

Draft Tiered Site-Specific Environmental Assessment

Jefferson Parish Sewer Safe Room Project

Marrero, Jefferson Parish, Louisiana

PDMC-PJ-06-LA-2015-001

August 2016



FEMA

Federal Emergency Management Agency
Department of Homeland Security
800 N. Loop 288
Denton, TX 76209

I. Background

In accordance with 44 Code of Federal Regulations (CFR) for the Federal Emergency Management Agency (FEMA), Subpart B, Agency Implementing Procedures, Part 10.9, a Programmatic Environmental Assessment (PEA) for Hazard Mitigation Safe Room Construction was prepared and a Finding of No Significant Impact (FONSI) was issued in on June 2, 2011, pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ; 40 CFR Parts 1500-1508). This Tiered Site-Specific Environmental Assessment (SEA) is being prepared in accordance the June 2011 PEA. The focus of this Tiered SEA is on those areas of concern requiring additional discussion or analysis that are beyond the scope of the PEA.

II. Purpose and Need

Jefferson Parish has applied for Pre Disaster Mitigation-Competitive (PDMC) funding through the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) under application number PDMC-PJ-06-LA-2015-001 for the construction of a community safe room in Marrero, Louisiana. The purpose of FEMA's PDMC Program is to substantially reduce the risk of future damage, hardship, loss, or suffering in communities from natural disasters by providing the affected communities with cost-share funds to reduce future losses. PDMC is authorized under Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

The Jefferson Parish Sewer Department maintains over 500 sewer lift stations for more than 120,000 residents in Jefferson Parish. The Parish has experienced 5 hurricanes in the past 10 years. Sewer operators need to be housed at the sewer plant located at 6250 Lapalco Boulevard Marrero, Louisiana to ensure the continuity of operations before, during, and after a high wind and flooding event. The existing facility at the sewer plant cannot safely house the plant operators during a hurricane or high wind event. Construction of safe rooms is included as a medium priority in the Jefferson Parish Hazard Mitigation Plan.

III. Alternatives

Two project alternatives are proposed in this SEA: 1) No Action Alternative and 2) Proposed Action Alternative—Construction of a Safe Room at the Marrero Sewer Plant.

Under the No Action Alternative, nothing would be done to address the risk of hurricanes and tornadoes in the project area. A safe room would not be constructed. As a consequence, approximately 90 Jefferson Parish Sewer Department operators would remain at risk and would continue to be in danger when hurricanes and other quickly arising high wind events target the project area.

The Proposed Action Alternative involves the construction of an above ground safe room that will be attached to a new administration building that will be built with separate funds (see Figure 1). The buildings are being constructed at the sewer treatment plant located at 6250 Lapalco Boulevard (Latitude: 29.877330; Longitude: -90.115001) Marrero, Jefferson Parish,

Louisiana. An existing metal storage shed, which was built in 1965, will be demolished in order to construct the safe room and administration building. The proposed safe room will have a protected space of approximately 1,800 square feet and will have a gross square footage of approximately 2,000 square feet. The administration building will be approximately 3,400 gross square feet in addition to the safe room. The safe room will provide protection for approximately 90 sewer operators in order to ensure the continuity of operations for lift and pump stations during storm events. The safe room will be built in accordance with FEMA 361: Design and Construction Guidance for Community Safe Rooms (FEMA, 2008).

