US Army Corps of Engineers
Baltimore District

DRAFT FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT

CHAMBERSBURG AREA MUNICIPAL AUTHORITY SOUTHGATE STORMWATER IMPROVEMENTS PROJECT BOROUGH OF CHAMBERSBURG, PENNSYLVANIA

SECTION 313 SOUTH CENTRAL PENNSYLVANIA ENVIRONMENTAL IMPROVEMENT PROGRAM

CEQ-202-00-E1P-1755772983

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)

CHAMBERSBURG AREA MUNICIPAL AUTHORITY
SOUTHGATE STORMWATER IMPROVEMENTS PROJECT
CHAMBERSBURG, FRANKLIN COUNTY, PENNSYLVANIA

The U.S. Army Corps of Engineers, Baltimore District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The draft Environmental Assessment (EA) dated November 2025, for the Southgate Stormwater Improvements Project addresses stormwater improvement opportunities in the Borough of Chambersburg, Franklin County, Pennsylvania (PA). The final recommendation is contained in the Southgate Stormwater Improvements Project Section 313 Report. The Corps is cost sharing the project with the Chambersburg Area Municipal Authority, the non-federal sponsor, under the South-Central Pennsylvania Environmental Improvement Program (Section 313 Program).

The Draft EA, incorporated herein by reference, evaluated various alternatives that would reroute approximately one-third of the Borough's stormwater around the Southgate Shopping Center property to an existing outfall in Conococheague Creek. The preferred alternative includes removing the existing stormwater management system (SWMS) underneath the Southgate Shopping Center parking lot. A new SWMS will be constructed within the existing rights-of-way along South Water Street and West Washington Street. The new system will include a hybrid bio-retention basin at the northwest corner of West Washington Street and Cedar Avenue. The bio-retention basin will treat surface water using a combination of native vegetation, soils, and structural components to filter pollutants and reduce runoff volume. A subsurface infiltration bed beneath the basin will further enhance filtration, supporting the system's effectiveness in protecting water quality in Conococheague Creek. The project also includes restoration of the riparian buffer and streambank stabilization along Conococheague Creek at the West Loudon Street Bridge.

In addition to a "no action" alternative (Alternative 1), two other alternatives were evaluated. Alternative 2 would provide an open channel-also known as "daylighting" for the SWMS near the existing intersection of South Water Street and West Washington Street. This alternative would redirect flow to a new point of discharge in Conococheague Creek, abandoning the existing system's box culvert discharge point. Alternative #3 (preferred alternative) involves removing the existing SWMS from underneath the Southgate Shopping Center parking lot including an existing 4-foot by 4-foot concrete box culvert and all related stormwater pipes. A new SWMS will be constructed underneath the existing rights-of-way along South Water Street and West Washington Street. Section 2 in the EA describes the alternatives in more detail.

For all alternatives, the reasonably foreseeable effects were evaluated, as appropriate. A summary assessment of the reasonably foreseeable effects of the preferred plan are listed in Table 1:

Table 1: Reasonably Foreseeable Effects

	Less than significant effects	Less than significant effects as a result of mitigation	Resource unaffected by action
Land Use	☐	☐	☒
Topography	☒	☐	☐
Soils	☐	☐	☒
Prime and Unique Farmlands	☐	☐	☒
Floodplains	☐	☐	☒
Wetlands	☐	☐	☒
Water Quality	☒	☐	☐
Terrestrial Resources	☒	☐	☐
Rare, Threatened, and Endangered Species	☐	☐	☒
Air Quality	☒	☐	☐
Noise	☒	☐	☐
Historic and Archaeological Resources	☐	☐	☒
Tribal, Religious and Cultural Resources	☐	☐	☒
Aesthetics and Recreation	☒	☐	☐
Transportation	☒	☐	☐
Demographic and Socioeconomic	☐	☐	☒
Hazardous, Toxic, and Radioactive Substances	☐	☐	☒
Health and Safety	☐	☐	☒
Protection of Children	☐	☐	☒

All practicable and appropriate means to avoid or minimize adverse environmental effects were analyzed and incorporated into the preferred plan. Best management practices (BMPs) as detailed in the EA will be implemented, if appropriate, to minimize impacts. No compensatory mitigation is required as part of the preferred plan.

Public review of the draft EA and FONSI will be completed on December 3, 2025. All comments submitted during the public review period will be responded to in the Final EA and FONSI.

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers determined that the preferred plan would have no effect on federally listed species or their designated critical habitat.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that the proposed project should have No Effect on prehistoric and/or historic archaeological resources by the preferred plan. The SHPO concurred with the determination on December 20, 2024. Also, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the USACE determined that the preferred plan will not have adverse effects on historic properties.

The Federal Emergency Management Agency (FEMA) proposes to demolish a nearby structure at 195 West Queen Street. As part of FEMA's Hazard Mitigation Grant Program, FEMA is proposing to acquire and demolish the property and return it to open space, referenced by SHPO as HMGP-4618-0046-PA (1). SHPO has determined that the building at 195 West Queen Street remains a contributing resource to the Chambersburg Historic District. USACE will not be including the demolition of the building at 195 West Queen Street as part of this Southgate stormwater management project. The USACE project will include the construction of a bio-retention basin within the existing Southgate Shopping Center and stabilization along Conococheague Creek, directly adjacent to the property to be demolished by FEMA. The two projects do not rely on each other and the FEMA work is not being evaluated in this EA.

A water quality certification pursuant to section 401 of the Clean Water Act will be obtained from the Pennsylvania Department of Environmental Protection prior to construction. All conditions of the water quality certification will be implemented to minimize adverse impacts to water quality. All applicable environmental laws have been considered and coordination with appropriate agencies and officials has been completed. Construction will not begin until a Clean Water Act permit is obtained by the non-federal sponsor.

Technical, environmental, and economic criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the preferred plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

_____ _____

Date

Francis B Pera
Colonel, U.S. Army
Commander and District Engineer

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APPENDICES

1 Introduction

This Environmental Assessment (EA) for the Southgate Stormwater Improvements Project was prepared by the U.S. Army Corps of Engineers (USACE) Baltimore District and Urban Design Ventures LLC on behalf of the Chambersburg Area Municipal Authority (CAMA), pursuant to the National Environmental Policy Act of 1969, as amended (NEPA), and the Department of Defense (DoD) NEPA Implementing Procedures dated June 30, 2025 (90 FR 27857), and ER 200-2-2 Procedures for Implementing NEPA, dated 4 March 1988. This EA evaluates the reasonably foreseeable effects on the quality of the human environment from three project alternatives, including the No-Action Alternative. The USACE Baltimore District is cost sharing the project with CAMA, the non-federal sponsor (NFS), under the South-Central Pennsylvania Environmental Improvement Program (Section 313 Program).

1.1 Project Authority

The "South Central Pennsylvania Environmental Restoration Infrastructure and Resource Protection Development Pilot Program" was established in Section 313 of the Water Resources Development Act (WRDA) of 1992 (Public Law [PL] 102-580). Section 313 of WRDA 1992 was amended by Section 345 of WRDA 1996 (PL 104-303). One of the amendments in WRDA 1996 changed the Section 313 heading to "Sec. 313. South Central Pennsylvania Environment Improvement Program." Section 313 of WRDA 1992 was also amended by Section 3143 of WRDA 2007 (PL 110-114), Section 352 of WRDA 2020 (PL 116-260), and Section 8376 of WRDA 2022 (PL 117-263). The Section 313 Program provides design and construction assistance for water-related environmental infrastructure and resource protection and development projects for non-federal interests in south central Pennsylvania (PA) counties, including projects for wastewater treatment and related facilities, water supply, storage, treatment, distribution facilities, and surface water resource protection and development. The Southgate Stormwater Improvements Project is in the Borough of Chambersburg, Franklin County, PA - one of the counties authorized under WRDA of 1992 to participate in the Section 313 Program.

1.2 Project Location

The proposed project falls within the Potomac River Watershed and the Chambersburg U.S. Geological Survey (USGS) 7.5-minute quadrangle (Attachment A-1, Figure 1). According to the Interstate Commission on the Potomac River Basin, the Borough of Chambersburg is listed as one of the major cities within the Basin (Attachment A-1, Figure 2). Additionally, the Conococheague Creek is listed as one of the Basin's major tributaries, which the proposed Southgate Stormwater Improvements Project will continue to discharge into.

1.3 Purpose and Need

The purpose of the proposed project is to remove the existing stormwater management system (SWMS) located underneath the Southgate Shopping Center parking lot and construct a new SWMS within the existing rights-of-way along South Water Street and West Washington Street. Stormwater will be conveyed to an existing outfall in Conococheague Creek. The new SWMS

incorporates enhanced treatment features, including the installation of a bio-retention facility. The proposed project also includes restoration of the riparian buffer and streambank stabilization along Conococheague Creek at the location of the outfall.

The project is needed because the Southgate development and immediate area wholly lacks adequate green and grey stormwater infrastructure, which creates unmanaged runoff and flooding. The outdated development practices of sprawling parking lots and large connected retail stores with no greenspace created a nearly continuous impervious surface. The area is also a natural basin that stormwater from bordering blocks flows into. Approximately one-third of the Borough's stormwater runs directly through the Southgate development site and discharges into the Conococheague Creek. To remedy this mismanagement of stormwater and incentivize the redevelopment of the strip mall site, a complete overhaul of the stormwater management system is needed.

1.4 Public and Agency Coordination

In compliance with Section 102 of NEPA and Section 106 of the National Historic Preservation Act (NHPA), coordination was conducted with federal government agencies and tribal nations, as well as state and local resource agencies (Attachment B).

1.4.1 Notice of Availability

A public notice of availability (NOA) for the draft EA and Finding of No Significant Impact (FONSI) will be posted by the NFS on public websites and published for general circulation in Franklin County, PA. The NOA will also be posted by the USACE Baltimore District on the district's Section 313 Program webpage (USACE, 2025) and may also be posted on social media (Baltimore District's Facebook page). The public and government agencies will have 30 days to provide comments on the draft EA and FONSI from the date of the notice.

