 2001c. *Streambank Stabilization Valley Creek Draft Environmental Assessment*.
- . 2001d. *2001 Collections Management Plan*.
- . 2001e. *Valley Forge NHP Standard Operating Procedure – West Nile Virus Action Plan*.
- . 2002a. *Archeological Overview and Assessment: The Brigade Areas and Encampment Resources Valley Forge National Historical Park Vol. II*.
- . 2002b. *Valley Forge National Historical Park Initiates a Major Plan for the Future*.
- . March 1, 2002c. *Valley Forge National Historical Park Contextual Documentation & Cultural Landscape Plan: Volume 2 Supporting Information*.
- . March 25, 2002d. *Biodiversity and Natural Resource Assessment Summary Valley Forge NHP*.

———. November 17, 2002e. *Valley Forge NHP National Center for the American Revolution Visitor Experience Themes/Alternatives & Notes.*

———. November 26, 2002f. *Valley Forge National Historical Park Draft GMP/EIS Conceptual Alternatives.*

Virginia Department of Game and Inland Fisheries. 2002. *Virginia Deer Management Plan.* Available on the Internet at http://www.dgif.state.va.us/hunting/va_game_wildlife/management_plans/deer/deer_management_plan.pdf.

Volpe National Transportation Systems Center. 2004. *Valley Forge Alternative Transportation Feasibility Study.*

Wallace Roberts and Todd, LLC, Economics Research Associates, History Now. July 2003. *Living with the River Schuylkill River National and State Heritage Area Final Management Plan and Environmental Impact Statement.*

Wildlife Society. 1997. *Wildlife Society Bulletin: Perspectives in Wildlife Conservation and Sustainable Use: Deer Overabundance.*

Winks, Robin W. 2001. *The National Park Service Act of 1916: A Contradictory Mandate?*

Wright, Robert K., Jr. 1983. *The Continental Army.*

Yahner, Richard H., Bradley D. Ross, Gregory S. Keller, and David S. Klute. 2001. *Comprehensive Inventory Program for Birds at Six Pennsylvania National Parks.*

Yahner, Richard H. et al. 2003. *Inventorying and Monitoring Protocols of Terrestrial Vertebrates in National Parks of the Eastern United States.*

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