



State Revolving Fund Loan Programs

Drinking Water, Clean Water, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

CITY OF WEST LAFAYETTE WATER RESOURCE RECOVERY FACILITY EXPANSION SRF PROJECT WW 26 23 79 09

DATE: October 9, 2026

PUBLIC COMMENTS DUE BY: November 8, 2026

I. INTRODUCTION

The above entity has applied to the Clean Water State Revolving Fund (SRF) Loan Program for a loan to finance all or part of the Clean Water project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA, which can also be viewed in color at <http://www.in.gov/ifa/srf/>.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The SRF Clean Water Program has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 5-1.2-3, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FONSI. Comments must be received at the address below by the target approval date above. Significant comments may prompt a reevaluation of the preliminary FONSI; if appropriate, a new FONSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be affected by finalizing, or not finalizing, the FONSI as appropriate. Comments regarding this document should be sent within 30 days to:

State Revolving Fund
100 N. Senate Ave. IGCN 1275
Indianapolis, IN 46204
publiccomments@ifa.in.gov

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name and Address: Water Resource Recovery Facility Expansion
City of West Lafayette
500 S River Road
West Lafayette, IN 47906

SRF Project Number: **WW 26 23 79 09**

Authorized Representative: Dave Henderson, Utility Director

II. PROJECT LOCATION

The project is located in Tippecanoe County, Wabash Township, Lafayette West 24k USGS Quadrangle, Township 23N, Range 4W, and Section 20. See **Figures 1 and 2**.

III. PROJECT PURPOSE AND NEED

The Water Resource Recovery Facility (WRRF) does not have sufficient capacity for anticipated future growth and industrial development within the 20-year service area. The entire plant, including the secondary treatment system, will be expanded to serve future growth.

IV. PROJECT DESCRIPTION

The proposed WRRF expansion project consists of increasing the design average flow from 10.5 MGD to 15.0 MGD and the design peak flow from 22.5 MGD to 27.0 MGD. The project includes the a new 2.14 MG storage basin, new influent channel, modifications to the existing basin and disinfection facilities, demolition of existing primary clarifiers and modification of existing chlorine building, new primary clarifiers, construction of a new primary sludge pump building, expansion of existing aeration tanks, new blowers and a new secondary clarifier, new disinfection building with new sodium hypochlorite and sodium bisulfite feed systems, new anaerobic digester, new rotary thickener, new sludge holding tanks, new biosolids dewatering system and storage building, new food waste and fats, oil, and grease receiving station, along with electrical, controls, and HVAC upgrades.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY, AND FUNDING

The total cost of this project is estimated to be approximately \$85,000,000. The City intends to finance the project with a loan from the Clean Water SRF Loan Program for a term and annual fixed interest rate to be determined at loan closing. Monthly user rates and charges may need to be analyzed to determine if adjustments are required for loan repayment.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The “**No Action**” alternative is not practical, environmentally sound or economical. The development and economic growth of the region is dependent on the ability to provide services including wastewater treatment, and industrial growth within the existing service area is anticipated in the near future. In addition, the existing WRRF equipment is beginning to experience occasional problematic

failures due to age despite being well maintained. The No Action alternative would limit the City's ability to treat wastewater and would restrict regional growth for the future of this area.

Existing Facilities Optimization: Optimizing the existing facilities would yield only minor improvements and would not address the WRRF's fundamental limitations. The primary constraint is hydraulic capacity, which restricts the plant's ability to handle projected flows and loadings. While operational adjustments or minor upgrades could improve short-term efficiency, they cannot increase treatment capacity or meet future regulatory requirements.

Process Alternatives

Alternative 1: Primary Clarifiers + Membrane Bioreactors (MBRs): This alternative proposed to use membrane bioreactor technology in place of secondary clarifier and demolish all three existing 100-foot diameter final clarifiers. The new primary clarifiers will provide surface overflow at the peak hourly rate of 27 MGD and the design average flow of 15 MGD. This alternative would construct a new primary pump building that will house the primary sludge pumps. A new anaerobic selector tank would also be constructed. This alternative would deliver exceptional effluent quality; however, it would require substantially more energy than conventional systems. It also introduces greater operational complexity. Though MBRs typically have a compact footprint, the future WRRF treatment needs require the existing tanks to remain in service as well as additional tanks and an upstream screening system, which creates a larger footprint compared to the other alternatives. For these reasons, this option was dismissed from further consideration.

