DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, VICKSBURG DISTRICT
4155 CLAY STREET
VICKSBURG, MS 39183-3435

SUBJECT: Section 592 Stormwater Drainage Improvements Project, Hattiesburg, Mississippi EA #116

PUBLIC NOTICE

To Whom It May Concern:

A draft Finding of No Significant Impact (FONSI), along with the draft Environmental Assessment (EA) for the Section 592, Stormwater Drainage Improvements Project in Hattiesburg, Mississippi is enclosed for your review and comment. This project involves repairing and replacing stormwater drainage pipes. Please provide comments by 23 May 2024, to the above address, ATTN: CEMVN-PDN-UDP.

If you have any questions or comments concerning the draft FONSI or EA, please contact Mr. Taylor Piefke of this office by telephone (601) 631-5087 or email Taylor.Piefke@usace.army.mil.

Sincerely,

Mark Smith
Chief, Environmental Compliance Branch
Regional Planning and Environment Division South

Enclosure

Draft Finding of No Significant Impact

Section 592 Stormwater Drainage Improvements Project, Hattiesburg, Mississippi EA #116

As required by the Procedures for Implementing the National Environmental Policy Act (33 CFR Part 230), the attached draft Environmental Assessment (EA) of a proposal to improve and repair the City of Hattiesburg's stormwater drainage system has been completed by the U.S. Army Corps of Engineers, Regional Planning and Environment Division South, Vicksburg District. The draft EA addressed reasonably foreseeable impacts associated with replacing and repairing existing stormwater pipes.

Based on the information provided in the draft EA, the proposed action would result in insignificant adverse effects on the environment. In addition, no historic properties listed in or determined eligible for inclusion in the National Register of Historic Places would be affected by the project. Therefore, an Environmental Impact Statement is not warranted, and a Finding of No Significant Impact is appropriate.

(Date)

Christopher D. Klein
Colonel, Corps of Engineers
District Commander

Attachment

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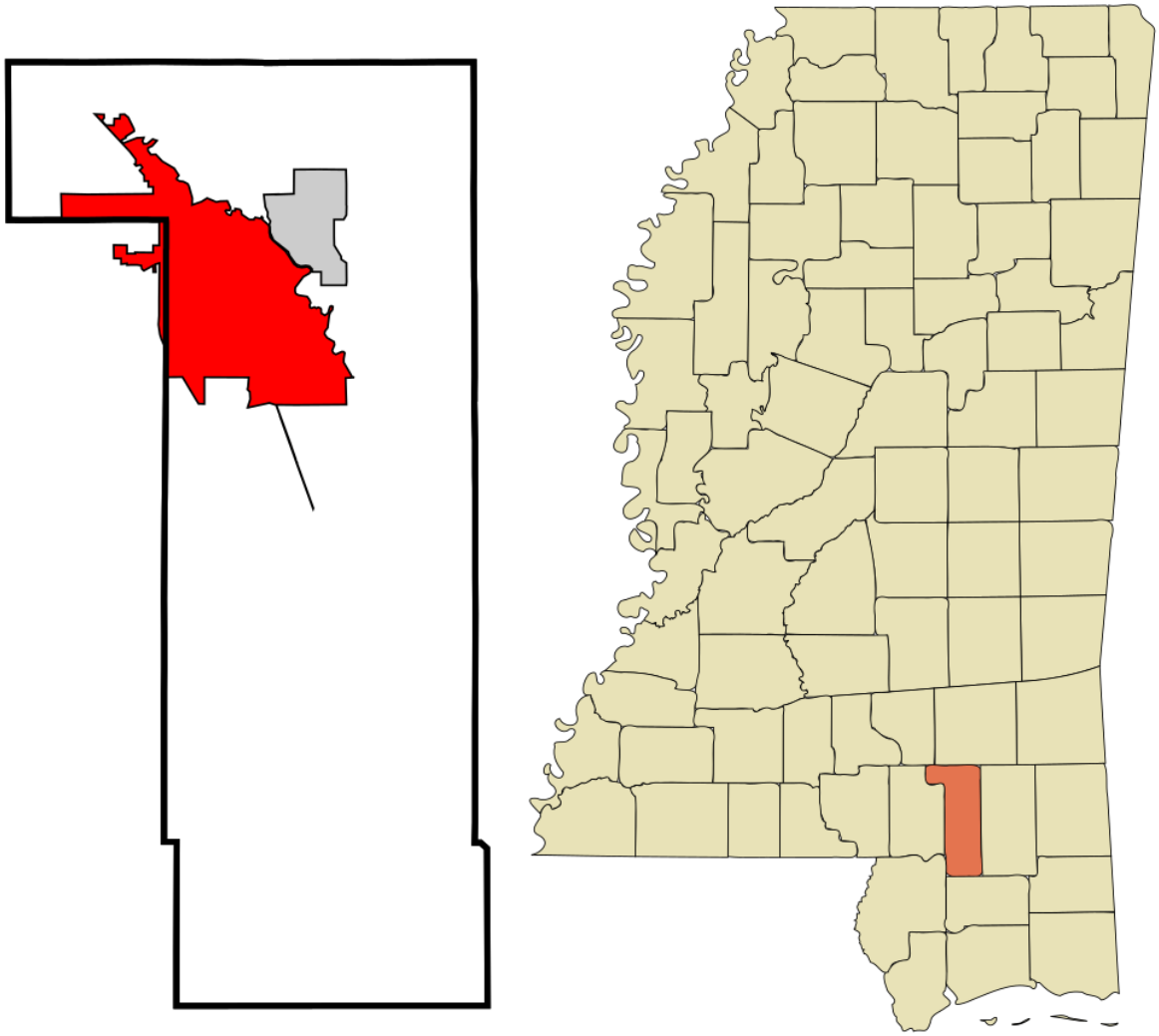
DRAFT ENVIRONMENTAL ASSESSMENT

SECTION 592
STORMWATER DRAINAGE IMPROVEMENTS
HATTIESBURG, FORREST COUNTY, MISSISSIPPI
EA #116



U.S. Army Corps of Engineers
Vicksburg District
Regional Planning and Environment Division South
Vicksburg Planning Branch

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1.0 INTRODUCTION

The U.S. Army Corps of Engineers (USACE), Mississippi River Valley Division, Regional Planning and Environment Division South (RPEDS), has prepared this Environmental Assessment (EA) for the Vicksburg District (MVK) to evaluate the potential impacts of repairing and improving the current stormwater drainage in the City of Hattiesburg, Mississippi.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality's Regulations (40 CFR §1500-1508), as reflected in the USACE Engineering Regulation 200-2-2. This EA provides sufficient information on potential adverse and beneficial environmental effects to allow the District Commander, USACE, MVK, to make an informed decision on the appropriateness of an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

1.1 PROPOSED ACTIONS

The City of Hattiesburg proposes to improve the city's stormwater drainage system by rebuilding and rehabilitating a total of 3,030 linear feet of concrete pipe. Construction would occur at South 10th Avenue (Figure 1) and within midtown Hattiesburg (Figure 2).

The proposed actions at South 10th Avenue would consist of rehabilitating 170 linear feet of 42-inch reinforced concrete pipe located between South 10th Avenue on the East and an open drainage ditch on the West. Borrow material will only be used if existing material in the project area is found to be unsuitable for the backfill of the required trench. If outside borrow material is required, the borrow material would be imported from existing local borrow pit(s). The project would take approximately 120 days to construct.

The proposed actions at midtown Hattiesburg would involve rebuilding approximately 1,650 linear feet of Arlington Loop, 350 linear feet of Chevy Chase and Lorraine Streets, and 860 linear feet of 31st and 30th Avenue. The construction would take approximately 15 months and involve the replacement and installation of multiple stormwater pipes and inlets. The proposed actions at midtown would require approximately 8,200 cubic yards of borrow material that would be imported from an existing local borrow pit(s).

1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of this project is to bring needed drainage improvements to the failing stormwater system in the City of Hattiesburg. On South 10th Avenue a 42-inch storm drain has deteriorated and requires replacement. The pipe has begun to allow soil to be pulled into it during heavy rainfalls. As a result, a large hole has developed near residential homes. The reduction in flow capacity has also caused extensive flooding upstream of the damaged pipe.

Streets within the project area have recently received significant underground sewer infrastructure improvements and are scheduled to be included in a streetscape project scheduled for the near future. Before this can occur, problems with water flow and drainage in the area must be addressed.

1.3 AUTHORITY

Public Law 106-53 of 1999, Section 592, authorizes design and construction assistance for water-related environmental infrastructures and resource protection and development projects in Mississippi, including projects for wastewater treatment and related facilities, elimination or control of combined sewer overflows, water supply and related facilities, environmental restoration, and surface protection and development. This project meets the qualification requirements under Section 592.

1.4 PUBLIC CONCERNS

The deteriorated storm drain has filled in and threatens residents with potential flood damages during rain events. As future failures occur, more residents and commercial properties would be threatened with enhanced flooding and possible structure damage.