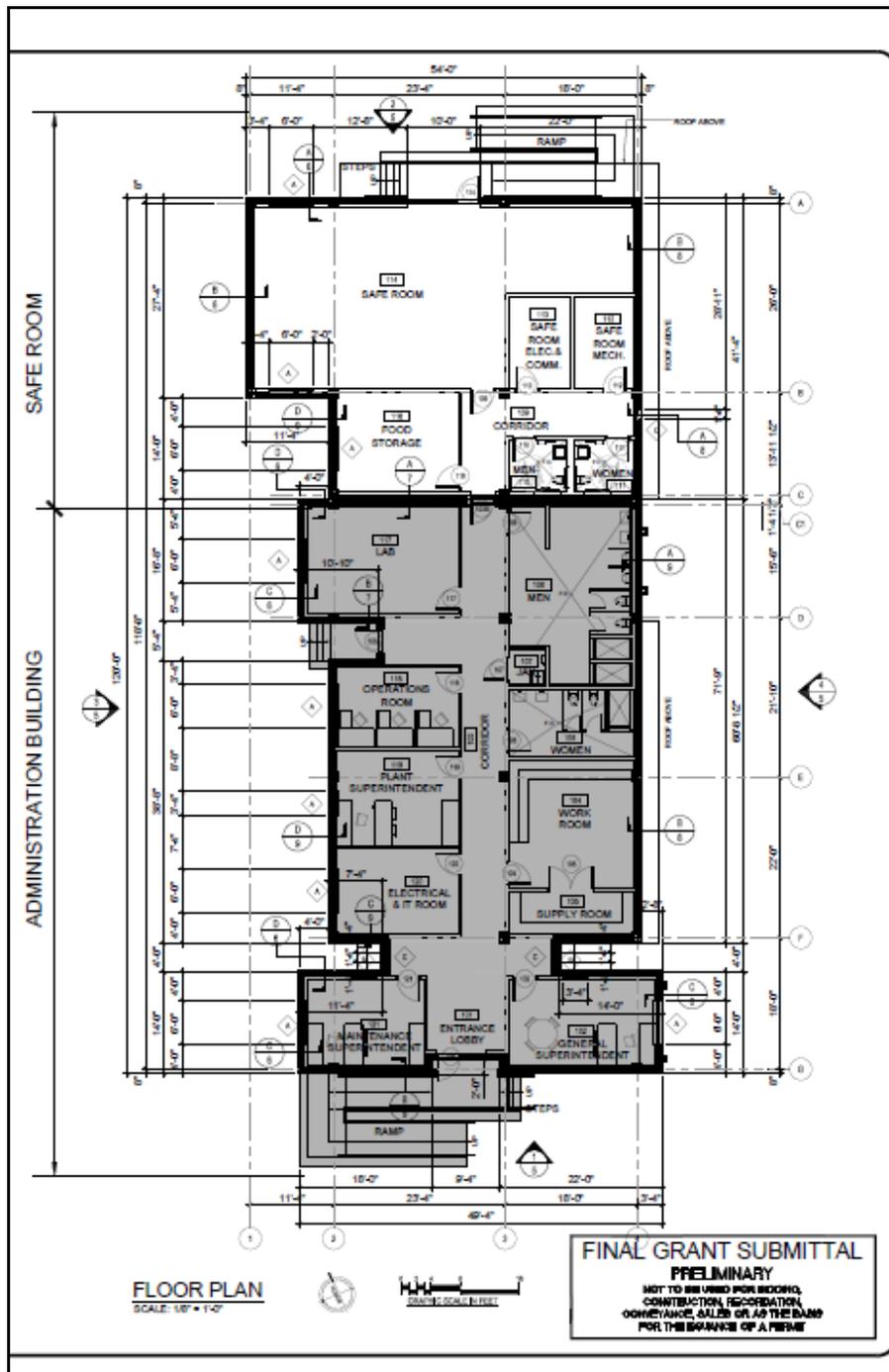


Figure 1. Safe Room and Administration Building Floor Plans, dated May 2016.

IV. Environmental Impacts

Discussion of the environmental impacts associated with the No Action Alternative is included in the June 2011 PEA. This document incorporates the PEA by reference. The PEA can be found in FEMA’s electronic library at <http://www.fema.gov/library/viewRecord.do?id=4670>.

FEMA’s environmental planning and historic preservation review reveals that all environmental areas of concern are appropriately accounted for in the PEA with the exception of floodplain impacts. Table 1 provides a summary of the findings for the environmental areas of concern that FEMA typically reviews.