Alternative 2: Primary Filters + Aeration Tanks + Final Clarifier: This alternative will use primary cloth disk filters in lieu of primary clarifiers, which reduces the space required for primary treatment. The primary filter structure will contain four filtration units installed within concrete tanks to provide maximum hydraulic loading. Existing aeration tanks will be modified, and two additional tanks will be added to meet future anticipated design flows. This alternative introduces complexity to solids handling and increases equipment needs and operational steps. Energy demand is higher than with primary clarifiers. This alternative will not address emerging contaminants as it does not have greater removal efficiency than that of traditional activated sludge treatment. Therefore, this alternative was dismissed from further consideration.

Alternative 3: Primary Clarifiers + Aeration Tanks + Final Clarifier: This alternative would construct a new primary clarifier splitter structure and a new circular primary clarifier. The existing primary clarifiers will remain in operation during construction of three new circular tanks. Once online, the existing clarifiers and primary sludge pumping station will be demolished. A new final clarifier will be constructed, and five existing aeration tanks will be expanded to meet anticipated design flows. Additional blowers will also be added.

This alternative relies on a proven process, incorporating conventional primary clarifiers and activated sludge with final clarifiers, which ensures reliability through decades of successful application. It delivers effective solids removal at the primary stage, reducing the load on secondary treatment and improving overall system efficiency. Operational familiarity further strengthens its appeal, as existing staff experience with clarifier operation minimizes training needs and supports smooth implementation. Effluent quality under this option will address biological nutrient removal for phosphorus and future total nitrogen limits.

This alternative requires a substantially larger footprint because additional aeration tanks and clarifiers occupy significantly more space than MBRs. It also increases chemical demand, as chemical phosphorus removal will likely be needed more frequently to achieve low total phosphorus limits. Conventional clarifiers offer limited process intensification, falling short of the compactness and performance delivered by advanced technologies such as MBRs. This alternative will not address

emerging contaminants.

This is the selected alternative. Proven reliability, operational simplicity, and familiarity make this the most cost-effective choice for construction and long-term operation.

Solids Handling Alternatives

Digested Biosolids: Storage Tanks Alternative: This alternative would store digested sludge in three new glass-fused steel digested biosolids storage tanks prior to being liquid hauled for final disposal and land application. Each storage tank will be equipped with two submersible mixers and two decanting telescoping valves. Additionally, a new biosolids loading pump station will be constructed to convey stored biosolids from the new storage tanks to the biosolids loading station.

This alternative depends on land application for disposal, which is becoming increasingly difficult, costly, and limited due to shrinking available land and emerging PFAS regulations, making it an unsustainable long-term solution. It also requires a high capital investment for tanks, mixers, pumps, and structural fill, while ongoing reliance on liquid hauling adds significant long-term operational expense. Therefore, this alternative was dismissed from further consideration.

Digested Biosolids: Dewatering System Alternative: This alternative will dewater digested sludge before being stored. Existing sludge transfer pumps will be replaced with new pumps to convey digested sludge to two new digested biosolids glass-fused steel storage tanks. A new dewatering building and covered dewatered biosolids storage structure will be constructed as part of this alternative.

This alternative significantly reduces hauling volume and associated costs by increasing solids concentration to 25% through mechanical dewatering. It improves disposal flexibility by producing a dewatered cake that can be land-applied or sent to alternative facilities, reducing reliance on liquid hauling. Storage requirements are also minimized, as the higher solids concentration reduces the footprint compared to liquid biosolids.

This is the selected alternative as it significantly reduces sludge volume and increases disposal flexibility, while eliminating the risks of relying solely on land application.

Base WRRF Infrastructure Improvement

Various Modifications Alternative: This alternative addresses various components of the WRRF, including modifications to existing buildings, as well as constructing four new buildings and various holding tanks. This will also include miscellaneous electrical and HVAC improvements throughout the facility.

This is the selected alternative as it addresses aging infrastructure that cannot be deferred without risking plant reliability, operator safety, and regulatory compliance.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed/Undisturbed Land: Work related to the WRRF expansion will occur in previously disturbed land by construction of the existing WRRF.

