

# Research Report: Sandalwood Canal and Hogpen Creek

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**To:** Office of the Inspector General, Florida Department of Environmental Protection

**From:** Research and Analysis Division

**Date:** 2026-05-14

**Subject:** Comprehensive Analysis of the Sandalwood Canal, its Connection to Hogpen Creek, and Associated Regulatory Compliance Concerns

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## 1. Executive Summary

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This report provides a comprehensive, fact-based analysis of the Sandalwood Canal, a major stormwater conveyance system owned and operated by the City of Jacksonville, and its consequential impact on Hogpen Creek, a natural tidal waterway [1, 2]. The synthesis of available public records, official statements, and resident testimony is intended to support a potential investigation by the Florida Department of Environmental Protection (FDEP) Inspector General. The core issue is severe, chronic sedimentation in Hogpen Creek, which residents and former city officials allege is a direct result of discharges from the Sandalwood Canal [2]. This has led to significant ecological degradation, loss of navigability, and a protracted dispute over financial and regulatory responsibility [1, 2].

The Sandalwood Canal was designed by the City of Jacksonville's Public Works Department to drain an extensive 11-square-mile urban watershed [2]. It collects millions of gallons of stormwater and discharges it directly into Hogpen Creek. A master timeline of events reveals that following a major canal project around 2007, the city performed a one-time dredging of the creek, which it characterized as a preemptive measure [1]. Since then, no further city-funded dredging has occurred. The city asserts its responsibility for dredging is limited to waterways serving public facilities and that sedimentation in Hogpen Creek is a result of natural processes, not its infrastructure [1, 3].

A review of the regulatory framework indicates that the canal's operation falls under the City of Jacksonville's Municipal Separate Storm Sewer System (MS4) permit, administered by FDEP, which requires the reduction of pollutants, including sediment, to the maximum extent practicable [9, 10]. Furthermore, any dredging or filling in Hogpen Creek requires federal permits, as the U.S. Army Corps of Engineers (USACE) explicitly claims jurisdiction over the waterway [6]. However, a comprehensive search of public databases did not yield a specific Environmental Resource Permit (ERP) for the Sandalwood Canal itself, representing a significant gap in the official record.

Evidence of environmental damage is substantial. Residents document a drastic reduction in water depth, with large sections of the creek becoming impassable mudflats at low tide, rendering private docks useless [1]. Ecologically, the most significant reported impact is the disappearance of Florida manatees, a protected species, which can no longer navigate the shallowing channel [1]. This degradation, combined with the city's refusal to accept liability, led to the creation of a special taxing district to fund a \$4.5 million private dredging project [2]. The district was dissolved in late 2024 following intense public opposition to the proposed \$4,500 annual assessment per homeowner [2, 4].

This report identifies numerous contradictions and potential compliance concerns. The city's position that its infrastructure is not causing the sedimentation is directly contradicted by residents, a former city council member [2], and the city's own past action of dredging the creek after canal construction

[1]. The city acts as an enforcer of erosion and sediment control regulations for private developers while simultaneously denying the impact of its own large-scale system [14, 15, 16]. The degradation of manatee habitat also appears to conflict with the city's Manatee Protection Plan [11]. Ultimately, the official record shows a city-owned system altering a natural waterway, while the city disclaims responsibility for the consequences. The record does not show definitive proof of the sediment's origin via a formal study, nor does it contain a clear permitting history for the canal that would outline design specifications and operational obligations for sediment control.

## 2. Master Timeline of Events

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This timeline synthesizes key historical events related to the Sandalwood Canal, Hogpen Creek, and the associated regulatory and community actions, based on information from the provided research materials.

**Circa 1970s:** The Sandalwood residential area was developed, likely marking the initial construction phase for portions of the Sandalwood Canal system. This predates modern digital permitting systems, making original construction records difficult to locate.

**1986:** The Florida Department of Environmental Protection (FDEP) delegated the permit program for the construction of new stormwater ponds in Jacksonville to the St. Johns River Water Management District (SJRWMD) [14]. This established a key layer of regional regulatory oversight that would govern future development and stormwater management modifications in the area.

**1989-1995:** The U.S. Geological Survey (USGS) operated a monitoring station (USGS-02246835) on the Sandalwood Canal [19]. This station collected field measurement data, providing the only known historical, official dataset for the canal, though it does not cover the period of most significant reported degradation.

