LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 • Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 • FAX (334) 271-7950

FINDING OF NO SIGNIFICANT IMPACT

City of New Hope
Madison County

SRF Project No. CS010882-01

June 28, 2020

The Alabama Department of Environmental Management has made $3,000,000 in financial assistance available to the City of New Hope from the Clean Water State Revolving Fund (CWSRF) loan program. In accordance with State and Federal regulations that govern the program, the Alabama Department of Environmental Management has conducted a review to assess the potential impacts upon the environment that may result from implementation of these sanitary sewer improvements.

The City of New Hope proposes a project to provide upgrades to its wastewater treatment system. Proposed improvements will consist of the construction of a new wastewater treatment plant (WWTP) adjacent to the existing lagoon wastewater treatment facility (New Hope Lagoon). The new WWTP will increase the system's wastewater treatment capacity from 0.25 MGD (Million Gallons per Day) to 0.99 MGD. The City initiated a comprehensive wastewater collection and treatment systems rehabilitation plan more than six years ago in response to an enforcement action issued by The Department. Successful completion of their wastewater collection system improvements has been achieved. Completion of the proposed treatment facility improvements will culminate The City's proactive, system wide rehabilitation efforts, which has it positioned to meet current and future wastewater flow demands as well as future regulatory compliance requirements for its citizens.

The Department has determined that the proposed projects will not have a significant adverse impact on the environment and consequently is herewith issuing a Finding of No Significant Impact (FONSI) to support the use of SRF funds for the construction of the proposed projects. However, this determination may be reconsidered if significant adverse information concerning the potential environmental impacts of the proposed projects is discovered. Attached is an Environmental Assessment that details the proposed projects and their impact upon the environment.

Comments relative to these projects should be submitted in writing to Ms. Corynella L. Price, SRF Section, Permits and Services Division, Alabama Department of Environmental Management, P.O. Box 301463, Montgomery, Alabama 36130-1463, no later than 30 days after the date of this FONSI. The Department will not take formal action to proceed with the proposed projects without carefully evaluating any public comments concerning funding of the proposed projects.

Sincerely,

Lance R. LeFleur
Director

LRL/EJR/CLP/kbh

Attachment

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (Fax)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (Fax)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (Fax)

Mobile - Coastal
4171 Commanders Drive
Mobile, AL 36615-1421
(251) 432-6533
(251) 432-6598 (Fax)

A. Proposed Facilities and Actions

The City of New Hope proposes a project to provide upgrades to its wastewater treatment system. Proposed improvements will consist of the construction of a new wastewater treatment plant (WWTP) adjacent to the existing lagoon wastewater treatment facility (New Hope Lagoon). The new WWTP will increase the system's wastewater treatment capacity from 0.25 MGD (Million Gallons per Day) to 0.99 MGD. The City initiated a comprehensive wastewater collection and treatment systems rehabilitation plan more than six years ago in response to an enforcement action issued by The Department. Successful completion of the wastewater collection system improvements has been achieved. Completion of the proposed treatment facility improvements will result in the culmination of the City's proactive, system wide rehabilitation efforts, which has it positioned to meet current and future wastewater flow demands as well as future regulatory compliance requirements for its citizens.

B. Existing Environment

The City of New Hope is located in Madison County Alabama, which is included in the Huntsville-Decatur Combined Statistical Area and approximately 18 miles northeast of Huntsville, Alabama. The project site (adjacent to the existing New Hope Lagoon) is also located within the city limits of New Hope. The City has an elevation of approximately 1,709 Feet. Its topography ranges from level to very steep and is characterized by Limestone Valleys and Uplands soils, derived from cherty limestones. Bodine and Fullerton soils are also extensive in many of these landscapes. They typically have a gravelly loam, gravelly clay subsoil, and a gravelly silt loam surface layer.