1.4.2 Section 106 Consultation

Urban Design Ventures LLC and USACE Baltimore District coordinated with the State Historic Preservation Office (SHPO), a bureau of the PA Historical and Museum Commission (PHMC), to ensure compliance with Section 106 of the NHPA. In a letter dated March 14, 2024, the SHPO stated that the proposed project will have no effect on above-ground historic or archeological resources. In addition, Section 106 consultation letters were sent by USACE in March 2024 to the Delaware Nation, Delaware Tribe of Indians, and the Tuscarora Nation, which are the three federally recognized tribes identified by the U.S. Department of Housing and Urban Development's (HUD) Tribal Directory Assessment Tool (TDAT) that have potential interest in the project area. No responses were received from the tribal nations contacted above. Therefore, no impacts are expected from this undertaking on tribal resources (Attachment B-3). An additional notice will be sent notifying tribal nations of the availability of the draft EA and FONSI and the public comment period.

There are two separate projects with different construction schedules proposed in the project location: the Southgate Stormwater Improvements Project cost shared by USACE and CAMA, and a Federal Emergency Management Agency (FEMA) stormwater improvement project. The FEMA project involves demolishing a nationally registered (NR)-eligible resource under their federal

program (requiring a Memorandum of Agreement [MOA]). An NR-eligible resource refers to a property, site, building, structure, or object that meets the criteria for listing in the National Register of Historic Places (NRHP), even if it is not formally listed (NPS, 2025). The building is within the footprint of the Southgate Stormwater Improvements Project, but SHPO coordination for the specific building is being coordinated through FEMA – there is no functional link between the USACE project, and the FEMA building demolition See section 3.12 for more details.

1.4.3 Section 7 Endangered Species Act Consultation

Agency coordination was conducted by Urban Design Ventures LLC through the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online system on March 20, 2025. Additionally, the IPaC *Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key* was used to reach a no effect determination for the species covered by the key and a consistency letter was generated on March 20, 2025. A Pennsylvania Natural Diversity Inventory (PNDI) review was also performed on February 26, 2024. According to the PNDI report, no known impacts to listed species and no further review is required for species under the jurisdiction of the PA Game Commission, PA Department of Conservation and Natural Resources, and the PA Fish and Boat Commission. All agency coordination documents, and permits and approvals currently acquired, are contained in Attachment B-1.

1.4.4 State Agency Coordination

Prior to construction, the project will require an application for a Pennsylvania Department of Environmental Protection (PADEP) 25 PA §105 General Permit and/or Nationwide Permit (Attachment B). As of August 2025, the NFS has secured the National Pollutant Discharge Elimination System (NPDES) permit through Franklin County Conservation District and PADEP (Attachment B-4).

2 Alternatives Considered

2.1 Alternative #1 – No-Action Alternative

Under the no-action alternative, the existing SWMS beneath the Southgate Shopping Center would remain and no improvements to convey and treat stormwater would occur. Without improvements to the existing SWMS, unmanaged runoff and flooding during major storm events would continue and redevelopment of the Southgate Shopping Center might not be realized.

2.2 Alternative #2

Alternative #2 involves the removal of the existing 4-foot x 4-foot concrete box culvert and all related stormwater piping located beneath the Southgate Shopping Center parking lot. Approximately one-third of the Borough's stormwater would be rerouted through an open channel to a new outfall in Conococheague Creek. Although this alternative initially appeared to be an attractive solution and included a water feature for creative redevelopment planning, the anticipated volume and variable peak flow rates would present risks to public health and safety. This daylighting concept would require barriers to protect pedestrians from accessing and otherwise engaging in what would appear to the public as an extension or tributary of the Conococheague Creek. This concept would also require substantial reconfiguration of existing

roadways to maintain current vehicular travel routes and related property and right-of-way acquisition. This alternative is anticipated to result in greater costs than the other alternatives and more disruptions to the existing built environment. Although Alternative #2 presents more challenges than the preferred alternative, Alternative #2 meets the purpose and need of the project and is carried forward for analysis in this EA.

2.3 Alternative #3 – Preferred

Alternative #3 (preferred alternative) involves removing the existing SWMS from underneath the Southgate Shopping Center parking lot including an existing 4-foot by 4-foot concrete box culvert and all related stormwater pipes. A new SWMS will be constructed underneath the existing rights-of-way along South Water Street and West Washington Street. The new system will reroute approximately one-third of the Borough's stormwater around the Southgate Shopping Center to an existing outfall in Conococheague Creek.

The new system will include a hybrid bio-retention basin designed to reduce stormwater runoff compared to current conditions. Rather than allowing precipitation to flow directly into storm drains and discharge into Conococheague Creek, the system will promote gradual infiltration into the ground. The bio-retention facility will treat surface water using a combination of native vegetation, soils, and structural components to filter pollutants and reduce runoff volume. A subsurface infiltration bed beneath the basin will further enhance infiltration, supporting the system's effectiveness in protecting water quality on Conococheague Creek. This alternative also includes restoration of the riparian buffer and streambank stabilization along Conococheague Creek.

Alternative #3 includes the following elements:

- Removal of the existing SWMS located underneath the Southgate Shopping Center parking lot, and construction of a new SWMS within the rights-of-way along South Water Street and West Washington Street. This work includes the removal of existing street pavement, sidewalks, and the paved pedestrian trail. Additionally, a bio-retention facility along with a subsurface network of perforated pipes, will be installed at the northwest corner of the West Washington Street and Cedar Avenue intersection. This element includes the following activities:
  - On the site of the former beauty school located at 171 Cedar Avenue a bio-retention facility will be installed (see Attachment A-1, Figure 6).
  - Demolition and removal of the existing concrete box culvert and related pipes.
  - Installation of a new stormwater conveyance system along South Water Street, from West Catherine Street to West Washington Street, and continuing West Washington Street from South Water Street to an existing outfall in Conococheague Creek.
  - Installation of an infiltration bed within the new stormwater conveyance system.
  - Rehabilitation of disturbed street pavement, sidewalks, and the pedestrian trail following construction. South Water Street will not be repaved as it will be permanently closed and transformed into a linear park as part of a separate project.
  - Installation of a cul-de-sac by the NFS at West Liberty Street at the existing South

Water Street and West Liberty Street intersection. This portion of South Water Street will also be transformed into a linear park by the NFS, and a small cul-de-sac will allow nearby residents to conveniently turn their cars around on West Liberty Street given the closure of the intersection.

- Cedar Avenue (between West Liberty Street and West Washington Street) is currently a thoroughfare between the shopping center buildings and the parking lot. Both the roadway and the SWMS underneath the road are in poor condition. This element will include the following activities:
  - Demolition of the existing Cedar Avenue pavement and stormwater infrastructure between West Liberty Street and West Washington Street.
  - Installation of a new SWMS.
  - Reconstruction of Cedar Avenue, including curbing and sidewalks between West Liberty Street and West Washington Street.

Restoration of the riparian buffer and streambank stabilization along Conococheague Creek will include the removal of an existing mid-channel bar upstream, underneath, and downstream of the Loudon Street Bridge. The left bank upstream of West Loudon Street will be excavated to create a floodplain bench. The toe of the streambank will be protected with a combination of rock, wood, and vegetation. The restoration project will include a riparian vegetation enhancement plan in the restored streambank and floodplain areas. In addition to the restoration work, the PA Department of Transportation (PennDOT) requested that additional riprap be installed following excavation of sediment downstream of the bridge. Construction access to the stream and floodplain restoration areas, both upstream and downstream of the bridge, will be carefully planned to minimize disruptions to the Southgate Property trail that runs along the creek while ensuring sufficient construction access for the proposed work.

In addition to supporting the redevelopment of the functionally obsolete and dilapidated strip mall and eliminating its blighting influence, the proposed stormwater improvements will significantly accelerate the removal and reduction of impervious surfaces on the Southgate site. This will enable vegetative restoration, helping to reestablish a more natural hydrologic balance and allowing rainfall to infiltrate the ground gradually, rather than flowing directly into storm drains and discharging into Conococheague Creek as untreated runoff. Alternative #3 meets the purpose and need of the project and is carried forward for analysis in this EA.

3 Existing Conditions and Reasonably Foreseeable Impacts

This section describes the existing conditions (the Affected Environment for NEPA purposes) and the reasonably foreseeable impacts on natural, cultural, and socioeconomic resources that are applicable to the area affected by the project alternatives.

Existing information and a site visit were used to describe the existing conditions and analyze the reasonably foreseeable effects from the alternatives. Attachment A-2 provides photographs of the project area.

In considering the degree of effects, USACE considered the following for each alternative evaluated: both short- and long-term effects and beneficial and adverse effects (DoD NEPA

