Environmental Assessment for the

McCoys Creek Restoration Construction - The Branches

(Unique ID #EAXX-006-48-1HC-1753469232)

DECEMBER 2025

Conceptual plan of the McCoys Creek Branches

Award: NA23NMF4630085
Project Start/End Dates: July 1, 2023 – July 31, 2026
Location: McCoys Creek, Jacksonville, Duval County, Florida

Prepared by:
NOAA Restoration Center
Groundwork Jacksonville
City of Jacksonville
CDM Smith Inc.

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Acronyms and Abbreviations

BaP benzo(a)pyrene

BaP-eq benzo(a)pyrene equivalent

bls below land surface

CDC Center for Disease Control

CDM Smith CDM Smith Inc.

CFR Code of Federal Regulations

CHG Commonwealth Heritage Group

CMMP Contaminated Media Management Plan

COC contaminants of concern

COJ City of Jacksonville

CRP Community Restoration Program

FDHR Florida Division of Historical Resources

EA Environmental Assessment

EFH Essential Fish Habitat

EIS Environmental Impact Statement

EPA U.S. Environmental Protection Agency

ERIC Environmental Restoration Integrated Cleanup

ESA Endangered Species Act

ETM England-Thims & Miller, Inc.

F.A.C. Florida Administrative Code

FDEP Florida Department of Environmental Protection

FMSF Florida Master Site File

FLUCCS Florida Land Use Cover Classification System

FNAI Florida Natural Areas Inventory

FONSI Finding of No Significant Impact

ft feet

FWC Florida Fish and Wildlife Conservation Commission

HAER Historic American Engineering Record

HASP Health and Safety Plan

GWJax Groundwork Jacksonville

HP RAP McCoys Creek Branches 2025 Remedial Action Plan – Phase I for the Hollybrook Park site (ERIC_14764)

IIJA Infrastructure Investment and Jobs Act

IPaC Information for Planning and Consultation

LSJRB Lower St. John's River Basin

NAAQS National Ambient Air Quality Standards

NEPA National Environmental Policy Act

NOAA National Oceanic and Atmospheric Administration

NRHP National Registry of Historic Places

OSHA Occupational Safety and Health Administration

RAP Remedial Action Plan

RC Restoration Center

RC PEIS Restoration Center Programmatic Environmental Impact Statement

ROD Record of Decision

SJRWMD St. Johns River Water Management District

TRPH Total Recoverable Petroleum Hydrocarbons

USACE U.S. Army Corps of Engineers

USC United States Code

USFWS U.S. Fish and Wildlife Service

Environmental Assessment

McCoys Creek Restoration Construction - The Branches

The National Oceanic and Atmospheric Administration's (NOAA) Community-based Restoration Program (CRP) is administered within the National Marine Fisheries Service's Office of Habitat Conservation, under the authority of the Fish and Wildlife Coordination Act, 16 U.S.C. 661, as amended by the Reorganization Plan No. 4 of 1970 and the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006.

The NOAA CRP proposes to provide financial assistance for a habitat restoration activity known as the "McCoys Creek Restoration Construction - The Branches" (aka the Branches), through grant award NA23NMF4630085 to Groundwork Jacksonville (GWJax). NOAA, the lead federal agency under the National Environmental Policy Act (NEPA), prepared this Environmental Assessment (EA) to guide the restoration decision-making process and to evaluate any environmental impacts associated with the proposed action.

1. Introduction

The restoration of McCoys Creek is a transformative, nature-based project, located in Jacksonville, Florida. GWJax, in partnership with the City of Jacksonville (COJ) and others, aim to implement a multi-phase plan to restore the 2.8 mile creek, improve the function of the 142 acres of flood plain, and revitalize neighborhoods. The multi-phase plan aims to daylight buried creek sections, remove industrial fill and incinerator ash material (hereinafter referred to as "ash"), restore historic creek meanders, and establish living shorelines and wetlands. Overall, the restoration approach is a natural channel design that will result in ecological restoration and flood mitigation. Outcomes are expected to include improved flood resilience, enhanced water quality, and the creation of recreational opportunities. The multi-phase plan will also reconnect habitats for species such as red drum, mullet, flounder, and shrimp.

The full McCoys Creek restoration effort (hereinafter referred to as "McCoys Creek Restoration") is composed of three segments: Phase 1, Phase 2, and the Branches (also referred to as Phase O in some of the referenced materials) (Figure 1). Phase 1 focused on restoration of one mile of the creek along with the removal of roads and the raising and widening of a bridge. Pedestrian trails and a bike lane will be added for community access to the restored areas. Phase 2 focused on daylighting a buried section of McCoys Creek. In order to further extend stream restoration and nature-based flood mitigation linked to broader urban resilience efforts, the Branches phase will implement ecological restoration activities in the headwaters of the McCoys Creek North and South Branches. The objective is to create a natural meandering channel within a vegetated wetland floodplain and is the focus of this EA.

In a separate but complementary effort, GWJax and partners are also leading a notable recreational initiative that will transect the Branches called the Emerald Trail[1] (GWJax 2025). The Emerald Trail is a planned 33-mile greenway and park system that will connect 14 historical neighborhoods, including McCoys Creek, to the St. Johns River. Key park amenities include multi-use greenway trails, shared-use streets, side paths, green alleys, raised two-way cycle tracks, and neighborhood greenways. (GWJax 2021)

[1] https://www.groundworkjacksonville.org/emerald-trail/

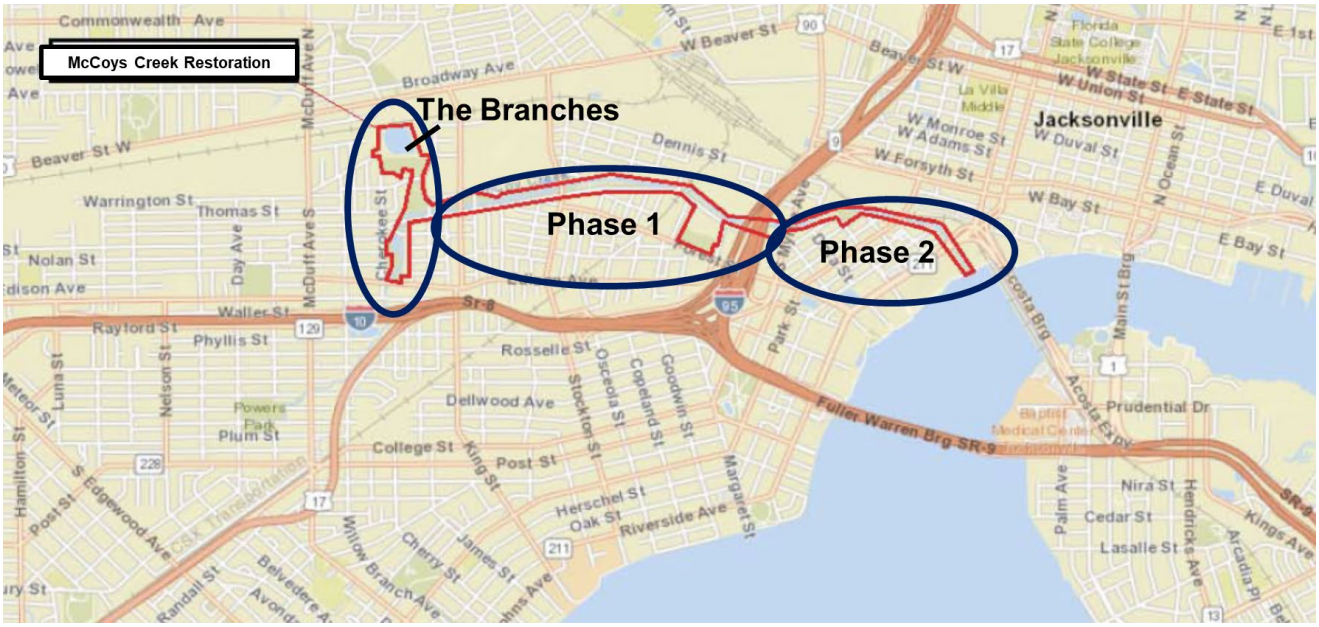

Figure 1. Location map of the phases of the complete 2.8 mile McCoys Creek restoration in Jacksonville, FL. The Branches phase is the focus of this EA.

NOAA's CRP is playing a significant role in the comprehensive restoration of McCoys Creek. Utilizing Infrastructure Investment and Jobs Act (IIJA) funding, in 2023, NOAA supported capacity building, community engagement and stewardship, pre-restoration Tier 1 environmental monitoring, and final design and permitting components for the Branches[2]. In 2025, NOAA is reviewing the implementation component of the proposed federal action under NEPA to allow the expenditure of remaining grant funds[3] to support construction and implementation monitoring of the Branches. Additional funding for the Branches includes grants awarded to GWJax from the Florida Department of Environmental Protection (FDEP) $5,177,094.00 and the COJ $2,588,547. The COJ is also committed to providing for necessary remediation actions.

Historic soil/sediment contaminants within the Branches have been identified. As such, it will be necessary for soil/sediment removal and remediation efforts to be implemented in coordination with the NOAA-funded restoration construction. Contaminant remediation efforts will be implemented and funded by the COJ as a connected action to the NOAA funded restoration.

2. Background

McCoys Creek is a 2.8 mile tidally influenced creek and tributary of the St. Johns River in Jacksonville, Florida. Similar to the St. Johns River, there is a salinity gradient in McCoys Creek. Fresh at its headwaters (the Branches), its salinity increases as it enters the St. Johns River at its mouth. Restoration of the Branches is being completed at the headwaters of McCoys Creek at the confluence of the North and South Branches and within West Jacksonville's Hollybrook Park (Figure 2).

[2] NOAA Transformational Habitat Restoration and Coastal Resilience Award NA23NMF4630085, $225,707.

[3] NOAA Transformational Habitat Restoration and Coastal Resilience Award NA23NMF4630085, $2,588,547.

Figure 2. The Branches site footprint in Jacksonville, Florida. The boundary is outlined in red.

In the late 1920s, the natural meandering channel of McCoys Creek was replaced with straightened ditches and bulkheaded canals. The floodplain and wetlands were filled in, creating a loss of habitat for plants, fish and wildlife. The lower half of the creek was formerly a tidal stream with a marsh platform, however the marsh habitat was lost and the channel connection to the St. Johns River was relocated and buried by an 850-foot culvert. The result of the channelized and bulkheaded creek and development within flood-prone areas is continued flooding that limits recreational use of greenspace and impacts transportation corridors, businesses, and residences within the communities. The McCoys Creek

Restoration was identified in the 2020 Duval County Local Mitigation Strategy[4] and is one of the City's highest flood reduction priorities.

Degraded environmental conditions within the McCoys Creek Restoration are further exacerbated by historic activities within the surrounding watershed. From 1910 until the 1960s, the COJ operated two municipal solid waste incinerators, known as the Forest Street Incinerator (adjacent to McCoys Creek) and the 5th & Cleveland Incinerator. The combustion ash and associated waste materials were disposed of onsite at the facilities and within the surrounding areas. In 2006, the U.S. Environmental Protection Agency (EPA) issued a clean-up plan for the Jacksonville Ash Superfund Site that included three separate locations on the sites of the former facilities. Primary contaminants of concern (COCs) are chemical substances identified during environmental assessments that pose unacceptable risk to human health and the environment. The COCs found in ash residues and soil/sediment were arsenic and lead. Cleanup activity thus far has involved the remediation of more than 137,000 tons of soil/sediment on over 460 land parcels since 2010 (Wood 2018). Per the EPA website[5] (EPA 2025), the Jacksonville Ash Superfund Site clean-up is estimated to be over 98% complete and site contamination does not currently threaten people living or working nearby. However, ash materials and potentially contaminated soil/sediment has been identified on properties outside the boundaries of the locations included in the Jacksonville Ash Superfund Site.

The COJ has worked with the FDEP to address solid waste clean-up at two locations outside of the Jacksonville Ash Superfund Site. These sites, Burke Street and Cherokee Street Sites (Figures 2 and 3), are at or adjacent to Hollybrook Park and the Branches.

Recent site assessments conducted in association with the Branches planning and design identified ash contamination not previously remediated and the COJ is now responsible for phased remediation. The "McCoys Creek Branches Remediation Action Plan - Phase 1" (CDM Smith 2025) will be the first action to address the recently investigated Hollybrook Park contamination (identified as the Burke & Cherokee Street Buried Debris, ERIC_14764). As a result, a component of the Branches restoration includes soil/sediment remediation.

[4] https://www.documentcloud.org/documents/23798378-duval-county-2020-local-mitigation-strategy/
[5] https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0407002

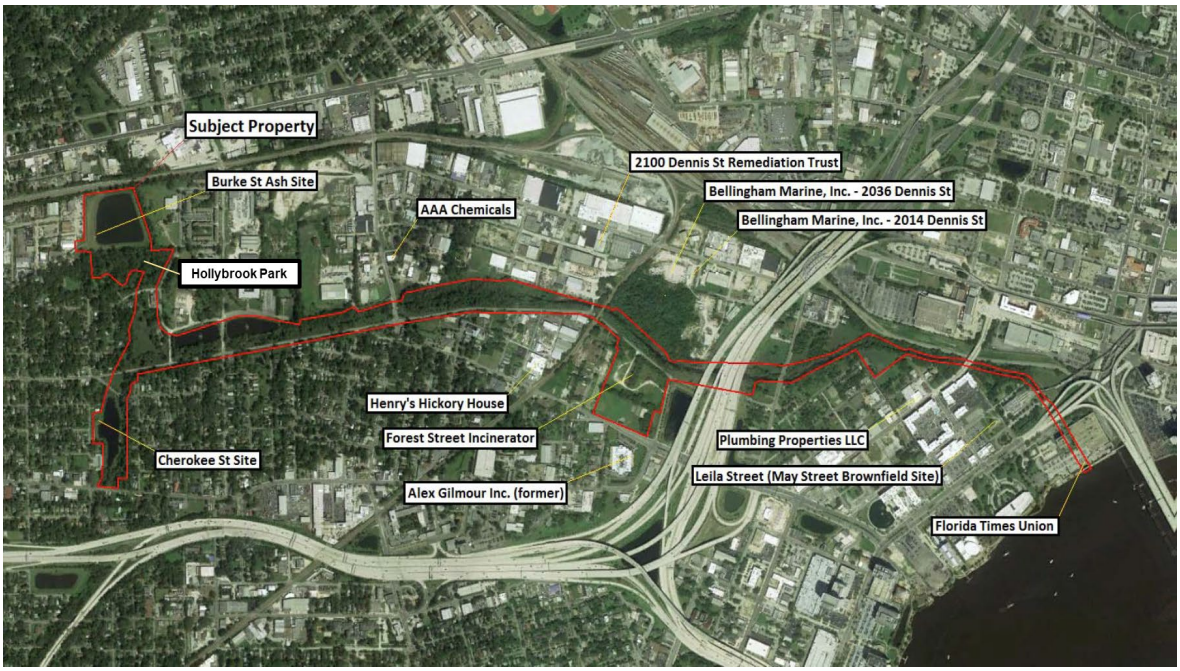

Figure 3. Areas of known contamination in and around the McCoys Creek Restoration (all phases) footprint, including the Cherokee Street and Burke Street Sites. Source: Wood 2018.

3. Proposed Action

Building upon the restoration completed in Phases 1 and 2 of McCoys Creek Restoration efforts, the Branches restoration action is proposed to restore the natural function of the upstream portion of McCoys Creek. Two branches and the creek confluence will be reshaped through hydrologic restoration with adjacent wetlands created and restored. The methods proposed are common to freshwater stream, channel, and bank restoration including soil/sediment removal, regrading, non-indigenous plant species removal, and replanting.

