



OFFICE of
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HOUSING AND URBAN DEVELOPMENT

After More Than 6 Years, The City of New Orleans' National Disaster Resilience Project Activities Had Made Little Impact on Resilience

Audit Report Number: 2024-FW-1002

March 11, 2024

To: Cheryl S. Breaux
Director, Office of Community Planning and Development
New Orleans Field Office, 6HD

//signed//

From: Kilah S. White
Assistant Inspector General for Audit, Office of Inspector General, GA

Subject: After More Than 6 Years, The City of New Orleans' National Disaster Resilience Project
Activities Had Made Little Impact on Resilience, New Orleans, LA

Attached is the U.S. Department of Housing and Urban Development (HUD), Office of Inspector General's (OIG) final results of our audit of the City of New Orleans' Community Development Block Grant National Disaster Resilience grant activities.

HUD Handbook 2000.06, REV-4, sets specific timeframes for management decisions on recommended corrective actions. For each recommendation without a management decision, please respond and provide status reports in accordance with the HUD Handbook. Please furnish us copies of any correspondence or directives issued because of the audit.

The Inspector General Act, as amended, requires that OIG post its reports on the OIG website. Accordingly, this report will be posted at <https://www.hudoig.gov>.

If you have any questions or comments about this report, please do not hesitate to call Danita Wade, Audit Director, at (817) 978-9309.

Highlights

After More Than 6 Years, The City of New Orleans' National Disaster Resilience Project Activities Had Made Little Impact on Resilience | 2024-FW-1002

What We Audited and Why

We audited the City of New Orleans' Community Development Block Grant (CDBG) National Disaster Resilience grant. The City shares with the overall southern region the physical risks associated with erosion, flooding, loss of power, and damage from hurricanes. Our audit objective was to determine whether the City's grant activities were effective in its recovery from past disaster events as well as whether the City improved its ability to withstand future extreme events. We performed this audit because it ties directly to the U.S. Department of Housing and Urban Development's (HUD) strategic goal to advance sustainable communities, which includes investment in climate resilience, energy efficiency, and renewable energy across HUD programs.

What We Found

Using the flexibility provided by the block grant, the City opted to focus its National Disaster Resilience program activities on improving its ability to withstand future extreme events. We found that all 11 of the City's major infrastructure projects that were planned in 2017 and designed to combat flooding, had been significantly delayed. We identified only 1 project that made progress but had been underway for 5 years. We found 2 projects slated for cancellation and the remaining 8 still in the design or planning phase. Thus, after more than 6 years, the City had made little progress toward achieving its goals for the National Disaster Resilience program. In addition, the City had disproportionately spent more of its National Disaster Resilience funds on planning and administration than on the design and construction of its planned projects and program activities. Further, the City's Retrofit program did not reduce the flood risk in many cases and left some homeowners with more flooding and physical and financial burdens. These problems occurred because the City (1) did not properly plan the implementation of its projects, (2) lacked adequate staff and a staffing plan, (3) did not properly charge costs, and (4) failed to adequately monitor its projects and programs. As a result, (1) the City has been left vulnerable to damage from future rain and flood events, (2) homeowners are more exposed to property damage, and (3) the City may run out of funds needed for program oversight. If the City runs out of funds, it will need to allocate non-Federal funds, which may be limited, to complete monitoring and oversight of the National Disaster Resilience program.

What We Recommend

We recommend that HUD require the City to (1) reassess the eight infrastructure projects still in the design or planning phase to determine whether the City can complete the projects or how the remaining funds could be best used within the 6 years remaining for the grant period, (2) support or repay \$104,425 for inadequate supporting documentation, (3) work with HUD to amend its action plan to ensure that \$14,683,335 in project funds are put to better use, (4) ensure appropriate staff levels, (5) ensure

adequate and timely monitoring of its projects and programs, (6) implement a HUD-approved planning and administration budget and staffing plan, (7) identify and correct misallocated costs, (8) develop a plan on how it will fulfill its required program oversight if it runs out of planning and administration funds, (9) determine how the Retrofit program can better serve homeowners, and (10) develop a plan to review the condition of the property updates and determine where repairs are needed.