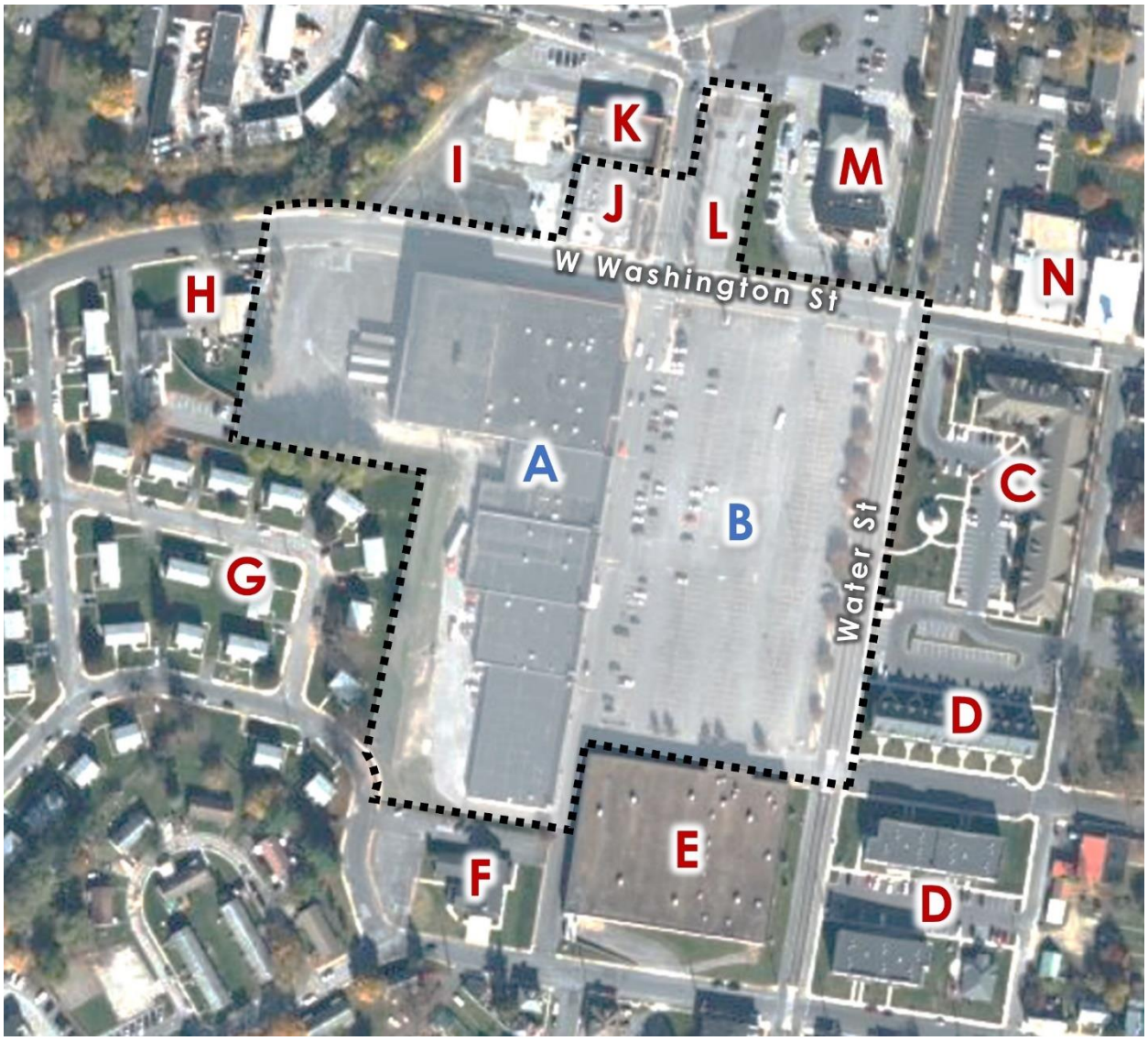
Implementing Regulations Part 1.2(b)(2)).

3.1 Land Use

According to the Phase I Environmental Site Assessment (ESA) prepared by Chambersburg Environmental, Inc. in November 2021, and updated in June 2023, the area has historically been characterized as primarily residential and light commercial. Prior to World War II, there was a scattering of poultry farms, hog pens, lumber yards, a flour mill, and a Borough stone crusher shown on the 1899 Sanborn Fire Insurance Map. A stone quarry is shown on the 1910 Sanborn map, and a concrete block factory is shown on the 1924 map. The current site development configuration, building footprints, and commercial use of the property have remained the same since the Southgate Shopping Center was constructed in 1962.

The following list identifies the individual land use activities for properties within and adjoining the proposed project area. Visual 3.1-1 below shows the locations of the existing land use activities:

A. Shopping – Southgate Shopping Center
B. Vehicular Parking – Southgate Shopping Center parking lot
C. Residential – Washington Square Senior Housing
D. Residential – Townhouses
E. Vacant – building recently demolished and cleared for future construction of the Keystone Health Community Health Center
F. Religious Assembly – John Wesley AME Zion Church
G. Residential – Meadow Creek Manor – Franklin County Housing Authority (99 elderly /disabled units and 146 family units)
H. Office - Franklin County Housing Authority offices and maintenance building
I. Vehicular Parking – surface parking lot (future site of Meeting Place Greenway public open space)
J. Office/Retail – future site of green stormwater management hybrid bio-retention facility.
K. Shopping – Rent-A-Center
L. Vehicular Parking – Borough-owned surface parking lot
M. Shopping – CVS Pharmacy
N. Religious Assembly – First Evangelical Lutheran Church



Visual 3.1-1: Existing Land Uses in and Surrounding the Project Area

No beneficial or adverse impacts are expected on existing or future land uses because of any of the three alternatives considered herein as there will be no significant change in land use.

3.2 Topography

Final roadway grades will match existing roadway grades upon project completion. Accordingly, the three alternatives will have no effects on topography, slopes, or roadway grades. Minor, impacts may be caused by stream bank stabilization efforts. Beneficial impacts are expected to the existing topography through stream bank stabilization along Conococheague Creek.

3.3 Soils

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service's (NRCS) Web Soil Survey (WSS), 96.1 percent of the soil located within the project area is categorized as "Urban land-Udorthents complex, 0-25 percent slopes" (Attachment C-2). The rights-of-way through which the proposed 4-foot x 4-foot box culvert will be replaced includes other underground utilities such as stormwater, potable water, and natural gas. Accordingly,

surficial soils have been previously disturbed. No impact on soils will result from either of the three alternatives.

3.4 Prime and Unique Farmlands

Title 7 CFR Part 658.2 (definitions related to the Farmland Protection Policy Act) provides that, "Farmland does not include land already in or committed to urban development" and "Farmland already in urban development also includes lands identified as 'urbanized area' (UA) on the Census Bureau Map." According to the U.S. Census Bureau, the project site is in the Chambersburg Urban Area. Further, a review of the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Map for Franklin County, PA illustrates 100 percent of the soil located in the project's Area of Potential Effect (APE) is categorized as "Urban land-Udorthents complex, 0-25 percent slopes" (Attachment C-2). Therefore, no prime farmlands or farmland of statewide important is in the project site. No beneficial or adverse impacts are expected on Prime or Unique Farmlands as a result of the three alternatives.

3.5 Water Quality

Conococheague Creek, a tributary of the Potomac River, flows west of the project area, adjacent to West Washington Street. Conococheague Creek flows south to Williamsport, Maryland (MD) where it flows into the Potomac River. According to the Chesapeake Conservancy, the Potomac River is the fourth largest river along the Atlantic coast and the 21st largest in the United States. It runs over 383 miles from Fairfax Stone, West Virginia to the confluence with Conococheague Creek at Williamsport to Point Lookout, MD and drains 14,670 square miles of land from four states and Washington, DC. The Potomac River flows into the Chesapeake Bay and affects more than 6 million people who live within the Potomac Watershed, the land area where water drains towards the mouth of the river (see Attachment A-1, Figure 2). According to the Environmental Protection Agency (EPA) 'How's My Waterway' tool, Conococheague Creek is determined to be an impaired waterway. An impaired waterway according to the Clean Water Act Section 303(d) is a waterbody that is impaired or threatened and needs a total maximum daily load (TMDL) restoration plan. Additionally, the water quality parameters do not meet state or tribal specific water quality standards and/or thresholds (EPA, 2024).

Alternative #1 (No-Action) would not change existing effluent conditions discharging into the Conococheague Creek and would permit the failing SWMS within the Southgate Shopping Center development to remain. The stormwater flowing into Conococheague Creek from the Southgate Shopping center is not currently being treated.

Alternative #2 would provide an open channel-also known as "daylighting"-for the SWMS near the existing intersection of South Water Street and West Washington Street. This would redirect flow to a new point of discharge in Conococheague Creek, abandoning the existing system's box culvert discharge point. However, the anticipated runoff volume, along with variable and peak flow rates, contravenes project objectives to introduce green SWM infrastructure into the system. Specifically, it limits the feasibility of implementing a hybrid surface bio-retention basin with a subsurface infiltration bed. Accordingly, little to no change is anticipated by Alternative #2 to existing effluent conditions discharging into Conococheague Creek.

Alternative #3 (Preferred) will accelerate the ultimate removal and significant reduction of impervious surfaces on the Southgate Shopping Center development site thereby allowing vegetative restoration to reestablish a more natural hydrologic balance. The Preferred Alternative also incorporates a hybrid bio-retention facility intended to reduce runoff volume compared to current conditions by slowly releasing precipitation into the ground instead of allowing it to flow into storm drains and discharge directly to the Conococheague Creek as effluent. The hybrid bio-retention facility will be developed in a previously disturbed area and paired with an appropriate native-species riparian buffer and stream bank stabilization along the Conococheague Creek. The hybrid bio-retention facility's function is to treat surface water by utilizing a combination of native vegetation, soils, and structural components to filter pollutants and reduce stormwater volume before entering the Conococheague Creek. Restoration of the streambank and floodplain enables Alternative #3 (Preferred) to result in a beneficial impact on surface waters by mimicking natural ecosystems and manage stormwater before it enters the waterway.

Under Alternative #1, water quality will continue to be adversely affected over the long -term due to the ongoing discharge of untreated stormwater into Conococheague Creek. Under Alternative #2, the daylighting method would provide natural infiltration, aeration, and would support the breakdown of pollutants. This alternative would slow runoff into Conococheague Creek and would be beneficial to water quality over the long term. Under Alternative #3, the hybrid bio-retention facility would provide engineered filtration and remove pollutants via soils and native vegetation. Along with the restoration of the Conococheague Creek streambank and floodplain at the existing outfall, Alternative #3 would provide significant long-term benefits to water quality.

Construction of Alternatives #2 and #3 may result in minor adverse short-term effects to water quality in Conococheague Creek during construction. Best management practices (BMPs) will be used to minimize these effects.

3.6 Floodplains

Executive Order 11988 requires the Federal government to take into consideration the effects that its actions will have on floodplains. Natural floodplains provide flood risk reduction benefits by slowing runoff and storing flood water. They also provide other benefits of considerable economic, social, and environmental value that are often overlooked when local land-use decisions are made. Floodplains frequently contain wetlands and other important ecological areas which directly affect the quality of the local environment. Some of the benefits of floodplains to a functioning natural system include fish and wildlife habitat protection, natural flood and erosion control, surface water quality maintenance, groundwater recharge, biological productivity, and higher quality recreational opportunities (fishing, bird watching, boating, etc.)

According to FEMA Flood Insurance Rate Map (FIRM) Panel No. 42055C0291E (eff. 01/18/2012), inconsequential portions of the project's APE are in a Special Flood Hazard Area (Attachment C-3).