Within the McCoys Creek Restoration footprint, GWJax and partners are proposing to conduct earthwork (excavation and grading) and other earth disturbing construction related activities (utilities management and vegetation replanting) in areas which may contain soil/sediment contaminated with ash. The earthwork will be conducted to reconfigure a stormwater retention pond and the existing headwater creek stream channels. In total, the proposed Branches restoration will restore an estimated 15 acres of freshwater stream, including riparian buffer, freshwater forested wetlands, herbaceous wetlands, and freshwater stream and pond.

The proposed earth disturbing activities within the McCoys Creek Restoration footprint will be conducted as per the COJ 2018 Incinerator Ash Material Management Plan (Appendix B) and Contaminated Media Management Plan for Hollybrook Park (CMMP) [6] as it applies to both known and previously unidentified contaminants. Onsite removal and remediation is a component of this restoration for known contaminated soil/sediment. A McCoys Creek Branches 2025 Remedial Action

[6] https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/ERIC_14764/facility!search. The RAP has document date 11-10-25 and Document Subject "Remedial Action Plan Phase I Revision 2". The CMMP is Appendix H, starts on RAP pg H-1 (pdf page 267 of 306)

Plan – Phase I[7] for the Hollybrook Park site (ERIC_14764) (HP RAP), prepared for the COJ, outlines the remedial actions to best mitigate exposure risks and removal of impacted soil/sediment from specific areas within the McCoys Creek Restoration footprint (CDM Smith 2025). [8]The HP RAP is the basis for the CMMP. Per the HP RAP, COJ is planning to remove approximately 10,711 cubic yards (cu yds) of impacted soil/sediments, including 9,580 cu yds within the creek banks and 1,131 cu yds from outside the creek banks. The total area of disturbance for remedial actions is estimated at 1.58 acres of the Branches site footprint.

4. Purpose and Need

The Branches restoration aims to reinstate natural ecological and resiliency functions within a watershed historically affected by industrialization and to remediate contaminated soil/sediment within the restoration area. Past alterations, including straightening and bulkheading of the natural stream flow and filling of floodplains and wetlands, have significantly impacted the area. By employing restoration methods such as freshwater stream, channel, and bank restoration, alongside erosion reduction and remediation of any identified contaminated soil/sediment, the Branches will transform the upstream freshwater portion of the watershed. This will result in an area of resilient ecological habitat for diverse plants, fish, and wildlife. Improving the habitat, flood capacity, and water quality of the headwaters will ultimately contribute to the improved conditions experienced in the creek's main stem that flows to the St. Johns River.

This targeted EA addresses federal requirements of NEPA. It tiers from the NOAA Restoration Center Programmatic Environmental Impact Statement (RC PEIS[9]) (NOAA 2015) and evaluates the environmental consequences associated with the proposed federal action of authorizing NOAA funding per NOAA Award NA23NMF4630085 to implement the proposed action, the Branches restoration. NOAA CRP previously conducted an environmental review of the pre-construction implementation monitoring, capacity building, and community engagement components of the Branches, approved on March 22, 2023, using the RC PEIS and an Inclusion Analysis[10]. While the majority of the proposed activities fall within the programmatically-evaluated restoration approaches of the RC PEIS and typically would be documented via an RC Inclusion Analysis, removal and remediation of contaminated soil/sediment is outside of existing analyses. Though remediation actions will be completed by partners, those actions are connected to and will occur concurrent with the NOAA-funded restoration activities. The focus of this targeted EA considers the impacts associated with both the restoration construction activities as well as removal and remediation of contaminated materials as a connected action.

5. Public Involvement

The Branches is a collaboration between GWJax, a local non-profit, and residents of the neighborhoods connected to McCoys Creek. GWJax worked with community stakeholders, including residents of the

[7] https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/ERIC_14764/facility!search. The RAP has document date 11-10-25 and Document Subject "Remedial Action Plan Phase I Revision 2"

[8]The FDEP issued an approval order for the HP RAP on November 25, 2025. A copy of that approval order can be obtained at: https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/ERIC_14764/facility!search. Document Subject: "RAP ORDER" dated 11-25-25.

[9] https://www.fisheries.noaa.gov/s3//dam-migration/2015_noaa_restoration_center_final_peis.pdf

[10] A list of projects that have received NEPA documentation under the RC PEIS can be found here: https://www.fisheries.noaa.gov/national/habitat-conservation/environmental-compliance-office-habitat-conservation

historic neighborhoods surrounding the creek to create a vision plan for creek restoration and public trails. GWJax held visioning sessions with residents, businesses and developers in mid-2018; held community meetings to share concept plans to get feedback; attended neighborhood organization meetings; scheduled one-on-one meetings regarding the closure of McCoys Creek Blvd.; and held a creek festival where over 100 residents attended to provide feedback on the concept draft. The COJ advanced that vision by committing funding to restore McCoys Creek to a natural state and in the process, mitigate flooding.

In addition to partnering with COJ, GWJax formed the McCoys Creek Taskforce, a collaborative decision-making group made up of community residents and stakeholders, community organizations, public agencies, the engineering design firm and GWJax, to guide the Branches design. Three residents from North Riverside and Brooklyn, residential communities adjacent to the McCoys Creek Restoration area, are members of the McCoys Creek Taskforce. The taskforce makes informed decisions on the Branches design that will improve environmental conditions, honor the community needs, desires, history, and culture, and is also sustainable and resilient. The McCoys Creek Taskforce will remain in place throughout the design phase and continue through construction.

GWJax coordinated two separate but complementary efforts to their engagement of the public in restoration. GWJax's worked with the McCoys Creek neighborhoods to design and implement an environmental stewardship training program, at the request of residents. In partnership with the neighborhood organization, GWJax coordinated a home repair program that assisted with repairing 39 homes.

Through the regulatory process there have been formal opportunities to comment on the Branches. Notice of agency action by the St. John's Water Management District regarding permit 167868-4[11] was published in-print by the Jacksonville Daily record (11/14/2014) and a 21-day public comment period was held. The U.S. Army Corps of Engineers issued a notice of permit on December 30, 2024 indicating the issuance of permit SAJ-2021-0271-03[12] for the McCoys Creek Restoration which includes the Branches. No comments in response to the public notices were received.

Notice of award of NOAA IIJA funding was announced by an article on the NOAA website[13] and email listserve notification on April 21, 2023. Numerous funding and updates on the Branches have been posted through NOAA CRP webstories as well as on the GWJax website. Following an April 2025 article on the NOAA website [14] and social media post by NOAA, a private citizen contacted NOAA and GWJax directly requesting formal confirmation of the following: 1) are fish, particularly red drum or other species, currently present in the stretch of McCoys Creek near Crystal Street and Kings Road, and 2) is this particular section of the creek considered fishable and safe for local residents to access? The citizen additionally mentioned the return of red drum fish and that they were "encouraged by the removal of contaminated soil and the creek's ongoing recovery." NOAA staff provided a written response noting: while the online post and article noted personal observations of fish and an eagle in/around the creek during construction, there is only limited data on fish in the system. As a tributary creek to the St. Johns

[11] The SJRWMD permit is accessible by selecting "Environmental Resource Permit" and entering permit number 167868-4 at: https://secure.sjrwmd.com/agws10/sjrprmt/default.aspx

[12] https://www.saj.usace.army.mil/Missions/Regulatory/Public-Notices/Article/2551963/saj-2021-00271-sp-tmm/

[13] https://www.fisheries.noaa.gov/feature-story/more-265-million-funding-recommended-transformational-habitat-restoration-and-coastal

[14] https://www.fisheries.noaa.gov/feature-story/florida-creek-restoration-benefits-fish-and-people-jacksonville

River, McCoys creek was identified as having high potential to serve as valuable fish habitat if restored. One of the project elements funded under a NOAA grant award was fish sampling within the creek in 2021, before any restoration started. There are plans for GWJax to repeat the study after all restoration construction is complete on the creek. GWJax also provided the citizen with information on the Florida Department of Health's fish consumption advisories for the creek. Fish consumption advisories as well as determinations of whether waterbodies are fishable and swimmable is determined at the state and local levels.

6. Alternatives

6.1 No Action Alternative

Under the no-action alternative, the NOAA CRP would not fund the Branches. If the Branches component of the greater McCoys Creek Restoration effort does not progress, the beneficial impacts from restoring the full hydrologic connectivity between the headwaters project site, the main creek channel, and the St. Johns River, will not be realized. It would also diminish the larger efforts to address longstanding community flooding. Portions of Hollybrook Park with contaminated soils/sediments would still need to be remediated by COJ. However, the opportunity to concurrently remove and remediate contaminated materials in conjunction with beneficial restoration actions would be foregone. Other agencies could still have the option to fund the Branches, however, the need for coastal habitat restoration is great, and the timing of the work is critical. This alternative is not preferred since funding is available and established restoration approaches are known, applicable, and permitted to address the Proposed Action.

6.2 Preferred Alternative

The Branches restoration involves: 1) supporting capacity building, community engagement and implementation monitoring; 2) restoring the natural function of the upstream freshwater portion of the creek through stream channel restoration, bank stabilization, and erosion control; and 3) remediating soil/sediment contamination within the associated site footprint. Concurrent with the NOAA-funded restoration construction, the COJ is responsible for funding and implementing soil remediation activities, including removal and disposal of ash and contaminated materials from the McCoys Creek Restoration and the Branches. Because construction of the Branches is dependent on the remediation, potential impacts from the remediation activities are analyzed in this targeted EA.

6.2.1 Restoration Construction Activities

The Branches restoration area is approximately 19 acres. McCoys Creek will be reshaped[15] through excavation and earthwork including filling and regrading. Adjacent wetlands will be enhanced and restored through removal of invasive/exotic vegetation, hydrologic improvements, and supplemental planting of desirable wetland species. The Branches was developed using natural channel design that will result in ecological restoration and flood mitigation. When construction is complete, McCoys Creek will have approximately 9,000 linear feet of restored shoreline and will include restored floodplain, riparian buffers, wetlands, and upland forest. The Branches will recreate a sustainable meandering channel pattern and in-stream habitat to provide multiple benefits including; creation of fish and wildlife habitat, improved water quality, reduced flooding, and nature-based recreation. To stabilize newly

[15] https://prodenv.dep.state.fl.us/DepNexus/public/electronic-documents/ERIC_14764/facility!search. The McCoys Creek design plans are Appendix C of the RAP, starts on RAP pg C-1 (pdf page 124 of 306). The RAP can be found at this link and has document date 11-10-25 and Document Subject "Remedial Action Plan Phase I Revision 2"

created meandering channels and shorelines, logs will be anchored and secured within the system and native species planted. Creek reconfiguration of the South Branch will reduce the size of the existing Cherokee Street stormwater pond to accommodate the stream relocation. In addition, the Burke Street stormwater pond outfall along the North Branch will be relocated and the outfall size modified while retaining sufficient design treatment. (Figure 4)

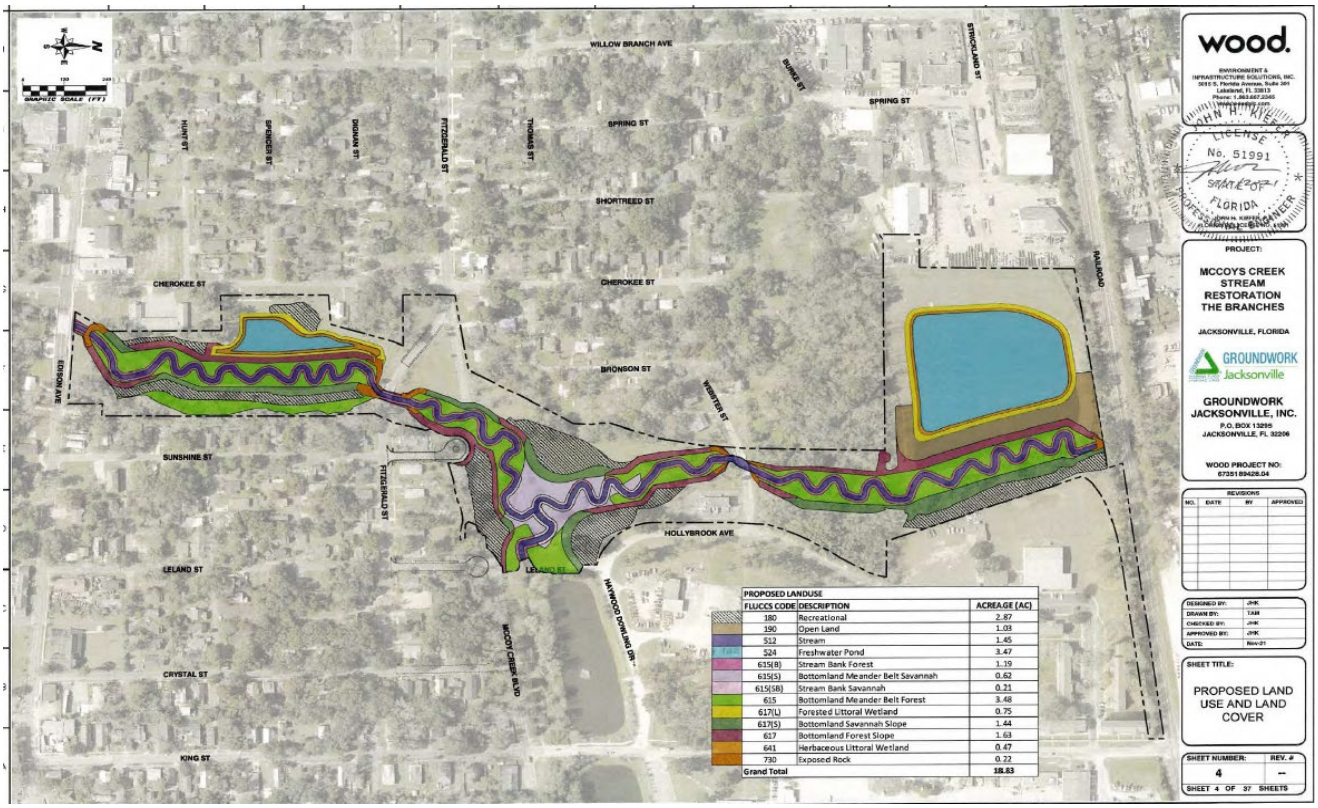

Figure 4. Concept map of proposed Branches restoration. Source: 100% Construction Plans for: McCoys Creek Stream Restoration, the Branches, an attachment to the USACE permit SAJ-2021-0271 (SP-TMM)

6.2.2 Soil/Sediment Remediation Activities

With contaminated soil/sediment onsite, removal and remediation is a component of this restoration. Prior to and in conjunction with restoration actions that will disturb soils/sediments, remediation activities are to be implemented. The primary objective of soil remediation is to identify, remove, properly dispose of, and backfill with clean materials, all contaminated materials encountered within the restoration footprint. The proposed earth disturbing activities within the Branches will be conducted as per the COJ Incinerator Ash Material Management Plan (Appendix B), CMMP, and the HP RAP. The CMMP was prepared to allow the overall project objectives to be met while achieving environmental compliance. The objective for the HP RAP is to mitigate immediate potential direct exposure risks associated with the presence of metals (lead, arsenic, and barium), polycyclic aromatic hydrocarbons (specifically BaP equivalent), and Total Recoverable Petroleum Hydrocarbons (TRPH) that are above soil cleanup target levels per Florida law, Chapter 62-777, F.A.C (CDM Smith 2025). These three metals, BaP, and TRPH are collectively known as Contaminants of Concern (COCs). The HP RAP site is 5.33 acres located in the northeastern middle section of the Hollybrook Park parcel, shown in Figures 5 and 6. Per the HP RAP, COJ is planning to remove approximately 10,711 cubic yards of impacted soil/sediments. The total area of disturbance for remedial actions is estimated at 1.58 acres of the Branches site footprint.