Structural Resources (Figure 3): Construction and operation of the project will not alter, demolish or remove historic properties. If any visual or audible impacts to historic properties occur, they will be temporary and will not alter the characteristics that qualify such properties for inclusion in or eligibility for the National Register of Historic Places. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "*no historic properties affected.*"

Surface Waters (Figure 4): The project will not adversely affect outstanding state resource waters listed in 327 IAC 2-1.3-3(d), exceptional use streams listed in 327 IAC 2-1-11(b), Natural, Scenic and Recreational Rivers and Streams listed in 312 IAC 7-(2), or Salmonid Streams listed in (327 IAC 2-1.5-5(a)(3) or streams on the Outstanding River List for Indiana. The project is near the Wabash River. Mitigation measures to lessen and compensate for stream impacts cited in comment letters or permits from the Indiana Department of Natural Resources, U.S. Army Corps of Engineers, and/or Indiana Department of Environmental Management will be implemented.

Wetlands (Figure 5): The Wetland Map identifies a wastewater treatment lagoon as a National Wetlands Inventory (NWI) wetland. The Indiana Department of Environmental Management (IDEM) and the U.S. Army Corps of Engineers (USACE) regulate construction activities in a wetland. A USACE Section 404 Permit under the Clean Water Act (CWA) and an IDEM Section 401 Water Quality Certification may be required for the proposed work if wetlands are impacted by the Proposed Project. Mitigation measures to lessen and compensate for stream impacts cited in comment letters or permits from the Indiana Department of Natural Resources, U.S. Army Corps of Engineers, and/or Indiana Department of Environmental Management will be implemented.

Floodplain (Figure 6): The project area is adjacent to the Wabash River; however, no proposed facilities are located within the floodway that require an IDNR Construction in a Floodway permit. Mitigation measures cited in comment letters or permits by the Indiana Department of Natural Resources will be implemented.

Groundwater: Groundwater may be impacted by the construction or operation of the proposed project. Dewatering may be required to temporarily lower the groundwater table in some areas while constructing the buildings and equipment. Minor fluctuations in groundwater levels will be temporary in nature. Discharge from dewatering activities will be filtered or settled to remove sediment and will not be directly discharged to any waterway, wetland, or stormwater conveyance.

Plants and Animals: The Preliminary Engineering Report (PER) states: *Endangered, threatened, and rare species are evaluated by the IDNR and the United States Fish and Wildlife Service (USFWS) to protect significant natural areas and the species that depend on those areas. Protecting these areas and species is important to the biodiversity, agriculture, and ecosystems. The construction and operation of the proposed project is not expected to pose a threat to or negatively impact state or federal-listed endangered species and their habitat.*

IDNR will be contacted immediately if it is determined that a species from the Indiana or Federal List is found to be disturbed by construction activities. The project will be implemented to minimize impacts to non-endangered species and their habitat. Mitigation measures cited in comment letters received from the IDNR and USFWS will be implemented.

*The Indiana Bat (*Myotis sodalis*) is a Federal and State listed endangered species that migrates into Indiana in the summer months. Tree removal is expected for this project. If recommended by USFWS or IDNR, tree removal will not be conducted between April 1 and September 30*

to avoid potential impacts to the Indiana Bat.

Mitigation measures cited in comment letters from the Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

Prime Farmland: The project will not convert prime farmland.

Air Quality: Short-term air quality impacts for the proposed project may generate dust and noise during construction. Mitigation measures include limiting construction activity to daylight hours on weekdays to minimize noise effects. Construction specifications will require proper control measures be utilized to control wind erosion from all construction areas. Proper cleanup practices will be required to reduce the generation of dust and other construction debris. When impacts cannot be avoided, appropriate measures will be utilized. Long-term air quality impacts are not expected for this project.

Open Space and Recreational Opportunities: The project will neither create nor destroy open space or recreational opportunities.

Lake Michigan Coastal Program: The project will not affect the Lake Michigan Coastal Zone.

National Natural Landmarks: Construction and operation of the proposed project will not affect National Natural Landmarks.