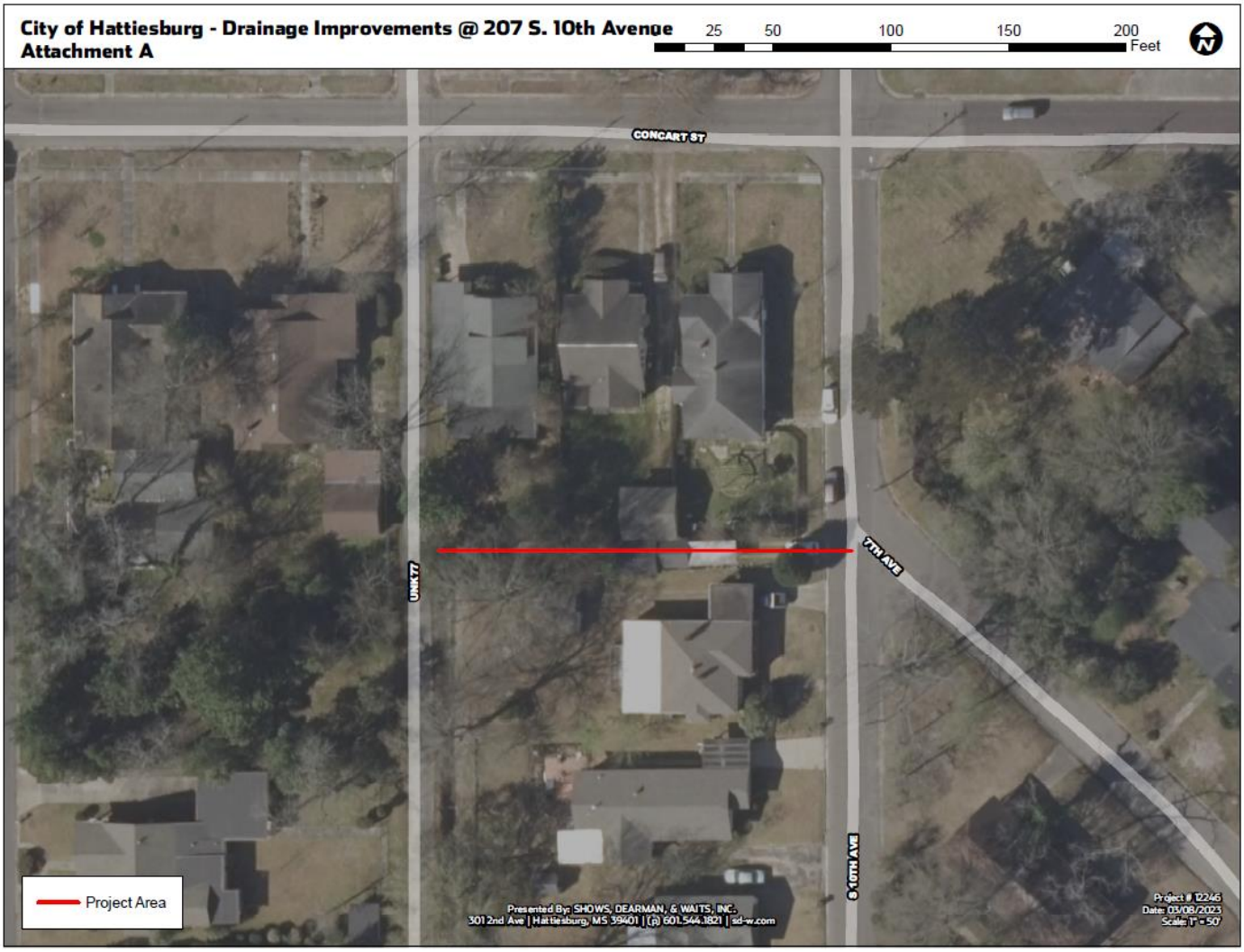

Figure 1: Site map of proposed project area at South 10th Avenue, Hattiesburg, MS

Figure 2: Site map of proposed project area at midtown, Hattiesburg, MS

2.0 ALTERNATIVES TO THE PROPOSED ACTION

Two alternatives including the proposed action were considered:

Alternative 1- No Action
Alternative 2- Rebuild and Rehabilitate the Stormwater Drainage System

2.1 ALTERNATIVE 1 No Action Condition

The No Action alternative would continue the use of the current stormwater drainage system in the City of Hattiesburg. With the current drainage system more holes are likely to form near residential structures and flooding would continue upstream of the current hole. Future projects designed to improve the City of Hattiesburg at the midtown site would also be delayed.

2.2 ALTERNATIVE 2 Rebuild and Rehabilitate the Stormwater Drainage System

Alternative 2 would bring needed stormwater drainage improvements to the City of Hattiesburg. The city proposes to rehabilitate and rebuild stormwater drainage systems at South 10th Avenue and midtown by replacing and installing multiple stormwater pipes and inlets. The proposed actions would require approximately 8,200 cubic yards of borrow material. All borrow material would be sourced from existing borrow pits.

3.0 AFFECTED ENVIRONMENT

The proposed project is located within the city limits of Hattiesburg, Mississippi. Hattiesburg is located in Forrest County and partially in Lamar County. The city is approximately 91 miles southeast of Jackson, MS on Highway 49. This project area includes multiple mixed-use developments comprised of offices, residential structures, and commercial buildings.

3.1 CLIMATE

Climate in the area is humid subtropical with average winter low temperatures of 40°F and winter highs averaging 61°F. Summer temperatures have an average low of 72°F with highs averaging around 91°F. Total annual precipitation is approximately 62 inches spread out over the year.

3.2 GEOLOGY

The project area occurs in the city of Hattiesburg, MS. The soil in the project area is mostly comprised of Falkner-Susquehanna Urban land complex soils (90%) with 2 to 5 percent slopes. This soil type is characterized as being deep, somewhat poorly drained, and having very low to moderately low permeability.

3.3 RELEVANT RESOURCES

This section contains a description of relevant resources that could be impacted by the project. The relevant resources (Table 1) described in this section are those recognized by laws, executive orders, regulations, and other standards of national, state, or regional agencies and organizations; technical or scientific agencies, groups, or individuals; and the general public.

The following resources have also been considered and determined not be affected by any alternative under consideration: Terrestrial Resources, Agricultural Lands; Wetlands; Bottomland Hardwood Forests; Aquatic Resources/Fisheries; Coastal Zone; Air Quality; Public Use of Lands; Prime or Unique Farmland; Unique or Rare Wildlife Habitat; Indian Trust Resources; Soundscapes/Noise.

Table 1. Relevant Resources			
Resource	**Institutionally Important**	**Technically Important**	**Publicly Important**
Wildlife	FWCA of 1958, as amended and the Migratory Bird Treaty Act of 1918.	Wildlife is a critical element of many valuable aquatic and terrestrial habitats; are an indicator of the health of various aquatic and terrestrial habitats; and many species are important commercial resources.	The high priority that the public places on their esthetic, recreational, and commercial value.
Threatened and Endangered Species	The Endangered Species Act of 1973, as amended; the Marine Mammal Protection Act of 1972; and the Bald and Golden Eagle Protection Act of 1940.	USACE; USFWS; National Marine Fisheries Service; NRCS; Environmental Protection Agency (EPA); Mississippi Department of Wildlife, Fisheries, and Parks (MDWFP) cooperate to protect these species. The status of such species provides an indication of the overall health of an ecosystem.	The public supports the preservation of rare or declining species and their habitats.
Hydrology and Water Quality	Clean Water Act of 1977, Fish and Wildlife Coordination Act, Coastal Zone Management Act of 1972, and MS State & Local Coastal Resources Act of 1978.	USACE, U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service, Natural Resources Conservation Service, U.S. Environmental Protection Agency, the Mississippi Department of Environmental Quality, and wildlife/fishery offices recognize value of fisheries and good water quality. The national and state standards established to assess water quality.	Environmental organizations and the public support the preservation of water quality and fishery resources and the desire for clean drinking water.
Cultural Resources	NHPA of 1966, as amended; the Native American Graves Protection and Repatriation Act of 1990; and the Archeological Resources Protection Act of 1979.	State and Federal agencies document and protect sites. Their association or linkage to past events, historically important persons, and design and construction values and for their ability to yield important information about prehistory and history.	Preservation groups, Native American tribes, and private individuals support protection and enhancement of historical resources.
Environmental Justice	Executive Orders 12898 & 14008, Federal Actions to Address Environmental Justice in Communities of Color and People Experiencing Poverty, and the Department of Defense's Strategy on Environmental Justice of 1995, & Tackling the climate crisis at home and abroad 2021.	The social and economic welfare of communities of color and people experiencing poverty may be positively or disproportionately impacted by the preferred plan.	Public concerns about the fair and equitable treatment (fair treatment and meaningful involvement) of all people with respects to environmental and human health consequences of federal laws, regulations, policies, and actions.
Greenhouse Gas Emissions	Executive Order 13990.	Need to use science to reduce greenhouse gas emissions and bolster resilience to the impacts of climate change.	Virtually all citizens express a desire for clean air.

4.0 EXISTING CONDITIONS

4.1 WILDLIFE

The project area is within a highly developed community in a neighborhood and the midtown area of the city. Wildlife in vicinity of the proposed actions are those recreational and aesthetic species typical for the southern United States and include the usual compliment of wildlife species pursued by the public such as white-tailed deer (*Odocoileus virginianus*), squirrels (*Sciuridae spp.*), rabbits (*Sylvilagus spp*.), and Northern mockingbirds (*Mimus polyglottos*) as well as other terrestrial mammals such as raccoons (*Procyon lotor*) and brown rats (*Rattus norvegicus*). No individual species of significant commercial value occur within the project area.