Table 1: Summary of Other Environmental Areas of Concern

Area of Concern	No Action Impacts	Proposed Action Impacts
Land Use	No effect.	Land use impacts are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. The proposed action would have minor impacts to land use and would be consistent with surrounding or planned land uses in the short- or long-term. The project would disturb less than 5 acres. No special land use permit or waiver will be required. The project is consistent with the state’s coastal zone management plan. It is not located in a coastal barrier resource unit. The proposed action does not involve the conversion of prime and unique farmland. Please see agency correspondence from the Louisiana Office of Coastal Management in Appendix B.
Geology, Soils, and Seismicity	No effect.	Impacts to geology, soils, and seismicity are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. The safe room project will not disturb more than 5 acres of land, and it is not located in an area subject to tsunami, seismic, volcanic, erosion, landslide, mudslide, or structural instability hazards.
Water Quality and Resources	No effect.	Water quality impacts are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. During the construction phase, the proposed action would have minor temporary effects to water quality that would be at or below water quality standards or criteria. The proposed action would not cause or contribute to existing exceedance of water quality standards on a short-term or prolonged basis. The proposed action would not disturb more than 5 acres of land. BMPs are included in the Section 7 Mitigation Measures of the PEA. Implementation of the Section 7 measures are a requirement of the PEA FONSI.
Wetlands	No effect.	Impacts to wetlands are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. The

		project will have no effect on wetlands because the project is located outside of designated wetlands and does not adversely affect any wetlands.
Biological Resources	No effect.	Impacts to biological resources, including federally threatened and endangered species and critical habitat, are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. Per the U.S. Fish and Wildlife's species list (2016), the Piping Plover (<i>Charadrius melodus</i>); Red Knot (<i>Calidris canutus rufa</i>); Atlantic Sturgeon (<i>Acipenser oxyrinchus (=oxyrhynchus) desotoi</i>); Green Sea Turtle (<i>Chelonia mydas</i>); and Loggerhead Sea Turtle (<i>Caretta caretta</i>) are federally threatened species that are known to occur in Jefferson Parish. The Pallid Sturgeon (<i>Scaphirhynchus albus</i>); West Indian Manatee (<i>Trichechus manatus</i>); Hawksbill Sea Turtle (<i>Eretmochelys imbricate</i>); Kemp's Ridley Sea Turtle (<i>Lepidochelys kempii</i>); and Leatherback Sea Turtle (<i>Dermochelys coriacea</i>) are federally endangered species that are known to occur in Jefferson Parish. The proposed safe room site is a developed sewer treatment facility with no natural habitat or vegetation. The site is bounded to the east by Millaudon Canal and to the north by Mayronne Canal. It is otherwise surrounded by roads and residential and other development. The proposed safe room site does not contain suitable habitat for the above listed species. The safe room site is not designated as critical habitat for any listed species. Therefore, FEMA has determined the project will have no effect on threatened and endangered species and will not adversely modify or otherwise affect critical habitat. The proposed action would have negligible impacts to native species and their habitats and population levels of native species would not be affected. Sufficient habitat would remain functional to maintain viability of all species.
Human Health and Safety	Sewer operators would remain vulnerable to high wind hazards and/or would not remain at the sewer facility site during high wind events. Continuity of sewer and pump station operations before, during, and after a high wind and flooding events would be compromised, increasing risk to residents and infrastructure.	Human health and safety impacts are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. Waste materials resulting from the proposed action would be safely and adequately managed in accordance with all applicable regulations and policies. There would be no short- or long-term adverse impacts to public safety. Operators would benefit from the safety provided by the facility and first responders and government operations will be able to continue immediately following an event. The proposed action would not result in an exceedance of