C. Existing Wastewater Treatment Facilities/System

The City owns and operates a wastewater collection system consisting of a three (3)-cell lagoon (New Hope Lagoon) and approximately 196,000 linear feet (LF) of ductile iron sewer line (including associated pumping stations and manholes). The New Hope Lagoon (NPDES Permit No. AL0023761) has a design capacity of 0.25 million gallons per day (MGD) with an average flow of 0.20 to 0.25 MGD. Wet weather flows typically exceed the design flow capacity significantly. The lagoon discharges treated water to Paint Rock River, which is also located in close proximity to the Tennessee River. Given the relatively flat terrain in this region, a large portion of its land mass lies within the flood plain with groundwater approximately 3.0 feet from the surface. Therefore, I/I (inflow and infiltration) are of significant concern in this area. The 2010 US Census reports the population for New Hope as 2,810. The wastewater treatment facility is currently meeting its permit limits in as much as The Department issued an administrative action approximately eight (8) years ago for repeated sanitary sewer overflows (SSOs) (per excessive wet weather events) and insufficient disinfection contact time for its wastewater flows. The City responded by developing a comprehensive collection system and treatment facility rehabilitation plan. They focused their initial actions on the collection system with extensive collection system rehabilitative efforts more than six (6) years ago, significantly reducing its I/I. The City also installed a temporary disinfection contact chamber to aid effluent compliance while weighing all viable options for new and/or improved treatment facilities. Needed collection system improvements (irrespective of the subsequent treatment improvement chosen) included replacement of all pump stations and controls with an alarm system installed as well as rehabilitation of more than 12,000 LF of gravity sewer (including associated manholes and laterals).

D. Need for Proposed Wastewater Improvements

As indicated above, wet weather events typically stress the existing lagoon beyond its effective treatment capacity. However, the City has been able to manage this excess flow by utilizing the freeboard (safety factor height above the flood level) incorporated into the lagoon design. However, the lagoon now regularly exceeds the available freeboard and its discharge effluent limits are vulnerable once again.

Therefore, past I/I flow issues, regular wet weather flooding, disinfection concerns as well as the projected growth of the Madison County area dictate the need for a treatment facility expansion for improved wastewater treatment for New Hope's existing and future residents.

E. Alternative Analysis

a. No Action – No Solution Implemented

(Not Chosen) This alternative is not recommended, as it does not provide any additional remedies to alleviate the I/I, wet weather or growth flow concerns. It would cause the City to be in non-compliance per the effluent discharge limits of its NPDES permit, likely resulting in significant treatment system O&M (operation and maintenance) costs as well as further administrative actions by the Department with significant fees imposed. Therefore, this is neither a proactive nor a cost-effective way to address the treatment capacity and discharge concerns of New Hope's wastewater treatment system.

b. Conventional Ditch WWTP with Utilization of Existing Lagoon as an Equalization Basin

(Not Chosen) This alternative is not recommended as it provides the most cost-prohibitive capital cost of the treatment alternatives evaluated (approximately $6M). Having invested in extensive collection system rehabilitation, a conventional ditch WWTP treatment alternative was considered because of its compatibility with the existing collection system. The City does not own any adjacent property to its existing lagoon nor is there suitable property available in this area for a wastewater treatment facility expansion. A Conventional Ditch WWTP utilizes the constant motion of brushes or mixers, along with mechanical arms on the primary and secondary clarifiers. The equipment is roughly the same cost as comparable treatment facilities. However, the elaborate shape needed to house and run its machinery increases the cost considerably with respect to its required concrete formations. In addition, the treatment process requires additional flow manipulation to remove the requisite amount of nitrogen, as Conventional Ditch WWTPs do not digest sludge as efficiently as other facilities/processes. Therefore, operations, maintenance and power consumption costs tend to be higher with these facilities. This type of treatment facility would meet the treatment and discharge needs identified, while easily utilizing the existing lagoon facility as an equalization basin. Thus, the limited property issue would be satisfied. Sludge disposal services are also available in Madison County via two (2) alternatives, utilization of the existing lagoon or incineration at the City of Huntsville Solid Waste Disposal Authority. However, the existing lagoon does not require new NPDES permitting nor would new infrastructure need to be constructed to utilize it. Whereas, incineration disposal would entail the added expense of the construction of sludge drying facilities as well as sludge hauling and tipping fees. Therefore, utilizing the existing lagoon for sludge disposal is the most practical choice.