4.2 THREATENED AND ENDANGERED SPECIES

According to the results obtained from the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) tool on 3 January 2024 there are a total of nine threatened, endangered, proposed, or candidate species listed in Mississippi that could inhabit the immediate project area (Attachment 1). The federally listed species that could occur in the project area are as follows:

Alligator Snapping Turtle	(*Macrochelys temminckii*)	Proposed Threatened
Black Pinesnake	(*Pituophis melanoleucus lodingi*)	Threatened
Gopher Tortoise	(*Gopherus polyphemus*)	Threatened
Yellow-blotched Map Turtle	(*Graptemys flavimaculata*)	Threatened
Eastern Black Rail	(*Laterallus jamaicensis jamaicensis*)	Threatened
Gulf Sturgeon	(*Acipenser oxyrinchus desotoi*)	Threatened
Pearl Darter	(*Percina aurora*)	Threatened
Louisiana Quillwort	(*Isoetes louisianensis*)	Endangered
Monarch Butterfly	*(Danaus plexippus*)	Candidate

The alligator snapping turtle (*Macrochelys temminckii*) is proposed to be listed as endangered and is one of the largest freshwater turtles in the world, with adults sometimes exceeding two feet in shell length and a weight that can reach nearly 250 pounds. The back of the shell is distinctly jagged, and the top of the shell (carapace) has three rows of "spikes" or knobs running lengthwise along the entire length of the shell. Alligator snapping turtles spend almost their entire lives in water, normally venturing onto land only to lay eggs. While beneath the water's surface, these turtles are able to use their unique worm-like appendage located on the bottom of their mouth to lure in potential prey.

The black pinesnake (*Pituophismelanoleucus lodingi*) is a large dark brown to black non-venomous snake that may have a few white scales scattered over its body. It has a small head, stout body, short tail, and can grow up to 74 inches in length. Black pine snakes are endemic to the upland longleaf pine forests in Alabama, Mississippi, and Louisiana. Preferred habitat consists of sandy, well-drained soils with an overstory of longleaf pine, a fire-suppressed mid-story, and dense herbaceous ground cover. The USFWS service listed the black pinesnake as a threatened species due to continuing loss, degradation, and fragmentation of the longleaf pine habitats.

The gopher tortoise (*Gopherus polyphemus*) is a threatened species of tortoise native to the southeastern United States. The gopher tortoise is seen as a keystone species because it digs burrows that provide shelter for at least 360 other animal species. These species include gopher frogs (*Rana capito*), several species of snakes, such as the eastern indigo snake (*Drymarchon couperi*), small invertebrates, and burrowing owls (*Athene cunicularia*). Several species associated with gopher tortoise burrows are listed as endangered, threatened, or species of special concern by the USFWS. Therefore, conservation efforts focused on the gopher tortoise aid these species as well. The gopher tortoise is threatened by predation and habitat destruction.

The yellow-blotched map turtle (*Graptemys flavimaculata*), or yellow-blotched sawback, is part of the narrow-headed group of map turtles and is endemic to the southern United States. The carapace (upper shell) is olive to light brown, with conspicuous black spiny projections on top of the shell. Each costal scute (scale) has an irregular bright yellow or orange blotch. This species is listed as threatened under the Endangered Species Act due to a recent decline in population numbers. This can be attributed to a low reproductive frequency as compared with most other map turtles and a high level of nest mortality caused by fish crow predation and river flooding. Since yellow-blotched map turtles are freshwater turtles mainly found in the Pascagoula River of Mississippi, human disturbances, like an increase in boats in the area of inhabitance, has also led to endangerment by nets and many physiological issues due to reduced basking time.

Eastern black rails (*Laterallus jamaicensis jamaicensis*) are a tiny marsh bird, no bigger than a sparrow. They are extremely secretive and are rarely seen in flight. Adults are gray-black in coloration, with white speckled upperparts, and has a grayish crown, a chestnut-colored nape of the neck, and a short tail, as described by Cornell University in 2019. These birds also have red eyes, black bills, and dusty pink or wine-colored legs. Eastern black rail habitat can be tidally or non-tidally influenced, and range in salinity from salt to brackish to fresh. They also require dense vegetative cover that allows movement underneath the canopy.

In 1991, Gulf sturgeon (*Acipenser oxyrinchus desotoi*) were listed as threatened under the Endangered Species Act after their population was greatly reduced or eliminated throughout much of their range due to overfishing, dam construction, and habitat degradation. The Gulf sturgeon is a sub-species of the Atlantic sturgeon that can be found from Lake Pontchartrain and the Pearl River system in Louisiana and Mississippi to the Suwannee River in Florida. Hatched in the freshwater of rivers, Gulf sturgeon head out to sea as juveniles, and return to the rivers to over summer or spawn when they reach adulthood. The Gulf sturgeon has five rows of bony plates known as scutes that run along its body and a snout with four barbels (slender, whisker-like, soft tissue projections) in front of its mouth. Similar to sharks, Gulf sturgeon have tails where one side, or lobe, is larger than the other. All of these features give the fish its unique look.

The pearl darter (*Percina aurora*) is a small threatened species of freshwater ray-finned fish that is native to the United States. This fish is now limited to the Pascagoula River drainage in Louisiana and Mississippi and has apparently been extirpated from the Pearl River. The total range is about 200 square kilometers. The pearl darter grows up to 57mm for females and 64mm long for males. It has a black spot at the base of the tail fin and the breeding male has a few dark bands. It is usually mature around one year of age The pearl darter can be found in riffles and shallow, fast-moving river water. It is threatened by siltation, pollution, habitat destruction, and urbanization.

Louisiana quillwort (*Isoetes louisianensis*) is a small, semi-aquatic, facultative evergreen plant with spirally-arranged leaves (sporophylls) arising from a globose, two-lobed corm. The pliant, hollow leaves are transversely septate and measure 0.12 inches wide and up to 16 inches long. Spore-containing structures (sporangia) are embedded in the pale, broadened bases of the leaves. The Louisiana quillwort occurs in small blackwater streams (water often tea-colored, stained with tannins released from leaf decomposition) and predominantly on sand and gravel bars within the stream. These plants live for periods underwater and are regularly inundated as much as 20 inches following rains and may be inundated for long periods of time in wet seasons.

The monarch butterfly (*Danaus plexippus*) is a candidate insect species, thus there are no section 7 requirements for this species, but conservation is strongly encouraged by the USFWS and others of conservation interest. Adult monarch butterflies are large and conspicuous, with bright orange wings surrounded by a black border and covered with black veins. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias spp*.), and larvae emerge after two to five days. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks. Individual monarchs in temperate climates, such as eastern and western North America, undergo long-distance migration, and live for an extended period of time. In the fall, in both eastern and western North America, monarchs begin migrating to their respective overwintering sites. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing.

4.3 HYDROLOGY AND WATER QUALITY

Section 303(d) of the Clean Water Act requires states to identify water bodies that are considered impaired due to not meeting one or more applicable water quality standards. There are no impaired bodies of water within the project area or its watershed. There are no wild and scenic rivers in the project area.

4.4 CULTURAL RESOURCES

A background and literature review were conducted by USACE staff in January and February 2024. Historic properties in the vicinity of both work sites: Midtown Hattiesburg area (Arlington Loop, Chevy Chase and Lorraine Streets, and 30th and 31st Avenues) and S. 10th Avenue. This included a review of the National Register of Historic Places (NRHP) database, the Mississippi Department of Archives and History (MDAH), Mississippi Historic Resources Inventory Historic Resources Inventory Map (MDAH Website), historic aerial photography, historic map research, and a review of cultural resources survey reports. The literature review revealed a considerable number of cultural resources as well as cultural resources investigations within the immediate vicinities of the project's Areas-of-Potential Effect (APEs).

A total of 44 cultural resources surveys/studies have been conducted near to the project areas, most between 2010 and 2023 (80%, n=35). Only three archaeological sites, nineteenth- through twentieth-century historic railroads, (New Orleans and Northeastern Railroads [22Fo0121 and 22Fo0184] and Pearl and Leaf Rivers Railroad [22Fo0134]) have been recorded, all located closer to the S. 10th Avenue work site and considered to be of undetermined NRHP eligibility. Over 3,000 historic properties have been inventoried in the greater Hattiesburg area, most of which fall within the search radius of the proposed project and are too numerous to list individually. Of these, 28 have been individually designated as Mississippi Landmarks and 27 individually listed to the NRHP, all dating between 1902 and 1967. Locally and Nationally listed historic districts in proximity to the project areas are all clustered mostly to the north and east of the S. 10th Avenue work site, mostly representing residential areas with some mixed commercial and civic properties dating between the 1880s and 1950s.

Replacement of the stormwater pipes and inlets will occur within the existing utility ROWs adjacent to the named roadways. Installation will typically involve location and exposure of the original pipes and inlets via excavation. All roadways, curb/gutters, or grassy areas within the ROW will be restored to existing conditions to lessen the project's impacts. Borrow material will only be used if existing material is found to be unsuitable for the backfill of the required trench and will be imported from nearby commercial sources.

