

Programmatic Environmental Assessment

Hazard Mitigation Acquisition & Demolition of Residential Homes

Louisville and Jefferson County Metropolitan Sewer
District, City of Louisville, Jefferson County, Kentucky

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FEMA

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List of Acronyms

36 CFR	Code of Federal Regulations for Protection of Historic Properties
40 CFR	Code of Federal Regulations for Protection of Environment
44 CFR Part 9	Code of Federal Regulations for Floodplain Management and Protection of Wetlands
44 CFR Part 10	Code of Federal Regulations for Environmental Considerations
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
BMP	Best Management Practice
CD	Compact Disc
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CRS	Community Rating System
CSOs	Combined Sewer Overflows
CWA	Clean Water Act
EIS	Environmental Impact Statement
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FMA	Flood Mitigation Assistance
FONSI	Finding of No Significant Impact
HMGP	Hazard Mitigation Grant Program
IOAP	Integrated Overflow Abatement Plan
KDEP	Kentucky Department of Environmental Protection
KyEM	Kentucky Emergency Management
MOA	Memorandum of Agreement
MSD	Louisville & Jefferson County Metropolitan Sewer District
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NPS	National Park Service

NRHP	National Register of Historic Places
NVOAD	National Voluntary Organizations Active in Disaster
PA	Programmatic Agreement
PEA	Programmatic Environmental Assessment
PDMC	Pre-Disaster Mitigation – Competitive
REC	Record of Environmental Consideration
RL	Repetitive Loss
SEA	Site-Specific EA
SHPO	State Historic Preservation Office
SORP	Sewer Overflow Response Protocol
SRL	Severe Repetitive Loss
SSO	Sanitary Sewer Overflows
T&E	Threatened and Endangered
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
WIN	Waterway Improvements Now
WOUS	Waters of the United States

1.0 PROJECT BACKGROUND

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) has prepared this Programmatic Environmental Assessment (PEA) for the proposed acquisition and demolition of single-family homes in the City of Louisville (City) and Jefferson County, Kentucky (Appendix A, Figures 1 and 2). Funding of these activities may occur through competitive programs; such as, the Hazard Mitigation Grant Program (HMGP), the Pre-Disaster Mitigation Program (PDM), and the Flood Mitigation Assistance (FMA) grant program. FEMA provides grant funds to help protect people's lives, health, safety, and improved property.

In accordance with 44 Code of Federal Regulation (CFR) Part 10, FEMA Implementing Procedures, this PEA has been prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969 (42 USC § 4332) and as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ) (40 CFR parts 1500-1508). The purpose of the EA is to analyze the potential environmental impacts of the proposed action, and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

This geographic area has experienced large flooding events that have affected the City since 1832. The City and County formed the Louisville and Jefferson County Metropolitan Sewer District (MSD) in 1946 to address the flooding issues, operate, and maintain the sanitary sewer system. To help alleviate some of the flooding to the City, between 1947 and 1954, the first phase of a flood protection system was constructed. This protection was in the form of a concrete wall constructed in downtown Louisville. The project stretched over 13 miles of earthen levee, 4 miles of concrete walls, 50 moveable closures, 21 sandbag closures, channel improvements and 13 flooding pumping stations that stretched from Beargrass Creek to Mill Creek. MSD eventually enclosed large portions of the existing open channel system to direct the water to the Ohio River to drain the geographic area. This system also combined with the sanitary sewer system, to form the Combined Sewer Overflows (CSOs). This current CSO drainage system is over 100 years old.

In 1989, a new addition to the existing flood protection system was completed and stretched from Mill Creek to nearly the county's most southwestern border. A 29-mile floodwall now protects the city and county against the Ohio River inundation. Due to inland ponding and higher Ohio River flood stages, more flooding has occurred.

Due to the nature of the CSOs and to address and manage water contamination and flood risk, the Integrated Overflow Abatement Plan (IOP) was developed and submitted to Federal Court April 15, 2009 and was updated in 2012 with only minor modifications made to the order. The Integrated Overflow Abatement Plan (IOAP) is a major part of the response to the Environmental Protection Agency's (EPA) Consent Decree. The EPA developed the Consent Decree in response to an enforcement action taken by EPA and Kentucky Department of Environmental Protection (KDEP) alleging violations of the Clean Water Act (CWA) primarily

related to the CSOs. Please see Appendix B for a copy of the latest Consent Decree Annual report that MSD submitted to the EPA.

This IOAP, prepared in accordance with the requirements of the Consent Decree, presents MSD's comprehensive plan to reduce and mitigate the effects of wet weather CSOs, and to eliminate sanitary sewer overflows (SSO) and other unauthorized discharges through the Project WIN (Waterway Improvements Now). Project WIN's mission is to provide oversight management of all the activities required to comply with the terms and conditions of the Consent Decree. Oversight management requires initiating, organizing, coordinating and managing a diverse set of elements, programs, and projects to implement successfully solutions to all Consent Decree obligations. Planned upgrades under Project WIN will allow Louisville Metro to comply with the CWA regulations. The implementation of the Consent Decree program will continue for many years. Branding the IOAP as Project WIN provides identification and distinction for MSD staff and the public. The stakeholders will be able to identify with the results as the program progresses. Branding the program as Project WIN identifies this as a special project with a beginning and an end that requires special attention and increased funding. The Project WIN branding also separates this program from the ongoing operations, maintenance, repair, and replacement programs.

To date, FEMA Region Four (RIV) has funded approximately 155 structures for acquisition and demolition under its HMGP and PDMC programs (DR-KY-1841-0035, 1912-0034, 1976-0020 PDMC-KY-2012-001, FMA-PJ-04-KY-2014-008 and FMA-PJ-04-KY-2014-009) for the MSD's Combined Sewer Service Area in the western side of the City (see Appendix A, Figure 3). This PEA captures and builds upon this knowledge and experience and furthers the goals of the National Environmental Policy Act and other applicable laws and executive orders.