**Circa 1990s (Late):** The City of Jacksonville's Environmental Quality Division (EQD) reportedly defunded its pond maintenance inspection program due to budget cuts [14]. This represents a reduction in the city's proactive oversight of stormwater infrastructure maintenance.

**Circa 2005-2007:** The City of Jacksonville completed the "Hodges Blvd./Sandalwood Canal project," a significant modification or expansion of the canal system [1, 3]. City officials state that weirs, intended to trap sediment, were installed as part of this project [3].

**Circa 2007:** Immediately following the completion of the Hodges Blvd./Sandalwood Canal project, the City of Jacksonville conducted a small-scale, "preemptive" dredging operation in Hogpen Creek [1, 3]. City officials describe this as a one-time action to address potential sediment travel from the construction activities, not an admission of ongoing liability for the creek's condition [1, 3]. This is the last known instance of city-funded dredging in Hogpen Creek.

**2018:** JEA completed its Intracoastal Waterway Electrical Improvement Project. Some residents have speculated that debris from this project could be contributing to flow obstructions, though no formal complaints have been filed with JEA on the matter [3].

**March 2023:** The Jacksonville City Council approved the creation of the Hogpen Creek Dependent Special District [2]. This legal entity was established to allow 111 affected property owners to levy taxes upon themselves to fund a proposed \$4.5 million dredging project. The approved plan involved an annual assessment of approximately \$4,500 per homeowner for 10 to 15 years [2].

**July 2024:** News reports highlight widespread resident surprise and anger regarding the \$4,500 annual tax assessment [2]. Many homeowners claimed they were unaware that signing an initial petition would result in the formation of a taxing district with such a significant financial obligation.

**October 2024:** In response to intense public backlash, City Councilmen Rory Diamond and Chris Miller introduced legislation to dissolve the Hogpen Creek special taxing district [5].

**November 2024:** The Jacksonville City Council voted unanimously to dismantle the special taxing district, removing the assessment from residents' tax bills and effectively ending the community-funded dredging initiative [4].

**May 2026:** City Councilman Rory Diamond publicly pledged to secure approximately \$300,000 in city funds through a budget amendment for a comprehensive watershed study of Hogpen Creek [3]. The study's goal is to scientifically determine the source of the sediment. The mayoral administration indicated it would not proactively include the study in its budget but would execute it if funded by the City Council [3].

### 3. Permit Matrix: Required vs. Documented Permits

An analysis of the regulatory requirements for a major stormwater conveyance system like the Sandalwood Canal reveals a stark contrast between the expected permits and the permits found in publicly accessible records.

#### Required Permits for Construction, Operation, and Maintenance

The construction and operation of a system draining an 11-square-mile urban watershed into state waters would typically require a multi-layered permitting portfolio. The primary instruments governing such an activity include:

\* **Environmental Resource Permit (ERP):** This is Florida's primary permit for activities affecting surface waters, administered jointly by the FDEP and the relevant water management district (in this case, the SJRWMD) [8]. An ERP is required for the construction, alteration, or operation of stormwater management systems. An applicant must provide reasonable assurance that the project will not cause adverse impacts to water quality, water quantity, flooding, or fish and wildlife habitat [28]. This includes implementing stormwater treatment designs to remove pollutants like sediment before discharge.

\* **National Pollutant Discharge Elimination System (NPDES) Permit:** As the operator of a Municipal Separate Storm Sewer System (MS4), the City of Jacksonville is required to hold an NPDES permit administered by the FDEP [9, 10]. This permit legally obligates the city to implement a program to reduce the discharge of pollutants from its storm sewer system to the "maximum extent practicable" [9]. The Sandalwood Canal is a component of this MS4, and its sediment-laden discharges are subject to these requirements.

\* **U.S. Army Corps of Engineers (USACE) Permits:** Federal law requires USACE permits for specific activities. A **Section 404 Clean Water Act permit** is required for any discharge of dredged or fill material into Waters of the United States. A **Section 10 Rivers and Harbors Act permit** is required for any work or structures in, over, or under navigable waters [26]. Given that Hogpen Creek is a tidal waterbody connected to the Intracoastal Waterway, it falls under USACE jurisdiction [6]. Any dredging in the creek, whether for maintenance or restoration, would require one or both of these federal permits.