Aside from the known contaminated material in the Hollybrook Park site, there is also the potential for contaminated materials to be encountered in other areas of the Branches site footprint. The COJ Incinerator Ash Management Plan and the CMMP (specifically section 922.5 Unexpected Conditions) provide guidance for contractors to recognize contaminated materials in the field. If contaminated materials are observed within the Branches, all construction must cease and prescribed steps must be taken to analyze and define the observed materials. If deemed contaminated, as defined by the COJ Incinerator Ash Management Plan, remediation steps must be taken as prescribed by that plan (Appendix B).

Figure 5. The red boundary depicts portions of the Hollybrook Park assessed for the HP RAP. Light blue fill indicates surface water and tan fill indicates forested wetlands. (CDM Smith 2025)

Soil contamination identified outside of the Branches site footprint will be addressed by the COJ separately. It is anticipated that two additional HP RAP Addendums (Phase II and Phase III) will be coordinated with FDEP at a later time to address remediation on the east side and the west side of the Hollybrook Park site. Once all remedial actions within the boundaries of Hollybrook Park's entire identified contamination (immediate creek redesign area, east portion, and west portion) are completed, COJ can employ administrative or legal controls to help protect the integrity of the actions taken and manage potential exposure pathways.

Key remedial actions for removing impacted soil/sediment include temporarily relocating McCoys Creek to maintain flow during construction and dewatering excavation areas according to regulations. Sediment in the proposed creek realignment will be removed at least two feet below the design elevation, followed by installing a permeable geofabric liner and backfilling with at least two feet of clean material. Contaminated areas outside the creek banks will be excavated to two feet below land

surface, marked with an orange mesh fence, and backfilled with at least two feet of clean imported fill. Permeable geofabric liners will also be installed in creek wetland areas and orange fence liners in upland areas after excavation, followed by clean fill to isolate any remaining contaminants and prevent mobilization. All removed materials will be transported to the Trail Ridge Landfill for disposal by a licensed hauler, with proper covering of waste loads. Temporary onsite stockpiling, if needed, must use a double-layer polyethylene liner if outside the Branches or previously decontaminated zones. The Branches restoration anticipates encountering only contaminated materials, not hazardous ones, but any hazardous materials found will be disposed of at a licensed facility. (CDM Smith 2025)

Several other remediation technologies were considered and assessed in order to determine the most practical, efficient, and effective methods (as described above). These technologies were ultimately eliminated from consideration. These included onsite treatment methods like thermal desorption, which was rejected due to complex handling, high power requirements, and cost. Solidification and stabilization, involving mixing binding agents with excavated sediment, was also deemed impractical and costly due to multiple handling steps. Sediment washing, which would agitate and clean sediment with chemical solutions, faced similar challenges in implementation and cost. Finally, in-situ treatments such as bioremediation, chemical oxidation, and phytoremediation were ruled out because they are ineffective in reducing arsenic concentrations, which are a primary concern at the site, and also due to their relative cost. Each of these is presented in greater detail in the HP RAP.

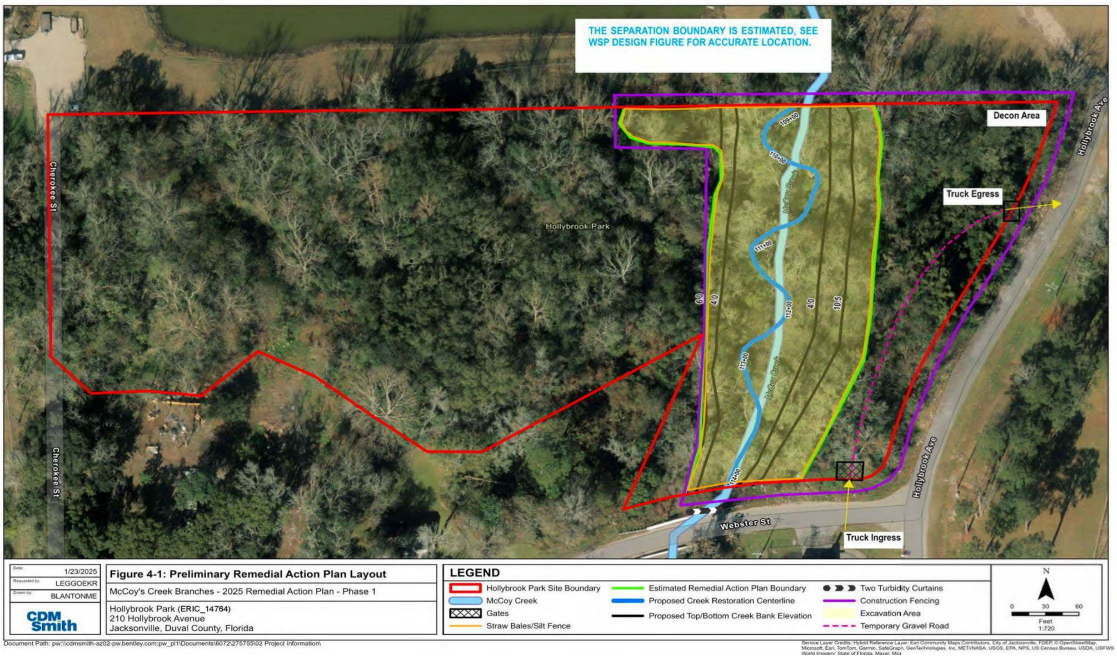

Figure 6. Proposed HP RAP layout for contaminated soil and sediment at Hollybrook Park. Hollybrook Park is outlined in red. The green line outlines the HP RAP boundary. The light blue shows the current McCoys Creek channel. The dark blue shows the proposed McCoys Creek restoration centerline. Yellow fill highlights the excavation area. (CDM Smith 2025)

7. Requirements under NEPA

Major Federal actions proposed by agencies are subject to the National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.) In general, agencies contemplating implementation of a major Federal action must produce an Environmental Impact Statement (EIS) if the action is expected to have significant impacts on the quality of the human environment (42 U.S.C. § 4336(b)(1)). When it is uncertain whether

the proposed action is likely to have significant impacts, agencies prepare an EA to evaluate the need for an EIS (42 U.S.C. § 4336(b)(2)). If the EA demonstrates that the proposed action will not significantly affect the quality of the human environment, the agencies will subsequently issue a Finding of No Significant Impact (FONSI) (Appendix A), which satisfies the requirements of NEPA, and no EIS is required (42 U.S.C. § 4336(b)(2)). NOAA is the lead federal agency for preparing this EA pursuant to NEPA (42 U.S.C. § 4336a(a)).

This targeted EA complies with NEPA by: 1) describing the purpose and need for restoration; 2) addressing public participation for this process; 3) identifying and describing the proposed action and alternatives, including the no action alternative; 4) summarizing the affected environment; and 5) analyzing the environmental consequences of the proposed action and alternatives, including the no action alternative.

8. Restoration Center NEPA Approach

In 2015, the NOAA Restoration Center developed the "Programmatic Environmental Impact Statement for Habitat Restoration Activities Implemented throughout the Coastal United States" (RC PEIS; NOAA 2015). NOAA developed the RC PEIS to evaluate coastal habitat restoration and related technical assistance activities routinely funded or implemented through its existing programs. The Record of Decision (ROD) was signed on July 20, 2015.

The RC PEIS provides a program-level description and environmental analysis of NOAA' s habitat restoration activities throughout the coastal and marine environment of the United States. Specifically, it evaluates typical impacts related to a large suite of projects undertaken frequently by the RC, including, but not limited to: Coral Reef Restoration; Debris Removal; Beach and Dune Restoration; Signage and Access Management; Fish Passage; Fish, Wildlife, and Vegetation Management; Levee and Culvert Removal, Modification, and Set-Back; Shellfish Reef Restoration; Subtidal Planting; Wetland Restoration; Freshwater Stream Restoration; and Conservation Transactions. These analyses may be incorporated by reference in subsequent NEPA documents, including tiered NEPA documents, where applicable. For example, a site-specific NEPA document may evaluate a restoration project where all potential impacts were addressed in the RC PEIS. In that instance, the site-specific NEPA document would, in effect, incorporate by reference the full impacts analysis from the RC PEIS (e.g., NEPA Inclusion Analysis). In those cases where the RC PEIS determined none of the potential impacts would be significant, the site-specific NEPA document could incorporate that conclusion by reference as well. In short, no further NEPA analysis may be necessary so long as the proposed activity is within the range of alternatives and scope of potential environmental consequences analyzed in the RC PEIS and would not cause significant adverse impacts. Conversely, if the site-specific restoration activity is not within the scope of alternatives or environmental consequences considered in the RC PEIS, it will require additional NEPA analysis through preparation of a new NEPA document (e.g., EA).

The Fiscal Responsibility Act of 2023 (Public Law 118-5) amended NEPA to require that when a federal agency relies on a programmatic environmental document more than five years old, the federal agency must reevaluate the analysis and any underlying assumptions in the programmatic environmental document to ensure the analysis remains valid (42 U.S.C. 4336b). In applying the findings of the RC PEIS to relevant activities of the proposed action, NOAA reviewed the pertinent restoration techniques evaluated in the RC PEIS and considered whether new information or changed circumstances would result in different or changed determinations of environmental consequences. NOAA considered if new information would alter the conclusions of the RC PEIS relative to the context or intensity of the

environmental consequences and did not come to a differing conclusion. Consistent with the FRA amendment to NEPA, NOAA has determined that the analysis in the RC PEIS and the underlying assumptions therein in the context of the actions proposed in this McCoy's Creek Restoration Construction – The Branches EA remain valid and continues to be applicable as a programmatic evaluation for Restoration Center restoration planning.

This targeted EA tiers from the RC PEIS in accordance with NEPA and the Companion Manual for NOAA Administrative Order NAO 216-6A, "Policy and Procedures for Compliance with the National Environmental Policy Act and Related Authorities," subsection IX.A, and provides project-specific analyses for activities and impacts that are not included in the RC PEIS (i.e., removal and disposal of contaminated soil/sediment during remediation).

Previous review of initially-funded activities including providing support for capacity building, community engagement and implementation monitoring was evaluated by completion of a Phase I Inclusion Analysis under the RC PEIS. After reviewing the Branches and proposed actions to restore the natural functions of the upstream freshwater portion of the creek, the NOAA CRP determined that the restoration construction activities, as described in Section 6.2.1, would fall within the scope and effect of activities analyzed in the RC PEIS Sections 2.2.2.4.1 (Invasive Species Control), 2.2.2.5 (Freshwater Stream Restoration), 2.2.2.5.1 (Channel Restoration), 2.2.2.5.2 (Bank Restoration and Erosion Reduction[16]), 2.2.2.11.3 (Wetland Restoration-Sediment Removal), 2.2.2.11.4 (Wetland Restoration-Sediment /Materials Placement), and 2.2.2.11.5 (Wetland Planting). Full analysis of these approaches per the RC PEIS is incorporated by reference and summarized in Section 11, Environmental Consequences, of this EA.

The removal and remediation of contaminated materials associated with the proposed restoration, while to be conducted and funded by COJ, will occur concurrent with NOAA-funded restoration construction. As such, Section 11, Environmental Consequences, of this EA considers the environmental consequences associated with those soil/sediment remediation activities as provided in Section 6.2.2, Preferred Alternative.

9. Scope of NEPA Analysis

To determine whether an action has the potential to result in significant impacts, the context and intensity of the proposed action are considered. Context refers to the area of impacts (i.e., local or statewide) and duration (i.e., whether they are short or long term). Intensity refers to the severity of impact and could include the timing of the action (e.g., more intense impacts would occur during critical periods like high visitation or wildlife breeding/rearing). Intensity is also described in terms of whether the impact would be beneficial or adverse. "Adverse" is used in this analysis only to describe the evaluation under NEPA. The analysis in this targeted EA characterizes adverse impacts as short- or long-term and minor, moderate, or major. The analysis of beneficial impacts focuses on the duration (short- or long-term) and does not attempt to specify the intensity of the benefit.

10. Affected Environment

This section describes the existing environment that would be affected by implementation of the Proposed Action. The Proposed Action includes habitat restoration of the Branches and remediation of contaminated soils/sediment within the Branches site footprint. The Branches restoration site is an

[16] Includes stormwater management activities

approximately 19 acre site located in Jacksonville, Florida, in Duval County. This includes the headwater tributaries of McCoys Creek, North Branch and South Branch, located between the Beaver and Edison Street bridges and the McCoys Creek confluence to Leland Street (Figures 1 and 2).

Documentation used to prepare this section includes reports by the consultants for COJ, in support of the design and permitting process. These include the HP RAP, the Hollybrook Park Site Assessment Report (CDM Smith 2024a), and the Hollybrook Park Site Assessment Report Addendum (CDM Smith 2024b). Collectively, these, and other documents summarize environmental assessment activities conducted from 2019 to 2024 and provide comprehensive discussions of historical and current investigations at the site. The documents were prepared in accordance with F.A.C. Chapter 62-780. The HP RAP, specifically, addresses the remediation aspects of the site design. Information gathered from site visits, existing documentation, and correspondence with Federal, State, and local agencies was also used to characterize the existing environment.

10.1 Geology and Soils

Soils are generally defined as the material making up the land surface and subsurface, often in wooded or undeveloped areas. The dominant soil at this site is Arent, or human disturbed soil, otherwise, the different types of soils can generally be described as sand, silty sand, and clayey sand and are classified as Pelham fine sand (0-2 percent slope), Urban Land-Ortega-Kershaw complex (0-8 percent slopes), and Urban Land-Hurricane-Albany complex (0-5 percent slopes) (Wood 2020). Sediment is specifically associated with aquatic environments and can be found in bodies of water, such as creeks and ditches. Like soil, sediment can also be impacted by contaminants. Soil and sediment quality at McCoys Creek is degraded due to human disturbance and the presence of contaminated materials.

The HP RAP describes the area of contamination as 5.33 acres located at 210 Hollybrook Avenue, in the northeastern middle section of Jacksonville's Hollybrook Park, shown in Figures 5 and 6. Ash waste and contaminated materials were identified across the 5.33 acres from the western border to the eastern border, and at varying depths and thickness and in the immediate vicinity of McCoys Creek. Contaminated materials were observed at the surface and as deep as 10 feet (ft) below land surface (bls) on the eastern portion, and as deep as 20 ft bls on the western portion. Sampling determined the soil impacts extend to the property boundaries of Hollybrook Park and could extend further offsite to the west, south, and east. The northern limit is bordered by the Burke Street Pond Site that was remediated and reconstructed as a stormwater pond. Sample results from 2019, 2021, and 2024 showed that the main contaminants detected in the surface soil and subsurface soil above regulated soil cleanup thresholds include lead, arsenic, benzo(a)pyrene equivalent (BaP-eq), barium, and TRPH. Chromium, cadmium, selenium, lead, silver, mercury, and polycyclic aromatic hydrocarbons were detected above soil cleanup threshold levels for leachability prior to 2024 but did not exceed any cleanup thresholds during resampling. (CDM Smith 2025)

10.2 Water Resources

McCoys Creek, a Class III freshwater tributary flowing into the St. Johns River. Historically, its water quality has been poor due to runoff, industrial land uses, and untreated human waste, with persistent fecal indicator bacteria impairments. The Branches restoration site includes two city-owned stormwater retention ponds, Cherokee Street Pond and Burke Street Pond (within Hollybrook Park), which manage surface water runoff. Groundwater across the site, present at varying depths, generally flows towards McCoys Creek and has been primarily impacted by arsenic and lead, though recent monitoring indicates relatively low impacts with concentrations generally reducing over time.