Other efforts that are part of a larger, overall strategic plan for MSD to alleviate hazards to the City of Louisville and its citizens are, in brief:

1. Various All Hazards Plans and Planning initiatives
2. Soil data collection and stabilization projects
3. Grants for the installation of sirens and generators
4. Public outreach and education of hazards and smart growth initiatives

2.0 USE OF THIS PROGRAMMATIC ENVIRONMENTAL ASSESSMENT

FEMA funds a host of flood mitigation activities to assist communities to address repetitive flood damages, loss and reduce or eliminate flood risk. These activities include acquisition and demolition of repetitive loss properties, elevation of repetitive loss structures out of the floodplain, and drainage improvements. The funding for these mitigation activities are provide through the following FEMA programs:

Section 203 of the Pre-Disaster Mitigation (PDMC) Program;

The Flood Mitigation Assistance (FMA) Program, which is authorized by Section 1366 of the National Flood Insurance Act of 1968 with the goal of reducing or eliminating claims under the National Flood Insurance Program (NFIP); and

Section 404 of the HMGP through the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), 42 U.S.C. § 5121 et seq. The Stafford Act authorizes FEMA to provide funding to eligible applicants for eligible, feasible, and cost-effective activities that have the purpose of reducing or eliminating risks to life and property from hazards and their effects.

The National Environmental Policy Act of 1969, 42 U.S.C. § 4321 et seq., (NEPA) mandates that federal agencies take into account the effects of their actions, including programs, regulations, policies, and grant-funded projects, on the quality of the human environment. The CEQ has established NEPA Implementing Regulations at 40 CFR 1500 et seq. for meeting these requirements, and each federal agency has developed its own implementing procedures specific to its mission. FEMA's regulations are in 44 CFR Part 10.

This PEA will facilitate FEMA's compliance with other environmental and historic preservation requirements by providing a framework to address the impacts of acquisition and demolition of residential homes under FEMA's HMGP and FMA programs. FEMA coordinates and integrates to the maximum extent possible the review and compliance process required under similar requirements such as the Section 106 of the National Historic Preservation Act (NHPA), Section 7 of the Endangered Species Act (ESA), the eight-step process of the Executive Order (EO) 11988 and 11990, and others. This PEA provides a framework on how FEMA integrates these requirements with NEPA.

Finally, this PEA provides the public and decision-makers with the information required to understand and evaluate the potential environmental consequences of these hazard mitigation actions. This PEA meets the NEPA goals of impact identification and disclosure and addresses the need to streamline the NEPA review process. If the project meets the scope, impacts, and mitigation covered in this PEA, then only a record of environmental considerations (REC) would be required. If the scope of work is covered, but the action triggers the need for additional analysis based on the thresholds established in this PEA, FEMA will engage in the appropriate analysis or consultation requirement. FEMA will prepare a tiered Site-Specific EA (SEA) under this PEA with the additional information and provide a 15-day comment period to determine

whether to issue a FONSI or if an EIS is required. If the scope of work is not within this PEA, a separate stand-alone EA will be required.

3.0 PROBLEM STATEMENT, PURPOSE AND NEED

Properties in the lowest lying areas near storm water inlets in western Metro Louisville have a higher occurrence of repetitive structure flooding than other properties in the area. Homes inundated by floodwaters may mix with fecal matter due to storm overflows from the 100 year-old combined sanitary-sewer system pose greater health and life safety risks to residents and are more likely to experience structural or content damage.

Need

- 1. Eliminate Risks to Residents Health and Life Safety**

Eliminate threats to health and life safety to those residents, safety personnel and first responders in the lowest lying areas of western Metro Louisville from flooding or contaminated waters.

- 2. Eliminate Property Damage or Loss**

Permanently eliminate the flood risk and loss to repetitively damaged residential structures. Increase protection to remaining structures in the geographic area by reducing flood risk.

Purpose

Enhance the quality of life and reduce flood impacts for those residents in the western Metro Louisville area whose homes are located in the lowest lying areas near storm water inlets and have a higher occurrence of repetitive structure flooding than other homes in the area.

4.0 ALTERNATIVES

This Draft EA evaluates several project alternatives: No Action Alternative; Proposed Action Alternative; and Alternative Considered and Dismissed.

4.1 No Action Alternative

Under the No Action Alternative, FEMA would not provide funding for the acquisition and demolition of repetitive loss structures in low-lying or flood prone areas. The properties would continue to have loss claims through the NFIP, incur damages related to the combined sanitary sewer system overflows due to high intensity storms and flooding. Commercial, residential development and public infrastructure would remain unprotected from flood-related losses. Sewer water infiltration into homes and infrastructure would continue to jeopardize life and safety.

Other current efforts implemented to address flooding are:

Regional and Proposed Basins

Many of these basins have been constructed or built at a regional level. They do not provide the relief needed to the City to cease CSOs. Additionally, construction of more basins in the Louisville area is not feasible due to the scarcity of the land needed to contain adequately floodwaters.

Flood Pump Use

These pumps are only located along the Ohio River. While the pumps may temporarily alleviate or prevent some flooding to the infrastructure and properties nearest the pumps, the larger issue of storage of floodwaters and residents exposure to contaminated waters remains.

4.2 Proposed Action Alternative

Acquisition and demolition of repetitive loss and lowest lying structures in the 100-year floodplain and land deed restricted as open space in perpetuity

The Proposed Action Alternative will remove the low-lying and high-repetitive loss structures from the project area and from the 1% chance of flooding in any given year. This action will also remove the structures and occupants from potential contamination and contact with sanitary sewer overflows. MSD developed the scope for this action from a combination of mitigation actions listed in the Louisville Metro Multi-Hazards Mitigation Plan (See Appendix D for a listing of these documents web link). The plan outlines Risk Assessment, use of the FEMA Community Rating System (CRS, expanded on further in the section below titled *Repetitive Loss Problems in the Project Area and Property Selection Methodology*) and use of the repetitive loss claims database available through FEMA. MSD also used the plan to determine the best way to mitigate losses utilizing various funding sources. The plan also contains specific details on scoping methodology and criteria for evaluation and selection of the repetitive loss structures.

The current drainage network in the project area neighborhoods consists of CSOs, which decades ago replaced the natural drainage channels that carried water through western Louisville to the Ohio River. The targeted flood prone properties lay in a low area near the storm water inlets that carry runoff through the system. This mitigation activity will decrease the number of homes damaged in this neighborhood due to flooding and eliminate hazardous waste deposited from the combined sewer overflows.