Yet, another treatment alternative has been identified with these same positive attributes, though with a much lower capital cost. Therefore, considering the overall efficacy, this alternative is not an acceptable solution.

c. SBR (Sequence Batch Reactor) WWTP with Utilization of Existing Lagoon as an Equalization Basin

(Not Chosen) This alternative provides the second largest capital cost of the treatment alternatives evaluated (approximately $3M). Sequence Batch Reactor (SBR) WWTPs are essentially compact treatment facilities, consisting of two (2) basins (a retention tank and an aeration tank) with few mechanical parts for treatment processes as well as effluent flow and excess sludge discharge.
It is similar to the other treatment alternative (the Conventional Ditch WWTP) in that it is compatible with the existing collection system and with utilizing the existing lagoon for equalization and sludge disposal. However, its compact size has a much smaller physical footprint than that of a Conventional Ditch WWTP, which, ultimately, satisfies the limited property space concern better.

In being adjacent to the existing lagoon, there are no new dangers with respect to collection, treatment or sludge disposal. The proposed facility would sit above floodplain zone "A", whereas the existing lagoon is covered by the zone "A" area. Therefore, the new structure is protected from the damage of a catastrophic flood event. During a flood event, the facility could operate at full capacity and discharge permitted effluent water into the Paint Rock River without fail. Within the perimeter of the existing lagoon, a 12-inch ductile iron gravity sewer line will be constructed between the new and existing treatment facilities, which will not affect water courses, floodplains or wetlands. This gravity line will also discharge into the existing effluent outfall line and, ultimately, into the Paint Rock River. The receiving outfall line's capacity will also be increased due to the static head exerted by the new outfall elevation from the disinfection chamber. Therefore, the proposed disinfection chamber will be 15 LF higher in elevation than the existing chamber outfall. This will allow continual effluent discharge when the Paint Rock River is in flood stage. Therefore, The City has chosen this alternative as the most cost-effective solution that addresses its existing and future wastewater treatment needs.

F. Environmental Justice

As defined by the Environmental Protection Agency (EPA), environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Presidential Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities.

Low Income environmental justice populations are significantly located in and around the City of New Hope, which represents the service area of the existing New Hope Lagoon and the proposed project treatment facility (with location adjacent to the existing lagoon). According to City-Data.com, approximately 13.3% of New Hope residents had an income below the poverty level in 2017, which was 26.6% less than the poverty level of 16.9% across the entire state of Alabama. However, as presented in the alternative analysis, proactive measures are selected to address the current and future wastewater flows while meeting permit requirements for discharge flows to the receiving waters. The alternatives presented were evaluated for their environmental effect within the service area and their effect on all citizens with respect to health benefit, cost and time efficiency, if implemented.

G. Environmental Consequences; Mitigative Measures

The proposed project should not have an adverse environmental impact except for minimal impact during construction, which will take place in areas, which have been previously disturbed. Construction will result in a measurable amount of noise and dust and will be minimized through the development and implementation of Best Management Practices (BMPs).

Endangered Species and Critical Habitat

The U.S. Fish and Wildlife Service was consulted for this project and indicated that they would not anticipate any impacts to listed species from this project as described. However, they listed the following federally listed aquatic species that have the potential to be impacted by this project: snail darter (Percina tanasi), spotfin chub (Erimonax monachus), shiny pigtoe (Fusconaia car), fine-rayed pigtoe (Fusconaia cuneolus), Alabama lampmussel (Lampsilis virescens), rough pigtoe (Pleurobema plenum), snuffbox (Epioblasma triquetra), rabbitsfoot (Quadrula cylindrica cylindrica), pink mucket, (pearlymussel) (Lampsilis abrupta), and the slabside pearlymussel (Pleuronaia dolabelloides).

The section of the River associated with the treatment facility is designated as critical habitat for the rabbitsfoot and the slabside pearlymussel. It is also noted that adherence to both the NPDES permit and best management practices (BMP's) are critical and is recommended.

Historical and Archaeological

The Alabama Historical Commission was consulted for this project and indicated concurrence with the project activities, noting that they will have no effect on any cultural resources listed on or eligible for the National Register of Historic Places. However, should artifacts or archaeological features be encountered during project activities, work is required to cease and their office must be consulted immediately. *This stipulation must also be placed on the construction plans to ensure contractors are aware of it.*

Wetlands and Floodplains

The Department of the Army Corps of Engineers was consulted for this project and indicated that a Department of the Army permit pursuant to Section 404 of the Clean Water Act would not be required at this time.