4.5 ENVIRONMENTAL JUSTICE

The Department of Defense's Strategy on Environmental Justice (EJ), which incorporates Executive Orders No. 12898, 59 Fed. Reg. 7629 (11 Feb. 1994), No. 13990 (20 Jan. 2021), and No. 14008, 86 Fed. Reg. 7619 (20 July 2021), directs federal agencies to identify and address any adverse human health or environmental effects, as well as climate crisis issues, caused by federal actions that have a disproportionately high effect on communities of color and/or people/households with incomes below the federal poverty line.

The Justice40 Initiative implements the guidance set forth in Executive Order 14008 (Tackling the Climate Crisis at Home and Abroad) and mandates that "40 percent of the overall benefits" of federal investments from covered programs should flow to disadvantaged/ environmental justice communities. This is a shift from minimizing adverse impacts to sharing benefits.

The Environmental Protection Agency's (EPA) EJ Screen tool and the Council of Environmental Quality's (CEQ) Climate and Economic Screening Justice Tool (CEJST) were used to analyze impacts to people/households with incomes below the federal poverty line and racial and ethnic groups in the project area. According to the EPA's CEJST tool part of the project area is designated as disadvantaged. The South 10th Avenue project site is within a disadvantaged area while, the midtown project site is not designated as disadvantaged. Within the South 10th Avenue project area approximately 49% of residents have incomes below the federal poverty line and approximately 38% of residents are classified as people of color (Attachment 2). Within the midtown project area approximately 65% of residents have incomes below the federal poverty line and approximately 40% of residents are classified as people of color (Attachment 3).

4.6 HAZARDOUS, TOXIC, AND RADIOLOGICAL WASTE (HTRW)

USACE is obligated under Engineer Regulation (ER) 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste (HTRW) contamination within the vicinity of proposed actions. ER 1165-2-132 identifies that HTRW policy is to avoid the use of project funds for HTRW removal and remediation activities.

A record search of the project areas is currently being conducted using the EPA's EnviroMapper online query system for regulated facilities. A query of EPAs listed facilities for Superfund Sites (National Priorities List sites), Resource Conservation and Recovery Act sites (RCRA), Toxic Release Inventory (TRI) sites, Brownfield properties and Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) sites would be performed before a FONSI signature is received. No facilities or sites within a one-mile radius of the project areas are expected to be identified as HTRW concerns.

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 WILDLIFE

Future Conditions with No Action
Without implementation of the proposed action, no direct or indirect impacts to wildlife would occur.

Future Conditions with the Proposed Action
This project is located within urban and residential areas within pre-existing right-of ways (ROW). Since the midtown project site is in an urban setting and would only involve construction within the existing roads and stormwater system, the proposed actions are unlikely to adversely impact terrestrial species in the area. Terrestrial wildlife may be minorly disturbed by noise from the construction, but any species dispersed by the activity are expected to return to the vicinity once construction is complete. The proposed actions at the South 10th Avenue construction site would have similar temporary minor impacts on terrestrial wildlife since it is located within a highly residential area. No trees will be cleared during construction.

5.2 THREATENED AND ENDANGERED SPECIES

Future Conditions with No Action
Without implementation of the proposed action, no direct or indirect impacts to threatened and endangered species would occur.

Future Conditions with the Proposed Action
With implementation of the proposed action, there would be little reason to expect any adverse effects to threatened or endangered species. USACE completed Section 7 consultation on 3 January 2024 through USFWS's IPaC website (Attachment 1). Based upon the results of the species review implemented by an RPEDS biologist, lack of aquatic environments, and current conditions in the urbanized project area, the project sites do not support the necessary habitat types required for threatened or endangered species.

Therefore, it is USACE's determination that the proposed action would have no adverse effects on any threatened or endangered species including the alligator snapping turtle, black pinesnake, gopher tortoise, yellow-blotched map turtle, eastern black rail, gulf sturgeon, pearl darter, Louisiana quillwort, and monarch butterfly.

5.3 HYDROLOGY AND WATER QUALITY

Future Conditions with No Action
Without implementation of the proposed action, no direct or indirect impacts to ambient water quality would occur.

Future Conditions with the Proposed Action
With implementation of the proposed actions, there would be no disturbances to ambient water quality. Construction would not take place within or near any bodies of water. There are no impaired bodies of water or wild and scenic rivers within the project area or its watershed.

5.4 CULTURAL RESOURCES

Future Conditions with No Action
Without implementation of the proposed action, the conditions within the environment would continue as they have in the past and would be dictated by the natural land use patterns and processes that have dominated the area in the past.

Future Conditions with the Proposed Action
Based on the information presented here, USACE MVK has determined that there would be no adverse impacts to historic properties in the APE and that no further work is required, as defined in 36 CFR 800, given the non-invasive and non-intrusive nature of the CIPP process to rehabilitate the stormwater pipeline and in-kind replacement of stormwater pipes and inlets in the APE. Therefore, USACE MVK is making a finding of No Adverse Effects to Historic Properties for this undertaking. This project will be subject to the standard change in scope of work, unexpected discovery, and unmarked human burial sites act provisions.

In accordance with the National Historic Preservation Act (NHPA), USACE contacted the Alabama Coushatta Tribe of Texas, the Caddo Nation, the Chickasaw Nation, the Choctaw Nation of Oklahoma, the Jena Band of Choctaw Indians, the Mississippi Band of Choctaw Indians, the Muscogee (Creek) Nation, the Quapaw Nation, the Tunica-Biloxi Tribe of Louisiana, and the MS SHPO regarding this undertaking on March 4, 2024 and provided these parties the opportunity to consult, should they wish to do so. Concurrence was received from the MS SHPO on March 13, 2024.

5.5 ENVIRONMENTAL JUSTICE

Future Conditions with No Action
Without implementation of the proposed action, no direct or indirect environmental justice impacts would occur.

Future Conditions with the Proposed Action

Executive Orders No. 14008, No. 13990, and No. 12898 were considered while the project was analyzed in this EA. The EPA's EJ Screen and the CEQ's CEJST tools were utilized to locate people/households with incomes below the federal poverty line and racial and ethnic groups that live within the project areas (Attachments 2 and 3). The South 10th Avenue project site is designated as a disadvantaged area while, the midtown project site is not designated as disadvantaged.

It was determined that the construction of this project would not have any disproportionate effect on communities of color or people experiencing poverty in the surrounding area due to its relatively small footprint and lack of adverse environmental impacts. Improving the city of Hattiesburg's drainage and stormwater system would help prevent future flooding and more holes from forming within and near the disadvantaged residential area at the South 10th Avenue site. The project is not anticipated to have any significant adverse direct or indirect impacts on environmental justice.

5.6 HAZARDOUS, TOXIC, AND RADIOLOGICAL WASTE (HTRW)

Future Conditions with No Action

Without implementation of the proposed action, no direct or indirect HTRW impacts would occur.

Future Conditions with the Proposed Action

The results of the record search and site reconnaissance are expected to indicate that there is little reason to believe HTRW concerns would be encountered during this project. If any hazardous waste/substance is encountered during construction activities, the proper handling and disposal of these materials would be coordinated with the appropriate state agencies.

5.7 GREENHOUSE GAS EMISSIONS

Carbon dioxide (CO2) is the primary greenhouse gas emitted from human activities, chiefly through combustion of fossil fuels. Additionally, carbon levels in soil used for agricultural purposes tend to decrease over time as carbon is oxidized and released into the atmosphere. Increasing quantities of atmospheric greenhouse gases have resulted in measurable changes to the Earth's surface and ecosystems. CO2 equivalent is a unit that represents the warming effect of any given greenhouse gas on the global climate and is calculated by multiplying the mass of the gas by its warming potential, which describes the relative potency and residence time of the gas in the atmosphere. Thus, using a CO2 equivalent provides a common scale for measuring effects of different gases. The estimated existing and with-project CO2 equivalent conditions consist of the anticipated emissions produced by project area vehicular and construction emissions as well as anticipated carbon release from agricultural land soils.

In accordance with EO 13990 Sec. 5, the social cost of greenhouse gas emissions (SC-GHG) was considered in this EA. SC-GHG is an estimate of the monetized damages associated with incremental increases in greenhouse gas emissions and is intended to include changes in net agricultural productivity, human health, property damage from increased flood risk, and the value of ecosystem services. The SC-GHG is intended to be used for alternative comparison purposes and is determined as: SC-GHG = CO2 equivalent (metric tons) X social cost in dollars per metric ton of carbon dioxide or $51/metric ton.

Future Conditions with No Action

The amount of CO2 equivalent that would be emitted for the No Action alternative is currently being calculated. The SC-GHG produced by the No Action alternative would be included in this EA before final FONSI signature is received.

Future Conditions with the Proposed Action

The amount of CO2 equivalent that would be emitted via construction equipment is currently being calculated. However, the additional SC-GHG generated by construction of the project is expected to be negligible. The SC-GHG produced by the proposed actions would be included in this EA before final signature is received.

5.8 SECTION 404 CONSIDERATION

No permit is required pursuant to Section 404 of the Clean Water Act. However, any changes in project scoping or construction activities would need to be reassessed to determine if a permit would be required. The City of Hattiesburg would be responsible for obtaining any and all permits required for this project.