Once acquired, MSD will have tested all structures for the presence of lead and asbestos. Qualified demolition companies will use the results of the tests for bidding purposes. Once MSD selects a contractor, demolition on the structures will begin. Long-term maintenance at the sites will be the sole responsibility of MSD and is not included in project budgets submitted for FEMA funding. Included in this action is:

- Removal of demolition debris and household hazardous wastes to an approved landfill (this includes debris from the demolition of houses, garages, driveways, sidewalks, and above-grade concrete slabs);
- Abatement of asbestos and/or lead-based paint;
- Permitted disposal of fuel tanks that support a residential use only (if any);
- Removal of all structure foundation and basement walls to at least 1-foot below the finish grade of the site;
- Filling of basements with compacted clean fill (basement floors will have a minimum 1-foot-diameter hole in the floor to allow for drainage);
- Removal of only those trees that restrict the demolition work on any structure;
- Termination of all abandoned utilities at least 2 feet below the finish grade of the site;
- Capping of all wells and/or removal of associated components; and
- Grading, leveling, and site stabilization of all demolition sites;
- Keeping vacant land clear of debris, garbage, and vermin;
- Keeping stream channels, culverts and storm drains clear of debris;
- Keeping detention ponds free of debris, trees and woody growth.

Additionally, the Proposed Action coincides with the green initiatives currently implemented via MSD's MS4 program and Clean Water Act Consent Decree with the EPA. The acquisition also complements HUD/EPA Sustainable Living strategies (See Appendix D for a listing of these documents web links). According to the IOAP, the green infrastructure initiatives include options such as green roofs, rain gardens, rain barrels, porous pavement, and bioretention. Green infrastructure reduces CSOs by providing pathways for storm water to soak into the ground, rather than run off to the CSS. In addition to site-specific green infrastructure projects, the IOAP defines programmatic green infrastructure investments that reduce flow at multiple sites (for example, a rain barrel program) and involve partnerships with other public and private entities.

Properties acquired and mitigated as part of the FEMA grants, will be deed restricted to be devoid of all dwellings and habitable structures. Options for buy-out open space after acquisition/demolition include but are not limited to the following: park space, urban reforestation areas, green infrastructure Best Management Practices (BMPs), flood control basins, and wetlands. Post buy-out usage will be determined within the parameters of the deed restrictions by stakeholders in the area, such as local businesses, Metro Council representatives, residents in proximity, and government agencies.

Repetitive Loss Problems in the Project Area and Property Selection Methodology

Jefferson County, Kentucky participates in the NFIPs Community Rating System (CRS). The CRS is a voluntary incentive program that recognizes and encourages floodplain management activities that exceed the minimum NFIP requirements. As a result, discounted flood insurance premium rates are available that reflect the reduced flood risk resulting from the community actions. Jefferson County has a current CRS class ranking of five (5), which offers flood insurance policy holders a 25% discount on their flood insurance premiums.

The three goals of the CRS: Reduce flood damage to insurable property; Strengthen and support the insurance aspects of the NFIP, and Encourage a comprehensive approach to floodplain management.

The NFIP, through the CRS program, monitors for repetitive loss structures. Every year, the NFIP provides information to the CRS participating communities to inform them of those properties. FEMA considers a property to be a repetitive loss (RL) when a structure insured under the NFIP has had one or more claim payments for flood damages. Currently, the City and Jefferson County have approximately 144 repetitive loss properties. A community with one or more properties subject to repetitive flooding must take certain actions to address the risk to those properties.

MSD, through the CRS database information, particularly CRS' floodplain map information service database, can review properties in its service area to identify these repetitive loss structures and contact property owners. MSD has also contracted with a group of consultants to perform a countywide assessment of all flood prone properties within Jefferson County. This assessment prioritizes areas based on risk of flooding and determines which mitigation strategies would be most effective. Mitigation strategies that are considered include acquisition, structural measures (e.g. basins, channel re-alignment, etc.) and non-structural measures (e.g. minor flood proofing, elevation, acquisition and demolition, etc.). Finally, the site selection process follows uniform criteria across the county, with most solutions selected for placement near overflow points and with no permanent displacement of homes or private businesses. Furthermore, MSD configures facilities based on a uniform application of written design criteria and odor control criteria. MSD will minimize during the design and construction phases of projects other nuisance conditions, such as noise, dust, or traffic disruptions.

4.3 Alternative Considered and Dismissed

Elevation of Structures

This alternative includes raising structures such that the first floor elevation is above that of the required base flood elevation, plus 1-foot above the floodplain that has a 1% chance of flooding in any given year to protect primary residence structures from the reoccurring flood hazards. Based on previous experience with elevating structures, the unit cost per structure is far greater than the proposed acquisition and demolition of properties. In addition, risk due to road flooding and related emergency services cut off would remain. Events in excess of the 1% chance of flooding could still damage the elevated structures.

Elevating structures will have a substantial impact on the current residents, renters and neighborhoods. Current residents and renters stand to incur the brunt of the impact. The construction associated with elevating the properties would displace individuals or families for an extended period. Additionally, the average age of these homes is approximately 50 years old and the likelihood of damage or structural collapse during elevation is severe. If structures were to collapse, the project costs would rise by the cost to rebuild the structure at today's unit price.

Separating the Combined Sewer Service Area

Separate the Combined Sewer Service Area (CSSA) by adding large-scale storage (i.e.: retention ponds). Creating this storage within an urban environment is economically and physically not feasible due to limited open space.

5.0 AFFECTED ENVIRONMENT AND IMPACTS

Jefferson County encompasses 375 square miles along the Ohio River. The Ohio River shoreline is approximately 37.5 miles in length and extends along over 20% of the County. About 15% of the City of Louisville (City) is within a floodplain. In addition to the Ohio River, the City also has other major streams contributing to this watershed: the Muddy, South and Middle forks of Beargrass Creek and the Buechel Branch. Historically, the City drainage system consisted of open channels that directed the water to the Ohio River.

Table 5.0 on the next page summarizes potential impacts of the Proposed Action Alternative and impact offsetting mitigation measures. After the table, any resources for which potential impacts were identified, and high priority resources, which must be considered in EAs (wetlands, floodplains, threatened and endangered species and critical habitat, cultural resources, and Environmental Justice), are discussed in detail.