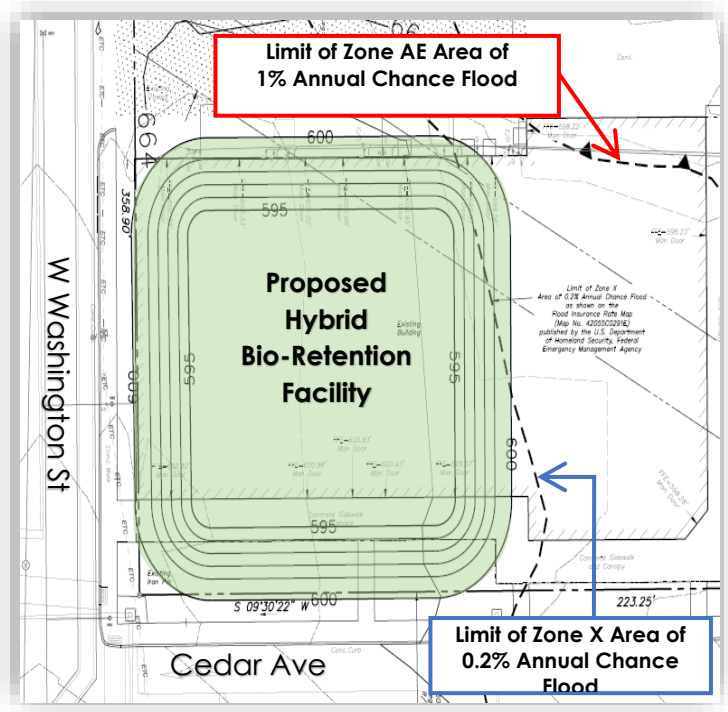
According to the Federal Flood Standard Support Tool, inconsequential portions of the project's APE are in the Riverine Federal Flood Risk Management Standard (FFRMS) floodplain based on the FFRMS Freeboard Value Approach Report generated on 20 MAR 2025 (Attachment C-3).

Alternative #1 (No-Action) would have no effect on the floodplain, change the water flow or hydrology of the Conococheague Creek floodway, or obstruct the creek's water course.

Alternative #2 would provide an open channel "daylighting" the SWM system near the existing intersection of South Water Street and West Washington Street to a new point of discharge at the Conococheague Creek, abandoning the existing system's box culvert discharge point. This alteration in discharge point design has a greater chance of adversely impacting the floodplain by resulting in potential changes in water surface profiles within the Conococheague Creek in terms of unacceptable alteration of water depth and/or velocity. However, given the greater cost and disruption to the existing built environment Alternative #2 presents, HEC-RAS analysis was not conducted as a part of this assessment to confirm adverse impacts on the floodplain.

Most of the SWMS to be constructed under Alternative #3 (Preferred) is located outside the Special Flood Hazard Area (Attachment C-3).

Additionally, as the Visual 3.6-1 to the right illustrates, the proposed hybrid bio-retention facility located in the northwest quadrant of the West Washington Street and Cedar Avenue intersection will not encroach into the 1 percent Annual Chance-Flood Hazard Area (100-year floodplain) and only slightly encroaches into the 0.2 percent Annual Chance Hazard Area (500-year floodplain).



Visual 3.6-1: Hybrid Bio-Retention and Floodplain Boundaries

Notable in assessing Alternate #3 (Preferred) is the restoration of the Conococheague Creek streambank and floodplain. This element is a considerable enhancement in public benefit to restore and preserve the floodplain.

Alternative #2 would have the potential to result in a major adverse impact on the floodplain if water surface profiles were changed. Alternative #3 (Preferred) could result in a moderate beneficial impact to the floodplain with the restoration of the Conococheague Creek streambank and floodplain, as well as the introduction of the hybrid bio-retention facility which would decrease rapid, large amounts of stormwater runoff following rainfall events. However, HEC-RAS analysis has not been performed to support or disprove this anticipated beneficial impact

assessment finding, nor is such analysis warranted for project design and construction.

3.7 Wetlands

Executive Order number 11990 requires federal agencies to evaluate potential impacts to wetlands, consider alternatives to wetland sites, and limit damage to wetlands if impacts cannot be avoided. Wetlands are defined as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands perform important water quality functions such as filtration and providing food and habitat for fish and other wildlife. Along with open water, wetlands are breeding, spawning, feeding, covering, and nursery areas for fish and are important nesting, migrating, and wintering areas for waterfowl and other wildlife.

According to the USFWS National Wetlands Inventory (Attachment C-4), there are no mapped wetlands within the project's APE relative to the construction of the proposed SWM box culverts and hybrid bio-retention facility under Alternative #3. Further, no wetlands or wetland conditions were observed during an on-site visual inspection conducted by Urban Design Ventures, LLC on 01 SEP 2023.

The Conococheague Creek streambank and floodplain restoration activities under Alternate #3 (Preferred) appears to be in the riverine wetland with the classification code R2UBH. This wetland classification code includes:

System Riverine (R): The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem Lower Perennial (2): This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

Class Unconsolidated Bottom (UB): Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.

Water Regime Permanently Flooded (H): Water covers the substrate throughout the year in all years.

There will be no wetland impacts as a result of Alternatives #1, #2 or #3. Streambank restoration work along Conococheague Creek would include minor, temporary impacts to the waterway but would not include impacts to non-tidal wetlands. A moderate beneficial impact is anticipated as a result of Alternative #3 (Preferred) with the restoration of Conococheague Creek at the existing outfall.

3.8 Terrestrial Resources

According to the PA Game Commission, the prevalent game species in Franklin County, PA are deer, grouse, squirrel, and turkey (Attachment C-5). The project's APE is located within the urban built environment. Nearly 100 percent of the APE is impervious containing asphalt/concrete paving of public roadways, sidewalks, commercial parking lots and building roofs. Except for limited trees and undergrowth along the Conococheague Creek, there is very little to no natural vegetation within the APE to support game species, with flora limited to landscaped grasses, shrubs, and a few street trees.

Alternative #1 will have no effect on wildlife. Alternatives #2 and #3 may temporarily displace wildlife during construction, but wildlife is expected to return to the area after construction is complete. Since the work would be conducted in existing rights-of-ways and previously disturbed areas, only minor and short-term adverse impacts to terrestrial resources are expected.

3.9 Rare, Threatened, and Endangered Species

Using the USFWS IPaC, an "Official Species List" was generated on 20 MAR 2025, by the PA Ecological Services Field Office (Attachment B-1). Additionally, the IPaC *Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key* was used to reach a no effect determination for the species covered by the key and a consistency letter was generated on 20 MAR 2025 (Attachment B-1).

The "Official Species List" identifies threatened and endangered species that may occur within the area of the proposed project or may be affected by the proposed project. The "Official Species List" included the following six threatened, endangered, or candidate species. Each of the listed species below is followed by USFWS' related habitat characteristics.

- **Mammal – Northern Long-eared Bat *Myotis septentrionalis* (Endangered)**

  According to the USFWS, the Northern Long-eared Bat (NLEB) is listed as endangered.

  Hibernation Habitat. During winter, NLEBs hibernate in suitable underground hibernacula including caves abandoned mines, tunnels, quarries with crevices, and occasionally deep rook crevices. These locations are characterized by large passageways, high humidity (>80%), and constant cool temperatures (32°–48°F). They prefer to hibernate in small cracks and crevices within these structures, often with only their nose and ears visible.

  Summer Habitat. During the summer, NLEBs roost, forage, and raise their young in forested environments, especially areas with suitable roost trees and canopy cover. Tree types include live or snags (dead trees) typically ≥ 3 inches diameter a breast height with loose bark, cavities, and crevices. Roosts can be in mid to upper canopy often on south- or west facing slopes for warmth. NLEBs forage in upland or lowland forests typically characterized as deciduous or mixed hardwood forests, cluttered understory where the

glean insects from foliage, and sometimes forage along forest edges, but avoid open areas.

Assessment. The project area is urbanized and lacks suitable habitat to support the Northern Long-eared Bat. No hibernaculum or summer roosting habitats are present within the project's APE. Specifically, there are no caves, mines, or forested areas. Additionally, the proposed project may result in minor tree clearing; however, the trees on-site are sparse and are unlikely to house roosting habitat. The proposed project will have no impact on this mammal species.

- **Mammal – Indiana Bat *Myotis sodalist* (Endangered)**

  According to the USFWS IPaC (2024), the Indiana Bat is listed as endangered. The Indiana Bat is also listed by the PA Game Commission (PGC 2024) as endangered, protected under the PA Game and Wildlife Code, and considered a priority species in the state's Wildlife Action Plan.

  Hibernation Habitat. During winter, Indiana bats are restricted to suitable underground hibernacula. Most of these sites are caves located in karst areas of the east-central United States; however, Indiana bats also hibernate in other cave-like locations, especially abandoned mines. Only a small percentage of caves and mines provide the conditions required for successful hibernation; 72 percent of the population hibernates in just four sites in Missouri, Indiana and Illinois. Most Indiana bats hibernate in caves or mines where the ambient temperature remains below 10°C, or 50°F, but above freezing, and remains relatively stable. These hibernacula tend to have large volumes and often have large rooms and vertical or extensive passages. Cave volume and complexity help buffer the cave environment against rapid and extreme changes in outside temperature, and vertical relief helps provide a range of temperatures and roost sites.

  Summer Habitat. In summer, most reproductive females occupy roost sites in forested areas under the exfoliating bark of dead or dying trees that retain large, thick slabs of peeling bark. Primary roosts usually receive direct sunlight for more than half the day. Roost trees are often within canopy gaps in a forest, in a fence line, or along a wooded edge. Habitats in which maternity roosts occur include riparian zones, bottomland and floodplain habitats, wooded wetlands and upland communities. Indiana bats typically forage in semi-open to closed forested habitats with open understory, forest edges, and riparian areas. Adult males occupy similar habitats but can use a wider range of roosts compared to females.

  Assessment. The project area is urbanized and lacks suitable habitat to support the Indiana bat. No hibernaculum or summer roosting habitats are present within the project's APE. Specifically, there are no caves, mines, or forested areas. Additionally, the proposed project may result in minor tree clearing; however, the trees on-site are sparse and are unlikely to house roosting habitat. The proposed project will have no impact on this mammal species.

- **Mammal – Tricolored Bat *Perimyotis subflavus* (Proposed Endangered)**

  According to the USFWS IPaC (2024), the tricolored bat is listed as "endangered." The tricolored bat is also listed by the PA Game Commission (PGC 2024) as endangered.