B. Indirect Impacts

The City's PER states: *The City, through local zoning laws, the authority of its council, planning commission, or other means, will ensure that future development and utility projects connecting to SRF funded facilities will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources, or other sensitive environmental resources. The City will require new development and utility projects to be constructed within the guidelines of the USFWS, IDNR, IDEM, and other environmental review authorities.*

C. Comments from Environmental Review Authorities

In correspondence dated August 18, 2026, the Indiana Department of Natural Resources Division of Historic Preservation and Archaeology stated:

Pursuant to Indiana Code 5-1.2-10, Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials received by the Indiana SHPO on July 27, 2026, for the above indicated project in West Lafayette, Tippecanoe County, Indiana.

Based on our analysis, it has been determined that no historic properties will be altered, demolished, or removed by the proposed project.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

In correspondence dated October 1, 2026, the United States Fish and Wildlife Service stated:

The USWS concluded that the proposed project impacts, project code 2026-0150505, would have a “No Effect” determination on the following species:

Endangered: Indiana bat (*Myotis sodalis*)

Northern Long-eared Bat (*Myotis septentrionalis*)

Threatened: Eastern prairie fringed orchid (*Platanthera leucophaea*)

Fanshell (*Cyprogenia stegaria*)

Rabbitsfoot (*Quadrula cylindrica cylindrica*)

Proposed endangered: Tricolored Bat (*Perimyotis subflavus*)

Salamander mussel (*Simpsonaias ambigua*)

In correspondence dated August 28, 2026, the Department of Natural Resources Environmental Unit stated:

Project:

City of West Lafayette water improvements, including demolition of existing primary clarifiers and chlorine building, expansion of existing aeration tanks, and construction of a new disinfection building at the existing Water Resource Recovery Facility (WRRF); SRF #WW 26 23 79 00.

County/Site Info: Tippecanoe County

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment:

Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

Natural Heritage Database:

The Natural Heritage Program's data have been checked. The Division of Nature Preserves does not anticipate any significant impacts to the below-listed flora or insects. The following have been documented within 0.5 miles of the project area:

Plants

American Cow-wheat (Melampyrum lineare), State endangered

Few-flowered Scurf-pea (Pediomelum tenuiflorum), State extirpated

Insects

American Salmonfly (Pteronarcys dorsata), State endangered

Regal Fritillary (Speyeria idalia), State endangered

Rock Island Springfly (Isogenoides varians), State endangered

Rusty-patched Bumble Bee (Bombus affinis), State endangered

Birds

Common Nighthawk (Chordeiles minor), State special concern
Raptor Migratory Concentration Area

Mussels

Black Sandshell (Ligumia recta), State special concern
Rabbitsfoot (Theliderma cylindrica), State endangered
Scaleshell (Leptodea leptodon), State extirpated
Tubercled Blossom (Epioblasma torulosa), State extirpated

The Division of Fish and Wildlife does not expect negative impacts to these species due to this project.

Fish and Wildlife Comments:

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

A) Riparian Habitat/Tree Removal Outside of a Floodway

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: <https://www.in.gov/nrc/files/IB-17.pdf>.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree removed (trees that are 10" diameter-at-breast height (dbh)) with two native trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

- 1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only.*
- 2. Minimize and contain within the project limits all tree and brush clearing.*
- 3. Do not cut any trees suitable for Indiana Bat or Northern Long-eared Bat roosting (3 inches or greater diameter-at-breast height, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.*
- 4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.*
- 5. If erosion control blankets are used, they shall be heavy-duty, biodegradable, and net free or use loose-woven/Leno-woven netting to minimize the entrapment and snaring of small-*

bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

In correspondence dated October 6, 2026, the Natural Resources Conservation Service stated:

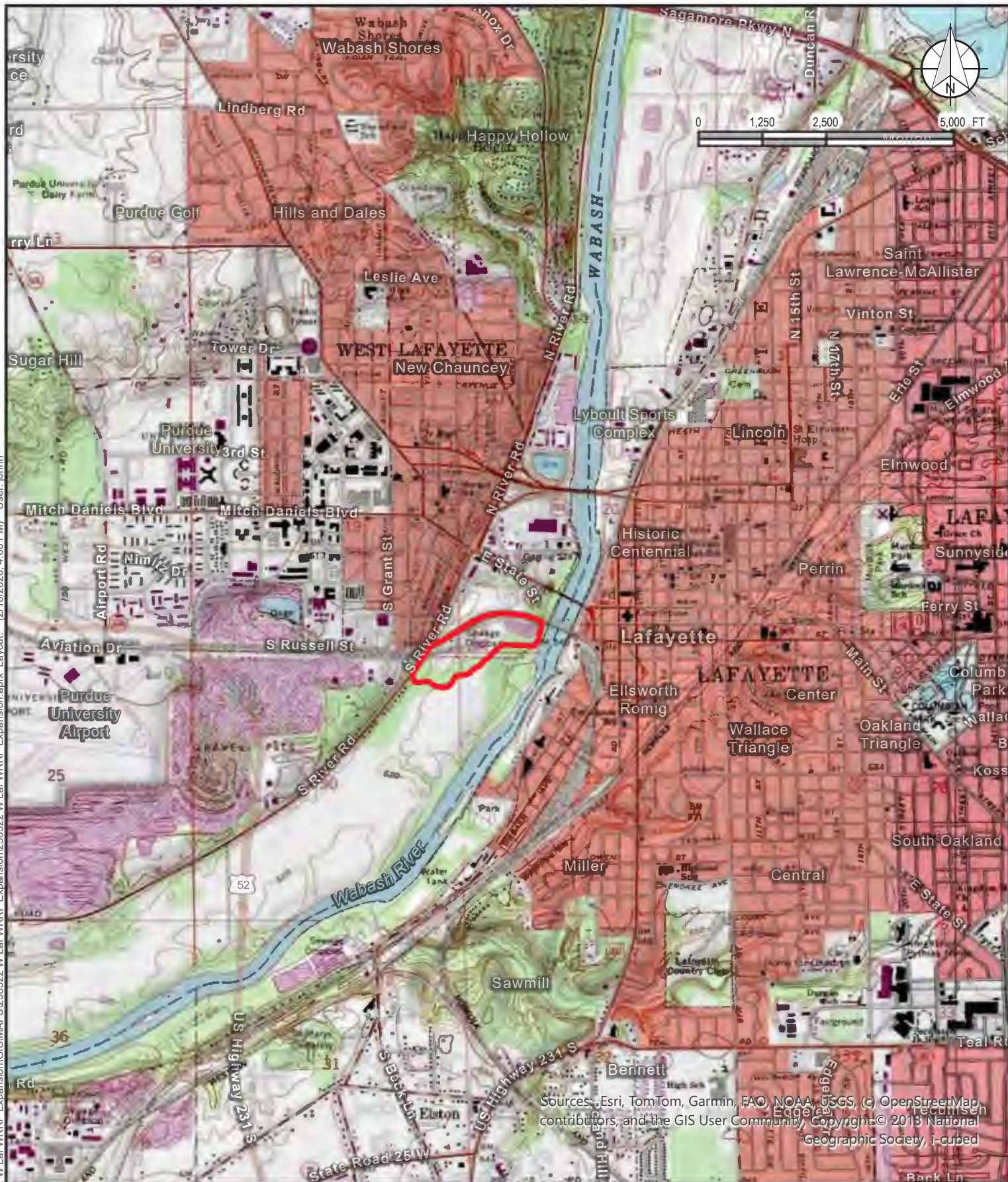
The proposed wastewater treatment plant property project includes the installation of 3 new primary clarifiers, a new aeration tank, a new disinfection building, a new waste gas burner, a new anaerobic digester and control building, a new biosolids building and holding tanks, a new food waste receiving station and modifications to existing infrastructure in Tippecanoe County, Indiana, as referred to in your letter October 5, 2026, will not cause a conversion of prime farmland.

VIII. MITIGATION MEASURES

City of West Lafayette's PER states: Erosion control measures will be implemented during all construction activity. Areas disturbed by construction will be restored and revegetated with seeding and other measures such as erosion control blankets, as necessary. A CSGP for stormwater runoff associated with construction activities is expected for this project since it will disturb more than one acre of land. Wetland and floodplain impacts will be permitted if they cannot be avoided and mitigated if required. Tree cutting restrictions may be required to minimize the potential for impacts to the Indiana bat.

IX. PUBLIC PARTICIPATION

A properly noticed public hearing was held on May 5, 2026, at 8:30am at City Hall, Council Chambers, 222 N Chauncey Ave, West Lafayette, Indiana 47906, to discuss the PER. No written comments were received during the 5-day comment period following the hearing.