TABLE 5.0 – Summary of Potential Environmental Impacts of the Proposed Action & Impact Offsetting Mitigation Measures

Affected Environment / Resource Area	Impacts	Agency Coordination / Approvals / Permits	Mitigation/BMPs
<p>5.1 Physical Resources</p> <p>5.1.1 Land Use: Farmland, Geology and Soils</p>	<p>No Action Alternative: No prime or unique farmland, geology or soil changes.</p> <p>Proposed Action: Geographic area is all residential and developed. No prime or unique farmland, no anticipated permanent or long-term changes to underlying geology or soils within the project area. Temporary construction may affect surface soils.</p>	<p>N/A</p>	<p>Project workers would use required soil erosion reduction Best Management Practices (BMPs), such as using silt fences, wetting bare soil during construction, and vegetating bare soil after construction. MSD will respond to overflows using the Sewer Overflows Response Protocol (SORP) per procedures outlined in further detail in Section 5.1.1 and in Section 3 (Appendix D).</p>
<p>5.1.2 Air Quality</p>	<p>No Action Alternative: No change to air quality.</p> <p>Proposed Action: Only temporary impacts on air quality from construction may occur.</p>	<p>N/A</p>	<p>Project workers would be required to water down construction areas to minimize dust when needed. Fuel-burning equipment running times would be minimized and engines must be properly maintained.</p>
<p>5.1.3 Climate Change</p>	<p>No Action Alternative: No additional climate changes.</p> <p>Proposed Action: No impact on Climate Change.</p>	<p>N/A because impact on air emissions is insignificant</p>	<p>N/A</p>
<p>5.2 Water Resources</p> <p>5.2.1 Water Quality</p>	<p>No Action Alternative: No change to water quality.</p> <p>Proposed Action: Minor impacts to water quality during construction activities may occur.</p>	<p>MSD will obtain and follow all local, Commonwealth, and Federal regulations and permits; including the IOAP, CWA-EPA Consent Decree, NPDES and other local permits/ordinances as</p>	<p>Project workers would use the established local Erosion and Sediment Control ordinance and other BMPs, such as using silt fences, wetting bare soil during construction, and vegetating bare soil after construction as stated in the project applications.</p>

5.2.2 Wetlands	<p>No Action Alternative: No wetland changes.</p> <p>Proposed Action: Project area is wholly in uplands. No wetlands present in project construction area.</p>	N/A	N/A
5.2.3 Floodplains	<p>No Action Alternative: No floodplain changes.</p> <p>Proposed Action: Improve floodplain function. The US Army Corps of Engineers (USACE) is involved with other projects within the City and County. However, for purposes of the residential buyouts, there will be no adverse impacts to waters of the US (WOUS). The completion of the Proposed Action will benefit overall WOUS and the floodplain.</p>	MSD will follow all local, state and federal regulations and permits; including the IOAP, CWA-EPA Consent Decree, and other local permits/ordinances as applicable.	Project workers would use the established local Erosion and Sediment Control ordinance and other BMPs, such as using silt fences, wetting bare soil during construction, and vegetating bare soil after construction as stated in the project applications.
<p>5.3 Biological Resources</p> <p>5.3.1 Threatened and Endangered Species and Critical Habitat</p>	<p>No Action Alternative: No changes for threatened and endangered species or critical habitat.</p> <p>Proposed Action: No Species or Critical Habitat occurrence. Project area urban and developed</p>	N/A	N/A
<p>5.4 Cultural Resources</p> <p>5.4.1 Cultural Resources</p>	<p>No Action Alternative: No impact on historic properties</p> <p>Proposed Action: If resources occur in the project area or APE, then there would be potential for adverse effects to resources.</p>	SHPO	See Section 5.4.1 for conditions and Appendix F for the executed PA for Conditions, Stipulations and Treatment Measures in the event of resources identification.

<p>5.4.2 American Indian Cultural Resources</p>	<p>No Action Alternative: No impact on American Indian cultural or religious sites.</p> <p>Proposed Action: If resources occur in the project area or APE, then there will be potential for adverse effects to resources.</p>	<p>SHPO and applicable THPOs</p>	<p>See Section 5.4.2 for conditions and Appendix F for the executed PA for Conditions, Stipulations and Treatment Measures in the event that resources are identified</p>
<p>5.5 Socioeconomic Concerns</p> <p>5.5.1 Environmental Justice</p>	<p>No Action Alternative: Minority and low-income populations will continue to experience flooding of homes and associated risks of exposure to contaminated floodwaters.</p> <p>Proposed Action: Potential adverse impact on low income or minority populations. Details below in Section 5.5.1.</p>	<p>US Census Data , EPA</p>	<p>Participation in program all available federal (FEMA HMA: HMGP, FMA and FDMC) and non –federal programs is voluntary. On-going and active public outreach through Project WIN and the CRS program requirements with engagement by MSD to mitigate potential adverse effects. Details below in Section 5.5.1.</p>
<p>5.5.2 Noise</p>	<p>No Action Alternative: No noise changes.</p> <p>Proposed Action: Temporary construction noise during project construction activities.</p>	<p>N/A</p>	<p>Project work will occur during normal business hours and vehicles and equipment would meet local, Commonwealth, and Federal noise requirements.</p>
<p>5.5.3 Traffic</p>	<p>No Action Alternative: No traffic changes. Disruptions during floods.</p> <p>Proposed Action: Minor, temporary traffic disruption during construction.</p>	<p>N/A</p>	<p>Traffic flow and control during construction would meet all local and Commonwealth traffic safety requirements.</p>

<p>5.5.4 Public Service and Utilities</p>	<p>No Action Alternative: No change. Public water supply well and water treatment and distribution system would remain subject to damage and loss of service.</p> <p>Proposed Action: Will require utilities to be capped or removed from property; remaining residences should have no long term impacts to service; may be temporary interruptions to service during removal activities.</p>	<p>N/A</p>	<p>Notice by MSD prior to any service interruptions.</p>
<p>5.5.5 Public Health and Safety</p>	<p>No Action Alternative: No change. Present flood-related public health and safety risks would continue.</p> <p>Proposed Action: For residents that volunteer to participate in the federal programs: Public health and safety would be improved with elimination of structures from flood inundation. Reduction in threats to health safety and property damages may occur. For those residents that choose to not participate in the voluntary federal program: Present flood-related public health and safety risks would continue.</p>	<p>For those residents that do not volunteer to participate in the federal programs: MSD Consent Decree, IOAP, and SORP</p>	<p>For those residents that do not volunteer to participate in the federal programs: appropriate protocols will be followed per the established plans.</p>

<p>5.6 Cumulative Impacts</p>	<p>No Action Alternative: Continued flooding and property loss and damage. Continued public health safety concerns with exposure to floodwaters.</p> <p>Proposed Action: Socio-economic, impacts to neighborhood composition, impacts in the long-term However, Removal of the population and structures from a known flood risk is overall beneficial.</p>	<p>MSD Consent Decree, IOAP, and SORP</p>	<p>Relocation assistance is available and community engagement and education of available grants is continuous per established plans.</p>
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5.1 Physical Resources

5.1.1 Land Use: Geology and Soils

The project area consists of developed residential neighborhoods and public infrastructure. No geology or soil alteration will occur with the completion of the Proposed Action. MSD will maintain the acquired lots as open space in perpetuity per 44 CFR 80.11. Additionally, MSD will respond to overflows using the Sewer Overflows Response Protocol (SORP). This document outlines, in detail, how MSD reports overflows, provides notice to the public and the mitigation measures taken to lessen the impacts of the overflows. Some of these mitigation measures may include but may not be limited to the following: containment, filtration, flow diversion, and use of portable generators to pump water away from the overflow area and hauling activities. For more detail on these procedures, see Section 3 of the SORP (Appendix E).