Spring, Summer, and Fall Habitat. During the spring, summer and fall - collectively referred to as the non-hibernating seasons - tricolored bats primarily roost among live and dead leaf clusters of live or recently dead deciduous hardwood trees. In the southern and northern portions of the range, tricolored bats will also roost in Spanish moss (*Tillandsia usneoides*) and bony beard lichen (*Usnea trichodea)*, respectively. In addition, tricolored bats have been observed roosting during summer among pine needles, eastern red cedar (*Juniperus virginiana*), within artificial roosts like barns, beneath porch roofs, bridges, concrete bunkers, and rarely within caves. Female tricolored bats exhibit high site fidelity, returning year after year to the same summer roosting locations. Female tricolored bats form maternity colonies and switch roost trees regularly. Males roost singly.

Winter Habitat. During the winter, tricolored bats hibernate - which means that they reduce their metabolic rates, body temperatures and heart rate - in caves and mines; although, in the southern United States, where caves are sparse, tricolored bats often hibernate in road-associated culverts, as well as sometimes in tree cavities and abandoned water wells. Tricolored bats exhibit high site fidelity with many individuals returning year after year to the same hibernaculum.

Assessment. The project area is urbanized and lacks suitable habitat to support the tricolored bat. Specifically, there are no caves, mines, forested areas, stands of deciduous trees, or abandoned water wells. Additionally, the proposed project may result in minor tree clearing; however, the trees on-site are sparse and are unlikely to house roosting habitat. The proposed project will have no impact on this mammal species.

- **Mussels – Green Floater *Lasmigona subviridis* (Proposed Threatened)**

  According to the USFWS IPaC (2024), the green floater mussel is listed as "proposed threatened."

  Habitat. Green floaters prefer streams with slow to medium flows and good water quality. They are often found in sand or small gravel substrates where they establish a foothold and bury themselves as deep as 15 inches. They have limited mobility, and fast-flowing currents or high-water events can cause them to be washed downstream. When they occur in larger streams and rivers, they are found in quieter pools and eddies, away from strong currents.

  Assessment. Alternate #3 includes streambank restoration along the eastern side of the Conococheague Creek. According to the Pennsylvania Natural Heritage Program (PNHP), this species is not very common in Pennsylvania, but has been found in the Susquehanna, Delaware, and Ohio River Drainages. PNHP does not include Franklin County as one of the Pennsylvania distribution counties where this species is likely to be found. Accordingly, proposed project will have no impact on this clam species.

- **Insects – Monarch Butterfly *Danaus plexippus* (Proposed Threatened)**

  According to the USFWS IPaC (2024), the monarch butterfly is listed as a proposed threatened species.

  Habitat. Whether it's a field, roadside area, open area, wet area or urban garden, milkweed and flowering plants are needed for monarch habitat. Adult monarchs feed on

the nectar of many flowers during breeding and migration, but they can only lay eggs on milkweed plants. For overwintering monarchs, habitat with a specific microclimate is needed for protection from the elements, as well as moderate temperatures to avoid freezing. These conditions vary between populations. For the eastern North American population, most monarchs overwinter in oyamel fir (*Abies religiosa*) tree roosts located in mountainous regions in central Mexico at an elevation of 2,400 to 3,600 meters. Monarchs living west of the Rocky Mountain range in North America primarily overwinter in California at sites along the Pacific Coast, roosting in eucalyptus, Monterey pines (*Pinus radiata*) and Monterey cypress (*Cupressus macrocarpa*) trees.

Assessment. Based on site conditions and habitat characteristics, the Monarch Butterfly (Danaus plexippus) is unlikely to be present within the project area. A field review found no evidence of milkweed species (Asclepias spp.), which are essential host plants for monarch reproduction. Additionally, the majority of the APE lacks native flowering plants that provide nectar resources necessary for adult monarch foraging. The area is heavily developed and/or maintained (e.g., mowed lawn, paved surfaces, ornamental landscaping), with limited suitable habitat features such as open, sunny areas with native vegetation. The area along the Conococheague Creek where streambank restoration work will be completed appears to lack the 6 to 8 hours of direct sunlight conducive for native flower plants that provide nectar resources. Further, the South-Central Region of PA is not conducive to overwintering. Due to the absence of critical habitat components and the low likelihood of use for breeding, foraging, or migratory stopover, it is reasonable to conclude that the Monarch Butterfly is not present in the project area. The proposed project will have no impact on this insect species.

- **Flowering Plants – Northeastern Bulrush *Scirpus ancistrochaetus* (Endangered)**

  According to the USFWS IPaC (2024), the northeastern bulrush flowering plant is listed as endangered.

  Habitat. A leafy bulrush in the sedge family of plants, northeastern bulrush is tall, with narrow leaves and a drooping flower head with chocolate-brown forests. While it resembles some other leafy bulrushes, northeastern bulrush's flowers and seeds are structurally different. Like other sedges, northeastern bulrush grows in wet areas – small wetlands, sinkhole ponds, or wet depressions with seasonally fluctuating water levels. It may be found at the water's edge, in deep water or in just a few inches of water, and during dry spells there may be no water visible where the plant is growing. Northeastern bulrush appears to have adapted to regularly changing water levels, which may have given it an advantage over less tolerant plant species. But habitat alterations that make a site consistently drier or wetter could make life impossible for northeastern bulrush. Activities such as filling or ditching in a wetland can destroy or degrade this species' habitat and pose a threat.

  Assessment. Based on visual inspection, there is no northeastern bulrush within the project's APE. Further, there are no small wetlands, sinkhole ponds, or wet depressions present within the project's APE. The proposed project will have no impact on this flowering plant species.

- **Migratory Birds**

  Migratory Birds – According to the USFWS, southcentral PA is in the Atlantic Migratory Bird Flyway corridor as illustrated in Visual 3.9-1 below. The project does not involve the removal of trees or undisturbed vegetation that would typically support migratory bird habitat and is therefore not expected to adversely impact migratory birds. Improved native vegetation of the project may provide long term beneficial impacts.

Visual 3.9-1: Migratory Bird Flyways

  Bald Eagles – Bald Eagles are no longer protected under the federal Endangered Species Act. Therefore, section 7 consultation with the USFWS is no longer necessary. However, Bald Eagles remain protected under the Bald and Golden Eagle Protection Act. According to the USFWS, the project's APE is located approximately 2.2 miles from the nearest mapped Bald Eagle nest location (EO_ID 25232; WGS84 Decimal Degrees Coordinates 39.909272, -77.694708). The proposed project is not expected to adversely impact Bald Eagles.

No beneficial or adverse impacts are expected on rare, threatened, or endangered species or critical habitat as a result of any of the three alternatives considered herein.

3.10 Air Quality

According to the EPA Green Book, Franklin County, PA is in attainment as of 28 FEB 2025, for all criteria pollutants under the National Ambient Air Quality Standards (Attachment C-6).

Alternatives #2 and #3 (Preferred) would require construction activities that generate emissions. Emissions come from various activities, processes, and materials used throughout the lifecycle of construction, with main contributors like energy use and fuel combustion, production and transport of materials, waste management, etc. The only permanent emission sources currently present within the project's area of potential effect are existing residential and commercial uses and the motor vehicles that predominantly utilize the public rights-of-way within which the new SWM conveyance system will be installed.

Emissions from Alternatives #2 and #3 (Preferred) would not pose a significant risk to the environment, the health of workers, or the public because they would be minor in quantity and short-term. Specifically, construction related emissions from Alternatives #2 and #3 (Preferred) would cease once construction activities are completed stops. Further, neither Alternative #2 nor Alternative #3 (Preferred) considered herein will result in new stationary emission sources.

Minor short-term dust generation impacts are anticipated because of the demolition of the former beauty school building, which may include breaking, crushing, and pulverizing construction materials, mechanical operations, material handling, and weather and environmental factors. Mitigation measures to be explored with contractors will include water-based dust suppression and controlled demolition techniques.

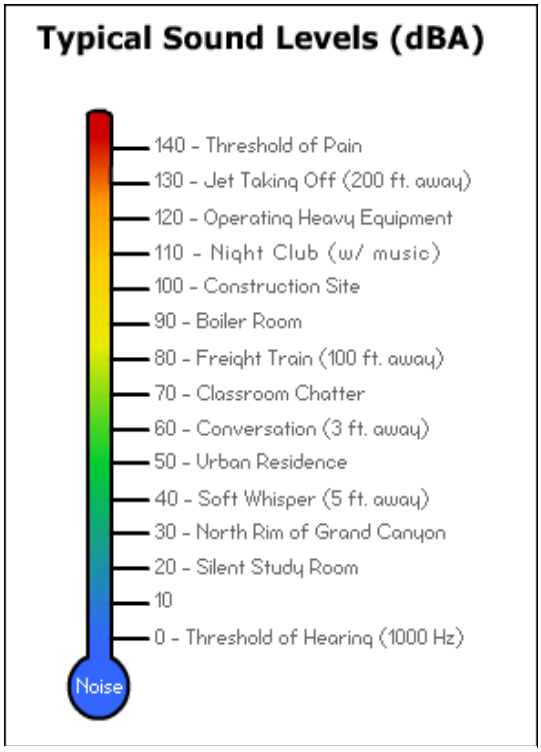
Potential minor increases in emissions during construction could include fossil fuel equipment (excavators, trucks, generators, etc.) used during construction that emits CO_2 and other emissions; material production including concrete, asphalt, and plastic piping that have carbon-intensive manufacturing processes; and soil disturbance that can release stored carbon.

No beneficial or adverse impacts on air quality would occur under Alternative #1 (No-Action). Minor, short-term, and localized adverse impacts to air quality would occur as a result of demolition and construction activities that generate exhaust emissions and fugitive dust for Alternatives #2 and #3 (Preferred).

3.11 Noise

Noise is measured in units of sound pressure levels called decibels, named after Alexander Graham Bell, using A-weighted sound levels (dBA). The A-weighted sound levels closely match the perception of loudness by the human ear. Decibels are measured on a logarithmic scale which means that a small change in the number of decibels results in a huge change in the amount of noise and potential damage to a person's hearing.

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace as illustrated in Visual 3.11-1 to the right. These limits are based on a worker's time-weighted average over an 8-hour day. With noise, OSHA's permissible exposure limit (PEL) is 90 dBA for all workers for an 8-hour day. The OSHA standard uses a 5 dBA exchange rate. This means that when the noise level is increased by 5 dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half.