		available waste disposal capacity nor would it result in regulatory violation(s). Per the PEA FONSI, excavated soil and waste materials will be managed and disposed of in accordance with applicable local, state, and federal regulations. If contaminated materials are discovered during construction activities, the work will cease until the appropriate procedures and permits are implemented. This is a required condition of the grant award.
Minority and Low-Income Populations	No effect.	Impacts to minority and low-income populations were not examined in the SEA because the threshold of significance outlined in the PEA was not exceeded. Though low-income and minority populations exist in the project area, no disproportionate adverse impacts to these portions of the population is anticipated.
Historic Properties	No effect.	Impacts to historic properties are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. FEMA determined in accordance with CFR 36 Part 800.4(d)(1) that there would be no effect to historic properties, including structural and archeological resources, due to the Proposed Action Alternative. The State Historic Preservation Office (SHPO) concurred with this determination in a response letter dated July 15, 2016 (see Appendix B). Per the PEA FONSI, if ground disturbing activities occur during construction, the applicant will monitor ground disturbance and if any potential archeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA. This is a required condition of the grant award.
Air Quality	No effect.	Air quality impacts are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. Minor short-term effects to air quality are anticipated during the safe room construction. Emissions in attainment areas, such as Jefferson Parish, would not cause air quality to go out of attainment for any National Ambient Air Quality Standards. Dust mitigation techniques are included in the Section 7 Mitigation Measures of the PEA. Implementation of the Section 7 measures are a requirement of the PEA FONSI.
Noise	No effect.	Noise impacts are not analyzed further in this SEA because they do not reach a level of significance as outlined in the PEA. Noise levels resulting from the proposed action would not exceed typical noise levels expected from construction equipment or generators. Noise generated by construction and operation of the facility would be

		<p>temporary or short-term in nature. There would be minor to moderate temporary adverse noise effects during construction of the safe room. The applicant must follow the noise mitigation measures as identified in Section 7 of the PEA to the maximum extent possible. These measures include limiting construction activities to normal business hours and avoiding construction activities within 200 feet of noise-sensitive receptors such as schools, hospitals, residential areas, nursing homes, etc.</p>
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In compliance with FEMA regulations implementing Executive Order (EO) 11988, Floodplain Management, FEMA is required to carry out the 8-step decision-making process for actions that are proposed in the floodplain per 44 CFR §9.6. Step 1 is to determine whether the project is located in the floodplain. Because FEMA considers the construction of community safe rooms as critical actions, the proposed project must be reviewed to determine whether it is located within the 100-year or 500-year floodplain.

FEMA has determined that the Proposed Action Alternative is located in the 500-year floodplain, Shaded Zone X, as depicted on both the effective Flood Insurance Rate Map (FIRM) panel 22051C0135E, dated 3/23/1995 (see Figure 2) and the Revised Preliminary FIRM panel 22051C0215F, dated 11/9/2012 (see Figure 3). A Shaded X area indicates moderate flood hazard areas that are between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. A Shaded Zone X can also indicate floodplains of lesser hazards, such as areas protected by levees from the 100-year flood.

Per EO 11988, FEMA must consider the best available data when making considerations for federal funding actions. The safe room would be located in Polder 41 based on the Revised Preliminary Flood Insurance Study (FIS). A polder is a piece of land enclosed by embankments. Polder 41 is not included in Table 2 (Summary of Stillwater Elevations) of the Revised Preliminary FIS. This means that during the latest analysis, this polder did not get flooded or was removed due to insignificant depth or size. Therefore, there is no 500-year elevation designated for the safe room location based on the Revised Preliminary FIS.

Per the 1995 effective FIRM (22051C0135E), which is still the adopted FIRM of the community for the purposes of flood insurance and floodplain management (i.e. the basis for the local floodplain ordinance and floodplain permitting), the proposed safe room falls within Ponding Area 11. Table 1 of the FIS that substantiates the FIRM indicates that the 500-year elevation for Ponding Area 11 is 6.5 feet National Geodetic Vertical Datum (NGVD).

Step 2 is to notify and involve the public in the decision-making process, which will be incorporated into the notice of availability for this SEA.