5.2 Water Resources

5.2.3 Floodplains

The purpose of Executive Order 11988, Floodplain Management, issued in 1977, is to eliminate the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative for locating a project outside of the floodplain. FEMA’s regulations in 44 CFR Part 9 implement EO 11988 for the agency.

The project areas lie within several FEMA Flood Insurance Rate Maps (FIRMs) panels: 21111C0024E, 21111C0025E, 21111C0039E, 21111C0040E, 21111C0055E and 21111C0056, all with effective dates of December 12, 2006. Most of the project areas are located out of the Special Flood Hazard Area (SFHA), or area subject to the 0.2% and 1% chance of flooding; while

a small portion of the project area is located in the SFHA, Zone A, subject to the 1% chance of flooding in any given year (See Appendix A, Figures 4 - 4.e.).

The structures in the project area date to the early-1940s, prior to the City joining the NFIP in 1978 and prior to the issuance of the floodplain regulations. The project area is highly urbanized and impervious and is susceptible to flooding due to the current conditions. This project will protect residents from the 0.2% and 1% chance of flooding by completely removing structures from the floodplain. This will decrease the number of homes damaged due to flooding and eliminate hazardous waste deposited from the combined sewer overflows. Use of the Erosion and Sediment Control ordinance, SORP and standard construction BMP's would be enforced to prevent materials from leaving the site and entering nearby water sources. Completion of the Proposed Action will have beneficial effects to the floodplain by increasing drainage capacity and increase water quality by contaminate capture and treatment for ultimately cleaner discharges downstream.

5.3 Biological Resources

5.3.1 Threatened and Endangered Species and Critical Habitat

Five federally listed threatened and endangered species (T&E) species occur within the project area. Flowering Plants: Kentucky glade cress (*Leavenworthia exigua laciniata*), Running buffalo clover (*Trifolium stoloniferum*); Insects: Louisville Cave beetle (*Pseudanophthalmus troglodytes*); Mammals: Indiana bat (*Myotis sodalis*) and the Gray bat (*Myotis grisescens*). Due to the residential development in the project area, the completion of the Proposed Action will have no effect to listed species or their designated critical habitat. Based on this determination, FEMA is not required to consult with the US Fish and Wildlife Service (USFWS).

5.4 Historic Resources

Section 106 of the National Historic Preservation Act (NHPA) of 1966, (Public Law 89-665; 16 USC § 470, et seq.) as amended, requires Federal agencies to consider the effects of their actions on historic properties and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on Federal projects prior to implementation. Historic properties may include archaeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP). Under Section 106, Federal agencies are responsible for identifying historic properties within the Area of Potential Effects (APE) for an undertaking, assessing the effects of the undertaking on those historic properties, if present, and considering ways to avoid, minimize, and mitigate any adverse effects. In accordance with 36 CFR § 800.4(a), FEMA has defined an APE consistent with the scale and nature of the undertaking. The APE encompasses those areas within which the undertaking may alter directly or indirectly the character or use of historic properties if any such properties exist. The APE includes the area within which all construction and ground disturbing activity would take place and the view shed of the proposed project.

Properties may be eligible for listing in the NRHP if they possess significance at the national, tribal, state or territory, or local level in American history, architecture, archeology, engineering,

or culture. A property must meet basic criteria and retain the historic integrity of those features necessary to convey their significance. To convey integrity, historic properties will always possess several, and usually most, of the following seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. The passage of time may require re-evaluation of historic properties to reaffirm the original National Register status.

5.4.1 Regulatory Framework

FEMA has entered into a Commonwealth-wide Programmatic Agreement (PA) with the Kentucky Heritage Council (which the Commonwealth has designated to serve as the State Historic Preservation Officer (SHPO)) and Kentucky Emergency Management (KyEM) executed July 21, 2014 (2014 Commonwealth-wide PA). The purpose of the PA is to address FEMA's responsibilities under Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. Section 470f-54 U.S.C. § 306108, and the regulations at 36 CFR Part 800 implementing Section 106 and 1010(f) of NHPA.

FEMA determined that these individual Undertakings may affect historic properties, including districts, and that the reviews required to meet FEMA's Section 106 responsibilities for the Undertakings will be streamlined and improved through the development and implementation of a project-specific Programmatic Agreement (Agreement) authorized under Stipulation II.C.6(c) of the 2014 Commonwealth-wide PA. FEMA executed the Agreement to address the review process for the Undertaking; to provide for treatment measures to address the adverse effects of the Undertaking; and to expedite the Section 106 review, and to minimize delays in FEMA's delivery of funds. A copy of the Agreement is in Appendix F.

A higher standard is applicable to federal agencies when their actions may affect historic properties designated as National Historic Landmarks (NHLs). Federal agencies must, to the maximum extent possible, minimize harm to NHLs directly and adversely affected by their undertakings prior to their approval (16 U.S.C. § 470h-2(f)). In addition, federal agencies must notify and formally invite the Secretary of Interior and the ACHP to participate in the resolution of adverse effects to an NHL.

It is FEMA's practice to complete the Section 106 process before completing the NEPA determination to ensure that FEMA has addressed effects to historic properties during the NEPA process.

5.4.2 Cultural Resources

Under the Proposed Action, ground-disturbing activities would occur. Work at sites that have low probability for the presence of archaeological deposits or that have been previously surveyed and found not to have archaeological deposits would not have a significant impact on this resource.

Ground-disturbing activities at sites that have moderate to high probability for the presence of archaeological deposits may have adverse effects on these resources. The presence of modern structures or facilities does not mean that no archaeological resources exist. While existing

structures may have disturbed potential archaeological deposits at the time of construction, intact resources may still occur undisturbed. In addition, existing historic buildings or structures may also have archaeological components and any landscaping or other activities that disturb the ground could affect potential archaeological deposits. If the proposed projects have the potential to affect resources, further Section 106 review will be required. The PA outlines the resolution of adverse effects in Stipulation II.B.6.