Visual 3.11-1: OSHA Noise Exposure

Noise generated during construction is expected to come from construction vehicles and related back-up alarms or vehicle motion alarms, backhoes, excavators, jackhammering, and power equipment, etc. There would be no permanent changes to the noise levels in the project area as a result of Alternative #2 or Alternative #3 (Preferred). However, some of these construction activities may exceed values above 85-90 dBA during construction. Due to the relative proximity of the project's APE to the Washington Square Senior Housing development along South Water Street, prior notification of the hours/dates of construction would be given and measures to minimize noise, such as equipment mufflers, would be used. The rise in noise levels would be minor and temporary, and primarily during the daylight hours of construction. Protective equipment would be preferred to protect workers from excessive noise levels during construction.

Additionally, Chambersburg, PA has a noise ordinance to abate excessive residential noise where such noise is deemed a public nuisance. However, Section 3(D) allows for construction and construction equipment to be used. The text reads, "Chapter 200, Section 200-2 of the Code of the Borough of Chambersburg, entitled 'Quiet period: time and place restrictions on activities' is hereby amended so that subsection D reads as follows: Operate or permit the operation of any equipment used in construction, repair, alteration, or demolition work on buildings, structures, streets alleys, or appurtenances."

Noise generated from activities associated with the demolition of the former Chambersburg Beauty School building will be temporary. The use of wrecking balls and explosives is not anticipated. Noise mitigation measures that will be explored with the demolition contractor(s) will include scheduling demolition activities during less disruptive daytime hours, use of hydraulic crushers and shears (if needed), diamond wire saws for cutting concrete (if needed), and water sprays to dampen noise in addition to dust control. The use of temporary noise walls, barriers, or enclosures is anticipated to be unwarranted for the types of buildings and their locations and manner of demolition anticipated.

No beneficial or adverse impacts to noise would occur under Alternative #1 (No-Action). Noise is expected to have minor, short-term and localized adverse impacts to areas adjacent to construction for Alternative #2 and adjacent to construction and demolition for Alternative #3 (Preferred). Excessive short-term construction related noise will be mitigated with engineering controls, administrative practices, and community engagement. Alternative #2 and Alternative #3 (Preferred) would result in no permanent changes to existing noise levels within the immediate area following project completion.

3.12 Historic and Archeological Resources (SHPO)

The USACE is required by Section 106 of the National Historic Preservation Act (NHPA) and Executive Order 11593 to identify all archaeological resources and historic properties within a project's APE that are eligible for listing in the National Register of Historic Places, and to assess the Project's effect on those properties.

Urban Design Ventures, LLC, on behalf of the Borough of Chambersburg, and the USACE consulted with the SHPO through the PA State Historic and Archaeological Resource Exchange (PA-SHARE) to identify potential cultural resource concerns related to the Project (Attachment B-2).

Through the PA-SHARE online web service, SHPO determined that the Southgate Stormwater Improvements Project will have no adverse impact on above ground historic properties, including historic buildings, districts, structures, and/or objects, should they exist. The SHPO also determined that the subject project should have no effect on archaeological resources.

Franklin County is seeking a grant from FEMA under the Hazard Mitigation Grant Program to acquire and demolish the property at 195 West Queen Street and return it to open space to mitigate future flood damage and allow more natural conveyance of floodwater in the event of high water. This portion of the project was previously reviewed by SHPO under PA-SHARE Project # 2024PR05707. Please see the SHPO response letter for the FEMA-sponsored demolition under Attachments on the Response Screen in PA-SHARE (Attachment B-2).

After meetings between USACE and FEMA cultural resources staff, it was determined that these are two distinct federal projects with different schedules; USACE with stormwater improvements and FEMA demolishing the NR-eligible resource under their federal program (requiring an MOA).

No beneficial or adverse impacts are expected on above ground historic or archeological resources as a result of any of the three alternatives considered herein.

3.13 Tribal Religious and Cultural Resources (THPO)

Documentation of coordination/correspondence with the Delaware Nation of Oklahoma, the Delaware Tribe of Indians, and the Tuscarora Nation is included in Attachment B-3. No responses were received. No beneficial or adverse impacts are expected as a result of any of the three alternatives considered herein on historic properties of religious and cultural significance to Tribal Nations with current and ancestral interest in Franklin County, PA.

3.14 Aesthetics and Recreation

The Borough of Chambersburg's Recreation Department has 18 facilities that include a variety of public parks and facilities available for the public to use for activities and events, as well as a variety of recreational programs for both residents and non-residents.

Except for that segment of the Chambersburg Rail Trail that runs through the APE between West Washington Street and West Catherine Street, there are no passive open space or active recreational facilities within the project's APE nor are there any within direct sight lines of the Project. There are four (4) public recreation facilities within 0.5-miles of the center of the project's APE. The two closest recreational facilities to the Project include Mike Waters Memorial Park, which is located approximately 1,600 feet from the project site, and Chambers Fort Park, which is located approximately 2,030 feet from the project site (Attachment C-7). Additionally, the Nitterhouse Memorial Park and Soccer Complex facility, which is privately owned by the Chambersburg Youth Soccer Association, is located at the end of West Washington Street. The Nitterhouse Soccer Complex has five playing fields of various sizes to serve different age groups.

Once completed, the proposed SWMS project will be belowground thereby presenting no impact on visual, aesthetic, or viewshed resources that might otherwise necessitate a Visual Impact Assessment (VIA) and/or a Scenic Resource Evaluation (SRE). Streambank restoration is anticipated to enhance visual appeal by transforming the degraded, eroded, and overgrown

streambank into more natural, stable, and aesthetically pleasing landscape.

Minor, short-term, and localized impacts are expected as a result of Alternative #2 and Alternative #3 (Preferred) to aesthetics within the immediate area of the project that are customarily associated with temporary right-of-way construction.

Alternate #3 (Preferred) presents an opportunity to result in a moderate permanent beneficial impact on the Chambersburg Rail Trail facility as the project will make ready for the later development of a linear park along South Water Street (to be permanently closed to vehicular traffic) between West Catherine Street and West Washington Street.

3.15 Transportation

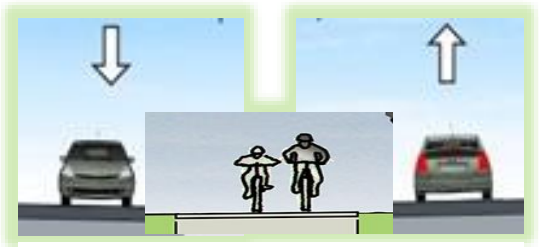
The Project's APE is located in a predominantly urban area covering the Southgate Shopping Center commercial development and the public rights-of-way within which the proposed 48-inch x 48-inch concrete box culvert will be replaced – South Water Street, West Washington Street, and Cedar Avenue. The public rights-of-way include the following street segments:

Visual 3.15-1: View of West Washington Street and Cedar Avenue Intersection

West Washington Street. The segment of West Washington Street between South Water Street and Cedar Avenue includes a westbound right turning lane north onto Cedar Avenue that is approximately 200 feet long to accommodate approximately 10 standard sized vehicles. As illustrated in Visual 3.15-1 to the right, there is a signalized four-leg intersection at West Washington Street and Cedar Avenue. Most westbound movements in this segment are northbound turning movements to access the West Loudon Street/US Route 30 corridor.

The number of vehicles that continue west through the West Washington Street/Cedar Avenue signalized intersection would be considerably less than the number of vehicles connecting to the West Loudon Street/US Route 30 corridor. Specifically, trips utilizing West Washington Street west of its intersection with Cedar Avenue would be limited to origins/destinations generated by the Franklin County Housing Authority's low-density Meadow Creek Community and the Nitterhouse Memorial Park and Soccer Complex facility. The Nitterhouse Soccer Complex has five playing fields of various sizes to serve different age groups. Culvert replacement within the West Washington Street right-of-way will continue westwardly to the existing SWMS outfall at Conococheague Creek.

South Water Street. The segment of South Water Street between West Catherine Street and West Washington Street is a converted railroad right-of-way. This segment includes one southbound vehicle travel lane approximately 10-foot wide, a center multi-use paved trail approximately 9-foot wide, and a northbound vehicle travel lane approximately 10-foot wide. Visual 3.15-2 to the right generally illustrates this segment's cross section.



Visual 3.15-2: South Water Street Cross Section

The Chambersburg Rail Trail is a 1.6-mile paved urban trail that connects neighborhoods just a few blocks west of the community's central business district. Starting at South Main Street (Route 11), the trail occupies the center of a boulevard that separates north and southbound lanes of traffic. Stops are required at each of the seven intersections. At busier street crossings, there is a pedestrian crossing button that activates flashing yellow lights to warn the vehicular traffic that a pedestrian or bicyclist is attempting to cross the street. About midway along the trail there is a wooden trestle bridge that crosses the Conococheague Creek. The paved trail ends at West Commerce Street. The Chambersburg Rail Trail is a part of the Cumberland Valley Rail Trail. Because South Water Street will be closed to vehicular and pedestrian traffic during project construction, that portion of the Chambersburg Rail Trail between West Washington Street and West Catherine Street will be temporarily rerouted to ensure through pedestrian trail movements.

The portion of South Water Street between West Catherine Street and West Washington Street will be permanently closed to vehicular traffic and transformed into a linear park. Visual 3.15-3 below is a conceptual design of the contemplated linear park. Construction of this linear park is not a part of this assessed project and will be completed separately in the future through other funding sources. Additionally, the current intersection at West Liberty Street and South Water Street will be converted into a cul-de-sac to allow nearby residents to conveniently turn their vehicles around West Liberty Street given the closure of the intersection.

Visual 3.15-3: Chambersburg Rail Trail Linear Park – S Water St between W Catherine St and W Washington St (conceptual)

Although Maintenance of Traffic (MOT) planning during construction will not be explored until project bidding is undertaken, South Water Street, between West Catherine Street and West Washington Street, is expected to be closed to vehicular and pedestrian traffic during the entire construction phase and then pedestrian access only reopened following project completion. Vehicular and pedestrian movements along West Washington Street, between South Water Street and Cedar Avenue and thence westwardly to the Conococheague Creek outfall, are expected to be restricted and limited during different phases of construction.