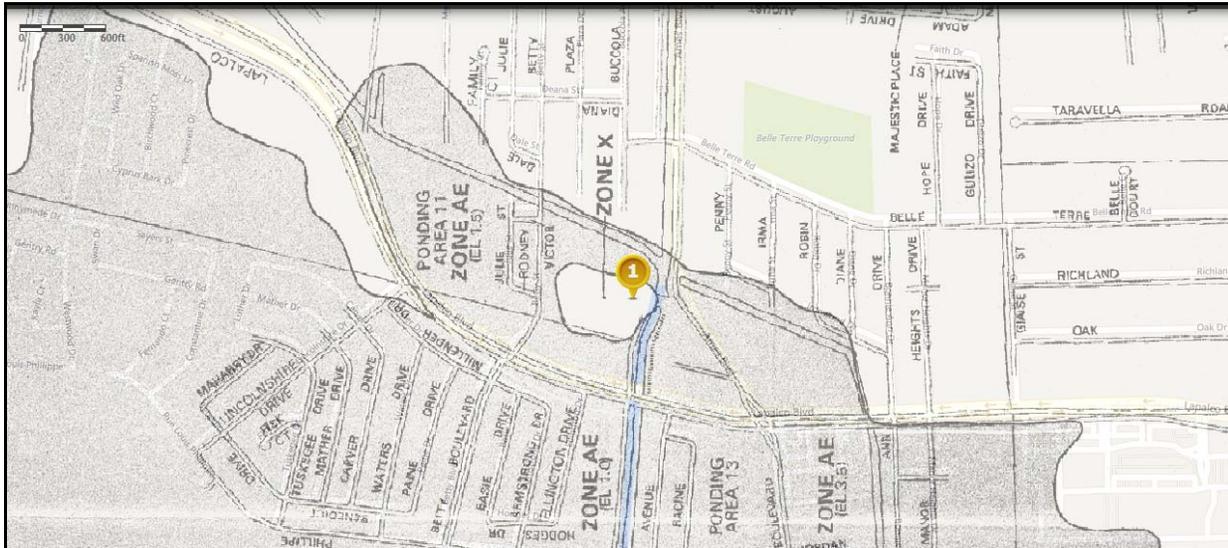


Figure 2: Effective FIRM with Safe Room Site Indicated.
Source: FEMA Map Service Center (<https://msc.fema.gov/portals>).