5.9 CUMULATIVE IMPACTS

The Council on Environmental Quality regulations (40CFR §1500-1508) implementing the procedural provisions of NEPA of 1969, as amended (42 U.S.C. 4321 et seq.), define cumulative effects as "the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR §1508.7)." Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

The City of Hattiesburg is planning future construction and infrastructure improvements after this project is complete. These additional projects are likely to have similar impacts as the project described in this EA. However, these impacts would likely be minor and temporary and would not cumulatively cause adverse effects.

The construction-related increases in truck traffic, noise and vibration, and vehicle and equipment emissions would likely cause wildlife to disperse from the project area. However, these species are expected to return after construction is complete. Construction activities would be limited to daylight hours, minimizing residential and commercial disruptions. Therefore, the analysis set forth in this report indicates that no significant adverse impacts to the various resources within the project area are anticipated under the future with-project conditions scenarios; therefore, the proposed action, coupled with other known projects, are not expected to result in significant cumulative impacts and would prove beneficial to the Hattiesburg community.

6.0 MITIGATION

The appropriate application of mitigation is to formulate an alternative that first avoids adverse impacts, then minimizes adverse impacts, and lastly, compensates for unavoidable impacts. The proposed project would be constructed within the existing stormwater system right-of-way and would have no impacts to wetlands or woodlands. Also, no significant impacts to aquatic or terrestrial resources would occur. Therefore, no mitigation would be required for the proposed project.

7.0 COORDINATION (RELEVANT AGENCIES)

Preparation of this EA and FONSI were coordinated with appropriate congressional, federal, state, and local interests, Native American Indian tribes, and other interested parties, including:

U.S. Fish and Wildlife Service
U.S. National Park Service
EPA, Region IV
Natural Resources Conservation Service
Advisory Council on Historic Preservation
Mississippi State Historic Preservation Officer

8.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Compliance with environmental laws and regulations consists of the following actions:

A. Coordination of this EA and FONSI with appropriate agencies, organizations, and individuals for review and comment.

B. USFWS confirmation that the proposed action would not likely adversely affect any threatened or endangered species.

C. Mississippi SHPO's concurrence with the Determination of No Effect on cultural resources.

Environmental compliance for the proposed action would be achieved upon coordination of this EA and FONSI with appropriate agencies, organizations, and individuals for their review and comments and HTRW determinations. The FONSI will not be signed until the proposed action achieves environmental compliance with applicable laws and regulations.

9.0 CONCLUSION

This project involves improving the City of Hattiesburg Mississippi's stormwater system. Specifically, the city proposes to rehabilitate and rebuild stormwater drainage systems at South 10th Avenue and midtown by replacing and installing multiple stormwater pipes and inlets. The MVK has assessed the environmental impacts of the proposed action and has determined that the proposed action would have no adverse impacts upon cultural resources and minimal to no impacts to air quality; terrestrial, aquatic, waterfowl, and wetland resources; recreation and aesthetics; HTRW concerns; water quality; threatened and endangered species; cultural concerns; flood plains; coastal resources; and environmental justice concerns. There are minimal cumulative impacts, adverse or beneficial, associated with the proposed action. The implementation of this project would aid in providing proper stormwater drainage to the City of Hattiesburg with only minor and temporary impacts to the natural environment in the project area.

10.0 PREPARED BY

EA No. 116 for the Hattiesburg Section 592 project and the associated FONSI were prepared by Mr. Taylor Piefke, RPEDS biologist, with relevant sections prepared by Mr. John Underwood, RPEDS Archeologist. The address of the preparers is:

U.S. Army Engineer District, Vicksburg
Regional Planning and Environment Division South
ATTN: CEMVN-PDN
4155 Clay Street
Vicksburg, Mississippi 39183

11.0 ATTACHMENTS

1. USFWS Species List
2. EPA EJ Screen Report South 10th Avenue Site
3. EPA EJ Screen Report Midtown Site

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
Phone: (601) 965-4900 Fax: (601) 965-4340

In Reply Refer To: January 03, 2024
Project Code: 2024-0032083
Project Name: Section 592 Hattiesburg Stormwater Drainage Improvements

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office. Please email consultation requests to MSFOSection7Consultation@fws.gov.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Bald & Golden Eagles
- Migratory Birds

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Mississippi Ecological Services Field Office
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213-7856
(601) 965-4900

PROJECT SUMMARY

Project Code: 2024-0032083
Project Name: Section 592 Hattiesburg Stormwater Drainage Improvements
Project Type: Drainage Project
Project Description: The City of Hattiesburg proposes to improve the city's stormwater drainage system by rebuilding and rehabilitating a total of 3,030 linear feet of concrete pipe. Construction would occur at South 10th Avenue (Figure 1) and within midtown Hattiesburg (Figure 2).

The proposed actions at South 10th Avenue would consist of rehabilitating 170 linear feet of 42-inch reinforced concrete pipe located between South 10th Avenue on the East and an open drainage ditch on the West. Borrow material will only be used if existing material in the project area is found to be unsuitable for the backfill of the required trench. If outside borrow material is required, the borrow material would be imported from existing local borrow pit(s). The project would take approximately 120 days to construct.

The proposed actions at midtown Hattiesburg would involve rebuilding approximately 1650 linear feet of Arlington Loop, 350 linear feet of Chevy Chase and Lorraine Streets, and 860 linear feet of 31st and 30th Avenue. The construction would take approximately 15 months and involve the replacement and installation of multiple storm sewer pipes and inlets. The proposed actions at midtown would require approximately 8,200 cubic yards of borrow material that would be imported from an existing local borrow pit(s).

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@31.3223213,-89.33485931860068,14z

Counties: Forrest County, Mississippi

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

BIRDS

NAME	STATUS
Eastern Black Rail *Laterallus jamaicensis ssp. jamaicensis*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/10477
General project design guidelines:
https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf

REPTILES

NAME	STATUS
Alligator Snapping Turtle *Macrochelys temminckii*	Proposed Threatened
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/4658	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	
Black Pinesnake *Pituophis melanoleucus lodingi*	Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.	
Species profile: https://ecos.fws.gov/ecp/species/452	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	
Gopher Tortoise *Gopherus polyphemus*	Threatened
Population: Western DPS	
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/6994	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	
Yellow-blotched Map Turtle *Graptemys flavimaculata*	Threatened
No critical habitat has been designated for this species.	
Species profile: https://ecos.fws.gov/ecp/species/7730	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	

FISHES

NAME	STATUS
Gulf Sturgeon *Acipenser oxyrinchus (=oxyrhynchus) desotoi*	Threatened
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.	
Species profile: https://ecos.fws.gov/ecp/species/651	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	
Pearl Darter *Percina aurora*	Threatened
There is **final** critical habitat for this species.	
Species profile: https://ecos.fws.gov/ecp/species/3970	
General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	Candidate

FERNS AND ALLIES

NAME	STATUS
Louisiana Quillwort *Isoetes louisianensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7756 General project design guidelines: https://ipac.ecosphere.fws.gov/project/DLAPD5GPVBH6HDMRF4HWXA5NSY/documents/generated/7127.pdf	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

USFWS NATIONAL WILDLIFE REFUGE LANDS AND FISH HATCHERIES

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act[1] and the Migratory Bird Treaty Act[2].

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.

3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

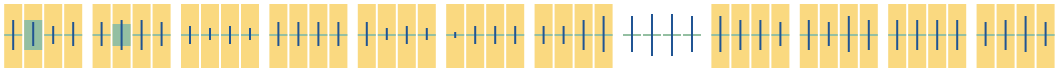
Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

Bald Eagle
Non-BCC
Vulnerable



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Kestrel *Falco sparverius paulus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9587	Breeds Apr 1 to Aug 31

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Brown-headed Nuthatch *Sitta pusilla* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9427	Breeds Mar 1 to Jul 15
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Coastal (waynes) Black-throated Green Warbler *Setophaga virens waynei* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/11879	Breeds May 1 to Aug 15
Kentucky Warbler *Oporornis formosus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9443	Breeds Apr 20 to Aug 20
Prairie Warbler *Dendroica discolor* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9513	Breeds May 1 to Jul 31
Prothonotary Warbler *Protonotaria citrea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439	Breeds Apr 1 to Jul 31
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Rusty Blackbird *Euphagus carolinus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