Regional Planning Agency

The Top of Alabama Regional Council of Governments was consulted and indicated concurrence with the project.

Tennessee Valley Authority

The Tennessee Valley Authority (TVA) indicated that this work would not affect TVA land or land rights, if constructed as proposed. It would also not be considered an obstruction requiring approval by TVA under Section 26a of the TVA Act. Therefore, they have no objection to New Hope proceeding with the proposed design in accordance with the plans submitted.

H. Public Participation: Sources Consulted

The City of New Hope held a public meeting on May 7, 2020 at the New Hope City Hall to discuss the aforementioned improvements proposed for funding by this 2020 CWSRF loan. No attendees from the public were present. Therefore, no public objection was expressed or recorded in the meeting minutes.

Sources to be consulted about these projects for information or concurrence include the following:

Alabama Department of:
- Agriculture and Industry
- Conservation – Game & Fish
- Economic and Community Affairs (ADECA)
- Public Health

State Soil and Water Conservation
Alabama Forestry Commission
Alabama Historical Commission
US Army Corps of Engineers
US Department of Interior – Fish and Wildlife Service
US Environmental Protection Agency
Madison County Health Department

ALABAMA HISTORICAL COMMISSION

468 South Perry Street
P.O. Box 300900
Montgomery, Alabama 36130-0900
334-242-3184 / Fax: 334-240-3477

Lisa D. Jones
Executive Director
State Historic Preservation Officer

August 28, 2019

Shane Cook
159 Strongmill Road
Meridianville, AL 35759

Re: AHC 19-1132
New Hope Wastewater Treatment Plant Upgrade
Madison County

Dear Mr. Cook:

Upon review of the above-referenced project forwarded by your office, we have determined that project activities will have no effect on any cultural resources listed on or eligible for the National Register of Historic Places. Therefore, we concur with the proposed project activities.

However, should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. **This stipulation shall be placed on the construction plans to insure contractors are aware of it.**

We appreciate your commitment to helping us preserve Alabama's historic archaeological and architectural resources. Should you have any questions, please contact Amanda McBride at 334.230.2692 or Amanda.McBride@ahc.alabama.gov. Have the AHC tracking number referenced above available and include it with any future correspondence.

Sincerely,

Lee Anne Wofford
Deputy State Historic Preservation Officer

LAW/EDS/amh

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NASHVILLE DISTRICT
WESTERN REGULATORY FIELD OFFICE
2424 DANVILLE ROAD SW
SUITE N
DECATUR AL 35603

6 August 2019

SUBJECT: File No. LRN-2019-00581; New Hope 2019 Wastewater Treatment Plant Upgrade, New Hope Spring Branch Watershed, Paint Rock River Mile 8.4 Right Bank, Madison County, Alabama.

Mr. Shane Cook
The Engineering Office of Shane Cook
159 Strongmill Road
Meridianville, AL 35759

Dear Mr. Cook:

This is in response to your July 9, 2019 request for our comments regarding the subject project.

The U.S. Army Corps of Engineers (USACE) has regulatory responsibilities pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Section 404 of the Clean Water Act (33 U.S.C. 1344). Under Section 10, the USACE regulates all work in, or affecting, navigable waters of the U.S. Under Section 404, the USACE regulates the discharge of dredged and/or fill material into waters of the U.S. (33 CFR Part 328).

A review of the information provided indicates the subject activity would not involve work in wetlands/waters of the U.S.; therefore, a Department of the Army permit would not be required.

We understand the project proposal may not have specific design plans at this time, and this inquiry is an initial review to obtain grant funds. We have no objections to the applicant receiving grant funds for the proposal.

If you have questions regarding this matter, please contact Eric Sinclair at the above address or telephone (256) 350-5620. Thank you for the opportunity to review and comment on this proposed project.