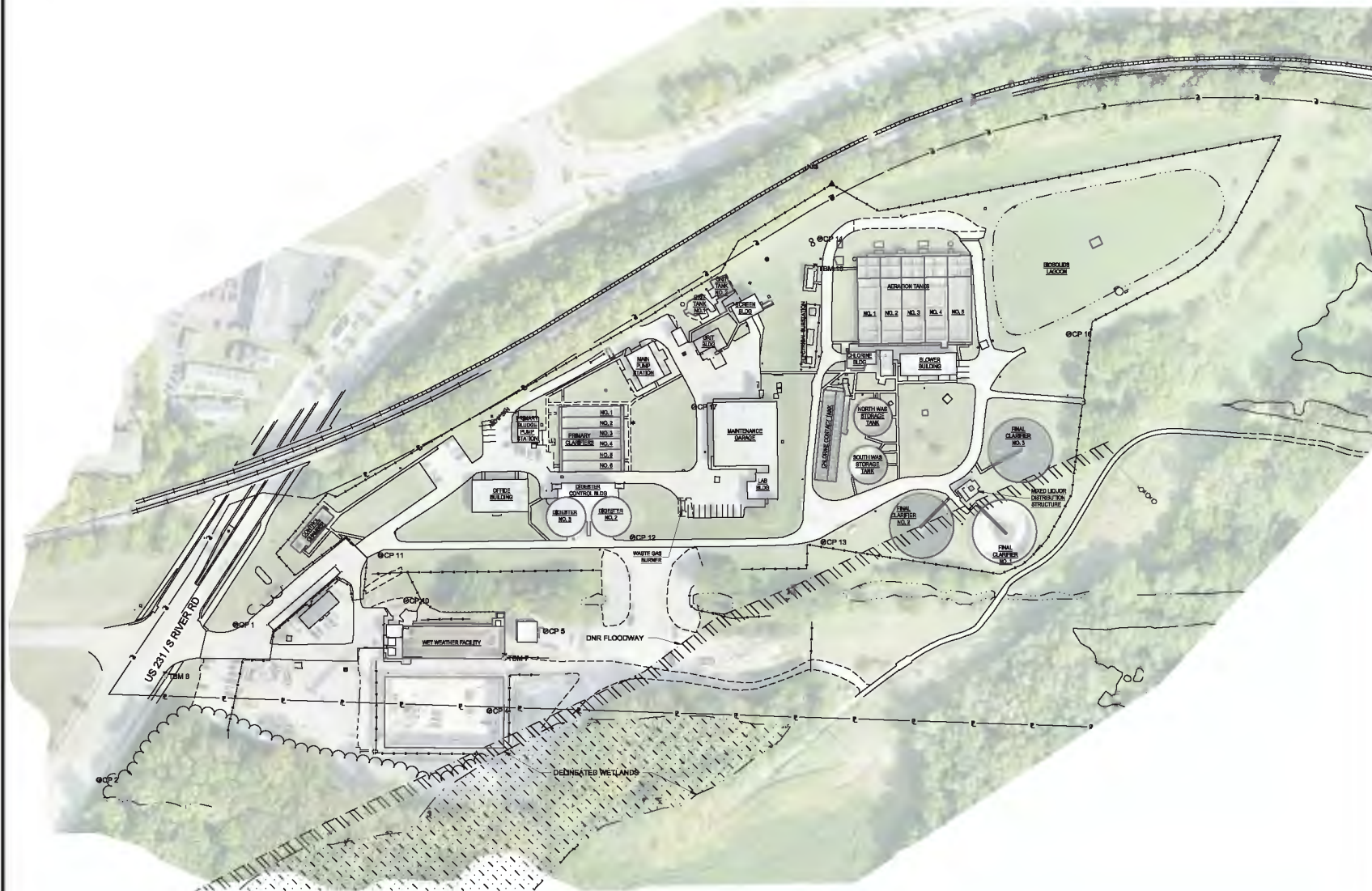


Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community, Copyright © 2013 National Geographic Society, i-cubed