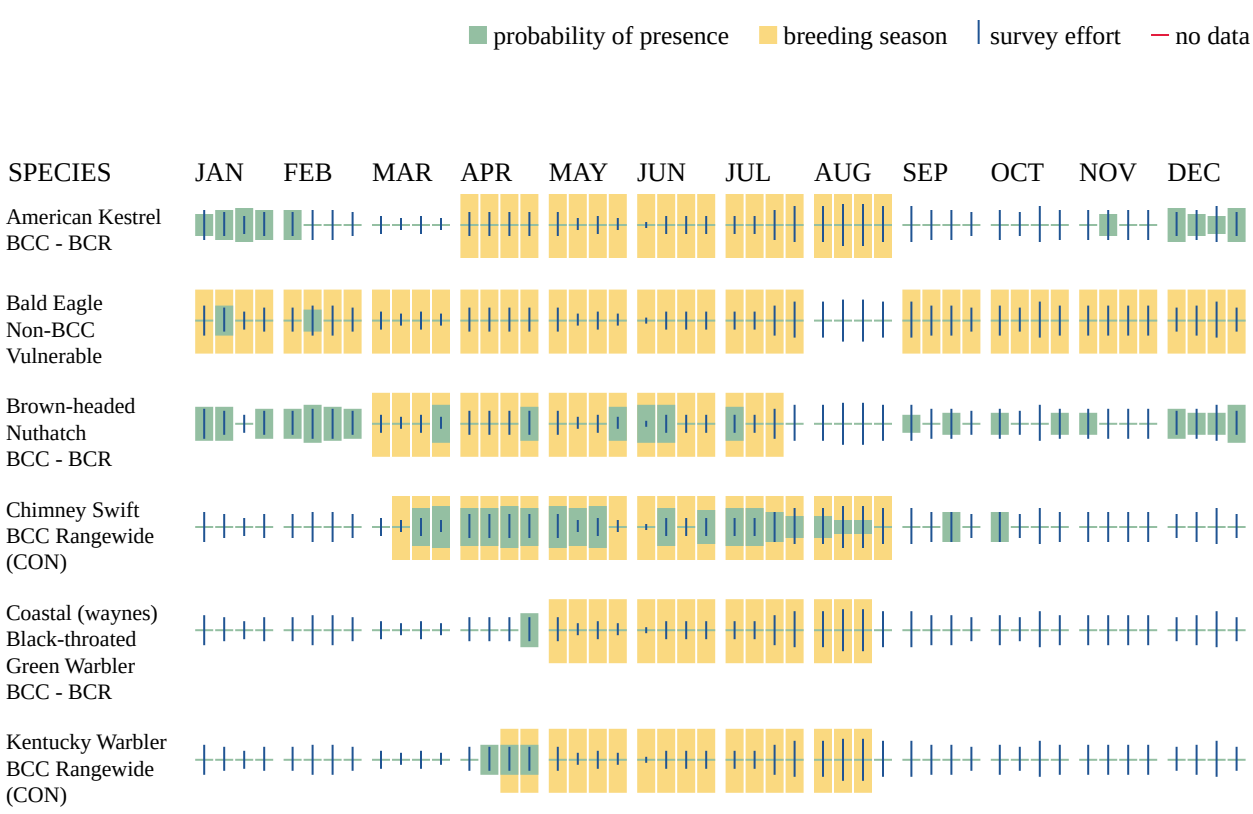
Probability of Presence (■)

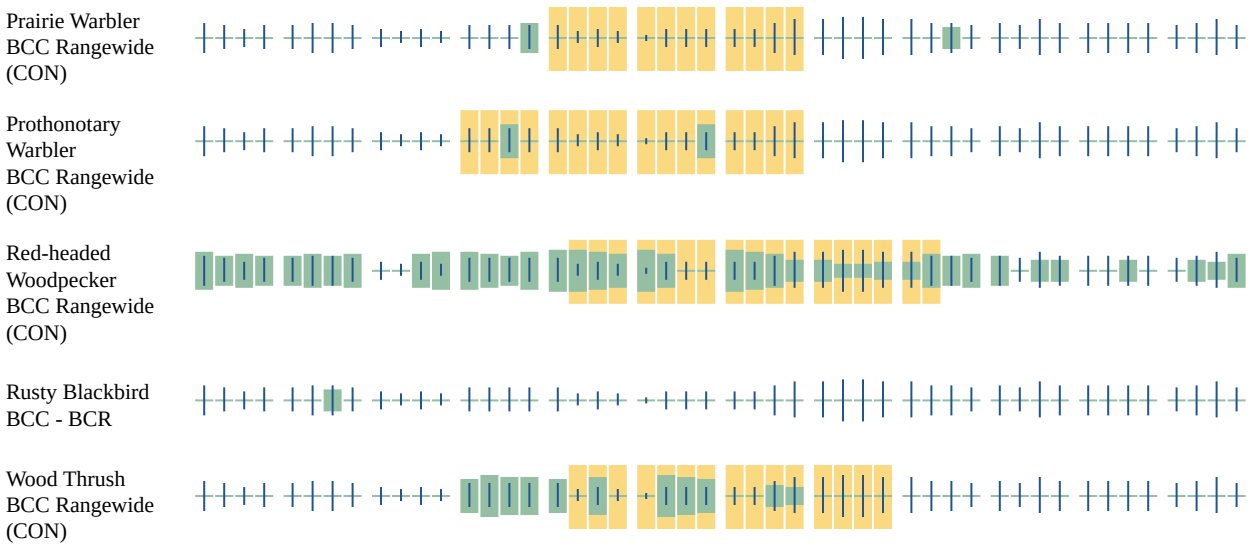
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.





Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

IPAC USER CONTACT INFORMATION

Agency:	Army Corps of Engineers
Name:	Taylor Piefke
Address:	4155 Clay St
Address Line 2:	Rm 250
City:	Vicksburg
State:	MS
Zip:	39183
Email	taylor.piefke@usace.army.mil
Phone:	6016315087

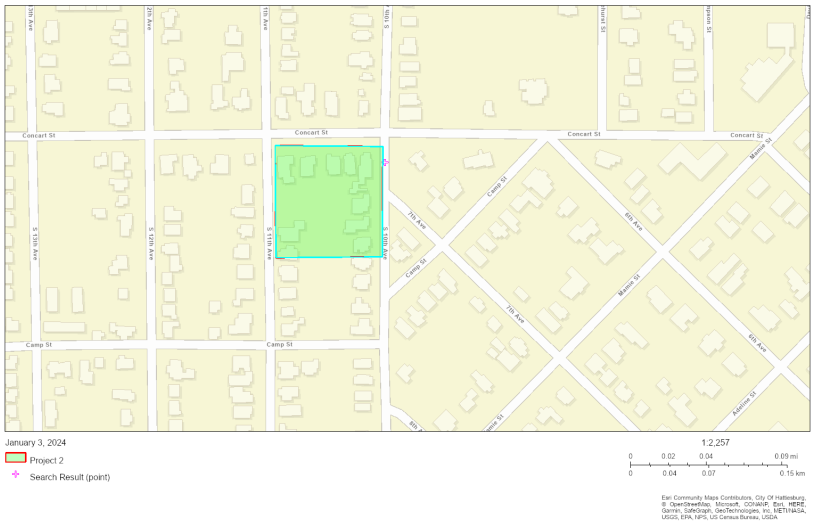
EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Hattiesburg, MS

the User Specified Area
Population: 21
Area in square miles: 0.00

A3 Landscape



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
No language data available.	

COMMUNITY INFORMATION

- Low income: 49 percent
- People of color: 38 percent
- Less than high school education: 3 percent
- Limited English households: 0 percent
- Unemployment: 0 percent
- Persons with disabilities: 38 percent
- Male: 43 percent
- Female: 57 percent
- 72 years — Average life expectancy
- $31,922 — Per capita income
- Number of households: 14
- Owner occupied: 48 percent

BREAKDOWN BY RACE

- White: 62%
- Black: 38%
- American Indian: 0%
- Asian: 0%
- Hawaiian/Pacific Islander: 0%
- Other race: 0%
- Two or more races: 1%
- Hispanic: 0%

BREAKDOWN BY AGE

From Ages 1 to 4	0%
From Ages 1 to 18	10%
From Ages 18 and up	90%
From Ages 65 and up	11%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	0%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

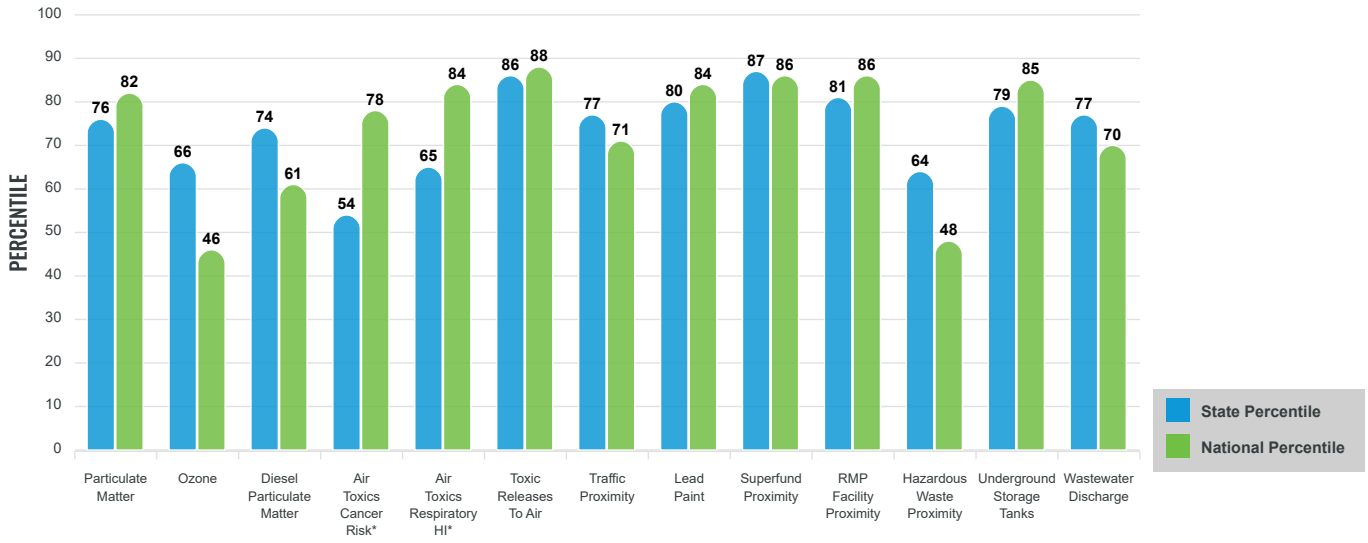
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