Sincerely,

Timothy C. Wilder
Chief, West Branch
Regulatory Division
U.S. Army Corps of Engineers

United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO:
2019-TA-1134

JUL 24 2019

Mr. Shane Cook, P.E.
159 Strongmill Road
Meridianville, AL 35759

Dear Mr. Cook:

Thank you for July 9, 2019, letter, requesting comments and clearance for your wastewater treatment plant upgrade project at 1504 Johnson Avenue near New Hope in Madison County, Alabama. We understand that you will be upgrading the 0.25 million gallon per day (MGD) lagoon wastewater treatment facility to a new 1MGD sequence batch reactor treatment facility. We further understand that the wastewater treatment facility is currently operating under an Alabama Department of Environmental Management National Pollutant Discharge Elimination System (NPDES) Permit for discharging into Paint Rock River. We have reviewed your information and are providing the following comments in accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

We would not anticipate any impacts to listed species from this project as described, but we would like to inform you that the following federally listed aquatic species have the potential to be impacted by your project, therefore adherence to both the NPDES permit and best management practices (BMP's) is critical: the snail darter (*Percina tanasi*), spotfin chub (*Erimonax monachus*), shiny pigtoe (*Fusconaia cor*), fine-rayed pigtoe (*Fusconaia cuneolus*), Alabma lampmussel (*Lampsilis virescens*), rough pigtoe (*Pleurobema plenum*), snuffbox (*Epioblasma triquetra*), rabbitsfoot (*Quadrula cylindrica cylindrica*), pink mucket, (pearlymussel) (*Lampsilis abrupta*), and the slabside pearlymussel (*Pleuronaia dolabelloides*),. We would also like to inform you that this section of the River is designated as critical habitat for the rabbitsfoot and the slabside pearlymussel.

If you have any questions or need additional information, please contact Mr. Matt Laschet of my staff at (251) 441-5842. Please use the reference number located at the top of this letter in future phone calls or written correspondence.

Sincerely,

William J. Pearson
Field Supervisor
Alabama Ecological Services Field Office

PHONE: 251-441-5181

FAX: 251-441-6222

Tennessee Valley Authority, Post Office Box 1010, Muscle Shoals, Alabama 35662-1010

August 28, 2019

Mr. Shane Cook
The Engineering Office of Shane Cook
159 Strongmill Road
Meridianville, Alabama 35759

Dear Mr. Cook:

CITY OF NEW HOPE, ALABAMA - 2019 WASTEWATER TREATMENT PLANT UPGRADE FOR STATE REVOLVING FUND

We have reviewed your July 9, 2019 letter notifying the Tennessee Valley Authority (TVA) of the City of New Hope application for state revolving funds to upgrade New Hopes Water Treatment Plant.

If constructed as proposed, this work would not affect TVA land or landrights, nor would it be considered an obstruction requiring approval by TVA under Section 26a of the TVA Act. Therefore, TVA has no objection to your proceeding with the proposed work if constructed and installed in accordance with the plans as submitted.

TVA assumes no liability and undertakes no obligation or duty (in tort, contract, strict liability, or otherwise) to you or to any third party for any damages to property (real or personal) or personal injuries (including death) arising out of or in any way connected with your construction, operation, or maintenance of the facility that is the subject of this letter.

Any revision of the plans as submitted should be sent to us for review before you proceed with any modifications of the proposed work.

Sincerely,

Kenley Austin
Program Manager
Western Region Land Use & Permitting

TOP OF ALABAMA REGIONAL COUNCIL OF GOVERNMENTS

Area Agency on Aging • Economic Development District • Regional Planning Agency

Mary Caudle	Thornton Stanley, Jr.	Nancy Griggs	Mike Ashburn	Helen Carter
President	*Vice President*	*Secretary*	*Treasurer*	*Ex-Officio*