#### Documented Permits Found in Research

A comprehensive search of the publicly accessible online databases of the FDEP, SJRWMD, and USACE was conducted using relevant keywords such as "Sandalwood Canal," "Hogpen Creek," and project

identifiers. The results of this search are as follows:

\* **Sandalwood Canal Permit: No specific permit titled “Sandalwood Canal” was located.** This includes searches for ERPs, state dredge and fill permits, or federal permits directly associated with the canal’s name.

\* **Related Project Permits:** It is plausible that permits for the canal’s construction or modification, such as the Hodges Blvd./Sandalwood Canal project around 2007, were filed under a broader road project name or a county public works identifier. However, without these specific identifiers, such permits are not discoverable.

\* **Jurisdictional Confirmation:** The research did yield a critical finding from the USACE. An official document from the USACE Jacksonville District explicitly lists **Hogpen Creek** as a waterbody over which it exercises regulatory jurisdiction under both Section 10 and Section 404 [6]. This unconditionally establishes a federal regulatory nexus for any work performed within the creek itself.

## Analysis of the Permitting Gap

The absence of a readily identifiable, named permit for the Sandalwood Canal is a significant gap in the official record. While the canal’s age may explain the difficulty in locating original paper records from the 1970s, subsequent major modifications like the 2007 project should have a more transparent and accessible digital paper trail. An ERP for that project would contain crucial design specifications, including the engineering details of the claimed sediment-trapping weirs, performance standards, and the legally responsible party for operation and maintenance. Without this document, it is difficult to independently verify the city’s claims about the canal’s design or to assess whether its current operation complies with its permitted conditions. The documented jurisdiction of the USACE over Hogpen Creek ensures that any future dredging will undergo federal review, but the lack of a historical permit for the canal itself complicates efforts to assign responsibility for the conditions necessitating that dredging.

## 4. Analysis of the Regulatory Relationship between the City of Jacksonville and FDEP

The regulatory relationship governing stormwater management in Jacksonville is a tiered structure with FDEP providing foundational oversight and the City of Jacksonville acting as the primary implementer and local enforcement authority. The FDEP’s authority derives from the federal Clean Water Act, which it is empowered to administer in Florida. This includes managing the National Pollutant Discharge Elimination System (NPDES) Stormwater Program [10, 30]. Under this program, the City of Jacksonville operates as a Phase I MS4 permittee, making it directly accountable to the FDEP for the quality of its stormwater discharges [9]. The MS4 permit requires the city to develop and implement a Stormwater Management Program (SWMP) that includes measures to reduce pollutants flowing from its storm sewer system into state waters to the “maximum extent practicable” [9]. Sediment is legally defined as a pollutant, placing the discharge from the Sandalwood Canal squarely under the purview of this permit’s obligations [30].

FDEP has delegated certain aspects of its authority to regional and local partners. A key example is the delegation of the Environmental Resource Permit (ERP) program for new stormwater ponds to the St. Johns River Water Management District (SJRWMD) in 1986 [14]. This created a system where FDEP sets the overarching water quality and environmental protection standards, and the SJRWMD reviews and issues permits for specific projects based on its regional hydrological expertise. The City of Jacksonville, in turn, incorporates these state and regional standards into its own local ordinances.

The City of Jacksonville has a robust internal structure for managing this responsibility. Its Public Works Department operates the Jacksonville Stormwater Utility, funded by a stormwater fee, which is re-

sponsible for the operation and maintenance of the physical infrastructure, including over 1,000 miles of ditches and canals like the Sandalwood Canal [13]. Concurrently, the city's Environmental Quality Division (EQD) focuses on water quality, permitting and inspecting industrial facilities and investigating illicit discharges into the storm drainage system [14]. This dual structure separates the operation of conveyance systems from the enforcement of quality standards.

A critical aspect of this relationship is the city's role as a frontline enforcer of environmental regulations. Through its municipal codes and authority under its MS4 permit, the city inspects private construction sites for proper erosion and sediment control [30, 31]. The city's Environmental Protection Board (JEPB) has the authority to issue Notices of Violation and legally binding Consent Orders to resolve environmental infractions [15, 16, 33]. Records show the city has used this power to address violations by private entities, including the unlawful discharge of sediment or turbid water into waterways [15, 16]. This creates a significant contradiction: the City of Jacksonville acts as a regulator enforcing sediment control measures on others, while simultaneously operating a major piece of infrastructure that is alleged to be the primary source of sediment polluting Hogpen Creek and disclaiming responsibility for that impact. This dual role as both regulator and operator lies at the heart of the potential compliance failure.