10.2.1 Surface Water

McCoys Creek bisects the 19 acre restoration site. Florida classifies waters of the state into six classes according to designated uses and they are arranged in order of degree of protection. Surface waters of the state are Class III - "Fish Consumption, Recreation, Propagation and Maintenance of a Healthy, Well-Balanced Population of Fish and Wildlife" unless otherwise identified. McCoys Creek, is a Class III freshwater tributary that flows into the St. Johns River and exhibits a salinity gradient. It is freshest at its headwaters (the Branches) and its salinity increases as it enters the St. Johns River at its mouth.

The water quality for twenty-nine tributaries of the Lower St. Johns River Basin (LSJRB) including McCoys Creek, are analyzed annually for the State of the River Report for the Lower St. Johns River Basin (Pinto et al. 2024). The report also includes information related to FDEP's verified list of impaired waters. Historically, McCoys Creek's water quality has been poor due to road runoff, industrial land uses, and untreated human waste. Data from the FDEP indicates that fecal coliform levels have historically been above the state's standard water quality criteria, and McCoys Creek has a FDEP verified impairment for Fecal Indicator Bacteria (E.coli) as part of the LSJRB. Water quality from 2022-2024 indicates that fecal indicator bacteria levels remain a challenge in McCoys Creek. (Pinto et. al 2024)

10.2.2 Stormwater Management Facilities

Two city-owned stormwater retention ponds are present within the Branches restoration site, the Cherokee Street Pond and the Burke Street Pond. Both ponds receive surface water runoff, which either percolates into the sediment or drains into McCoys Creek (CDM Smith 2024). The first pond is located between Sunshine Street and Cherokee Street along the South Branch of McCoys Creek (Cherokee Street Pond). The second, larger stormwater retention pond is located within Hollybrook Park, on the North Branch of McCoys Creek (Burke Street Pond) and is located in an area that was previously remediated for contaminated materials in 2005 and 2016 (Wood 2018). The ponds are associated with the COJ's stormwater quality bank, operated for the purposes of permit crediting of development projects occurring downtown Jacksonville.

10.2.3 Groundwater Resources

Groundwater is present at varying depths across the Branches restoration site, ranging from approximately 1.5 to 9 ft bls. The groundwater flow generally moves towards McCoys Creek.

Within the HP RAP assessment area, arsenic and lead are confirmed to be the only contaminants in the groundwater above state threshold levels from 2019 to 2024. Additional 2024 sampling results from existing monitoring wells confirmed that impacts to groundwater at the site are relatively low. As of this event, most monitoring wells had at least two consecutive sampling events with COCs below groundwater cleanup thresholds. The groundwater at the site has been primarily impacted by lead and arsenic, with concentrations that have generally reduced over time, and the impacts are vertically delineated through the use of shallow and intermediate monitoring well depths. (CDM Smith 2025)

10.3 Air Resources

The Clean Air Act (CAA; 42 U.S.C. §§ 7401-7626) regulates air emissions from stationary and mobile sources to protect human health and the environment. Under the CAA, the EPA defines National Ambient Air Quality Standards (NAAQS)[17] for pollutants that are harmful to public health and the environment (EPA 2025a). The EPA is responsible for establishing primary and secondary NAAQS for six criteria pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur

[17] https://www.epa.gov/criteria-air-pollutants/naaqs-table

dioxide. Duval County is currently in attainment of EPA's NAAQS for all criteria pollutants (EPA 2025b).

10.4 Coastal Habitats: Living Coastal and Marine Resources and Essential Fish Habitat

The Branches is located within the freshwater portion of the system, but is hydrologically connected to coastal and estuarine resources. McCoys Creek is a 2.8 mile tidally influenced tributary to the St. Johns River Estuary, an important system for the fisheries of Northeast Florida. As a coastal inlet, the St. Johns River is considered an Essential Fish Habitat and a Habitat Area of Particular Concern for Penaeid Shrimp (South Atlantic Fishery Management Council 1998). Dominant small prey species in the LSJRB include anchovy, striped mullet, killifish, menhaden, Atlantic croaker, spot, silversides, and silver perch (Pinto et al. 2024). Recreationally, the St. Johns River area supports high numbers of red drum, spotted seatrout, croaker, sheepshead, flounder, largemouth bass, and bluegill that are sought by both local and visiting anglers (Pinto et al. 2024). Even with the current degraded conditions of McCoys Creek, a limited fish survey conducted by Jacksonville University in 2020 found shad, striped mullet, red drum, Atlantic needlefish, anchovy, bluegill, common snook, silverside, red drum, crayfish, river mussels, oligochaeta, olive nerite, clown goby, and bay barnacle within the tidal portion of the system. The survey sampled at two tidally influenced locations in the creek, near the mouth and the midpoint. Overall they found 18 species of fish and invertebrates with a significantly higher number of fish and a larger number of species at the mouth compared to the midpoint of the creek (White et al. 2021). There is no known fish data for the freshwater portions of McCoys Creek.

McCoys Creek, itself, including the Branches, does not fall within designated essential fish habitat or habitat areas of particular concern (NOAA Fisheries 2025). Project Design Criteria Checklists for the USACE Jacksonville District's Programmatic Biological Opinion were completed by the restoration design team. No mangroves, seagrasses, corals, or hardbottom habitats are present in the Branches. (Wood 2020)

The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory on-line mapper (USFWS 2017) classifies riverine and freshwater wetlands within the Branches. In-person wetland field-delineations for the Branches were verified by St Johns River Water Management District (SJRWMD) staff in 2019 and 2023. The site was evaluated for the presence of wetlands in accordance with US Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE 1987) and associated Atlantic and Gulf Coastal Plain Regional Supplement; and the Florida Department of Environmental Protection (FDEP) delineation method, Delineation of the Landward Extent of Wetlands and Surface Waters [Chapter 62-340. Florida Administrative Code (F.A.C), 1994]. Wetlands were identified throughout the Branches, exhibiting very low functions and value with prevalent nuisance exotic vegetation. The majority of delineated wetlands are found immediately adjacent to the Branches of McCoys Creek (Figure 7). Wetlands within the Branches site footprint are generally classified as mixed wetland hardwoods and herbaceous wetlands, common habitat types within the LSJRB and local area. Dominant canopy vegetation within the mixed wetland hardwood areas included red maple (*Acer rubrum*), sweetgum (*Liquidambar styraciflua*), laurel oak (*Quercus laurifolia*), black walnut (*Juglans nigra*), sugarberry (*Celtis laevigata*), and hickory (*Carya* sp.). Dominant canopy vegetation in the herbaceous wetlands included wax myrtle (*Morella cerifera*), and invasive Carolina willow (*Salix caroliniana*), and elephant ear (*Colocasia esculenta*). (Wood 2020)

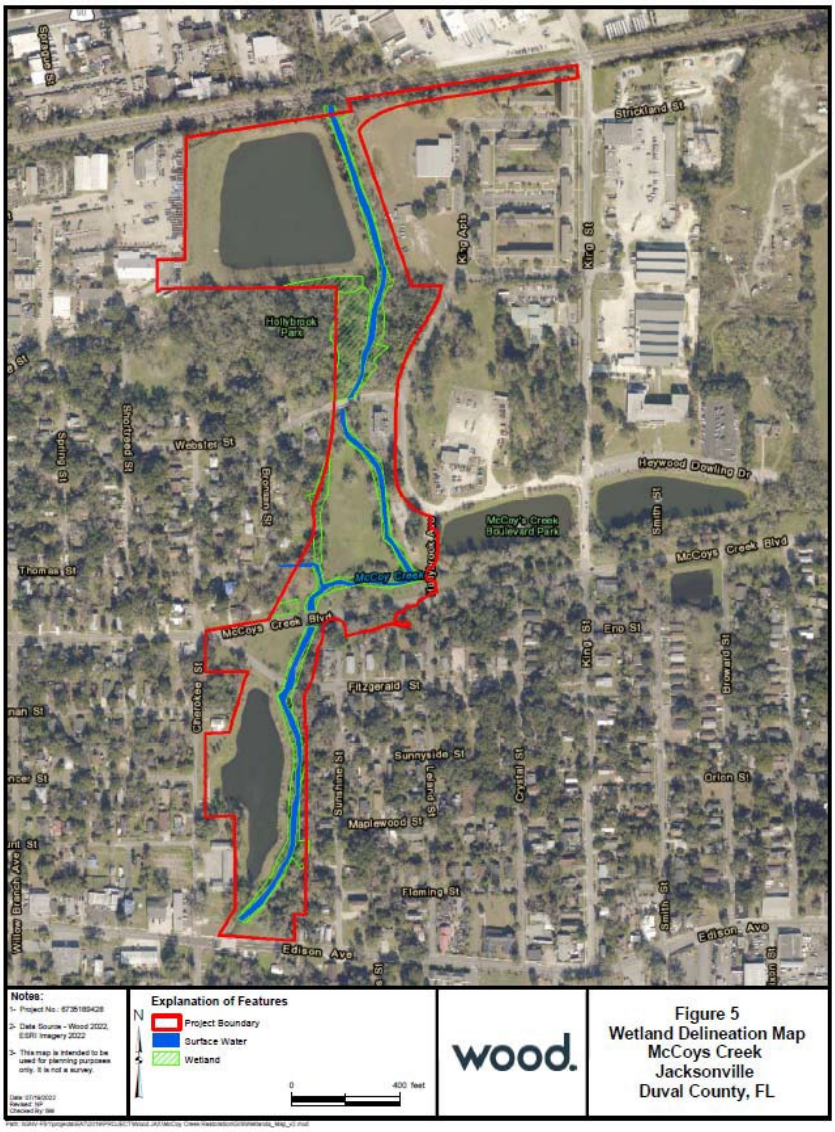

Figure 7. Wetland delineation map of the Branches restoration. The red outline indicates the restoration site boundary. Blue shows currently existing surface waters and green outlines wetlands. (Source: Wood 2022)

10.5 Threatened and Endangered Species

Wildlife utilization of the Branches by USFWS ESA listed species is rare or unlikely. Wildlife using this habitat are likely limited to species commonly found in urban or disturbed areas. To assess protected species and their critical habitats, a desktop survey was performed using the Florida Natural Areas Inventory (FNAI) Biodiversity Matrix (2022) and USFWS Information for Planning and Consultation (IPaC) Resource List Report (2022) to identify listed species and critical habitats potentially present. This search revealed that the wood stork (*Mycteria americana*) and West Indian manatee (*Trichechus manatus)* are the only state and federally listed threatened species likely to occur in the vicinity of the Branches (FNAI, 2022). This was complemented by a field assessment in August 2019, which included a pedestrian survey, looking for signs of protected species and collecting field notes on observed habitat, which was then evaluated against species' habitat requirements. (Wood 2022)

There are 13 species of migratory birds identified by IPaC for the Branches, but none were observed on-

site during the 2019 site visit. Further, many of the migratory species listed are found in coastal waters, which are not present within the Branches. While none of the other species identified by FNAI or IPaC for the Branches were observed at the time of the site visit, habitats for the threatened wood stork and eastern indigo snake were observed (Table 1). Potential nesting habitat for the wood stork was observed within the forested wetland. The eastern indigo snake can be found in a variety of habitats, so there is potential for the presence of this species in the Branches. (Wood 2020)

Table 1. Threatened and Endangered Species That May Occur in the Project Site

Scientific Name	Common Name	Federal Listing Status [a]	Preferred Habitat	Habitat Present on Project Site[g]
Birds				
Laterallus jamaicensis ssp. *jamaicensis*	Eastern Black Rail	T	Salt, brackish, and freshwater marshes (d)	No
Mycteria americana	Wood Stork	T	Nesting: mixed hardwood swamps, sloughs, mangroves, cypress domes/strands; Foraging: freshwater and estuarine marshes (c)	Yes
Picoides borealis	Red-cockaded Woodpecker	E	Open and mature pine woodlands (e)	No
Mammals				
Trichechus manatus (b)	West Indian Manatee (b)	T	Coastal waters, rivers, and springs (c)	No
Reptiles / Amphibians				
Ambystoma cingulatum	Frosted Flatwoods Salamander	T	Slash and longleaf pine flatwoods with a wiregrass floor and scattered wetlands (c)	No
Caretta caretta	Loggerhead Sea Turtle	T	Marine coastal and oceanic waters (e)	No
Chelonia mydas	Green Sea Turtle	T	Estuarine and marine coastal and oceanic waters (e)	No
Dermochelys coriacea	Leatherback Sea Turtle	E	Oceanic waters (e)	No
Drymarchon corais couperi	Eastern Indigo Snake	T	Pine flatwoods, hardwood forests, edges of cypress swamps, and hydric hammocks (c)	Yes
Eretmochelys imbricata	Hawksbill Sea Turtle	E	Marine coastal and oceanic waters (e)	No
Gopherus polyphemus	Gopher Tortoise	C	Well-drained, sandy soils, longleaf pine sandhills, xeric oak hammocks, scrub, pine flatwoods, dry prairies, and coastal dunes (a)	No
Insects				
Danaus plexippus	Monarch Butterfly	C	Roosting: habitats with deciduous and evergreen trees with nectar sources nearby. Breeding: open, grassy habitats with milkweed species present (obligate host plant) (f)	No

Note:
T = Federally Designated Threatened C = Federal Candidate E = Federally Designated Endangered

Sources:
(a) IPaC Resource Report generated 03/04/2022 (USFWS, 2022b)
(b) FNAI Biodiversity Matrix Query Results generated 03/04/2022 (FNAI, 2022)
(c) Preferred habitat determined using Florida Fish and Wildlife Conservation Commission (FWC) species profiles (FWC, 2020a)
(d) Preferred habitat determined using USFWS species profiles (USFWS, 2022a)
(e) Preferred habitat based on the FNAI Field Guide to the Rare Plants and Animals of Florida (FNAI, 2001)
(f) Preferred habitat based on USFWS pollinator profile (USFWS, 2019)
(g) Wood, 2019. Site Visit August 2019.

(Source: Wood 2022)

The USACE consultation for the overall McCoys Creek Restoration identified the following NMFS ESA species: Shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), smalltooth sawfish (*Pristis pectinata*), green sea turtle (*Chelonia mydas*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta).* However, wildlife utilization of the Branches by NMFS ESA listed species is unlikely. To assess protected species and their critical habitats, a desktop survey was performed using The Southeast

Regional ESA Section 7 Mapper (2025) to identify listed species and critical habitats potentially present. This search revealed that no NMFS ESA species or critical habitat are documented in the Branches.

10.6 Cultural and Historical Resources

The Branches has a rich history: its northern section was once the African-American community of La Villa, a Black entertainment hub, while the southern end might have been part of a plantation known as Dell's Bluff. Early 20th-century development led to the 1928 channelization of McCoys Creek for flood control. Today, the area is largely green space surrounded by residential, commercial, and industrial zones. (CHG 2022)

The Commonwealth Heritage Group, Inc (CHG) conducted a cultural resource assessment survey in the Branches for the COJ in 2022. The assessment included background research, a field survey, and analysis and documentation as per the guidelines of the Florida Department of Historical Resources (FDHR). The assessment identified historic structures and bridges in the vicinity of the Branches, however, none of the identified resources lie within the Branches site footprint (Wood 2022). Surface inspections did not find any evidence of archaeological resources, as would be expected given that the site is highly disturbed, consisting of stormwater retention areas, roads, fill and other modifications.

10.7 Land Use and Recreation

The Branches is principally located in a residential area that also, historically, held several industrial sites. Hollybrook Park is present on the west-central portion of the site which consists of a playground area, paved basketball court, two stormwater ponds with fountains, a sidewalk and benches. Over time recreational amenities within Hollybrook Park were removed and replaced with retention ponds. The creek itself is largely inaccessible to recreation as it is crowded by vegetation. There are no public beaches located within the Branches. Additionally, flow of the creek is currently restricted, which leads to frequent flooding and hinders access to the Branches. Diminished water quality within the creek further limits recreational activities such as fishing or boating (Wood 2020).