Michelle G. Jordan, AICP – Executive Director

August 9, 2019

Mayor Butch Taylor
City of New Hope
5484 Main Drive
New Hope, Alabama 35760

RE: New Hope 2019 Wastewater Treatment Plant Upgrade

Mayor Taylor,

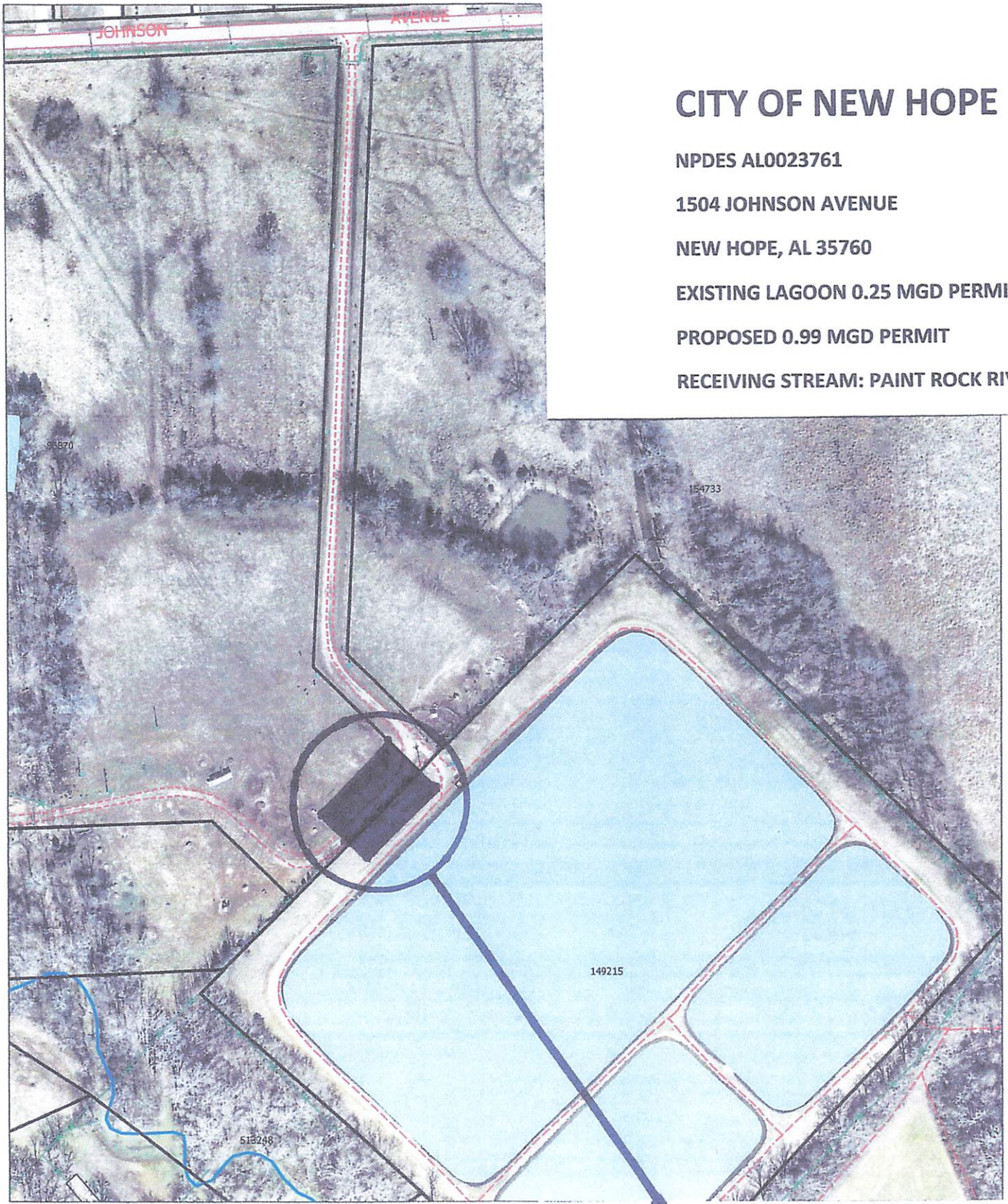
The Top of Alabama Regional Council of Governments (TARCOG) concurs with the City of New Hope's application to upgrade its current 0.25 MGD lagoon wastewater treatment facility to a new 1 MGD sequence batch reactor treatment facility.

Please do not hesitate to contact me should you have any questions or require any additional information.