## **5. Summary of Sedimentation Evidence and Ecological Impacts on Hogpen Creek**

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The environmental conditions in Hogpen Creek have degraded dramatically due to extensive sedimentation, leading to severe ecological and community consequences. The evidence, derived from resident testimony and direct observation, points to a waterway that has been fundamentally altered.

The most widely cited source of the sediment is the Sandalwood Canal. Former City Councilman Robin Lumb articulated this position clearly, stating that the city's 11-square-mile canal system discharges "millions of gallons of sediment-laden stormwater directly into Hogpen Creek" during heavy rains [2]. Residents who live on the creek corroborate this, describing a direct cause-and-effect relationship between rainfall, discharge from the canal, and the worsening condition of the creek [1, 2]. This perspective is countered by the City of Jacksonville, whose officials argue that the siltation is the result of natural processes and localized runoff from adjacent private properties, and that the canal's design includes sediment-trapping weirs [3]. However, the city has not provided maintenance or performance data for these weirs.

The physical evidence of sedimentation is overwhelming. Homeowners report that water depth at low tide has been reduced to as little as six inches in some areas, creating expansive mudflats where navigable channels once existed [1, 3]. Floating docks, designed to rise and fall with the tide, are now frequently stranded in several feet of silt, rendering them unusable for their intended purpose of mooring boats [1]. In addition to the visible sediment, residents have reported an "odor-laden discharge" from the canal, along with bank erosion and shoreline collapse, all symptomatic of a system suffering from altered hydrology and excessive sediment loads [1, 3].

The ecological impacts of this sedimentation are profound. The most poignant indicator of habitat loss is the reported disappearance of the Florida manatee from Hogpen Creek [1]. Residents who have lived on the creek for decades state that manatees were once a common sight but are no longer present [1]. These large marine mammals require sufficient water depth to navigate, feed, and seek refuge. The severe shoaling has effectively rendered the creek inaccessible and uninhabitable for them. This impact is particularly notable given that the City of Jacksonville has a formal Manatee Protection Plan, and the reported destruction of manatee habitat by city-owned infrastructure represents a direct contradiction of the plan's conservation goals [11]. The loss of manatees serves as a powerful

bio-indicator for a broader ecological collapse, as the conditions that exclude them—principally loss of depth and smothering of benthic food sources—negatively affect the entire aquatic ecosystem, from fish to invertebrates. This transforms Hogpen Creek from a functioning estuarine habitat into a degraded, sediment-choked channel.

## 6. Identification of Gaps, Contradictions, and Potential Compliance Concerns

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The dispute over the Sandalwood Canal and Hogpen Creek is characterized by significant informational gaps, logical contradictions in the city’s position, and potential violations of state and federal environmental regulations.

### Informational Gaps

- **Missing Permit:** The most critical gap is the absence of a specific, publicly accessible Environmental Resource Permit (ERP) for the Sandalwood Canal, particularly for the major project completed around 2007. Such a permit would provide the legal and technical baseline for the system’s design, performance expectations, and maintenance responsibilities.
- **Lack of Data on Weirs:** The City of Jacksonville claims that sediment-trapping weirs were installed in the canal [3]. There is no public record of the design specifications for these weirs, their expected sediment-capture efficiency, or any inspection and maintenance logs to confirm they are functioning as intended.
- **No Contemporary Water Quality Data:** The only official monitoring data for the Sandalwood Canal is from a USGS station that ceased operation in 1995 [19]. There is no contemporary, publicly available data measuring the sediment load or turbidity of the water being discharged from the canal into Hogpen Creek.
- **Absence from Impaired Waters List:** Despite overwhelming anecdotal and visual evidence of impairment (sedimentation, loss of aquatic life), Hogpen Creek does not appear on FDEP’s formal 303(d) list of impaired waters [35]. This suggests a potential disconnect between ground-level conditions and the state’s formal assessment and reporting cycle.