Legend

 Water Resource Recovery Facility

FIGURE 1
USGS TOPOGRAPHIC MAP



SCALE: NONE

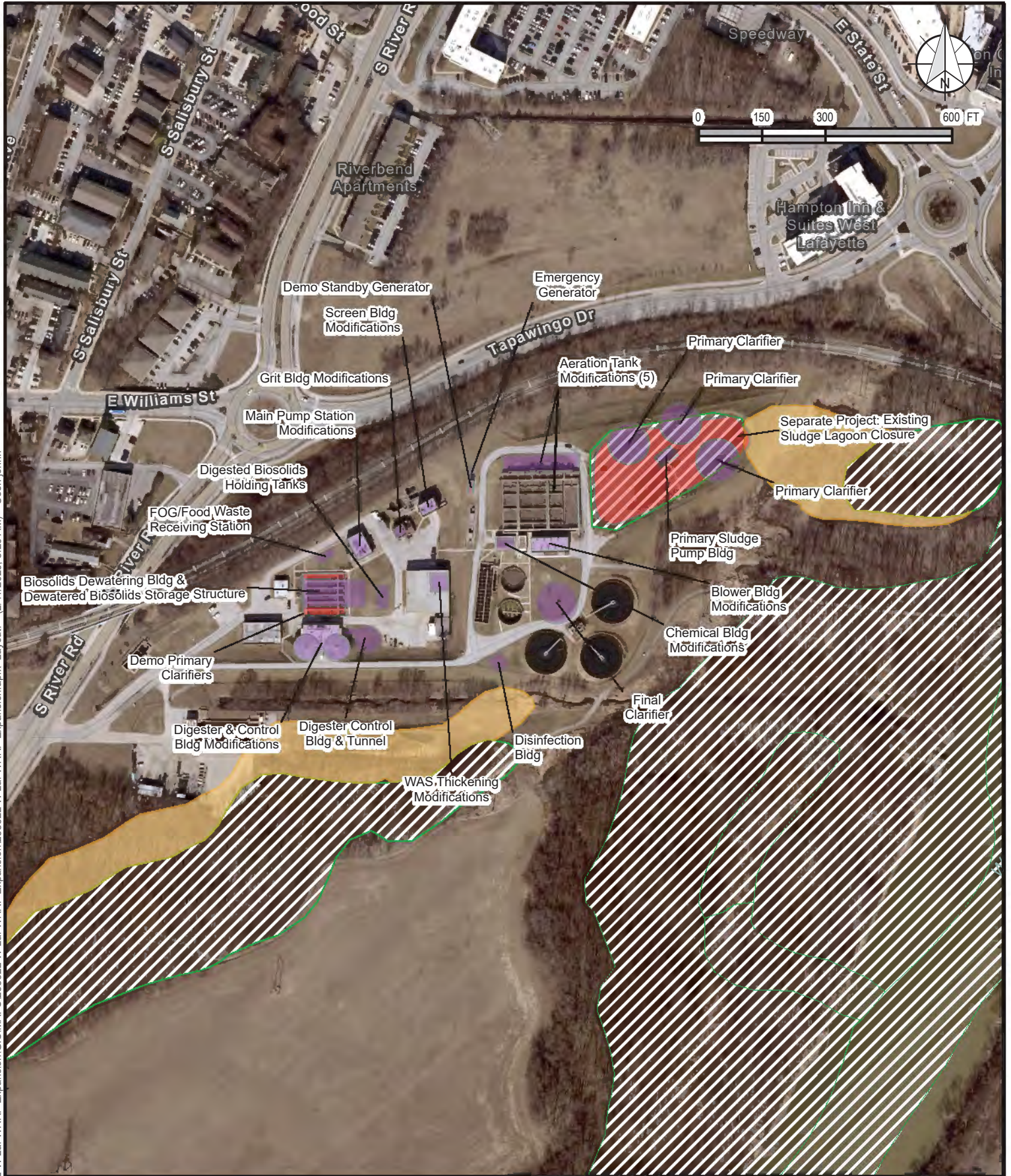
FIGURE 2
Existing Site Plan

West Lafayette, Indiana
Water Resource Recovery Facility Expansion
Preliminary Engineering Report