Using the Florida Land Use Cover Classification System (FLUCCS), land use for the Branches is mostly parks recreational (1800) and open land (1900). The rest of the Branches is industrial (1500), institutional (1700), upland hardwood forest (4200), mixed wetland hardwoods (6170), and transportation (8100) (Wood 2022) (Figure 8). The area immediately adjacent to the Branches includes institutional, industrial, high density residential, transportation, and commercial land use classifications (FDEP 2012).

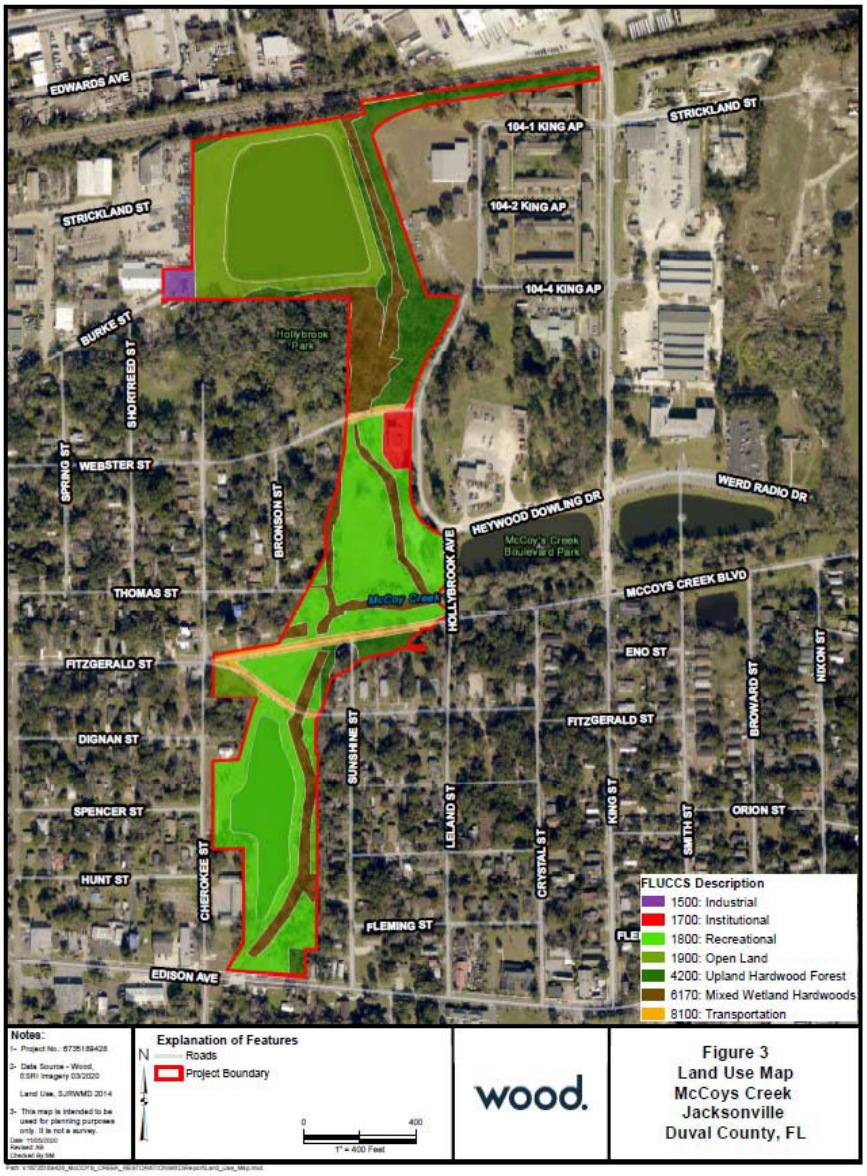

Figure 8. Land Use Map for the Branches site footprint. (Source: Wood 2022)

10.8 Socioeconomics

The Branches and surrounding neighborhoods are in Census Tract 26 in Jacksonville in Duval County, Florida. According to 2023 U.S. Census Bureau's American Community Survey census data, there are approximately 3,682 people living in this 1.7 square mile area. The population is 79% black, 15% white, and 4% Hispanic. The median age, approximately 33 years old, is younger than the median age for both the COJ and Duval County as a whole. Seventy-three percent (73%) of residents have a median household income of less than $50,000 per year and 45% are living below the poverty line. The median household income is $30,489, compared to $66,981 for Jacksonville. In terms of education, about 85.5% of residents aged 25 and older have at least a high school diploma or its equivalent. The percentage of residents with a bachelor's degree or higher, about 14%, is lower than the city and county averages. Seventeen percent (17%) of residents have no computer device and 25% have no internet access. The housing landscape in Census Tract 26 is primarily composed of renter-occupied units. The median home value in this area is significantly lower than that of Jacksonville and Duval County, reflecting the overall

economic conditions of the tract. (Census Reporter 2025)
McCoys Creek creates significant flooding issues, inundating adjacent roadways and impacting residential and industrial communities, as it frequently overflows its banks during heavy storms (Wood 2020).

11. Environmental Consequences

NEPA (42 U.S.C. §§ 4321 et seq.) requires all Federal agencies to consider the environmental impact of their proposed actions before deciding whether and how to proceed (42 U.S.C. § 4321, 4332). NEPA's aims are to ensure that agencies consider the potential environmental effects of their proposed actions in their decision-making processes and inform and involve the public in that process (42 U.S.C. § 4332). This Section evaluates the magnitude (minor, moderate or major) of direct and indirect environmental consequences for sediment remediation activities in the short term and long term associated with various considerations of the affected environment. Other restoration construction activities, including invasive species control, freshwater stream restoration, channel restoration, bank restoration and erosion reduction, wetland restoration and shoreline stabilization, and wetland planting, fall within the scope of the RC PEIS, and that analysis is incorporated by reference and summarized in Section 11.2.1. For comparative purposes, impacts associated with the no action alternative are also described.

11.1 No Action

Under the No Action alternative, no restoration activities and no monitoring activities would be performed within the Branches portion of McCoys Creek. The No Action alternative would leave the Branches in their existing condition. It is not expected to provide the natural resource benefits that are expected from restoration alternatives; and the water quality and flood capacity will not be improved. Embankments will likely continue to erode, leading to further chronic flooding and reducing present ecological communities (Wood 2020). Litter, excess nutrients, and bacteria will continue to compromise the water quality (Wood 2020). If the Branches phase of the larger McCoys Creek Restoration initiative remains unconstructed, it could have adverse effects on the resiliency and longevity of Phase 1 and 2 restoration. Alternatively, it could precipitate modifications of adjacent phase(s) at additional costs to assure compatible flow regimes and continuity of sediment transport among areas. Under the No Action Alternative, the restoration of McCoys Creek will not occur, however, COJ is committed to the described remediation activities. These actions, however, would not be federally sponsored or occur in partnership with federally sponsored actions.

The No Action Alternative serves as a point of comparison to determine the context, duration, and magnitude of any environmental consequences that might result from the implementation of other restoration actions.

11.2 Preferred Alternative: McCoys Creek Restoration with Phased Remediation

With construction of the Branches, McCoys Creek will have approximately 9,000 linear feet of restored shoreline and will include created and restored riparian buffers, wetlands, and upland forest dominated by native species. An herbaceous littoral wetland and forested littoral wetland will surround the remaining pond area, increasing nutrient loading capacity and improving water quality.

Prior to and in conjunction with restoration actions that disturb soils, soil remediation activities are to be implemented per the HP RAP. Known locations of contaminated soils are addressed by the HP RAP; however ash contamination is variable and the selected contractor will coordinate any potential encounters of contaminated materials during earthwork with COJ per the Incinerator Ash Material Management Plan. Soil contamination identified outside of the restoration construction footprint will be

addressed independently in the future by COJ under a second and third HP RAP addendum. Once all remedial actions within the boundaries of the entire site (immediate creek redesign area, east portion, and west portion) are completed, COJ can employ administrative or legal controls to help protect the integrity of the actions taken and manage potential exposure pathways.

McCoy's Creek will be re-shaped and adjacent wetlands will be enhanced through invasive/nonindigenous species removal, hydrologic improvements, and supplemental planting of desirable wetland species. The Branches restoration was developed using natural channel design that will result in ecological restoration and flood mitigation. The Branches restoration will recreate a creek channel with a sustainable meander pattern and in-stream habitat to provide multiple benefits including, creation of fish and wildlife habitat, improved water quality, reduced flooding, and nature-based recreation. Within the Branches, all three creek segments, the North Branch, South Branch, and McCoys Creek confluence will be reconfigured through excavation and earthwork including filling and regrading. To stabilize newly created meandering channels and shorelines, logs will be anchored and secured within the system and native species planted.

Creek reconfiguration of the South Branch will also involve modifications to the existing Cherokee Street stormwater pond. The Burke Street stormwater pond outfall along the North Branch will be relocated and the outfall size modified while retaining sufficient design treatment. The existing retention pond located in the South Branch will be redesigned to a smaller footprint to accommodate the stream relocation. This reduction will reduce the overall stormwater treatment provided by the pond and reduce the nutrient load removal credits it contributes to the COJ water quality bank. A water quality improvement assessment was completed for the Branches. The assessment estimated the nutrient loading reduced by proposed stream restoration as compared to the existing pond treatment. It also documented reasonable assurance that restoration of the Branches will provide adequate treatment to offset a reduction in treatment from the Cherokee Street stormwater pond (Black & Veatch 2024). The proposed configuration of the restored meandering creek will provide storage for larger volumes of water than its current state, offering greater stormwater treatment capacity during weather events. The restored creek system will be an improved natural drainage system with reduced erosion, increased residence time, increased nutrient cycling, and increased attenuation capacity.

The Branches restoration involves grading and earthwork that are expected to improve the physical environment at McCoys creek, with short-term, direct, localized, minor adverse impacts from the presence of construction in order to achieve this. The resulting, improved stream flow will produce long term direct and indirect moderate benefits beyond the Branches site footprint to the surrounding community and enhance wildlife presence and habitat at the site.

The impacts of soil remediation activities that will be conducted by COJ, concurrent with the restoration, are evaluated below.

11.2.1 Restoration Construction Activities

NOAA CRP has determined that the restoration construction components of the Branches are fully described in RC PEIS Sections 2.2.2.4.1 (Invasive Species Control), 2.2.2.5.1 (Channel Restoration), 2.2.2.5.2 (Bank Restoration and Erosion Control), 2.2.2.11.3 (Sediment Removal), 2.2.2.11.4 (Sediment/Materials Placement) and 2.2.2.11.5 (Wetland Planting). The expected impacts are within the scope of analysis for the activity types in RC PEIS Sections 4.5.2.4.1 (Invasive Species Control), 4.5.2.5.1 (Channel Restoration), 4.5.2.5.2 (Bank Restoration and Erosion Control), 4.5.2.11.2 (Wetland Restoration

and Shoreline Stabilization Techniques[18]), and 4.5.2.11.3 (Wetland Planting). The information and analysis from the RC PEIS are incorporated by reference and summarized below. Tables 2 through 6 were pulled from the RC PEIS and summarize the impacts of each restoration activity within the scope of the RC PEIS. In general, adverse impacts from the proposed Branches restoration are expected to be minor and short-term, with mainly minor to moderate and long-term beneficial impacts anticipated.

Table 2. Summary of Impacts from Invasive Species Control

Resource	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/ Intensity*	*Quality*
Geology and Soils	Direct	Short-term	Localized	Moderate	Adverse
	Direct	Long-term	Localized	Moderate	Beneficial
Water	Direct	Short-term	Beyond Project Site	Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Air	Direct	Short-term	Localized	Moderate	Adverse
Living Coastal and Marine Resources and EFH	Direct	Short-term	Beyond Project Site	Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Major	Beneficial
Threatened and Endangered Species	Direct	Short-term	Beyond Project Site	Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Major	Beneficial
Cultural and Historic Resources	No Effect				
Land Use and Recreation	Direct	Short-term	Localized	Moderate	Adverse
Socioeconomics	No Effect				

Table 3. Summary of Impacts from Channel Restoration Activities

Resource	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/ Intensity*	*Quality*
Geology and Soils	Direct	Short-term	Localized	Minor	Adverse
Water	Direct	Short-term	Beyond Project Site	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Air	Direct	Short-term	Beyond Project Site	Minor	Adverse
Living Coastal and Marine Resources and EFH	Direct & Indirect	Short-term	Beyond Project Site	Minor & Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Threatened and Endangered Species	Direct & Indirect	Short-term	Beyond Project Site	Minor & Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Cultural and Historic Resources	Direct & Indirect	Short-term & Long-term	Localized	Minor	Adverse
Land Use and Recreation	Direct	Short-term	Beyond Project Site	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Socioeconomics	Indirect	Short-term & Long-term	Localized	Minor & Moderate	Beneficial

[18] Includes non-contaminated sediment removal and sediment/materials placement

Table 4. Summary of Impacts from Bank Restoration and Erosion Reduction Activities

Resource	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/ Intensity*	*Quality*
Geology and Soils	Direct	Short-term	Localized	Minor	Adverse
Water	Direct	Short-term	Beyond Project Site	Minor	Adverse
	Indirect	Long-term	Beyond Project Site	Moderate	Beneficial
Air	Direct	Short-term	Localized	Minor	Adverse
Living Coastal and Marine Resources and EFH	Direct & Indirect	Short-term	Beyond Project Site	Minor & Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Threatened and Endangered Species	Direct & Indirect	Short-term	Beyond Project Site	Minor & Moderate	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Cultural and Historic Resources	Direct & Indirect	Short-term & Long-term	Localized	Minor	Adverse
Land Use and Recreation	Direct	Short-term	Beyond Project Site	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Socioeconomics	Indirect	Short-term & Long-term	Localized	Minor & Moderate	Beneficial

Table 5. Summary of Impacts from Wetland Restoration and Shoreline Stabilization Techniques

Resource	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/ Intensity*	*Quality*
Geology and Soils	Direct	Short-term	Localized	Minor	Adverse
Water	Direct	Short-term	Localized	Minor	Adverse
	Indirect	Long-term	Beyond Project Site	Moderate	Beneficial
Air	Direct	Short-term	Beyond Project Site	Minor	Adverse
Living Coastal and Marine Resources and EFH	Indirect	Short-term	Beyond Project Site	Minor & Moderate	Adverse
	Direct	Short-term & Long-term	Beyond Project Site	Moderate	Beneficial
Threatened and Endangered Species	Direct & Indirect	Short-term	Beyond Project Site	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Cultural and Historic Resources	Indirect	Long-term	Localized	Minor	Adverse
Land Use and Recreation	Indirect	Permanent	Beyond Project Site	Minor	Beneficial
	Indirect	Long-term	Localized	Minor	Adverse
Socioeconomics	Indirect	Short-term	Beyond Project Site	Minor	Beneficial

Table 6. Summary of Impacts from Wetland Planting Activities

Resource	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/ Intensity*	*Quality*
Geology and Soils	Direct	Short-term	Localized	Minor	Adverse
Water	Direct	Short-term	Localized	Minor	Adverse
	Indirect	Long-term	Beyond Project Site	Moderate	Beneficial
Air	No Effect				
Living Coastal and Marine Resources and EFH	Direct	Short-term	Localized	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Threatened and Endangered Species	Direct	Short-term	Localized	Minor	Adverse
	Direct	Long-term	Beyond Project Site	Moderate	Beneficial
Cultural and Historic Resources	Indirect	Long-term	Localized	Minor	Adverse
Land Use and Recreation	Direct	Short-term	Localized	Minor	Adverse
	Indirect	Permanent	Beyond Project Site	Minor	Beneficial
Socioeconomics	Indirect	Short-term	Beyond Project Site	Minor	Beneficial

11.2.2 Contaminated Sediment Remediation Activities

The RC PEIS does not cover the removal and disposal of contaminated soils/sediment associated with remediation; therefore, the environmental consequences of those activities are provided in Table 7, below.