5.4.2 American Indian Cultural Resources

Under the Proposed Action, American Indian traditional cultural properties may be affected. On May 20, 2014, FEMA initiated consultation with the following Tribes: Absentee Shawnee Tribe of Oklahoma, Cherokee Nation, Delaware Nation of Oklahoma, Eastern Band of Cherokee Indians, Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Peoria Indian Tribe of Oklahoma, Shawnee Tribe, and the United Keetoowah Band of Cherokee Indians.

The Eastern Shawnee Tribe of Oklahoma, Peoria Tribe of Indians of Oklahoma, and United Keetoowah Band of Cherokee Indians, have agreed to enter into this Agreement as an invited Signatory party. The Delaware Nation and the Shawnee Tribe determined that the location of the project does not endanger cultural or religious sites of interest to them, but require notification if there are inadvertent discoveries.

(?) Tribes have declined to enter into this Agreement as a Signatory party; and the Cherokee Nation, Eastern Band of Cherokee Indians and the Miami Tribe of Oklahoma have not responded to FEMA's invitation to enter into this Agreement as an invited Signatory party.

Previous Section 106 Consultations with Tribes for the proposed Project Areas:

HMGP 1912-0034: Belquin Sub-Division

The MSD has been coordinating with regulatory agencies and resource stakeholders, including the Kentucky Heritage Council (SHPO), since September 2010. In a letter dated September 27, 2010 (addressed to Justin Gray, MSD), SHPO requested a cultural historic survey to be completed. On September 24, 2012, the requested survey was submitted by the MSD to FEMA and SHPO.

The Cultural Historic Survey of the Belquin Subdivision recommended the district as eligible for the National Register of Historic Places (NRHP) under Criterion C as a locally significant historic district. In consultation with the SHPO, FEMA has determined that the Belquin Subdivision is eligible for the National Register under Criterion C. Therefore, the acquisition and demolition of the Belquin Sub-Division would result in an adverse effect.

FEMA followed up with additional local interested parties as identified by SHPO which included the Louisville Metro Historic Preservation Officer (HPO), Neighborhood Planning and Preservation (NPP), and Preservation Louisville. Responses were received from the Louisville

Metro HPO and NPP concurring with the adverse effect. Consultation letters were sent to Indian Tribes with an interest in the project area on December 12, 2013. Three responses were received with no objections to project activities.

PDMC-PJ-04-KY-2012-001: Wewoka/West Park

In a letter dated February 4, 2011 (addressed to Justin Gray, MSD), SHPO requested a cultural historic survey to be completed. In addition, the SHPO requested information on how demolitions would be carried out and proposed land treatments following demolitions. On October 31, 2012, the requested cultural survey was submitted by the MSD to FEMA and SHPO. In addition, an archaeology work plan was submitted to the SHPO.

The Cultural Historic Survey of Wewoka/West Park recommended the district as not eligible for the NRHP under Criteria A, B, or C individually or as a district. Based on the results of this report, FEMA has determined a finding of no effect to historic properties.

In a letter dated November 29, 2012, the SHPO responded, “while [the report] provides reasonable arguments for the findings, it is our recommendation that the Louisville Historic Preservation Officer (HPO) be invited to serve as a consulting party in the review of this documentation to ensure there is no additional information that may speak to local significance.” Additionally, the SHPO recommended that Preservation Louisville, Neighborhood Planning and Preservation (NPP), and Portland Now! be considered as consulting parties. The SHPO reserved concurrence until the additional local parties were involved. FEMA followed up with additional local interested parties as identified by KHC which included the HPO, NPP, Preservation Louisville and Portland Now!. Responses were received from the Louisville Metro HPO and Portland Now! concurring with FEMA’s determination of no effect to historic properties. NPP would neither concur nor dispute the determination and requested additional public involvement.

Consultation letters were sent to Indian Tribes with an interest in the project area on December 11, 2013. Four responses were received with no objections to project activities.

HMGP 1841-0035: Algonquin Meadows

In a letter dated November 29, 2010 (addressed to Justin Gray, MSD), SHPO requested a cultural historic survey to be completed. On October 31, 2012, the requested cultural survey was submitted by the MSD to FEMA and SHPO. In addition, an archaeology work plan was submitted to the SHPO.

The Cultural Historic Survey of Algonquin Meadows recommended the district as not eligible for the NRHP under Criteria A, B, or C individually or as a district. Based on the results of this report, FEMA has determined a finding of no effect to historic properties.

In a letter dated November 29, 2012, the SHPO responded, “while [the report] provides reasonable arguments for the findings, it is our recommendation that the Louisville Historic Preservation Officer (HPO) be invited to serve as a consulting party in the review of this documentation to ensure there is no additional information that may speak to local significance.”

Additionally, the SHPO recommended that Preservation Louisville and Neighborhood Planning and Preservation (NPP) be considered as consulting parties. The SHPO reserved concurrence until the additional local parties were involved. FEMA followed up with additional local interested parties as identified by KHC which included the HPO, NPP and Preservation Louisville. A response was received from NPP who would neither concur nor dispute the determination and requested additional public involvement. A response was also received from the HPO referencing a new report recently completed for Federal Highway Administration improvement projects located in West Louisville. The Algonquin Meadows acquisition/demolition properties were included in this report and provided a contradictory assessment by Corn Island Archaeology, LLC, that the properties were eligible as part of a proposed Park Duvalle South Historic District. The report recommends the proposed historic district as eligible for the NRHP under Criterion C.

Consultation letters were sent to Indian Tribes with an interest in the project area on December 11, 2013. Three responses were received with no objections to project activities.

HMGP 1976-0020: Linwood Phase III

In a letter dated April 1, 2011 (addressed to Justin Gray, MSD), the SHPO requested a cultural historic survey to be completed. In addition, the SHPO requested information on how demolitions would be carried out and proposed land treatments following demolitions.

FEMA is awaiting a Cultural Resources Survey from MSD prior to making a Determination of Effect and initiating consultation with additional interested parties.

Anticipated Future Applications

FEMA anticipates receiving additional MSD acquisition/demolition projects as HMA funds become available to the State. According to the Louisville Metro Multi-Hazard Mitigation Five-Year Action Plan, there is a potential for 1,168 total properties proposed for acquisition/demolition within the West Louisville area.