### Contradictions

- **City as Enforcer vs. Polluter:** The City of Jacksonville, through its Environmental Quality Division, enforces erosion and sediment control regulations on private developers [14, 15, 16]. Yet, it denies responsibility for sediment pollution allegedly caused by its own massive stormwater system, creating a clear double standard [3].
- **Historical Action vs. Current Policy:** The city’s action of dredging Hogpen Creek after the 2007 canal project serves as a de facto acknowledgment that the infrastructure had the potential to cause downstream sedimentation [1, 3]. This historical precedent directly contradicts the city’s current, unyielding policy of non-responsibility [1, 3].
- **Manatee Protection vs. Habitat Degradation:** The city maintains a Manatee Protection Plan to conserve local manatee populations [11]. Simultaneously, its operation of the Sandalwood Canal is allegedly destroying a known manatee habitat by making Hogpen Creek too shallow for the animals to access, undermining the city’s stated conservation goals [1].
- **Engineered System vs. “Natural Process”:** The city’s characterization of the creek’s sedimentation as a “natural process” [3] ignores the profound and unnatural influence of the Sandalwood Canal. An 11-square-mile watershed’s worth of stormwater directed into a single point of discharge is not a natural hydrological event; it is an engineered alteration with foreseeable consequences [2].

## Potential Compliance Concerns

- **MS4 Permit Violation:** The city’s MS4 permit, issued by FDEP, requires it to reduce the discharge of pollutants, including sediment, to the “maximum extent practicable” [9]. The ongoing, large-scale deposition of sediment into Hogpen Creek could constitute a failure to meet this core permit obligation.
- **Violation of State Water Quality Standards:** The degradation of Hogpen Creek—evidenced by extreme shoaling, turbidity, and destruction of aquatic habitat—may represent a violation of Florida’s water quality standards, which the ERP and MS4 programs are designed to prevent. The principle of non-degradation is central to Florida’s water policy.
- **Inconsistency with Local Ordinances:** The city’s own Land Development Procedure Manual is built upon the principle of preventing stormwater damage to downstream properties [18]. The situation in Hogpen Creek appears to be a large-scale example of a public project failing to adhere to the same non-degradation principles it imposes on private development.

## 7. Final Assessment: What the Official Record Shows vs. What It Does Not Show

This final assessment distills the available information into a clear summary of documented facts versus critical unknowns, providing a foundation for further inquiry.

### What the Official Record Shows:

- **City Ownership and Operation:** The record clearly shows that the Sandalwood Canal is a component of the City of Jacksonville’s public stormwater infrastructure, designed and operated by the city’s Public Works Department to convey runoff from an 11-square-mile urban watershed [2, 12].
- **Direct Discharge into Hogpen Creek:** The canal’s terminus is Hogpen Creek, establishing a direct physical and hydrological connection between the municipal infrastructure and the natural waterway [1, 2].
- **Federal Jurisdiction:** The official record from the U.S. Army Corps of Engineers confirms that Hogpen Creek is a federally regulated waterway under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act [6].
- **City Regulatory Obligations:** The City of Jacksonville operates under an FDEP-administered NPDES MS4 permit, which legally obligates it to control pollutants, including sediment, in its stormwater discharges [9, 10].
- **A Single Historical Dredging Event:** The city acknowledges it performed one dredging project in Hogpen Creek circa 2007, framing it as a preemptive action related to the Hodges Boulevard/Sandalwood Canal construction project [1, 3].
- **Official City Policy on Dredging:** The city’s stated policy is that it does not dredge natural waterways that primarily serve private residences, and it has consistently cited this policy to deny responsibility for Hogpen Creek [1, 3].
- **A Failed Financial Solution:** A special taxing district was formally established by the City Council to have residents fund a \$4.5 million dredging project and was later unanimously dissolved following intense public opposition to the financial burden [2, 4, 5].

### What the Official Record Does Not Show:

- **A Specific Canal Permit:** There is no readily available, named permit (such as an Environmental Resource Permit) for the Sandalwood Canal in public databases. The absence of this document obscures the original design specifications, performance standards, and legally mandated maintenance requirements for the system.

- **A Scientific Source of Sediment:** The record lacks any formal, scientific watershed analysis or study that definitively identifies the source(s) of the massive sediment load in Hogpen Creek. The debate is currently driven by conflicting claims from the city and its residents [1, 2, 3].
- **Maintenance or Performance Records:** There are no documented inspection reports, maintenance logs, or performance data for the sediment-trapping weirs that the city claims were installed in the canal nearly two decades ago.
- **Formal Impairment Status:** The official FDEP record does not show Hogpen Creek as being listed as a formally “impaired” waterbody under Section 303(d) of the Clean Water Act, despite extensive evidence of degradation [35].
- **Acceptance of Liability:** At no point in the available record does the City of Jacksonville accept ongoing liability for the sedimentation in Hogpen Creek or commit public funds to a comprehensive, long-term solution. The city’s position remains one of fundamental denial of responsibility [1, 3].

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