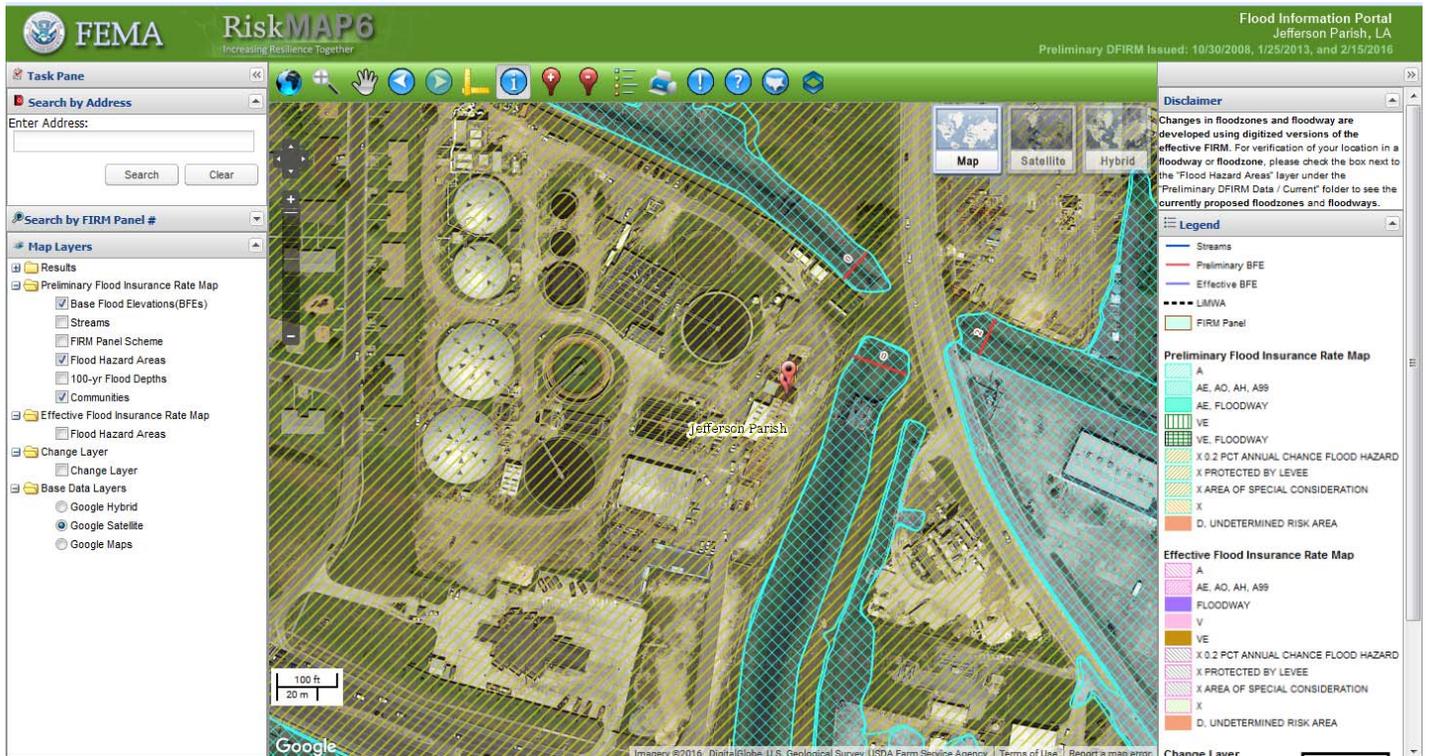


Figure 3: Preliminary FIRM with Safe Room Site Indicated.
Source: FEMA RiskMAP6 (<http://maps.riskmap6.com/LA/Jefferson/>).

Step 3 is to identify and evaluate practicable alternatives to locating the proposed project in the floodplain, including alternative sites and actions outside of the floodplain. The areas surrounding the proposed safe room location are also located in the 500-year or 100-year floodplains as indicated by both the effective FIRM and the Revised Preliminary FIRM. There are no locations that are close to the sewer treatment plant that are outside the 500-year

floodplain. The proposed site was selected for proximity to and easy access by sewer plant operators that will remain on-site to maintain the operation of the system. Jefferson Parish understands protecting the infrastructure is important, however protecting the lives of the individuals that service the infrastructure during high wind events is of utmost importance. To meet that [purpose and need, the safe room must be built at the sewer treatment site, which is in the 500 year floodplain. The No Action Alternative does not meet the purpose and need for the federal action, therefore it is not a practicable alternative. No practicable alternative site or action outside of the 500-year floodplain exists.

Step 4 is to identify impacts associated with occupancy and modification of the floodplain and support of floodplain development that could result from pursuing the Proposed Action Alternative. Per 44 CFR 9.10 “Identify impacts of proposed actions,” FEMA should consider whether the proposed action will result in an increase in the useful life of any structure or facility in question, maintain the investment at risk and exposure of lives to the flood hazard, or forego an opportunity to restore the natural and beneficial values served by floodplains or wetlands. FEMA should specifically consider and evaluate impacts associated with modification of floodplains; additional impacts which may occur when certain types of actions may support subsequent action which have additional impacts of their own; adverse impacts of the proposed actions on lives and property and on natural and beneficial floodplain values; and these three categories of factors: flood hazard-related factors, natural values-related factors, and factors relevant to a proposed action’s effects on the survival and quality of wetlands. Per 44 CFR, natural values-related factors include, water resource values (natural moderation of floods, water quality maintenance, and ground water recharge); living resource values (fish and wildlife and biological productivity); cultural resource values (archeological and historic sites, and open space recreation and green belts); and agricultural, aquacultural and forestry resource values. Factors relevant to a proposed action’s effects on the survival and quality of wetlands include public health, safety, and welfare, including water supply, quality, recharge and discharge; pollution; flood and storm hazards; and sediment and erosion; maintenance of natural systems, including conservation and long term productivity of existing flora and fauna, species and habitat diversity and stability, hydrologic utility, fish, wildlife, timber, and food and fiber resources; and other uses of wetlands in the public interest, including recreational, scientific, and cultural uses.