The proposed earth disturbing activities within the Branches will be conducted as per the COJ Incinerator Ash Material Management Plan (Appendix B), CMMP, and the HP RAP. The CMMP was prepared to allow the overall McCoys Creek Restoration objectives to be met while achieving environmental compliance.

11.2.2.1 Geology and Soils

As previously described in Section 6, soils and sediment at the Branches have been previously altered including placement of contaminated materials at various locations within the Branches site footprint. This includes the past remediation of the Burke Street and Cherokee Street stormwater ponds that are adjacent to and within the site footprint. Further modifications to the Branches will principally be in the grading and fill of earth at the site. Contaminated materials removal and remediation are being integrated into the Branches by first addressing the section of Hollybrook Park targeted in the HP RAP (described above) and will involve the removal of waste and ash within the footprint of the restoration and capping of residual contamination that is left in place, if any. All necessary actions will be taken to achieve environmental compliance including contaminated site clean-up. In general, removal of all contaminated soil and sediment will occur to a minimum of two feet below the bottom design elevation, then backfilled with a minimum of two feet of clean fill. Additional backfill may be required to achieve design grades for the restoration. Geofabric materials will be installed below placement of any clean fill as a visual marker and to prevent erosion and migration of materials below. Should additional contaminated soil/sediment be encountered in the area outside of the HP RAP, it will be appropriately addressed as described in Section 6.2.2.

Therefore, under the proposed action, there will be direct, short-term minor to moderate localized

adverse impacts to the geology. Beneficial impacts will be direct, positive, long term moderate and localized to the sediment/soil quality at this site.

11.2.2.2 Water Resources

11.2.2.2.1 Surface Water

Proposed remediation will temporarily bypass and relocate the creek while the restoration actions will then permanently realign the creek channel to restore hydrologic flows and improve habitat. A Dewatering Management Plan and a Soil Management Plan will be in place to prevent any migration of contaminated soil/sediments during construction. Per the HP RAP, to manage contaminated soils/sediments and prevent release to the creek, McCoys Creek will be bypassed around the work area to relocate the existing creek to an alternate location. During construction, erosion control best management practices will be implemented including the use of staked turbidity curtains and silt fencing to protect off site wetlands and surface waters; and visual monitoring of turbidity to ensure applicable water quality requirements are in compliance (Wood 2020).

11.2.2.2.2 Stormwater Management Facilities

To accommodate the creek reconfiguration, the size of the Cherokee Street stormwater pond in the South Branch will be reduced. In addition, the Burke Street stormwater pond outfall along the North Branch will be relocated and the outfall size modified while still retaining sufficient capacity to manage and reduce runoff for its intended design.

11.2.2.2.3 Groundwater Resources

The existing groundwater at the site has been primarily impacted by lead and arsenic, with concentrations that have generally reduced over time. Per the HP RAP, groundwater contamination was not a concern and required no action beyond monitoring of natural attenuation. All HP RAP remediation actions will be taken to prevent and mitigate impacts to groundwater resources. Yearly monitoring and reporting to FDEP will be conducted until remediation of the entire Hollybrook Park site is complete.

Therefore under the proposed action there will be minor, short-term adverse, direct impacts to water quality. However, it will provide moderate long-term, beneficial direct and indirect impacts to water quality by reducing the amount of contaminated soils/sediment that the water column and ground water could potentially become exposed to. The remediation, in conjunction with restoration of the Branches will provide increased water attenuation capacity and improved flood control, wetland creation, improved water quality, and wetland enhancement.

11.2.2.3 Air Resources

The CMMP requires that all contractors are compliant with Occupational Safety and Health Administration (OSHA) requirements. To ensure compliance, the contractors will be responsible for developing a Health and Safety Plan (HASP). A component of the HASP will include dust monitoring when soil disturbance is occurring. The contractors must record respirable dust concentrations in real-time several times daily. If the dust exceeds the action level (typically 0.15 mg/m^3), work practices must be altered or engineering controls implemented to correct the condition.

Short-term minor adverse impacts to air quality may occur during construction. Dust control conditions will be implemented. Exhaust emissions (including greenhouse gases) from heavy equipment contain air pollutants but these emissions would only occur during the construction phase, the amounts would be small and localized, and should be quickly dissipated by prevailing winds. There would be no long-term

adverse impacts to air quality.

11.2.2.4 Living Coastal and Marine Resources and Essential Fish Habitat

Although the Branches does not experience tidal influence, the creek is connected to the St. John's River which is a tributary to the St. Johns River estuary and is identified as EFH and a HAPC for pennaid shrimp and various small prey species. While there is no known fish data for the freshwater portions of McCoys Creek, it can be anticipated that improving the habitat, flood capacity, and water quality of McCoys Creek will ultimately contribute to improved conditions from the creek's main stem and onward to coastal and estuarine resources via the St. Johns River. USACE determined that the McCoys Creek Restoration would not have a substantial adverse impact on EFH or Federally managed fisheries in the South Atlantic Region and provided such determination by public notice. SERO HCD did not provide EFH conservation recommendations pursuant to Section 305(b)(2) of the Magnuson-Stevens Act. NOAA CRP reviewed the USACE determination, completed its own review utilizing the EFH Mapper (NOAA, 2025), and concurs with the USACE determination. As such, no further consultation is required unless future modifications are proposed that may result in adverse impacts on EFH. No mangroves, seagrasses, corals, or hardbottom habitats are present in the Branches.

All contaminated sediment within the Branches will be removed to a depth of at least 2 feet below existing grade and replaced with clean material suitable for the new creek habitat prior to and during restoration, therefore eliminating potential threats to aquatic and terrestrial life. Remediation and restoration construction work will take place within, on, or over approximately 10.65 acres of nontidal wetlands, riparian buffer, or other surface water to create the new creek channel alignment (Wood 2020). Although there will be direct minor short term adverse impacts within existing, poor functioning wetlands from remediation construction, the proposed Branches restoration will ultimately provide approximately 15 acres of surface water/wetland creation and enhancements as improved wildlife habitat (Wood 2020).

It is anticipated there will be short-term, direct, minor, localized adverse effects on fish and wildlife during construction due to potential brief displacement. However, improved food web production for living and coastal marine resources in the Branches and downstream, along with the removal and capping of contaminated sediments will provide long-term, direct and indirect moderate benefits.

11.2.2.5 Threatened and Endangered Species

In the context of the NEPA impacts analysis, it is anticipated there could be short-term, direct, localized minor adverse effects on threatened and endangered species during construction due to potential displacement. However, the long-term, direct, moderate benefits beyond the Branches will include increased and improved foraging and nesting habitats and the removal/capping of contaminants.

In the context of the ESA effects determination, the McCoys Creek Restoration area does not provide suitable habitat for several of the species listed in Table 1; therefore, no effect is anticipated to these species. Of the Threatened and Endangered Species described in Section 10.5, only the eastern indigo snake (*Drymarchon corais couperi*) and wood stork (*Mycteria americana*) have been identified as having the potential to occur within the Branches (Wood 2022). Potential effects to listed species would be associated with construction noise, but as highly mobile species, they would likely temporarily shift to other nearby foraging areas in the vicinity.

The USACE determined that the McCoys Creek Restoration may affect, but is not likely to adversely affect the eastern indigo snake (*Drymarchon corais couperi*). The USACE utilized the Eastern Indigo

Snake Programmatic Effect Determination Key January 25, 2010, addendum August 13, 2013, which resulted in the sequence A > B > C > not likely to adversely affect as there are no gopher tortoise burrows, holes, cavities or other refugia where a snake could be buried or trapped or injured during restoration activities. The USFWS previously indicated that they concur with determinations of not likely to adversely affect based on that key; and, that no additional consultation is required. Standard Protection Measures for the Eastern Indigo Snake will be implemented and best management practices will be followed throughout construction. Upon review of such determinations, NOAA has corresponded with the USFWS to notify them that the CRP is a funding partner on the Branches and concurs with the ESA determinations. Construction will not commence until confirmation regarding the existing determinations has been received.

The USACE has determined the McCoys Creek Restoration may affect, but is not likely to adversely affect the Wood Stork (*Mycteria americana*). The Branches is within the 13-mile United States Fish and Wildlife Service (USFWS) North Florida core foraging area for a Wood Stork nesting colony. The USACE evaluated potential effects to Wood Stork using The Corps of Engineers, Jacksonville District, U.S. Fish and Wildlife Service, Jacksonville Ecological Services Field Office and State of Florida Effect Determination Key for the Wood Stork in Central and North Peninsular Florida, September 2008. Use of this key resulted in the sequential determination A > B > C > D > E > not likely to adversely affect, as the Branches would provide suitable foraging habitat compensation on site consisting of wetland and stream creation. The USFWS previously indicated that they concur with determinations of not likely to adversely affect based on that key; and, that no additional consultation is required. The NOAA CRP has reviewed these findings and has corresponded with the USFWS to notify them that the NOAA CRP is a funding partner on the McCoys Creek Restoration and concurs with this determination.

The USACE completed ESA consultation for the McCoys Creek Restoration with NMFS for all phases of the McCoys Creek restoration project. Utilizing the Jacksonville District's Programmatic Biological Opinion (JAXBO) for NOAA Fisheries trust species, the USACE determined that the proposed action may affect, but is not likely to affect NOAA trust ESA species including: Shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), smalltooth sawfish (*Pristis pectinata*), green sea turtle (*Chelonia mydas*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*). NMFS provided programmatic verification for the McCoys Creek Restoration project on August 4, 2023 (email on file). The NOAA RC has reviewed the JAXBO checklists and concurs with the USACE. NMFS has been notified and has acknowledged that the NOAA CRP concurs with this determination and is a funding agency for the Branches[19]. Construction will not commence until confirmation regarding the existing determinations has been received.

While the FNAI Biodiversity Matrix (2022) does indicate that manatee are likely to occur in the McCoys Creek Restoration area, there is no manatee habitat present within the Branches (Table 1, Wood 2022). Because the Branches does not provide suitable habitat for marine mammals, including manatees, no effect is anticipated for these species. As such, no further consultation is required.

[19] The CRP determined there are no NMFS ESA species within the Branches based on the ESA Section 7 Mapper accessed 12/16/25. (https://www.fisheries.noaa.gov/resource/map/southeast-region-esa-section-7-mapper).

11.2.2.6 Cultural and Historical Resources

The DHR provided a concurrence letter to the USACE on September 29, 2021 stating that the McCoys Creek Restoration project is unlikely to adversely affect historic properties listed or eligible for listing on the NRHP.

No evidence of archaeological sites was found during surface inspections (CHG 2022). The St. Johns River Water Management District Individual Environmental Resource Permit 167868-4 and the USACE standard permit (SAJ-2021-0271-03 (SP-TMM)) require that if artifacts (such as pottery, tools, or building materials) or unmarked human remains are found during the Branches restoration, all subsurface work in that area must immediately stop and the appropriate permitting agency office must be contacted. The Branches restoration activities cannot restart until the FDHR provides verbal or written authorization. Impacts could include adverse short-term direct and long-term indirect localized minor impacts due to earth moving activities.

11.2.2.7 Land Use and Recreation

The Branches will take place in the vicinity of populated urban areas and local recreational areas. Associated equipment used for the construction will limit access to the Branches under the proposed action, resulting in temporary direct minor and moderate impacts to recreation. However, the Branches is expected to result in major long term direct benefits to recreation via the integration of the area into the Emerald Trail Network as well as increased recreational use of the newly restored Hollybrook Park. The remediation activities are expected to reduce the risk of lead and arsenic exposure, alleviating the likelihood of health concerns and will have long-term benefits to public health in the vicinity of the Branches.

There will be minimal adverse effects to land use from the remediation activities. Some minor land use conversion will occur as a result of the proposed activities related to restoring the creek's natural sinuosity, wetland creation, and wetland enhancements. Land use and recreation adverse impacts from remediation construction are expected to be short term, minor, and localized. The long term beneficial impacts are expected to be direct, minor to moderate, and local.

11.2.2.8 Socioeconomics

Generally, the Branches restoration is expected to bring significant socioeconomic benefits to the COJ. It is anticipated to positively impact property owners, residents, and the business community through reduced flooding, which could increase property values and spur commercial development. The Branches has already attracted investment in new apartment complexes, condominiums, restaurants, shopping, and a new grocery store. It is also expected to create entrepreneurial opportunities and jobs, connecting the community to growth along the St. Johns River. Additionally, the Branches is designed to enhance aesthetic values by restoring the creek's natural sinuosity and improving water quality and wetland habitats. The accompanying recreational plan will provide diverse opportunities for the public, including a critical link to the Emerald Trail, which will connect historical neighborhoods and offer spaces for walking, biking, exercise, and kayaking. Public engagement and feedback from community stakeholders have been integral to the design and ongoing updates. (Wood 2022) The remediation activities, as a component of the overall Branches restoration, will have indirect short-term benefits to socioeconomic resources extending beyond the Branches.

Table 7. Summary of Impacts from Soil and Sediment Remediation

Resources	*Type of Impact*	*Duration of Impact*	*Geographic Extent*	*Magnitude/Intensity*	*Quality*
Geology and Soils	Direct	Short Term	Localized	Minor & Moderate	Adverse
	Direct	Long Term	Localized	Moderate	Beneficial
Water	Direct	Short Term	Localized	Minor	Adverse
	Direct & Indirect	Long Term	Localized & Beyond Project	Moderate	Beneficial
Air	Direct	Short Term	Localized	Minor	Adverse
Living Coastal and Marine Resources and EFH	Direct	Short Term	Localized	Minor	Adverse
	Direct & Indirect	Long Term	Localized & Beyond Project	Moderate	Beneficial
Threatened and Endangered Species	Direct & Indirect	Short Term	Localized	Minor	Adverse
	Direct & Indirect	Long Term	Localized & Beyond Project	Minor & Moderate	Beneficial
Cultural and Historic Resources	Direct & Indirect	Short Term & Long Term	Localized	Minor	Adverse
Land Use and Recreation	Direct	Short Term	Localized	Minor	Adverse
	Direct	Long Term	Localized	Minor & Moderate	Beneficial
Socioeconomics	Indirect	Short Term	Beyond Project	Minor	Beneficial

12. Impacts When Combined with Past, Present, and Reasonably Foreseeable Actions

As part of the analysis of reasonably foreseeable effects of the proposed alternatives, the NOAA CRP also considered the incremental (cumulative) effects of the actions when combined with other activities that have occurred, are occurring, and are likely to occur in the future (i.e., past, present, and reasonably foreseeable future actions).

The entire creek system is undergoing several phases of ecosystem restoration. Overall, the approach is natural channel design that will result in ecological restoration, flood mitigation, and nature-based recreation. The full McCoys Creek restoration effort consists of three segments: Phase 1, Phase 2, and The Branches. Phase 1 creek restoration involved road removal and bridge modifications, adding pedestrian and bike lanes. Phase 2 focused on daylighting a buried section of McCoys Creek. The Branches phase, which is the focus of this EA, aims to implement ecological restoration activities in the headwaters of the North and South Branches to create a natural meandering channel within a vegetated wetland floodplain. The design for the Branches was led by GWJax and funded by a National Fish and Wildlife Foundation grant and private donations.