5.4.3 Section 106 Conditions

FEMA will condition approval of the undertaking with the following conditions:

1. Upon notification by the Subgrantee of an unexpected discovery, or if it appears that a Undertaking has affected a previously unidentified property or affected a known historic property in an unanticipated manner, the Grantee shall immediately notify FEMA and require the Subgrantee to:
 - a. Stop construction activities on the construction site in the event of a discovery.
 - b. Take all reasonable measures to avoid or minimize harm to the property until FEMA has completed consultation with the SHPO, participating Tribe(s), and any other consulting parties.
 - c. If human remains are discovered, notify the local law enforcement office and coroner/medical examiner in accordance with Kentucky Revised Statutes (KRS 72.020) and protect the remains from any harm.

- d. Assist FEMA in completing the following actions, as required:
 - i. Upon notification by the Grantee of a discovery, FEMA shall immediately notify the SHPO, participating Tribe(s), and other consulting parties that may have an interest in the discovery, previously unidentified property or unexpected effects, and consult to evaluate the discovery for the National Register eligibility and effects of the Undertaking on historic properties.
 - ii. FEMA shall consult with the SHPO, participating Tribe(s), and other consulting parties in accordance with the consultation process outlined in Stipulation II.B.5.c., Project Review, to develop a mutually agreeable action plan with timeframes to identify the discovery or previously unidentified property, take into account the effects of the Undertaking, resolve adverse effects if necessary and ensure compliance with applicable Federal, State, and local statutes.
 - iii. FEMA shall coordinate with the Grantee and the Subgrantee regarding any needed modification to the scope of work for the Undertaking necessary to implement the recommendations of the consultation and facilitate proceeding with the Undertaking.
 - iv. In cases where discovered human remains are determined to be American Indian, FEMA shall consult with the appropriate Tribal representatives and SHPO. In addition, FEMA shall follow the guidelines outlined in the ACHP's Policy Statement Regarding the Treatment of Burial Sites, Human Remains, and Funerary Objects (2007) and any state-specific policies that may be in force.

5.5 Socio-economic Concerns

5.5.1 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations requires federal agencies to identify and correct its programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority or low-income populations. The EO also tasks federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

The following table shows U.S. Census data for the Commonwealth of Kentucky, Jefferson County, and the City of Louisville, and West Louisville, Kentucky. The data includes annual median household income, percentage (%) of persons below poverty level, % minority population, % Hispanic, and % of population over 65.

Table 5.1 – Statistics of U.S. Census Data for the Commonwealth of Kentucky, Jefferson County, the City of Louisville, and West Louisville Kentucky for Comparison

	<i>State of Kentucky</i>	<i>Jefferson County</i>	<i>City of Louisville/Jefferson County Metro Government</i>	<i>West Louisville</i>
<i>Total population (2010)</i>	4,339,367	741, 096	597, 337	62,026
<i>Annual median household income (2008-2012)</i>	42,610	46, 701	44,111	20,118
<i>% Persons below poverty level</i>	18.6	16.5	18.2	35.7
<i>% Minority population</i>	12.4	27.7	30.0	81.1
<i>% Hispanic (may be of any race)</i>	3.1	4.4	4.5	0.6
<i>% of population over 65</i>	7.6	13.4	12.6	10.6

Based on the community profile in Table 5.1, the Proposed Action will have a disproportionate effect to the minority and low-income populations of the project area. Minority and low-income residents that volunteer for the federal funding programs for the acquisition and demolition of residential structures would be relocated (displaced). This relocation may be out of the City or Jefferson County. Residents that volunteer for the federal funding programs would be removed from exposure to the known flood risks: flood damage to homes, possessions and exposure to contaminated floodwaters (health risks), therefore the Proposed Action will not have an adverse effect to human health or environmental effects on minority or low-income populations.

To assist displaced renters or homeowners, MSD has a relocation assistance program in place. MSD will identify housing out of the floodplain or area of known flood hazard risks. MSD will first attempt to relocate the residents within the City. If that is not feasible, MSD then will attempt to relocate the residents within Jefferson County; if that is not feasible, MSD will make a final attempt to relocate them outside of the County. Relocation assistance may include money for moving expenses, displacement compensation and housing assistance. Assistance is also available for those residents with limited-English proficiency. MSD will utilize printed material, staff that speaks the language or hire a translator to communicate. For more information on this process, see Appendix G.

For the residents that do not volunteer for the federal funding programs, they will remain in the known risk areas, and continue to experience flooding and health risks associated with exposure to floodwaters. Other impacts may include loss of neighbors, odor, impacts to access in or out of homes and neighborhoods when flooded, reduction in tax base, changing fabric of the community, loss of structures, and sense of place. MSD has addressed some of the impacts to residents through other MSD programs. These MSD programs include structural measures (e.g. basins, channel re-alignment, etc.) and non-structural measures (e.g. minor flood proofing, elevation, etc.) depending on the circumstances with each residential property and its impacts.

As discussed previously in Sections 1.0 and 3.0, the City has a well-known history of flooding, sewer overflows, impacts to private and public infrastructure and resident's health. Alleviating or eliminating those impacts and risks are goals for MSD. One of the largest components of the MSD operations is public engagement. MSD and the local government continue to engage the public via MSD's continuing education and notification campaigns that detail the risks and the options available to mitigate those risks. The IOAP report addresses these in detail (Appendix B). Through constant and consistent community engagement via public meetings, bill inserts, websites, and identification of resources to assist in meeting the requirements of the Consent Decree and SORP, MSD mitigates these disproportionate effects on the population. This document discusses community engagement further in Section 6.2.

In conclusion, based on the research completed for this PEA, evaluation of those potential impacts on the human environment, ongoing public engagement in the project areas by MSD, KyEM and FEMA, the decision-making and report methodologies and results provided by MSD, the Proposed Action would have a high disproportionate adverse impact on low-income or minority populations in the project area. The benefits of the Proposed Action outweigh those impacts and would have an overall positive effect to human health and environmental effects on minority or low-income populations that choose to volunteer for the federal funding programs. The positive benefits include removing repetitive loss structures from the floodplain, reducing and eliminating the risk of flooding hazards and health safety risks to the affected population.