Sincerely,

Michelle Gilliam Jordan, AICP

5075 Research Drive NW • Huntsville, AL 35805 • Telephone (256) 830-0818 • Fax (256) 830-0843



CITY OF NEW HOPE

NPDES AL0023761

1504 JOHNSON AVENUE

NEW HOPE, AL 35760

EXISTING LAGOON 0.25 MGD PERMIT

PROPOSED 0.99 MGD PERMIT

RECEIVING STREAM: PAINT ROCK RIVEF

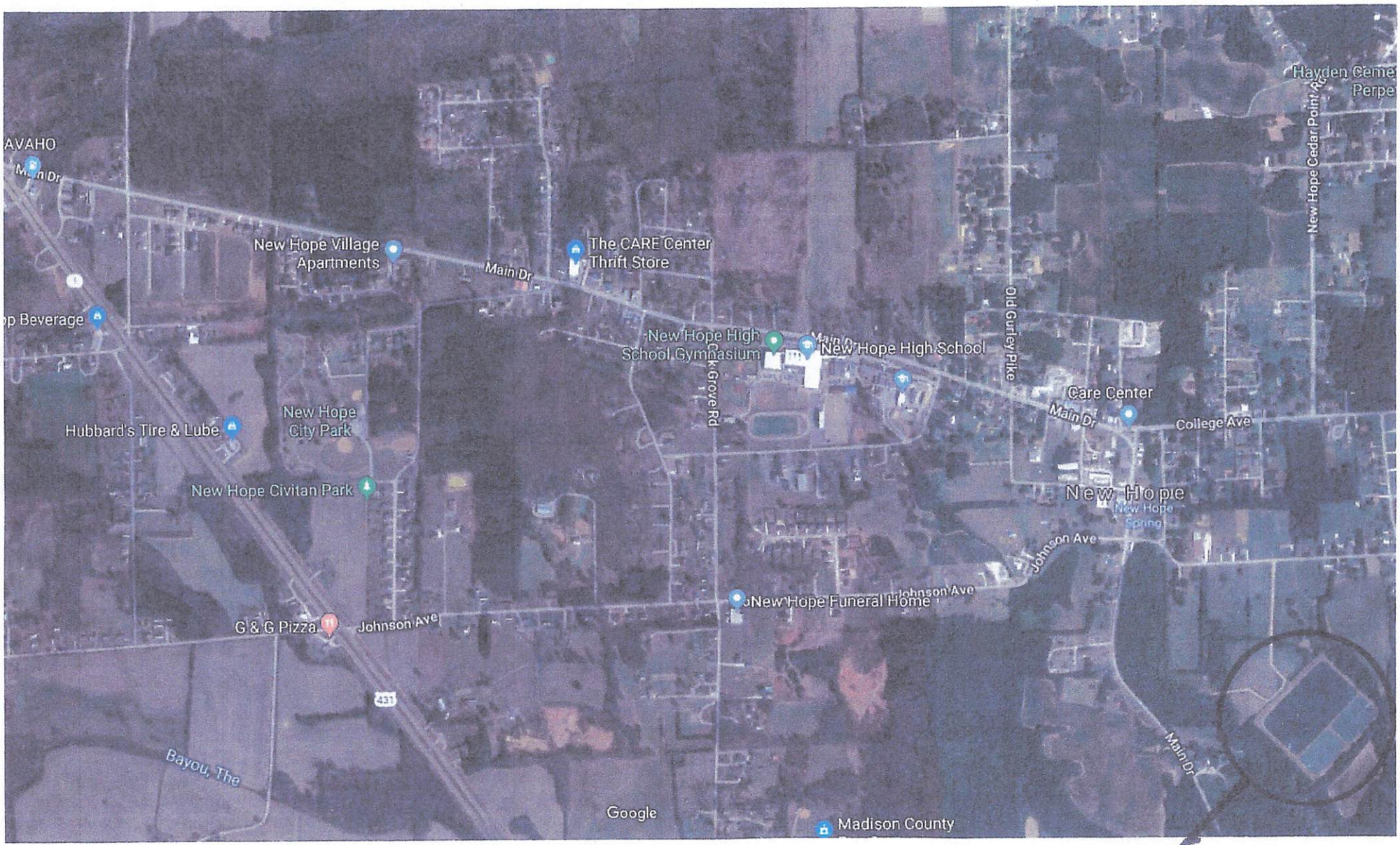
NEW HOPE TREATMENT PLANT

SITE MAP 1"=200'

N

PROJECT SITE

4-18-19



NEW HOPE TREATMENT PLANT

VICINITY MAP N.T.S.

PROJECT SITE

4-18-19