When cumulative impacts from NOAA-funded activities are considered in combination with the other planned phases of the McCoys Creek Restoration project, including; project partner activities for the Emerald Trail, Phases 1 and 2 of McCoys Creek restoration, and NOAA-funded Branches construction,

the cumulative adverse impacts are direct, short-term, minor and a mix of local and beyond the immediate Branches site footprint for the same resources as described in Section 10. Anticipated cumulative beneficial impacts could include direct and indirect, long term, and minor to moderate benefits for these same resources. No significant adverse impacts would occur under the proposed action or represent a decision in principle about a future consideration. The proposed action neither establishes a precedent for future actions with significant adverse effects nor represents a decision in principle about a future consideration.

Despite the potential to encounter contaminated materials during construction and restoration of McCoys Creek, the overall cumulative adverse impacts are not likely to exceed those described in the RC PEIS Sections 2.2.2.4.1, 2.2.2.5.1, 2.2.2.5.2, 2.2.2.11.3, 2.2.2.11.4, 2.2.2.11.5, 4.5.2.4.1, 4.5.2.5.1, 4.5.2.5.2, 4.5.2.11.2, and 4.5.2.11.3. Potential adverse impacts have been identified and addressed through existing contaminated materials management plans and procedures and are not expected to be significant at a regional or larger scale.

13. Certification

NOAA has considered the factors mandated by NEPA and has determined that the EA represents NOAA's good-faith effort to prioritize documentation of the most important considerations required by the statute within the congressionally mandated page limits. This prioritization reflects NOAA's expert judgment and any considerations addressed briefly or left unaddressed were, in NOAA's judgment, comparatively not of a substantive nature that meaningfully informed the consideration of environmental effects and the resulting decision on how to proceed.

The resulting EA also represents NOAA's good-faith effort to fulfill NEPA's requirements within the congressionally mandated timeline. The EA is substantially complete and, in NOAA's expert opinion, the agency has thoroughly considered the factors mandated by NEPA. In NOAA's judgment, the analysis contained therein is adequate to inform and reasonably explain NOAA's final decision regarding the proposed activity or decision.

14. Applicable Laws and Regulations

All federal, state and local laws will be complied with prior to the Branches restoration implementation. Federal laws, regulations, and Executive Orders that may be applicable include, but are not limited to, the following:

- National Environmental Policy Act (NEPA), as amended, 42 U.S.C. §§ 4321 et seq.
- Endangered Species Act of 1973 (ESA), 16 USC 1531 §§ et seq., 50 Code of Federal Regulations (CFR) Parts 17, 222, 224
- Magnuson-Stevens Fishery Conservation and Management Act (MSA), 16 USC §§ 1801 et seq., 50 CFR Part 600
- Coastal Zone Management Act, 16 USC 1451 et seq.
- Section 10 of the Rivers and Harbors Act, 33 USC 401 et seq.
- National Historic Preservation Act, 16 USC §§ 470, et seq.
- Clean Water Act (Federal Water Pollution Control Act), 33 USC §§ 1251 et seq.
- Fish and Wildlife Conservation Act, 16 USC 2901–2912

- Migratory Bird Treaty Act, 16 USC 703 et seq.
- Clean Air Act, 42 USC 7401 et seq.)
- Floodplain Management, Executive Order 11998
- Protection of Wetlands, Executive Order 11990
- Resource Conservation and Recovery Act, 40 GFR 257-258, 260-270

Local and Regional Laws and Regulations:

As appropriate, restoration actions will consider and comply with local plans and ordinances. Relevant local plans could include shoreline and growth management plans. Relevant ordinances could include, but not be limited to, zoning, construction, noise, and wetlands.

15. Conclusion

In view of the NEPA analysis presented in the McCoys Creek Construction Restoration - the Branches EA, NOAA has determined that the Proposed Action would have no significant impacts on the human or natural environment. This determination certifies that the lead federal agency, NOAA, has considered all relevant information raised in the NEPA process and the NEPA process has concluded. Accordingly, preparation of an environmental impact statement for this action is not necessary.

16. List of Preparers and Reviewers

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Erin McDevitt	Marine Habitat Resource Specialist
Ramona Schreiber	Marine Habitat Resource Specialist
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Appendices

A. Finding of No Significant Impact (FONSI) for the McCoys Creek Restoration Construction- The Branches
B. City of Jacksonville Incinerator Ash Material Management Plan (1/20/2025)

Finding of No Significant Impact
for the McCoys Creek Restoration Construction - The Branches
(NEPA UIN #EAXX-006-48-1HC-1753469232)

The National Environmental Policy Act (NEPA) (42 U.S.C. § 4321 et seq.) requires the preparation of an Environmental Impact Statement (EIS) for any proposal for a major Federal action significantly affecting the quality of the human environment. 42 U.S.C. § 4332(C). Agencies may issue a Finding of No Significant Impact (FONSI) if they determine that a proposed agency action will not have a significant effect on the human environment and therefore does not require the issuance of an EIS. *Id.* § 4336e(7). Based on the Environmental Assessment for the McCoys Creek Restoration Construction - The Branches (the Branches), the National Oceanic and Atmospheric Administration (NOAA) NMFS Office of Habitat Conservation has determined in this FONSI that preparation of an EIS is not required for the Branches because the proposed action will not have significant effects.

The full McCoys Creek restoration effort is composed of three segments: Phase 1, Phase 2, and the Branches. This FONSI incorporates by reference the Environmental Assessment (EA) for the Branches, which contains the evidence and analysis supporting this FONSI. As further detailed in the EA, this restoration aims to reinstate natural ecological and resiliency functions within a watershed historically affected by industrialization and to remediate contaminated soil/sediment within the restoration area. Past alterations, including straightening and bulkheading of the natural stream flow and filling of floodplains and wetlands, have significantly impacted the area. By employing restoration methods such as freshwater stream, channel, and bank restoration, alongside erosion reduction and remediation of any identified contaminated soil/sediment, the Branches will transform the upstream freshwater portion of the creek. This will result in an area of resilient ecological habitat for diverse plants, fish, and wildlife. Improving the habitat, flood capacity, and water quality of the headwaters will ultimately contribute to the improved conditions experienced in the creek's main stem that flows to the St. Johns River.

This EA is prepared to address federal requirements of NEPA. It tiers from the NOAA Restoration Center (RC) Programmatic Environmental Impact Statement (RC PEIS 2015[1]) and evaluates the environmental consequences associated with the proposed federal action of authorizing NOAA funding per NOAA Award NA23NMF4630085 to implement the proposed action, the McCoys Creek Restoration Construction – The Branches. While the majority of the proposed activities fall within the programmatically-evaluated restoration approaches of the RC PEIS and typically would be documented via an RC Inclusion Analysis, removal and remediation of contaminated soil/sediment is outside of existing analyses. Though remediation actions will be completed by partners, those actions are connected to and will occur concurrent with the NOAA-funded restoration activities. As such, this targeted EA includes analysis of the connected action.

The NEPA analysis for the McCoys Creek Restoration Construction - The Branches is summarized below. No anticipated effects are determined to be significant considering the context and intensity of the projects' scopes and effects on the resources. The following is a discussion of the criteria used to determine whether the impacts of the proposed action are significant.

Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

[1] https://www.fisheries.noaa.gov/s3//dam-migration/2015_noaa_restoration_center_final_peis.pdf

No. The proposed action would result in adverse impacts ranging from no effect to short- and long-term, minor to moderate adverse effects to physical resources (geology and soils; water resources; air quality), biological resources (living coastal and marine resources and Essential Fish Habitat (EFH); threatened and endangered species), and socioeconomic resources (cultural and historic resources; land use and recreation) from some activities. It would also result in long-term beneficial impacts to much of the same resources through creation of habitat in the Branches. However, it is not reasonably foreseeable that the proposed action will result in significant adverse or beneficial effects.

Can the proposed action reasonably be expected to significantly affect public health or safety?

No. None of the construction activities proposed in the Branches are anticipated to result in adverse effects to public health or safety, either of short- or long-term duration. The remediation activities are expected to reduce the risk of lead and arsenic exposure, alleviating the likelihood of health concerns and will have long-term benefits to public health in the vicinity of the Branches.

Can the proposed action reasonably be expected to result in significant adverse impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

No. The proposed action would not have a significant adverse effect on the unique characteristics of any geographic area including historic and cultural resources, park lands, wetlands, floodplains, municipal water sources, ecologically critical areas, wild and scenic rivers, parks, wilderness areas, ecologically critical areas, or prime farmlands.

Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

No. The effects of the proposed action on the quality of the human environment are unlikely to be highly controversial. The proposed activities rely on techniques that are regularly used for ecological restoration as well as sediment/soil removal and remediation. Long standing public engagement has been part of planning and development of the Branches through which public support has been received.

Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

No. The proposed action's effects are not highly uncertain, unique, or unknown. The proposed activities rely on techniques that are regularly used for habitat restoration and sediment/soil removal and remediation.

Can the proposed action reasonably be expected to establish a precedent for future actions with significant adverse effects or represent a decision in principle about a future consideration?

No. As shown in the Branches EA, no significant adverse impacts would occur under the proposed action or represent a decision in principle about a future consideration. The proposed action neither establishes a precedent for future actions with significant adverse effects nor represents a decision in principle about a future consideration.

Is the proposed action related to other actions that when considered together will have individually insignificant but reasonably foreseeable significant impacts overlapping in time or space with the proposed action?

No. In combination with other components of this restoration or other actions in the vicinity, the proposed action would not contribute significantly to adverse impacts to geology and soils; water resources; air quality; living coastal and marine resources and EFH; threatened and endangered species; cultural and historic resources; land use and recreation; and socioeconomic resources. The proposed action would create long-term benefits to most of these resources.

Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural, or historical resources?

No adverse effects to significant cultural or historical resources are anticipated. The Branches will not adversely impact historic districts or any historic structures that are listed on or eligible for the National Register of Historical Places. The Florida Department of Historic Resources provided a concurrence letter to the USACE on September 29, 2021, stating that the McCoys Creek Restoration is unlikely to adversely affect historic properties listed or eligible for listing on the NRHP. The St. Johns River Water Management District Individual Environmental Resource Permit 167868-4 and the US Army Corps of Engineers standard permit (SAJ-2021-0271-03 (SP-TMM)) Permits require that if artifacts or unmarked human remains are found during the Branches restoration, all subsurface work in that area must immediately stop and the restoration activities cannot restart until the appropriate authorization is received.

Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

No. As described in the Branches EA, no significant impact on endangered, threatened species, or their critical habitats are anticipated. The USACE determined that the McCoys Creek Restoration may affect, but is not likely to affect NOAA trust ESA species including: Shortnose sturgeon (*Acipenser brevirostrum*), Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*), smalltooth sawfish (*Pristis pectinata*), green sea turtle (*Chelonia mydas*), Kemp's Ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), and loggerhead sea turtle (*Caretta caretta*) and completed consultation per Jacksonville District's Programmatic Biological Opinion (JAXBO) for NOAA Fisheries trust species. NOAA has corresponded with the USACE and NMFS to notify them that the CRP is a funding partner on the Branches and concurs with the ESA determinations. Construction will not commence until confirmation regarding the existing determinations has been received.

In consultation with the USFWS, the USACE determined that the McCoys Creek Restoration may affect but is not likely to affect eastern indigo snake (*Drymarchon corais couperi*) and Wood Stork (*Mycteria americana*). Standard Protection Measures for the Eastern Indigo Snake will be implemented and best management practices will be followed throughout construction. Upon review of such determinations, NOAA has corresponded with the USFWS to notify them that the CRP is a funding partner on the Branches and concurs with the ESA determinations. Construction will not commence until confirmation regarding the existing determinations has been received.

Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

No. The proposed action is intended to restore habitats and living coastal and marine resources and will be implemented in compliance with all applicable federal laws and regulations. The proposed action cannot reasonably be expected to threaten a violation of Federal, State, or local law or requirements

imposed for the protection of the environment. All relevant permits will be obtained prior to initiating restoration activities, and the contractor conducting the activities will be expected to follow all regulatory requirements.

Can the proposed action reasonably be expected to adversely affect stocks of marine mammals as defined in the Marine Mammal Protection Act?

No. The proposed action is not expected to adversely affect stocks of marine mammals. Because the Branches does not provide suitable habitat for marine mammals, including manatees, no effect is anticipated for these species. As such, no further consultation is required.

Can the proposed action reasonably be expected to adversely affect managed fish species or essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act?

No. No EFH is designated in the Branches. It is, however, hydrologically connected to coastal and estuarine resources as a tributary to St. Johns River estuary which is EFH and a HAPC for pennaid shrimp and various small prey species. While there is no known fish data for the freshwater portions of McCoys Creek, it can be anticipated that improving the habitat, flood capacity, and water quality of McCoys Creek will ultimately contribute to improved conditions from the creek's main stem and onward to coastal and estuarine resources via the St. Johns River. USACE determined that the McCoys Creek Restoration would not have a substantial adverse impact on EFH or Federally managed fisheries in the South Atlantic Region and provided such determination by public notice. SERO HCD did not provide EFH conservation recommendations pursuant to Section 305(b)(2) of the Magnuson-Stevens Act. NOAA CRP reviewed the USACE determination, completed its own review using the EFH Mapper, and concurs with the USACE determination. As such, no further consultation is required unless future modifications are proposed that may result in adverse impacts on EFH.

Can the proposed action reasonably be expected to adversely affect vulnerable marine or coastal ecosystems, biodiversity, or ecosystem functioning?

No. The proposed action is not expected to adversely impact biodiversity and/or ecosystem function within the Branches It is anticipated there will be short-term, direct, minor, localized adverse effects on fish and wildlife during construction due to potential brief displacement. However, improved food web production for living and coastal marine resources in the Branches and downstream and the removal and capping of contaminated sediments will provide long-term, direct and indirect moderate benefits.

Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

No. The proposed action is not expected to result in the introduction or spread of nonindigenous species. Use of best management practices and adherence to permit conditions will minimize the chances for introduction or spread of nonindigenous species. The Branches restoration activities include non-native plant removal and the creation of self-sustaining native habitats.

No Action Alternative

Pursuant to NEPA, a No Action alternative was analyzed in the Branches EA as a basis for comparison of potential environmental consequences of the action alternatives.

Under the No Action alternative, no restoration activities and no monitoring activities would be performed within the Branches portion of McCoys Creek. The No Action Alternative would leave

McCoy's Creek Branches in their existing condition. It is not expected to provide the natural resource benefits that are expected from restoration alternatives; and the water quality and flood capacity will not be improved. Embankments will likely continue to erode, leading to further chronic flooding and reducing present ecological communities. Litter, excess nutrients, and bacteria will continue to compromise the water quality. If the Branches Phase of the larger McCoys Creek Restoration initiative remains unconstructed, it could have adverse effects on the resiliency and longevity of Phase 1 and 2 restoration or could precipitate modifications of adjacent phase(s) at additional costs to assure compatible flow regimes and continuity of sediment transport occurs among areas. Under the No Action Alternative, the restoration of McCoys Creek will not occur, however, COJ is committed to the described remediation activities. These actions, however, would not be federally sponsored or occur in partnership with federally sponsored actions.

Mitigation and Monitoring

No mitigation is a requirement of this FONSI determination. Monitoring as specified in the RAP and the McCoys Creek Restoration permits will be followed. The Branches implementation monitoring will be followed consistent with grant requirements.

Determination

In view of the NEPA analysis presented in the McCoys Creek Construction Restoration - the Branches EA and in this Finding of No Significant Impact, NOAA has determined that the Proposed Action would have no significant impacts on the human or natural environment. This determination certifies that the lead federal agency has considered all relevant information raised in the NEPA process and the NEPA process has concluded. Accordingly, preparation of an environmental impact statement for this action is not necessary.