5.5.5. Public Health and Safety

There are known health risks during and after flooding events in Metro Louisville. Most of these risks are associated with contact with non-treated sewage or contaminated water supply. The Louisville Metro Health Department in cooperation with the National Voluntary Organizations Active in Disaster (NVOAD), the Metro United Way, and the American Red Cross take the following steps to ensure these to minimize these risks:

- Test and disinfect public and private potable water supplies
- Provide information to the public in regards to health issues associated with flooding
- Assure sewage treatment facilities are on-line and that on-site sewage disposal systems are working correctly.
- Assist the Louisville Water Company in distribution of clean drinking water to affected residents
- Investigate and treat persons infected or exposed to waterborne diseases
- Offer vaccinations as needed
- Set up emergency shelters

Other health risks associated with flooding include drowning, injuries or trauma and hypothermia when residents are exposed to floodwaters for an extended amount of time. In these cases, local fire department and water rescue teams are tasked with helping residents in association with Emergency Medical Services. After the flood is over, the Louisville Permits, Inspection and Licenses department along with assistance from the Health Department will encourage folks to remove all flooded materials from homes including drywall and have

existing wooden studs professionally treated for mold. The Louisville Solid Waste Department will allow residents to set flooded materials out for pick-up or they can drop them off at designated areas throughout the community.

5.6 Cumulative or Secondary Impacts

The CEQ regulations implementing NEPA define cumulative impacts as the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or on federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7).

No Action Alternative

The No Action alternative could have moderate cumulative effects on human health and safety and disproportionate adverse effects on minority and low-income populations. Under this alternative, FEMA would not provide grant funding for the acquisition and demolition of repetitive loss structures in the floodplain. Therefore, residents of communities susceptible to these hazard risks would remain vulnerable.

Proposed Action Alternative

The proposed projects occur in a relatively small geographic area of Louisville. MSD has completed mitigation actions for flooding within this same geographic area, including earlier acquisition and demolition of repetitive loss properties. If MSD continues to utilize the mitigation strategy of acquisition and demolition within this geographic area, then it has the potential to reduce housing stock, the community tax base, alter the customer base for local business, or alter the nature of the impacted neighborhoods and the community at-large.

MSD assists residents whom will be directly impacted (home acquired through the FEMA grant programs) by assisting them with relocation. As best as MSD can manage, they keep the residents in proximity to the city or county. Factors considered for this relocation are to assure the residents are not placed in another potentially hazardous situation (i.e., flooding) and an area with similar housing costs.

Close coordination between local government, community leadership and citizens on planning and visioning on how the community may retain its identity and character, while reducing the impact of flooding and enhancing community values will continue to occur. Local involvement will be key to ensuring that the open space created by the acquisition and demolition becomes a community asset. The affected neighborhoods have strong local leadership and programs to ensure the community has an active voice in decision-making affecting the community.

The Proposed Action would not have any significant adverse effects on the natural or human environment. It would improve the human environment by reducing or eliminating repetitive flood losses to structures and flood-related risks to health safety.

6.0 Agency Coordination, Public Involvement and Permits

6.1 Agencies Consulted

The following local, state, tribal and federal agencies were contacted in support this EA:

MSD

KY SHPO

Local Consulting Parties: Neighborhood Planning and Preservation, Portland Now, Inc., Preservation Louisville, Olmstead Parks Conservancy, Louisville Metro Parks and Metropolitan Council District Members

Tribal Governments Absentee Shawnee Tribe of Oklahoma, Cherokee Nation, Delaware Nation of Oklahoma, Eastern Band of Cherokee Indians, Eastern Shawnee Tribe of Oklahoma, Miami Tribe of Oklahoma, Peoria Indian Tribe of Oklahoma, Shawnee Tribe, and the United Keetoowah Band of Cherokee Indians:

EPA

HUD

USACE

6.2 Public Noticing, Engagement, Education and Resources

The purpose for involving the public in the development of a PEA is to “encourage and facilitate public involvement in decisions which affect the quality of the human environment” (40 CFR 1500.2) and to ensure “that the environmental information is available to public officials and citizens before decisions are made” (40 CFR 1500.1(b)).

To keep the public informed, engaged and educated on the scope and status of MSDs efforts in meeting the EPA and KDOW requirements as set forth by the MSD's Consent Decree, a depository of public documents is currently available. These documents are periodically updated and are made publically available or as submissions are accepted by government agencies. They are also being used by MSD to document when information about Project WIN is published and the audience to which it was directed. This depository contains the following information:

- Brochures
- Fact Sheets
- FAQ
- Interactive Map
- Just for Kids
- Quarterly Report
- Press & News
- Check Local Rainfall
- CSO/SSO Locations

MSD has developed a public outreach program aimed at involving the public on MSD’s primary business functions with emphasis on wastewater, storm water and flood protection. These outreach strategies will continue into the future:

1. Green Infrastructure Workshops and Activities
2. Clean Streams Workshops and Activities
3. Various Outreach Activities for Students
4. IOAP Project and Program Meetings
5. Annual Reporting

Additional strategies that MSD utilizes include direct mailing of questionnaires, notice of risk due to the location of the home and history of flood losses and solicitation of voluntary participation in the acquisition program.

The public was also invited to participate in a public meeting to discuss these proposed projects and the FEMA environmental compliance reviews process this PEA and the Section 106 PA. The meeting was held on 6/17/2015, at the Louisville Urban League Building located at 1535 West Broadway, Louisville, KY 40203.

Public notice advertising for the meeting and soliciting public comment for the proposed projects were posted in the following locations (?) and (?) publications on (?) per affidavit received by the sub-grantee. Additional notice was broadcast in the following methods (?). Copies of all draft FEMA compliance documentation was available for public review at the meeting, locations through the City and on the FEMA web site:

<https://www.fema.gov/environmental-planning-and-historic-preservation-program/environmental-documents-public-notice-1>

The comment period was open for fifteen (15) days after the public meeting so that the public had adequate time to review and submit comments to FEMA. Public comments received/no public comments or feedback was received during the open comment period. See Appendix H for a copy of the public notice.

6.3 Permits

The following permits or authorizations may be required for the Proposed Action:

A Morris Forman Water Quality Treatment Center (WQTC) Kentucky Pollutant Discharge Elimination System (KPDES) permit may be required if the project area is one (1) acre or larger in size.

7.0 List of Preparers

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8.0 References

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9.0 Appendices

Appendix A – Project Area Maps

Appendix B – Consent Decree – IOAP

Appendix C – Louisville Metro Multi-Hazards Mitigation Plan

Appendix D – List of Information Available Online

Appendix E – SORP

Appendix F – Section 106 Documents

Appendix G – MSD Relocation Process

Appendix H – Public Notice