Demolition of the former beauty school (171 Cedar Ave) portion of the strip mall building is not anticipated to impact vehicular traffic. Pedestrian movements near the former beauty school may be restricted only during demolition activities to ensure public safety.

No beneficial or adverse impacts on transportation would occur under Alternative #1 (No-Action) as existing transportation patterns and conditions would remain the same and unaffected without construction occurring.

Alternative #2 would present the greatest potential for short-term moderate impacts on the existing roadway network and the built environment given requisite right-of-way acquisition needed to reconfigure the Cedar Avenue connection between West Washington Street and the West Loudon Street/US Route 30 corridor and to separate and reconfigure the alignment of vehicular and pedestrian access to the Franklin County Housing Authority's low-density Meadow Creek Community and the Nitterhouse Memorial Park and Soccer Complex facility. Given the greater project cost and disruption to the existing built environment, preliminary roadway design and traffic impact analysis were not completed to explore potential beneficial and adverse impacts Alternative #2 might be realized and/or generate on vehicular and pedestrian movements.

Alternative #3 (Preferred) would result in short-term, localized minor impacts to transportation during different phases of construction and building demolition. Traffic may temporarily be stopped or rerouted. However, the street and sidewalk network within the immediate area of the Borough of Chambersburg follows a grid pattern allowing many alternatives to avoid the temporary construction and demolition activities, and would allow roadways, sidewalks, and pedestrian paths to reopen following project completion. Alternative #3 (Preferred) will permanently close vehicular traffic along South Water Street between West Catherine Street and West Washington Street to make way for the future development of a linear park along the Chambersburg Rail Trail. Roadway rerouting and closings would follow PA Department of Transportation (PennDOT) regulations.

Roads, driveways, and sidewalks damaged during construction would be properly repaired and replaced as needed.

3.16 Demographic and Socioeconomic Conditions

According to the U.S. Census Bureau's Community Profile, the Borough of Chambersburg has a population of 21,903 (2020 Decennial Census). The following table summarizes a comparison of demographic data for the Borough and the Commonwealth of PA (Attachment C-8).

	Chambersburg	**Pennsylvania**
Median Income (2022 ACS 5-Year Estimates)	$53,493	$71,798
Poverty Rate (2022 ACS 5-Year Estimates)	13.7%	11.8%
Educational attainment of a bachelor's degree or higher (2022 ACS 5-Year Estimates)	26.1%	35.1%

Employment Rate (2022 ACS 5-Year Estimates)	58.5%	60.1%
Homeownership Rate (2022 ACS 5-Year Estimates)	42.2%	69.1%
Disability (2022 ACS 5-Year Estimates)	20.4%	14.7%
Without Health Care Coverage (2022 ACS 5-Year Estimates)	10.1%	5.3%

According to the U.S. Department of Housing and Urban Development (HUD), the low-to moderate-income population rate for Chambersburg is 58.7 percent (2020 ACS).

Alternative #1 (No-Action) would not result in beneficial or adverse impacts to demographic and socioeconomic conditions, but the existing unmanaged runoff, flooding, and effluent discharge conditions into the Conococheague Creek would remain.

The impacts of Alternative #2 and Alternative #3 (Preferred) on demographic and socioeconomic conditions could be considered beneficial when acknowledging the need for the Project, which would serve to mitigate existing unmanaged runoff and flooding conditions and existing effluent conditions discharging into the Conococheague Creek. Alternative #2 and #3 (Preferred) would improve the quality of the built and natural environments within the general area of the proposed project. Further, Alternative #2 and Alternative #3 (Preferred) would serve to facilitate the redevelopment of the 33-acre Southgate Shopping Center, which is a long-standing blight in the low- to moderate-income community.

3.17 Hazardous, Toxic, and Radioactive Substances

Chambersburg Environmental, Inc. prepared a Phase I Environmental Site Assessment (ESA) in November 2021 (updated in June 2023). The report concluded that no Recognized Environmental Conditions (RECs) were revealed in connection with the Southgate Mall-related properties. Specifically, desktop and visual on-site evaluations were completed for the subject properties for RECs, which are defined as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property as defined by the American Society for Testing and Materials International Standard (ASTM) E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The analysis revealed no evidence of RECs, including aboveground storage tanks (ASTs), underground storage tanks (USTs), or leaking underground storage tanks (LUSTs), found to occur within the project's APE.

Additionally, a review of the USEPA Envirofacts database was conducted. There were no known sources of hazardous, toxic, and radioactive wastes (HTRW) in the proposed project area or within 1,000 feet of the project area. Therefore, no impacts from HTRW are anticipated. If any contamination is discovered, work at the site of the contamination would cease until coordination with the PA Department of Environmental Protection (PA DEP) and USACE could occur, and appropriate remediation and proper safety measures are implemented. The project expects to generate minimal to no hazardous waste, which would be disposed of according to state and federal regulations.

3.18 Health and Safety

Health and safety considerations involve identifying potential hazards within and around the project site to ensure workers, residents, and project site passersby are protected from harm. Key steps in health and safety assessment include hazard identification, risk assessment, control measures, implementation of health and safety policies and best practices, training and education, monitoring and review, and documentation. The importance of health and safety considerations are to identify hazards before accidents and injuries are caused; ensure adherence to occupational health and safety regulations; promote health and safe working environments; and, minimizing potential financial losses from accidents, injuries, or damage.

Because Alternative #1 (No-Action) would not include construction of stormwater improvements or streambank and floodplain restoration activities, health and safety assessments are not warranted.

Alternates 2 and 3 involve construction activities primarily within the public realm warranting planning, care, and control of health and safety risks. Such risks normally associated with infrastructure construction activities include:

- Physical: Machinery, noise, manual handling, temperature extremes.
- Chemical: Exposure to hazardous chemicals, cleaning agents, or fumes.
- Biological: Bacteria, viruses, or fungi.

Ensuring the health and safety of workers on demolition and infrastructure construction sites is accomplished through regulatory compliance, safety standard enforcement, and resources to prevent accidents, injuries, and fatalities during high-risk construction activities.

Pre-demolition planning and risk assessment for the former Beauty School building will be conducted including thorough site assessments, identifying hazardous materials, obtaining necessary permits, and developing a demolition plan. Matters that will be assessed include, but are not limited to, potential falling debris, structural collapse, exposure to and handling and disposing hazardous materials, operation of heavy machinery, protection of the adjoining Rent-A-Center building, protection of pedestrian and vehicular passersby, maintenance of traffic, site entrance/exit, signage, screening, electrical safety, etc.

Pre-excavation, construction, and restoration planning and risk assessment for the stormwater construction activities will be conducted including through site assessments, identifying hazards, obtaining necessary permits, and developing construction and phasing planning. Matters that will be assessed include, but are not limited to, maintenance of traffic, protection of pedestrian and vehicular passersby, erosion control, stabilizing soil, excavation and trench protections (e.g., shoring to prevent cave-ins, etc.), underground utilities electrical safety, site entrances/exits, operation of heavy machinery, flooding and erosion protection, water contamination, etc.

Assuming all contractors, workers, inspectors, etc. with access to the demolition and construction sites follow site safety and safe working regulations and practices, no health and safety impacts are anticipated by Alternatives #2 and #3 (Preferred).

3.19 Protection of Children

Executive Order (EO) 13045 requires each Federal agency "to identify and assess environmental risks and safety risks that may disproportionately affect children" and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." This EO was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults.

Because Alternative #1 (No-Action) would not include construction of stormwater improvements or streambank and floodplain restoration activities, no impacts on children would occur.

Alternatives #2 and #3 (Preferred) involved demolition and construction activities and would minimally impact children in the project area while construction occurs. The potential for impacts on the health and safety of children is greater where projects are located near residential areas.

Alternative #3 (Preferred) would environmentally improve the lives of all residents of the Southgate neighborhood and the Chambersburg community. Implementation of Alternative #3 (Preferred) would provide residents, including children, improved Conococheague Creek water quality, restored streambank and floodplain, improve flood control, and protect public health thereby improving the living conditions in the service area. No homes or buildings would be adversely impacted by the proposed project. Therefore, Alternative #3 (Preferred) meets the directive of EO 13045 – Protection of Children from Environmental Health and Safety Risks.

4 Summary

Overall, Alternative #3 (Preferred) is needed for stormwater management with the introduction of green infrastructure elements in the current grey system; restore the Conococheague Creek streambank and floodplain; and facilitate the ultimate removal and considerable reduction of impervious surfaces on the Southgate Shopping Center site.

No long-term, adverse impacts, during or post construction of Alternative #3 (Preferred) are expected to occur to land use; topography; soils or prime and unique farmlands; water quality; floodplains; wetlands; terrestrial resources; rare, threatened, and endangered species; or demographic and socioeconomic conditions within the project area.

SHPO confirmed that Alternative #3 (Preferred) will have No Adverse Effect on above ground historic properties, including historic buildings, districts, structures, and/or objects. The SHPO also confirmed that Alternative #3 (Preferred) should have No Effect on archaeological resources. Additionally, no Tribal Nations will be impacted by this undertaking.

Short-term, minor, localized impacts from Alternative #3 (Preferred) are expected to include dust, air emissions, noise, and aesthetics from construction activities, and potential disruption of traffic during the construction phase of Alternative #3 (Preferred). However, once construction has been completed, these temporary impacts will cease to occur. Additionally, no hazardous waste is expected to be produced as a result of construction of Alternative #3 (Preferred).

Overall environmental impacts involve the combined, long-term effects of multiple individual actions or activities on the environment over time. These impacts occur when separate, usually smaller, environmental changes or events accumulate and interact with each other to cause a significant, often more substantial, effect on the environment. Key features of environmental impacts include long-term accumulation, multiple sources, synergistic effects, and geographic and temporal scale.

Except for short-term, localized minor impacts during different phases of construction and building demolition including existing soil conditions associated with excavation; dust, air emissions, and noise from construction activities; and, potential disruption of traffic associated with temporary right-of-way construction, no major or moderate adverse impacts have been identified.