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Carrie Diane Robinson

Director, Office of Habitat Conservation

NOAA/National Marine Fisheries Service

Environmental Assessment for the

McCoys Creek Restoration Construction - The Branches Project

(Unique ID #EAXX-006-48-1HC-1753469232)

December 2025

Appendix B

City of Jacksonville Incinerator Ash Material Management Plan (1/20/2025)

INCINERATOR ASH MATERIAL

MANAGEMENT PLAN

1. Introduction

The following Ash Management Plan (hereinafter referred to as the "Plan") has been prepared as guidance on Incinerator Ash Material (hereinafter referred to "Ash") that may be encountered by Contractors performing construction/excavation projects for the City of Jacksonville (herein after referred to as "City"). This Plan may be incorporated into City construction contracts. If the contract does not include provisions on encounters with contaminated media generally, or Ash specifically, this guidance should be followed. This Plan shall be implemented only if Ash materials are encountered during construction activities. The Plan includes the following:

- Procedures for identification of Ash,
- Procedures for notifications to City and regulatory officials,
- Procedures for handling, storing, and characterizing the Ash for proper disposal,
- Procedures for transporting the Ash to an approved facility for disposal, and
- Minimum requirements for documenting Ash handling and disposal activities.

The following sections detail the minimum procedures necessary for handling encountered Ash material.

2. Identification of Ash

Ash is referred to as material generated by melting and burning of municipal and household waste at incinerator facilities. According to the former City of Jacksonville - Solid Waste and Resource Management Department (now the Solid Waste Division), most of the incinerator activities were conducted between the 1950s and 1960s. The Ash may be found in areas of the City where non-native material was used as backfill for civil development projects, parks, small creeks, ponds, etc.

The Ash may be visually identified by inspecting excavated soils for the presence of broken glass, pottery, pieces of metal, etc., darkened by the burning process. Ash is also commonly found fused together into uneven-shaped, variable-size pieces, with a reddish-orange color. Additionally, there are ash areas where the deposition of ash was from airborne particulate matter from the incinerator exhausts.

3. Notification and Suspension of Work

Immediately upon unexpectedly encountering suspected Ash-laden soils and unless the contract provides other procedures, the contractor must suspend work into Ash-laden media and notify the City's Project Manager or City's construction oversight contractor. If the Project Manager and contractor disagree that Ash-laden soils have been encountered, an environmental consultant or the City of Jacksonville's Solid Waste Division, Ash Program (904.255.6841 or 904.704.5562) should be engaged to positively identify the material.

Regardless of any disagreement between the Project Manager and the Contractor about the nature of the material, the Project Manager shall immediately notify the Environmental Law Division, Office of General Counsel (OGC) at 904.255.5053. OGC shall advise the Project Manager about which federal, state, and/or local environmental regulatory authorities to notify. If ash is positively identified, at a minimum, the Northeast District of the Florida Department of Environmental Protection shall be notified. The Northeast District can be contacted at 904.256.1700 or their mailbox address at dep_ned@dep.state.fl.us.

4. Handling, Sampling and Characterization of Ash

All identified Ash materials excavated before the suspension of work in shall be temporarily stored on-site, in stockpiles, lined roll-offs or, depending upon quantity, hazardous waste containers. On-site storage cannot exceed 90 days without a hazardous waste storage permit from the Florida Department of Environmental Protection (FDEP). Every reasonable effort should be made to remove Ash determined to be hazardous waste (HW) from the site within 30 days after characterization. In order to ensure disposal of HW within 90 days (and thereby eliminate the need for a hazardous waste storage permit), if Ash material is determined to be HW, the sampling should be completed within 15 days of discovery/excavation and sent for analysis. Under no circumstance should hazardous waste be stored on site for so long that a hazardous waste storage permit must be sought. For City projects, unless otherwise provided in the contract, the contractor, in consultation with the Project Manager, shall arrange for suitable storage containers, and if necessary, off-site treatment or disposal. The City's Project Manager shall be responsible for determining when construction may resume.

The following is a recommended schedule of activities to ensure that excavated material gets disposed of in less than 90 days:

- Day 1 Discovery or Removal and proper storage of ash material
- Day 15 Sampling
- Day 16-60 Analysis
- Day 60-70 Review analytical data/report and make HW determination
- Day 70-75 Arrange for waste disposal or stabilization
- Day 80-85 Waste shipped off-site or stabilization for non-HW disposal

Recognizing that some small amount of Ash-laden soil may have been excavated before the contractor's personnel conclude or suspect that Ash has been encountered, such excavated Ash material must initially be covered with visqueen, surrounded with a temporary fence, and posted with signs warning that the material may be hazardous. This work shall be performed by the contractor. This will limit the public's exposure to potential hazardous waste until suitable containers or roil-offs are mobilized onto the site, the appropriate regulatory authorities have been notified, and sampling the excavated soils has been done.

4.1 Characterized Area Procedure

For construction project areas that are within the known boundaries of any one of the four Ash areas that make up the Jacksonville Municipal Incinerator Ash Superfund site, the waste characterization has been completed and a waste profile number has been generated. Any immediately adjacent land parcels located along the boundaries of the four known Ash areas shall be considered as included within that Ash area. As such, the sample analysis test suite shall be limited to confirmation sampling of the base and sidewalls at a minimum of 10% coverage of the aerial extent of the excavation(s) and for disposal acceptance at Trail Ridge Landfill.

Excavation Confirmation Sampling

For soil excavation confirmation purposes, base and sidewall excavation samples shall be analyzed by a state of Florida certified laboratory (NELAC/NELAP) for:

- arsenic and lead by EPA Method 6010,
- dioxins and furans by EPA Method 8290A (SW-846) and
- for polynuclear aromatic hydrocarbons (PAH) by EPA Method 8270.
- At a minimum one base and one sample per sidewall shall be collected per excavation area.

For excavation areas larger than 1,000 square feet, the sample frequency shall be one per 20-liner feet for sidewall and one per 20-foot orthogonal grid for the base.

In addition, all excavation base and sidewalls shall be sufficiently field screened by XRF technology to determine the ash content at the limits of the excavation(s) to determine "hot-walls" and the placement of engineering controls and/or institutional controls. XRF readings shall be considered as a "clean" designation with a reading of 200 parts per million (ppm) or less for residential parcel criteria and a reading of 700 ppm or less for commercial/industrial parcel criteria. Additional excavation may be required based on XRF readings above field screening levels, analytical test results above regulatory levels or above TCLP/SPLP regulatory levels.

Disposal Acceptance Sampling

For disposal acceptance, soils shall be analyzed for analyses of the eight Resource Conservation and Recovery Act (RCRA) metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) according to the Toxicity Characteristic Leaching Procedure (TCLP) (EPA Method 1311) to evaluate whether the excavated Ash is hazardous waste.

Samples shall be collected at a frequency of one per 250 cubic yards of Ash materials up to 5,000 cubic yards, then one per 1,000 cubic yards.

Post-Excavation Activities

The City Project Manager, the City's Solid Waste Division, OGC and/or FDEP/EPA shall determine when to terminate ash material excavation. Soils at the limits of the

excavation(s) that contain analytical test results above applicable regulatory levels or with XRF results above 200/700 ppm field screening values shall have Engineering and/or Institutional Controls placed on the base and sidewalls of the excavation prior to backfilling. Engineering controls are visual markers typically orange net construction fencing placed along the sidewalls or base to identify adjacent ash impacted materials in the event future excavation activities are conducted in those areas. Institutional Controls will be set internally by the City.

Following excavation, "certified clean" soils (supplied by the City of Jacksonville's Borrow Pit at Trail Ridge Landfill) shall be used for backfilling in construction areas where the surface is considered a green surface (vegetative cover or non-impervious) from final grade to a depth of 2.0-feet below final grade (soil cap). For example, the backfill interval for a vegetative area from final grade to 2.0-feet below final grade does not include the sod thickness.

For areas that will have an impervious surface, ash material excavation need only go down to the elevation required to put the structure in place plus a suitable excavation interval to provide a "certified clean" soil working face for non-OSHA HAZWOPER crews to work in. For example, construction of a sidewalk may only require 6-8 inches of excavation to remove unsuitable soils to construct the sidewalk, so excavation would not need to continue to a 2.0-foot excavation depth, only to the 6-8 inch depth with a minimum of 6-inches of "certified clean" soil backfill place in the excavation for the non-OSHA HAZWOPER crews to frame up the concrete pour for the sidewalk. Non "certified clean" backfill can be used below the 2.0-foot excavation (if required) in green areas and to rough grade elevation (below impervious surface) above the "certified clean" soil working face for impervious surface areas. Topographic as-built elevations of pre-excavation, post excavation and top of backfill along with the limits of the excavation(s) must be provided to the Solid Waste Division for inclusion in the remedial action completion report to be completed by the contractor.

4.2 Non-Characterized Area Procedure

For construction projects that are not located within the four Jacksonville Ash Superfund areas are considered as not having an approved waste characterization of the soils. At a minimum, soils should be analyzed using the following frequency of estimated ash materials:

- 1 per 0-250 cubic yards,
- 2 per 250-1,000 cubic yards,
- 3 per 1,000-2,500 per cubic yards,
- 4 per 2,500-3,500 cubic yards and
- 5 per 3,500-5,000 cubic yards and then
- one per 1,000 cubic yard increment above 5,000 cubic yards.

Soils with evidence of Ash must be submitted for the following analyses:

- EPA Method 6010 for total metal,

- EPA Method 8260 for Volatile Organic Compounds (VOCs),
- EPA Method 8270 for Semi-Volatile Organic Compounds (SVOCs),
- Polychlorinated Biphenyls (PCBs),
- Pesticides and Herbicides,
- Oil & Grease,
- dioxins and furans by EPA Method 8290A (SW-846) and
- Total Recoverable Petroleum Hydrocarbons (TRPH) by the FL-PRO Method.

The laboratory analysis must be submitted to the City's Solid Waste Division so that the waste characterization can be approved and a waste profile number generated. Once a waste profile is generated, excavation confirmation and disposal sampling, testing methodology and frequency and as-built topographic data shall be conducted as described in **Incinerator Ash Material Management Plan Section 4.1** with the exception of the inclusion of any other EPA Test Method parameters that were detected during the waste characterization. Since the City will be the generator for any waste manifests, the City in conjunction with the contractor shall determine the waste characterization.

Sample collection must be conducted under FDEP-approved Comprehensive Quality Assurance Project Plan (CQAPP), in accordance with the requirements listed by FDEP in DER QA-O01-"Standard Operating Procedures for Laboratory Operations and Sample Collection Activities."

When the environmental consultant for the contractor receives the laboratory analyses a copy of the laboratory reports shall be provided to the City's Project Manager and Solid Waste Division. Also, copies of all analytical results should be provided to the designated point of contact for the FDEP. The contractor, or authorized environmental consultant, and the Solid Waste Division must review the results of the laboratory analyses to determine the hazardous characteristics of the Ash material.

For any excavation materials that do not contain visual and recognizable ash materials, if the results of the TCLP (lower detection limits would have to be requested from the lab before the samples are run) or of the Synthetic Precipitation Leaching Procedure (SPLP) (EPA Method 1312) exceed the groundwater cleanup levels established in Chapter 62-277, FAC, or if total analyses concentrations exceed the Florida residential cleanup target goals, the material shall not be returned to the original excavation.

For any excavation materials that do not contain visual and recognizable ash materials, if the results from the SPLP or the TCLP (modified for lower detection limits) are below the Florida groundwater cleanup levels and the total analyses concentrations are below Florida residential soil cleanup targets goals, the material may be returned to the original excavation area only with approval from the Solid Waste Division and the FDEP and/or EPA. This material shall only be used below the certified clean soil backfill used for the soil cap.

5. Transportation and Disposal of Ash

If the ash has not been characterized as hazardous waste by TCLP, has SPLP (or TCLP with lower detection limits) results below Florida groundwater cleanup levels, and any hazardous substances in the material are below Florida residential soil cleanup target goals under Chapter 62-277, FAC, it may be returned to the excavation or used elsewhere in the vicinity of the excavation/construction (if the material is suitable for that purpose) only in areas below the "certified clean" 2.0-foot soil cap or "certified clean" backfill working face and above the local water table upon approval of the City's Project Manager, Solid Waste Division, OGC or FDEP/EPA. If the ash is characterized as containing a hazardous substance in excess of State soil cleanup target goals, but not as hazardous waste, the materials must be transported to Trail Ridge Landfill for disposal. If, however, the Ash is characterized as hazardous waste, it must be stabilized and taken to a licensed hazardous waste treatment or disposal facility.

Upon characterization of the Ash by TCLP as a hazardous waste that must be taken to a licensed hazardous waste treatment or disposal facility, it need not be further characterized using the Toxicity Characteristic Leaching Procedure (TCLP) for the eight RCRA metals, unless required by the treatment or disposal facility. The fencing and signage originally installed shall remain in place until the material has been removed from the site. Disposal of excavated Ash that has been characterized as hazardous waste shall be properly packaged for transportation, which shall be conducted by a licensed hazardous waste transporter to a licensed treatment or disposal facility. Ash that is stabilized and not a hazardous waste may, with the concurrence of the City's Solid Waste and Resource Management Department, be sent to Trail Ridge Landfill in Jacksonville, Florida for proper disposal. In the event hazardous waste is identified, the Northeast District of the Florida Department of Environmental Protection shall be notified at 904.256.1700 or their mailbox address at dep_ned@dep.state.fl.us.

The contractor or environmental consultant shall also notify the City immediately upon determining that the Ash is a hazardous waste. The contractor or environmental consultant must determine the most cost effective method for transportation and disposal of the hazardous waste,

The contractor or environmental consultant will be responsible for obtaining acceptance of the material for disposal into an approved hazardous waste disposal facility and all applicable transportation manifests and ensure compliance with all local, State and Federal disposal requirements.

The procedures for non-hazardous waste transport to and disposal at Trail Ridge Landfill are as follows:

- Notify the Solid Waste Division with the estimated amount of material requiring disposal,

- In conjunction with the Solid Waste Division prepare and submit disposal profiles to the landfill for approval. Profiles sheets may be obtained directly from the Solid Waste Division by calling Cletus Kuhn at 904.255.7521. Laboratory results must be included with the profile sheets for approval by the landfill,

• Obtain waste manifests from the Solid Waste Division after approval of the profiles by the landfill, and

• Mobilize transport vehicles to the landfill for disposal.

Transportation manifests will be provided by the Solid Waste Division upon approval of the material for disposal. The number of manifests will depend on the number of loads or roll-offs requiring transportation to the landfill, however, the daily limit will be dependent upon conditions at the land fill but in case be more than 60 loads per day. The City will sign the waste manifests and the contractor, designated environmental consultant or transporter will be responsible for signing the transportation manifest portion on behalf of the City at the time of material loading and hauling.

6. Documentation

The environmental consultant conducting the analyses shall submit a report to the contractor and the City Project Manager and Solid Waste Division indicating the results of the laboratory analyses. If the material is to be disposed of as hazardous waste or non-hazardous special waste, the contractor shall determine the amount of Ash material to be containerized and/or transported to an appropriate treatment or disposal facility. The contractor shall be responsible for documenting the proper disposition of the Ash, including but not limited to, transportation and disposal manifest, characterization reports, and disposal weigh tickets.

7. Safety

Depending upon the laboratory analyses of the Ash material, further excavation of Ash may require the use of 40-hour OSHA trained personnel. Ordinarily, environmental consultants assign such trained personnel to conduct Ash sample collection. Investigations have concluded that Ash may contain elevated levels of arsenic and lead; therefore, proper handling of the material by trained OSHA personnel may be necessary.