Building the safe room in the floodplain could potentially increase the risk of structural damage to the safe room itself due to flooding. In addition, there is safety risk to the populations that might be sheltering in the safe room during a 500 year flood event. It is not anticipated that the Proposed Action Alternative will result in an increased base discharge nor should it increase the flood hazard potential to other structures. The City of Marrero and surrounding areas is already developed and the majority is located in the 100- or 500-year floodplain. The addition of a safe room to protect lives in an already built-up area is not anticipated to encourage development in the floodplain beyond what is already in place. The safe room is intended to serve a targeted population of sewer operators and it is not anticipated that the construction of the safe room will encourage increased occupancy in the surrounding floodplain areas. The safe room site is an existing sewer plant and it does not offer suitable habitat for any federally listed species and offers minimal habitat for common species in its current state (i.e. prior to safe room construction).

The functions of the floodplain to provide flood storage and conveyance, filter nutrients and impurities from runoff, reduce flood velocities, reduce flood peaks, moderate temperature of water, reduce sedimentation, promote infiltration and aquifer recharge, and reduce frequency and

duration of low surface flows will remain unchanged after the implementation of the project. Development of the site will not impact groundwater recharge. Water quality may be impacted during the construction phase due to sedimentation and run-off. These impacts are considered to be minor and temporary effects to water quality that would be at or below water quality standards or criteria. The proposed action would not cause or contribute to existing exceedances of water quality standards on a short-term or prolonged basis. There will not be impacts to wetlands as there are none in the project area.

Floodplains also provide services in the form of providing fish and wildlife habitat, breeding, and feeding grounds. These floodplain values will not be adversely impacted and the overall integrity of the ecosystem will not be impacted. The project area is heavily developed and wildlife habitat has already been removed from the sewer treatment facility. The addition of a safe room to the existing developed campus will not cause any additional impacts. FEMA has determined the project will have no effect on threatened and endangered species and will not adversely modify or otherwise affect critical habitat. The proposed action would have no impacts to native species and population levels of native species would not be affected.

Step 5 is to minimize the potential adverse impacts and support to or within floodplains identified under Step 4 and restore and preserve the natural and beneficial values served by floodplains. Many of the impacts discussed above are considered insignificant and mitigation is not practicable or warranted. During the construction phase, the proposed action would have minor temporary effects to water quality that would be at or below water quality standards or criteria. To address any potential short-term water quality impacts that might result from construction, Jefferson Parish will employ best management practices (BMPs) to reduce stormwater runoff from the construction site. Implementation of these BMPs are a requirement of the PEA FONSI. The project is located in the coastal management zone, and while no impacts to the coastal zone are anticipated, Jefferson Parish is required to coordinate with the Louisiana Office of Coastal Management to obtain any permits prior to initiating work. As explained above, construction of the safe room is not expected to result in an increased base discharge nor will it increase flood hazard to other structures. The safe room footprint is minor when compared to the extensiveness of the 500-year and 100-year floodplain in the City of Marrero and surrounding areas in Jefferson Parish. In order to reduce the impacts identified in Step 4 of flooding on the proposed new structure and its occupants, the structure will be elevated at or above the 500-year elevation because the construction of a safe room is considered a critical action. Because FEMA must use the stricter, more conservative standard for federal funding actions, the safe room must be elevated to the 500-year elevation of 6.5 feet NGVD as indicated in the FIS for the effective FIRM. In addition, Jefferson Parish will be required to coordinate with the local floodplain administrator and obtain required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to the state and FEMA for inclusion in the permanent project files. Obtaining a permit from the floodplain manager will ensure that the safe room is constructed in accordance with the local floodplain ordinance and in accordance with the minimum floodplain management criteria set forth in 44 CFR Part 60. The project will be in compliance with the National Flood Insurance Program.