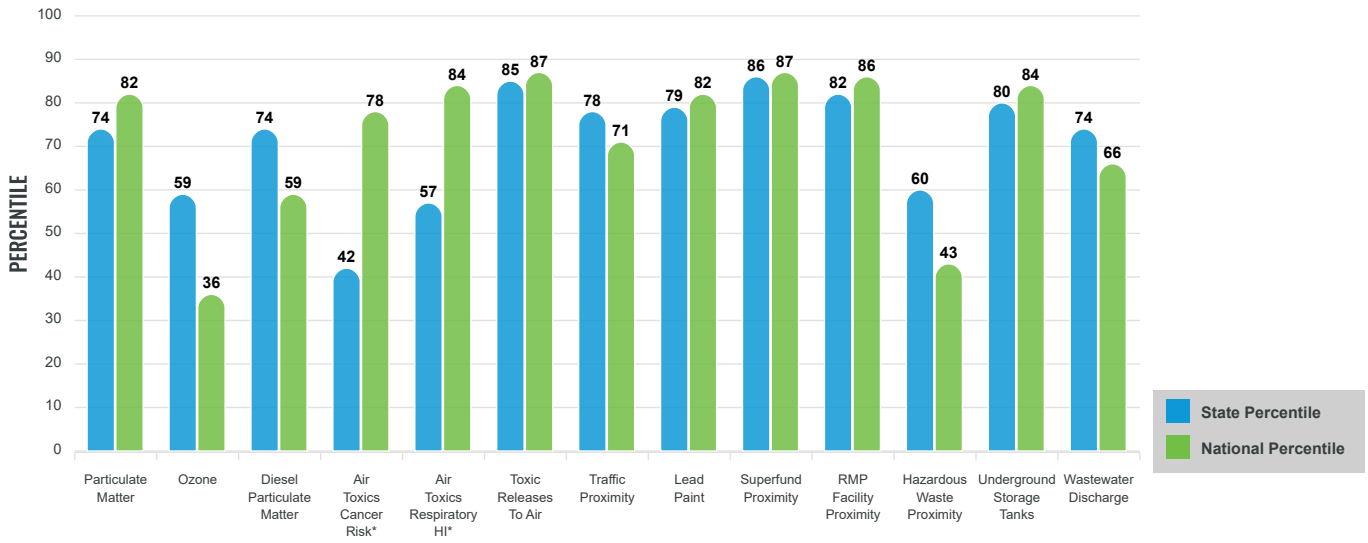
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for the User Specified Area

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m^3)	9.24	9	72	8.08	78
Ozone (ppb)	58	57.9	56	61.6	24
Diesel Particulate Matter (µg/m^3)	0.185	0.136	79	0.261	41
Air Toxics Cancer Risk* (lifetime risk per million)	30	30	4	25	52
Air Toxics Respiratory HI*	0.4	0.38	31	0.31	70
Toxic Releases to Air	8,900	2,100	96	4,600	92
Traffic Proximity (daily traffic count/distance to road)	120	44	89	210	61
Lead Paint (% Pre-1960 Housing)	0.66	0.16	97	0.3	84
Superfund Proximity (site count/km distance)	0.46	0.069	98	0.13	94
RMP Facility Proximity (facility count/km distance)	2.3	0.33	98	0.43	97
Hazardous Waste Proximity (facility count/km distance)	0.14	0.31	53	1.9	27
Underground Storage Tanks (count/km^2)	15	2.9	97	3.9	93
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.0014	0.023	82	22	51
SOCIOECONOMIC INDICATORS					
Demographic Index	44%	44%	53	35%	68
Supplemental Demographic Index	16%	18%	42	14%	65
People of Color	38%	45%	47	39%	57
Low Income	49%	43%	61	31%	80
Unemployment Rate	0%	7%	0	6%	0
Limited English Speaking Households	0%	1%	0	5%	0
Less Than High School Education	3%	15%	13	12%	26
Under Age 5	0%	6%	0	6%	0
Over Age 64	11%	17%	26	17%	30
Low Life Expectancy	27%	23%	86	20%	95

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund 0
Hazardous Waste, Treatment, Storage, and Disposal Facilities 0
Water Dischargers 0
Air Pollution 0
Brownfields 0
Toxic Release Inventory 0

Other community features within defined area:

Schools 0
Hospitals 0
Places of Worship 0

Other environmental data:

Air Non-attainment ..... No
Impaired Waters ..... No

Selected location contains American Indian Reservation Lands* ..... No
Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... Yes
Selected location contains an EPA IRA disadvantaged community ..... Yes

Report for the User Specified Area

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	27%	23%	86	20%	95
Heart Disease	6.6	7.3	30	6.1	62
Asthma	9.7	10.2	39	10	46
Cancer	6.1	6.1	42	6.1	48
Persons with Disabilities	33.8%	17.6%	98	13.4%	99

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	4%	15%	9	12%	33
Wildfire Risk	0%	23%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	11%	24%	26	14%	49
Lack of Health Insurance	5%	12%	9	9%	40
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	No	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

Report for the User Specified Area

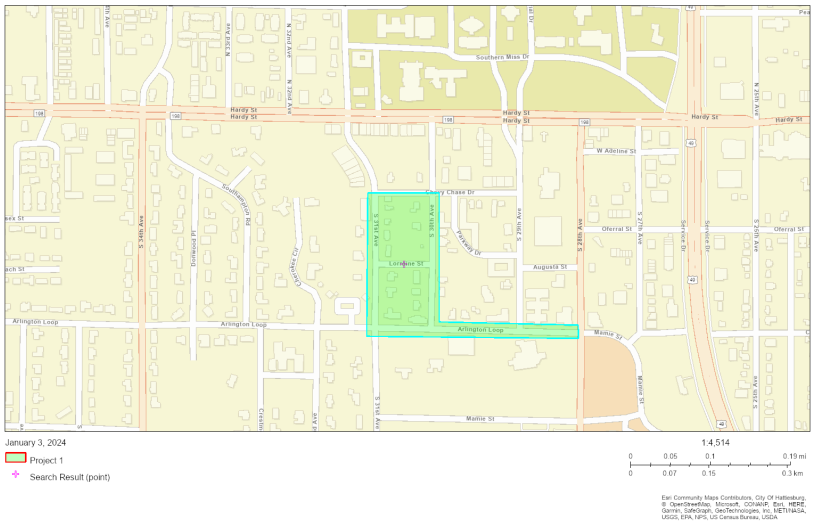
EJScreen Community Report

This report provides environmental and socioeconomic information for user-defined areas, and combines that data into environmental justice and supplemental indexes.

Hattiesburg, MS

the User Specified Area
Population: 6
Area in square miles: 0.02

A3 Landscape



LANGUAGES SPOKEN AT HOME

LANGUAGE	PERCENT
No language data available.	

COMMUNITY INFORMATION

- Low income: 65 percent
- People of color: 40 percent
- Less than high school education: 13 percent
- Limited English households: 0 percent
- Unemployment: 12 percent
- Persons with disabilities: 50 percent
- Male: 58 percent
- Female: 42 percent
- 76 years — Average life expectancy
- $28,709 — Per capita income
- Number of households: 7
- Owner occupied: 32 percent

BREAKDOWN BY RACE

- White: 60%
- Black: 25%
- American Indian: 0%
- Asian: 0%
- Hawaiian/Pacific Islander: 0%
- Other race: 0%
- Two or more races: 2%
- Hispanic: 14%

BREAKDOWN BY AGE

From Ages 1 to 4	0%
From Ages 1 to 18	5%
From Ages 18 and up	95%
From Ages 65 and up	44%

LIMITED ENGLISH SPEAKING BREAKDOWN

Speak Spanish	0%
Speak Other Indo-European Languages	0%
Speak Asian-Pacific Island Languages	0%
Speak Other Languages	0%

Notes: Numbers may not sum to totals due to rounding. Hispanic population can be of any race.
Source: U.S. Census Bureau, American Community Survey (ACS) 2017 -2021. Life expectancy data comes from the Centers for Disease Control.