March 2025
258322.01.002



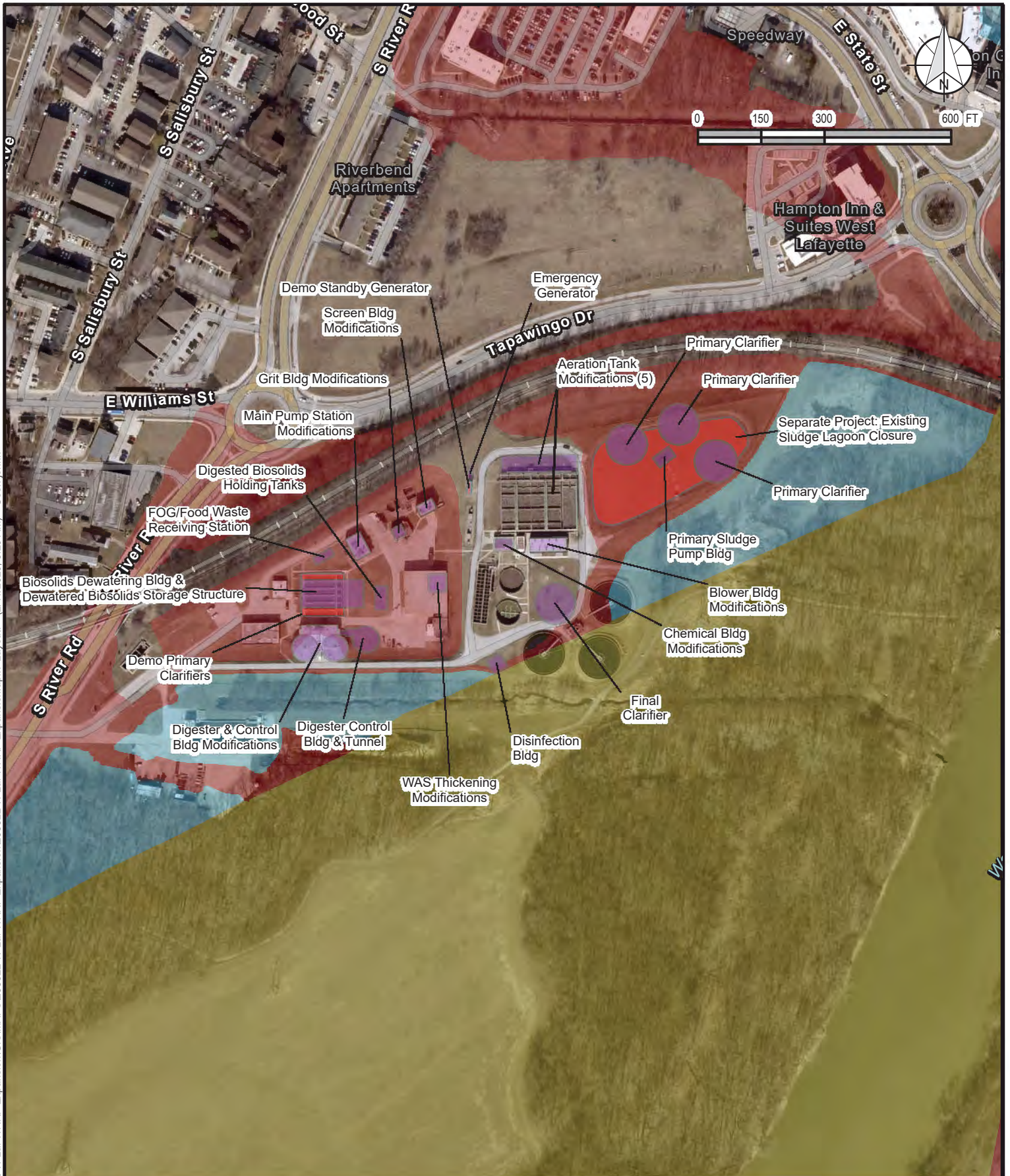
FIGURE 3
HISTORIC SITES AND STRUCTURES MAP



Legend

- Historic Wetlands NWI (USFWS)
- Wetlands NWI (USFWS)
- Proposed New/Modified Structures
- Proposed Demolished Structures

FIGURE 5
WETLANDS MAP



Legend

FIRM Flood Hazard Zones (FEMA)

Floodway

1% Annual Chance Flood Hazard

0.2% Annual Chance Flood Hazard

Proposed New/Modified Structures

Proposed Demolished Structures

**FIGURE 6
FLOODPLAIN MAP**

City of West Lafayette, Indiana
Preliminary Engineering Report for
Water Resource Recovery Facility
Expansion Project
February 2026
Project No. 258322.01.001