Step 6 is to determine whether the proposed action is practicable and to reevaluate alternatives. Per the discussion above, including elevating to mitigate flood risk to the safe room and the unavailability of a location outside of the floodplain, the Proposed Action Alternative is the only practicable alternative for providing protection to the operators of the sewer treatment plant.

Step 7 requires that the public be provided with an explanation of any final decision that the floodplain is the only practicable alternative. In accordance with 44 CFR §9.12, Jefferson Parish must prepare and provide a final public notice 15 days prior to the start of construction activities. Documentation of the final public notice is to be forwarded to GOHSEP and FEMA for inclusion in the permanent project files.

Step 8 is the review of the implementation and post-implementation phases of the proposed action to ensure that the requirements stated in 44 CFR Part 9.11 are fully implemented. The proposed safe room project will be constructed in accordance with applicable floodplain development requirements and in line with the conditions outlined below.

V. Mitigation

1. Jefferson Parish is responsible for coordinating with and obtaining any required Coastal Use Permit(s) or other authorizations from the Louisiana Department of Natural Resources Office of Coastal Management's Permits and Mitigation Division prior to initiating work. The applicant must comply with all conditions of the required permits. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to GOHSEP and FEMA for inclusion in the permanent project files.
2. Jefferson Parish must coordinate with the local floodplain administrator and obtain any required permits prior to initiating work. All coordination pertaining to these activities and applicant compliance with any conditions should be documented and copies forwarded to GOHSEP and FEMA for inclusion in the permanent project files.
3. Jefferson Parish must elevate the safe room at or above the 500-year floodplain elevation of 6.5 feet NGVD as established by the effective FIRM panel 22051C0135E, dated 03/23/1995.
4. Jefferson Parish must issue a final public notice per 44 CFR Part 9.12(e) at least 15 days prior to the start of work.

In addition, Jefferson Parish will be required to comply with the conditions that are stated in the PEA FONSI, dated June 2, 2011, for the Proposed Action Alternative (see Appendix A).

VI. Agencies Consulted (see Appendix B)

Louisiana Office of Coastal Management
Louisiana State Historic Preservation Office

VII. Public Comment

A public notice advertising the availability of this Draft SEA for public review and comment will be posted in the local newspaper of record and on the FEMA website at <http://www.fema.gov/library/index.jsp>. The Draft SEA will be available at a local repository and at <http://www.fema.gov/library/index.jsp>. A 15-day public comment period will commence on the initial date of the

public notice. FEMA will consider and respond to all public comments in a Final SEA. If no substantive comments are received, the Draft SEA will become final and a Finding of No Significant Impact (FONSI) will be issued for the project.

VIII. List of Preparers/Reviewers

Dorothy Cook, Preparer, Environmental Specialist, FEMA Region 6
Kevin Jaynes, Reviewer, Regional Environmental Officer, FEMA Region 6

IX. References

FEMA (Federal Emergency Management Agency). 2015. FEMA P-361: Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms, Third Edition. Available on-line at <http://www.fema.gov/library/viewRecord.do?id=1657>. Accessed July 25, 2016.

FEMA. 2011. Programmatic Environmental Assessment for Hazard Mitigation Safe Room Construction. Available on-line at <http://www.fema.gov/library/viewRecord.do?id=4670>. Accessed July 25, 2016.

USFWS (U.S. Fish and Wildlife Service). 2016. Information for Planning and Conservation: Resources in Jefferson Parish, Louisiana. Available on-line at <https://ecos.fws.gov/ipac/project/5MR5CC53B5HFRNPMXSYMFXCMEM/resources>. Accessed July 25, 2016.