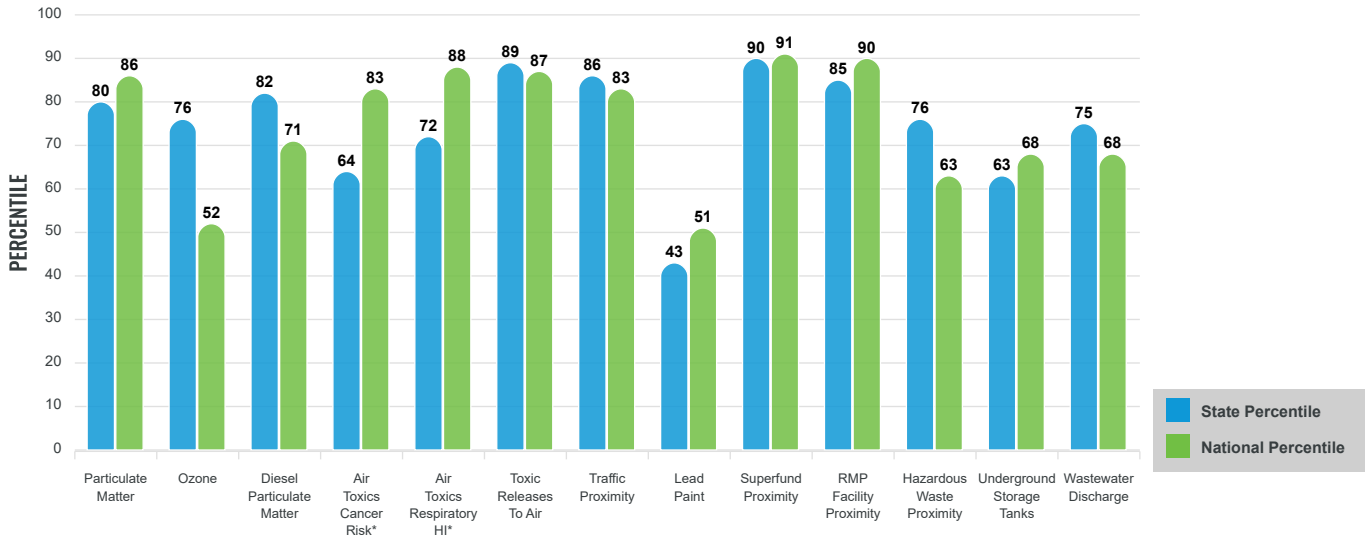
Environmental Justice & Supplemental Indexes

The environmental justice and supplemental indexes are a combination of environmental and socioeconomic information. There are thirteen EJ indexes and supplemental indexes in EJScreen reflecting the 13 environmental indicators. The indexes for a selected area are compared to those for all other locations in the state or nation. For more information and calculation details on the EJ and supplemental indexes, please visit the EJScreen website.

EJ INDEXES

The EJ indexes help users screen for potential EJ concerns. To do this, the EJ index combines data on low income and people of color populations with a single environmental indicator.

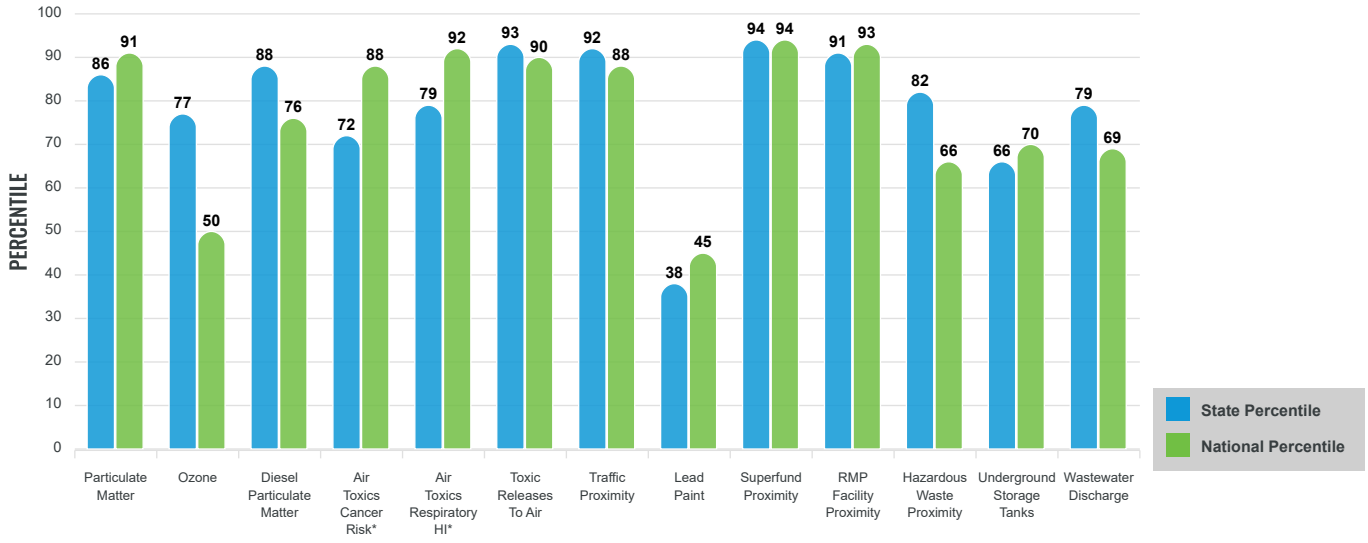
EJ INDEXES FOR THE SELECTED LOCATION



SUPPLEMENTAL INDEXES

The supplemental indexes offer a different perspective on community-level vulnerability. They combine data on percent low-income, percent linguistically isolated, percent less than high school education, percent unemployed, and low life expectancy with a single environmental indicator.

SUPPLEMENTAL INDEXES FOR THE SELECTED LOCATION



These percentiles provide perspective on how the selected block group or buffer area compares to the entire state or nation.

Report for the User Specified Area

EJScreen Environmental and Socioeconomic Indicators Data

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
POLLUTION AND SOURCES					
Particulate Matter (µg/m^3)	9.22	9	68	8.08	78
Ozone (ppb)	58	57.9	59	61.6	24
Diesel Particulate Matter (µg/m^3)	0.205	0.136	84	0.261	47
Air Toxics Cancer Risk* (lifetime risk per million)	30	30	4	25	52
Air Toxics Respiratory HI*	0.4	0.38	31	0.31	70
Toxic Releases to Air	2,100	2,100	88	4,600	73
Traffic Proximity (daily traffic count/distance to road)	190	44	95	210	74
Lead Paint (% Pre-1960 Housing)	0.038	0.16	26	0.3	23
Superfund Proximity (site count/km distance)	0.3	0.069	96	0.13	91
RMP Facility Proximity (facility count/km distance)	1.4	0.33	94	0.43	92
Hazardous Waste Proximity (facility count/km distance)	0.21	0.31	66	1.9	37
Underground Storage Tanks (count/km^2)	0.67	2.9	48	3.9	42
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.00036	0.023	65	22	40
SOCIOECONOMIC INDICATORS					
Demographic Index	53%	44%	64	35%	77
Supplemental Demographic Index	22%	18%	74	14%	84
People of Color	40%	45%	49	39%	59
Low Income	65%	43%	82	31%	91
Unemployment Rate	12%	7%	77	6%	85
Limited English Speaking Households	0%	1%	0	5%	0
Less Than High School Education	13%	15%	47	12%	66
Under Age 5	0%	6%	0	6%	0
Over Age 64	44%	17%	98	17%	97
Low Life Expectancy	22%	23%	38	20%	73

*Diesel particulate matter, air toxics cancer risk, and air toxics respiratory hazard index are from the EPA's Air Toxics Data Update, which is the Agency's ongoing, comprehensive evaluation of air toxics in the United States. This effort aims to prioritize air toxics, emission sources, and locations of interest for further study. It is important to remember that the air toxics data presented here provide broad estimates of health risks over geographic areas of the country, not definitive risks to specific individuals or locations. Cancer risks and hazard indices from the Air Toxics Data Update are reported to one significant figure and any additional significant figures here are due to rounding. More information on the Air Toxics Data Update can be found at: https://www.epa.gov/haps/air-toxics-data-update.

Sites reporting to EPA within defined area:

Superfund 0
Hazardous Waste, Treatment, Storage, and Disposal Facilities 0
Water Dischargers 0
Air Pollution 0
Brownfields 0
Toxic Release Inventory 0

Other community features within defined area:

Schools 0
Hospitals 0
Places of Worship 0

Other environmental data:

Air Non-attainment ..... No
Impaired Waters ..... No

Selected location contains American Indian Reservation Lands* ..... No
Selected location contains a "Justice40 (CEJST)" disadvantaged community ..... No
Selected location contains an EPA IRA disadvantaged community ..... Yes

Report for the User Specified Area

EJScreen Environmental and Socioeconomic Indicators Data

HEALTH INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Low Life Expectancy	22%	23%	38	20%	73
Heart Disease	6.8	7.3	35	6.1	65
Asthma	8.8	10.2	9	10	20
Cancer	7.5	6.1	95	6.1	81
Persons with Disabilities	20.3%	17.6%	68	13.4%	86

CLIMATE INDICATORS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Flood Risk	23%	15%	88	12%	88
Wildfire Risk	0%	23%	0	14%	0

CRITICAL SERVICE GAPS

INDICATOR	HEALTH VALUE	STATE AVERAGE	STATE PERCENTILE	US AVERAGE	US PERCENTILE
Broadband Internet	30%	24%	66	14%	88
Lack of Health Insurance	7%	12%	15	9%	49
Housing Burden	No	N/A	N/A	N/A	N/A
Transportation Access	Yes	N/A	N/A	N/A	N/A
Food Desert	No	N/A	N/A	N/A	N/A

Footnotes

Report for the User Specified Area