Moderate beneficial impacts identified include:

- Improving stormwater collection, management, and conveyance within the project area and the convenance of approximately one-third of the Borough's stormwater to the existing Conococheague Creek outfall.
- Improving the Conococheague Creek surface water quality, floodplain, and riverine wetland through the introduction of the hybrid surface bio-retention with a subsurface infiltration bed within the Southgate stormwater management system and the removal of sediment deposition and streambank and floodplain restoration.
- Enhancing the regional Chambersburg Rail Trail facility by making South Water Street (to be permanently closed to vehicular traffic) ready for the later development of a linear park between West Catherine Street and West Washington Street.
- Facilitating the redevelopment of the functionally obsolete and dilapidated strip mall and its blighting influence by preparing the Southgate Shopping Center site for transformational redevelopment of its 33-acres into a walkable mixed-use neighborhood that will honor the history and restore integrity to the Southgate community.

Table 1 below summarizes the level of compliance of Alternative #3 (Preferred) with environmental protection statutes and other environmental regulations and executive orders. Based on the evaluation of environmental effects described in Section 4, there are no significant adverse impacts from Alternative #3 (Preferred), and a FONSI has been prepared.

Table 1. Compliance of Alternative #3 (Preferred) with Environmental Protection Statutes and Other Environmental Requirements

Federal Statutes, Executive Orders (EOs), and Memoranda	Level of Compliance
Archeological and Historic Preservation Act	Full
Bald and Golden Eagle Protection Act	Full
Chesapeake Bay Protection and Restoration (EO 13508)	Full
Clean Air Act	Full
Clean Water Act*	Pending
Comprehensive Environmental Response, Compensation and Liability Act	Full

Federal Statutes, Executive Orders (EOs), and Memoranda	Level of Compliance
Consultation and Coordination with Indian Tribal Governments (EO 13175)	Full
Endangered Species Act	Full
Farmland Protection Policy Act	Full
Fish and Wildlife Coordination Act	Full
Floodplain Management (EO 11988)	Full
Migratory Bird Treaty Act	Full
National Historic Preservation Act	Full
National Environmental Policy Act	Partial[1]
Noise Control Act, EO 13186, EO 11593, EO 13508	Full
Protection of Wetlands (EO 11990)	Full
Protection of Children from Environmental Health Risks and Safety Risks (EO 13045)	Full
Prime and Unique Farmlands (Memorandum, 11 August 1980)	Full
Watershed Protection and Flood Prevention Act	Full

[1]Partial until a signed FONSI is received.
* As of November 1, 2025. A Clean Water Act permit has not been obtained by the non-federal sponsor. Construction *will not* begin until a Clean Water Act permit is obtained by the non-federal sponsor.

5 Required Coordination

5.1 Agencies Contacted

Direct coordination/correspondence with USACE Baltimore District, FEMA, and NRCS, is included in Attachment B. Documentation of coordination with the USFWS is provided in Attachment B-1. Documentation of coordination/correspondence with the SHPO is included in Attachment B-2. Documentation of coordination/correspondence with the Delaware Nation of Oklahoma, the Delaware Tribe of Indians, and the Tuscarora Nation is included in Attachment B-3.

5.2 Public Review and Comments

The EA and FONSI will be made available for public review and comment for a period of 30-days, as required under NEPA. Relevant comments will be addressed and included in the Final report.

6 Conclusion

The Southgate Stormwater Improvement Project Alternative #3 (Preferred) will provide benefits to the community by remedying the mismanagement of stormwater within the project area, restoring the Conococheague Creek streambank and floodplain, and facilitating the redevelopment of a long-standing blighting condition within the low- to moderate-income community. Beneficial reasonably foreseeable effects to the human environment include:

- Improving stormwater collection, management, and conveyance within the project area and the convenance of approximately one-third of the Borough's stormwater to the existing Conococheague Creek outfall.
- Improving the Conococheague Creek surface water quality, floodplain, and riverine wetland through the introduction of the hybrid surface bio-retention with a subsurface infiltration bed within the Southgate stormwater management system and the removal of sediment deposition and streambank and floodplain restoration.
- Enhancing the regional Chambersburg Rail Trail facility by making South Water Street (to be permanently closed to vehicular traffic) ready for the later development of a linear park between West Catherine Street and West Washington Street.
- Facilitating the redevelopment of the functionally obsolete and dilapidated strip mall and its blighting influence by preparing the Southgate Shopping Center site for transformational redevelopment of its 33-acres into a walkable mixed-use neighborhood that will honor the history and restore integrity to the Southgate community.

No long-term or permanent environmental, economic, cultural, or social adverse impacts are expected to result from Alternative #3 (Preferred).

7 List of Information Providers and Preparers

The following agencies/entities were involved in the preparation of this EA:

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8 References

Borough of Chambersburg Recreation Department – online map of facilities.
https://www.chambersburgpa.gov/rec_dep/map.html
Accessed 04 DEC 2024.

Borough of Chambersburg, PA Noise Ordinance.
https://ecode360.com/10693700
Accessed 14 JUL 2025.

Chesapeake Conservancy.
https://www.chesapeakeconservancy.org/apps/potomac/#:~:text=The%20Potomac%20River%20flows%20into,The%20river%20has%20two%20sources
Accessed 03 DEC 2024.

Environmental Protection Agency (2024).
https://mywaterway.epa.gov/waterbody-report/21PA/PA-SCR-134367130/2024.
Accessed 13 August 2025.

Federal Emergency Management Agency (FEMA) Flood Map Service Center.
https://msc.fema.gov/portal/home
Accessed 19 MAR 2025.

National Park Service (NPS). 2025. "What are Cultural Resources & the National Register of Historic Places?" https://www.nps.gov/dscw/cr-nrhp.htm

Occupational Safety and Health Administration (OSHA) – Occupational Noise Exposure.
https://www.osha.gov/noise
Accessed 04 DEC 2024.

Pennsylvania Department of Conservation and Natural Resources, County Rock-Type Maps of Pennsylvania.
https://elibrary.dcnr.pa.gov/GetDocument?docId=1752661&DocName=RxTypeMap_FranklinCo.pdf
Accessed 03 DEC 2024.

Pennsylvania Department of Conservation and Natural Resources, PaGEODE – Pennsylvania GEOlogic Data Exploration.
https://www.gis.dcnr.state.pa.us/pageode/
Accessed 03 DEC 2024.

Pennsylvania Game Commission, Game Lands Map.
https://www.pgc.pa.gov/HuntTrap/StateGameLands/Documents/SGL%20Maps/SGL__235.pdf
Accessed 04 DEC 2024.

Pennsylvania Natural Heritage Program
https://www.naturalheritage.state.pa.us/factsheets/12224.pdf
Access 14 JUL 2025.

United States Army Corps of Engineers (USACE). 2025. "Section 313 Program."
https://www.nab.usace.army.mil/Missions/Civil-Works/Section-313-Program/

United States Census Bureau Borough of Chambersburg, PA Community Profiles.
https://data.census.gov/profile/Chambersburg_borough,_Pennsylvania?g=160XX00US4212536
Accessed 20 MAR 2025.

United States Census Bureau Geography Division TIGERweb
https://tigerweb.geo.census.gov/tigerweb/
Accessed 20 MAR 2025.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey of Franklin County, PA.
https://ia804706.us.archive.org/10/items/usda-soil-survey-of-franklin-county-pennsylvania-1975/usda-soil-survey-of-franklin-county-pennsylvania-1975.pdf
Accessed 03 DEC 2024.

United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey.
https://websoilsurvey.nrcs.usda.gov/app/
Accessed 20 MAR 2025.

United States Department of Agriculture (USDA) online Soil Data Access (SDA) Prime and other Important Farmlands.
https://efotg.sc.egov.usda.gov/references/public/LA/Prime_and_other_Important_Farmland.html
Accessed 03 DEC 2024.

United States Department of Housing and Urban Development (US HUD) 2016-2020 Low- and Moderate-Income Area Data
https://experience.arcgis.com/experience/279eca0222754f8a954bbf8cf995a1a3
Accessed 20 MAR 2025.

United States Environmental Protection Agency (US EPA) Green Book – Pennsylvania Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants (Franklin County).
https://www3.epa.gov/airquality/greenbook/anayo_pa.html
Accessed 02 DEC 2024.

United States Environmental Protection Agency (US EPA). June 2004. “Understanding the Safe Drinking Water Act.”
https://www.epa.gov/sites/default/files/2015-04/documents/epa816f04030.pdf
https://enviro.epa.gov/envirofacts/enviromapper/search
Accessed 02 DEC 2024.

United States Environmental Protection Agency (US EPA) NEPAssist.
https://www.epa.gov/nepa/nepassist
Accessed 04 DEC 2024.

United States Environmental Protection Agency (US EPA) NEPAssist.
https://www.epa.gov/nepa/nepassist
Accessed 02 DEC 2024.

United States Forest System (UFS) National Wild and Scenic Rivers System.
https://hub.arcgis.com/datasets/usfs::national-wild-and-scenic-river-line/explore
Accessed 04 DEC 2024.

United States Fish & Wildlife Service (US FWS) – Bald Eagle Nest Locations
https://gis-fws.opendata.arcgis.com/maps/791e4054bab84a0aa0afe08d9d16a4cb/about
Accessed 14 JUL 2025.

United States Fish & Wildlife Service (US FWS) – Green Floater Clams Species Profile.
https://ecos.fws.gov/ecp/species/7541
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS), Information for Planning and Consultation (IPaC).
https://ipac.ecosphere.fws.gov/location/index
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS) – Indiana Bat Habitat Characteristics.
https://www.fws.gov/species/indiana-bat-myotis-sodalis
Accessed 02 DEC 2024.

United States Fish & Wildlife Service (US FWS) – Indiana Bat Habitat Species Profile.
https://ecos.fws.gov/ecp/species/5949
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS) – Migratory Bird Flyways in North America
https://www.fws.gov/media/migratory-bird-flyways-north-america
Accessed 14 JUL 2025

United States Fish & Wildlife Service (US FWS) – Monarch Butterflies Species Profile.
https://ecos.fws.gov/ecp/species/9743
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS) National Wetlands Data.
https://www.fws.gov/program/national-wetlands-inventory/classification-codes
Accessed 04 DEC 2024.

United States Fish & Wildlife Service (US FWS) National Wetlands Inventory.
https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS) – Northeastern Bulrush Species Profile.
https://ecos.fws.gov/ecp/species/6715
Accessed 20 MAR 2025.

United States Fish & Wildlife Service (US FWS) – Tri-colored Bat Species Profile.
https://ecos.fws.gov/ecp/species/10515
Accessed 20 MAR 2025.