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Background and Objective

Public Law 113-2 authorized \$16 billion for necessary expenses related to disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas. This included areas that sustained damage because of a major disaster declared under the Robert T. Stafford Disaster Relief and Emergency Assistance Act due to Hurricane Sandy and other eligible events in calendar years 2011, 2012, and 2013 for activities authorized under Title I of the Housing and Community Development Act of 1974. Pursuant to Public Law 113-2, HUD released a notice of funding availability for the Community Development Block Grant (CDBG) – National Disaster Resilience Competition on September 17, 2014. The competition awarded almost \$1 billion in funding for disaster recovery and long-term community resilience through a two-phase competition process.

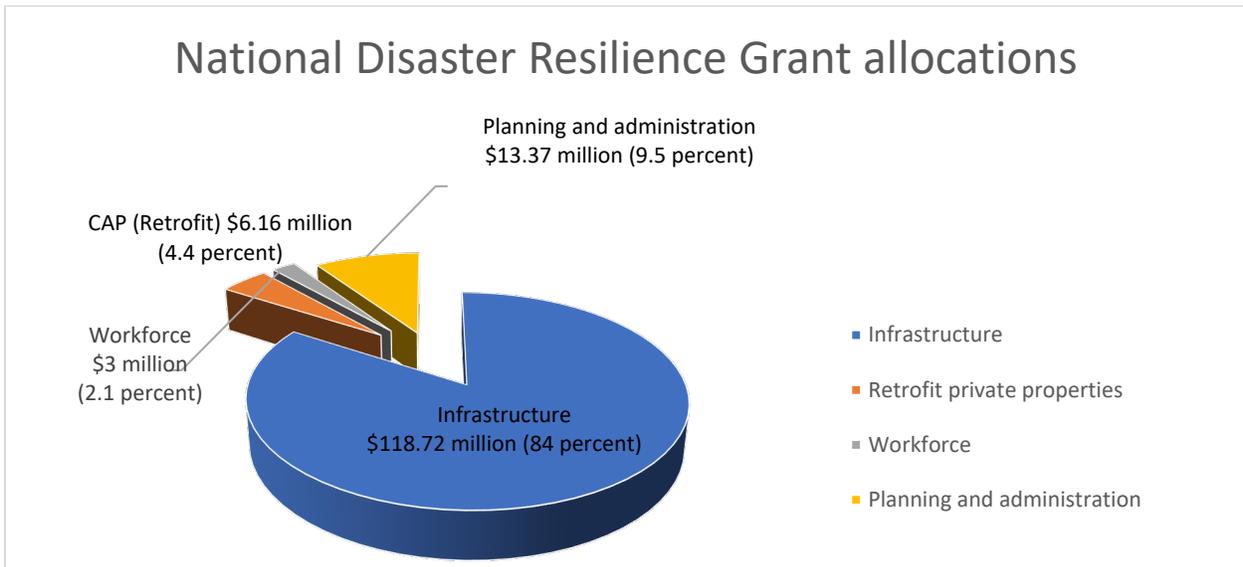
HUD designed the grant to allow states to have flexibility in the program activities and help state and local communities recover from past disasters, while simultaneously improving their ability to withstand future extreme events through strategic community investments. The National Disaster Resilience program's goals are to (1) apply science-based and forward-looking risk analysis to address recovery, resilience, and revitalization needs; (2) leave a legacy of thoughtful, innovative, and resilient approaches to addressing future risks; (3) provide help for communities to plan and implement projects that make them more resilient to economic stresses or other shocks; (4) fully engage with stakeholders about the impacts of climate change and to develop pathways to resilience based on sound science; and (5) leverage investments from the philanthropic community to help communities define problems, set goals, explore options, and craft solutions. On January 21, 2016, HUD announced 13 National Disaster Resilience finalists, including the City of New Orleans (the City).

In January 2017, HUD and the City executed a grant agreement in which the City received \$141.2 million in a National Disaster Resilience grant under Public Law 113-2 for disaster resilience. The City of New Orleans, Office of Community Development, administers the City's National Disaster Resilience program. Different entities within and outside the City's administration, including the New Orleans Redevelopment Authority (NORA), administer the program's initiatives. The City's activities and initiatives for its National Disaster Resilience program include:

1. *Urban Water-Reliable Energy and Smart Systems* – These infrastructure projects are administered by the City's Project Delivery Unit of the Office of Community Development. The projects are intended to transform water from a threat into an asset in the public realm and to enhance energy grid reliability.
2. *Community Adaptation (Retrofit) Program (CAP)* – NORA administers this program, which is designed to provide residential stormwater management improvement to owner-occupied single-family homes with household incomes at or below 80 percent of area median income located within the New Orleans Gentilly area. NORA expects the program to divert and detain stormwater runoff on more than 200 properties with an average grant award between \$10,000 and \$25,000. The improvements are designed and installed at no cost to the homeowners.
3. *Workforce Development* – This is a training program administered by the mayor's Office of Workforce Development. This initiative provides workforce development training services that aim to (1) train the local workforce in green infrastructure and water management; (2) focus on

job readiness and developing the next generation of builders, problem-solvers, and green infrastructure specialists; and (3) support programs to hire and train a skilled workforce to build and support the maintenance of National Disaster Resilience-funded projects. We did not review this program as part of our audit since we wanted to focus on the City’s efforts toward withstanding future disaster events.

HUD has extended the grant expenditure deadline twice. The initial expenditure deadline was September 2022.¹ It was then extended to September 30, 2025.² The expenditure deadline is now September 30, 2029.³ The City allocated⁴ its \$141.2 million in grant funds among four activities as shown in the graph below.



As of September 1, 2023, of the \$141.2 million, the City had spent more than \$21 million (14.89 percent). For the City’s National Disaster Resilience grant, HUD has classified the City as a slow spender⁵ every reporting period from May 2017 to October 2023,⁶ making it a chronic slow spender.

Our audit objective was to determine whether the City’s National Disaster Resilience activities were effective in its recovery from past disaster events while improving its ability to withstand future extreme events.

¹ Federal Registers 5936–N–01 and 6039–N–01 stated that the funds must be spent by September 30, 2022.

² Public Law 117-103 and Federal Register 6316–N–01 extended the expenditure deadline to September 30, 2025.

³ Under Federal Register 6397–N–01, HUD revised the period of performance and budget period with an end date of September 30, 2029.

⁴ According to the City’s approved action plan, amendment 1, dated June 20, 2021

⁵ This is defined by HUD as not spending grant funds at HUD’s expected rate.

⁶ HUD’s reporting of grantees’ spending statuses (on pace, slow spender) was interrupted during 2020 and 2021 and resumed with the first published monthly report in January 2022.

Results of Audit

After More Than 6 Years, The City's Infrastructure Projects Had Been Significantly Delayed And It May Run Out Of Oversight Funds

More than 6 years after HUD and the City executed the grant agreement and more than a year beyond the planned completion date, 8 of the City's 11 infrastructure projects were still in the design or planning phase, 2 were slated for cancellation, and 1 had been underway for 5 years. All projects were delayed and had not been completed by the expected date of September 2022. In addition, the City had disproportionately spent more of its National Disaster Resilience funds on planning and administration than on the design and construction of its planned projects and program activities. These issues occurred because the City did not (1) properly plan for the implementation of these projects, (2) have a staffing plan and adequate staff to execute portions of the infrastructure projects, (3) properly charge costs, and (4) adequately monitor the infrastructure projects. As a result, without these infrastructure projects on track, the City's Gentilly area was left highly susceptible to damage from future flood and rain events. In addition, the City may run out of funds needed to oversee the projects and programs. If the City runs out of funds, it will need to allocate non-Federal funds, which may be limited, to complete monitoring and oversight of the National Disaster Resilience program.

Infrastructure Projects Were Making Slow to No Progress

The City was making slow-to-no progress toward the completion of its infrastructure projects. When HUD and the City executed the grant agreement in January 2017, the City reported to HUD that it would start 11 infrastructure projects, targeting the New Orleans Gentilly area to assist with flood prevention. The City reported that the projects had a budget of nearly \$119 million and that it expected completion by September 2022. Of the nearly \$119 million, the City dedicated \$111 million to a water management initiative to transform water from a threat to an asset. The City planned for the water projects to redesign spaces to store rainwater in the Gentilly neighborhoods and reduce stormwater runoff to curtail erosion and water pollution and solve drainage problems. The remaining \$8 million was dedicated to a reliable energy and smart system to support the function and reliability of the City's energy, water, and sewerage systems. Based upon the City's assessment, these systems were extremely important during disasters and would improve the reliability of critical facilities and the health and quality of life of residents. However, more than 6 years after execution of the grant agreement, eight projects were still in the design or planning phase, two were slated for cancellation, and one had been under construction for 5 years, with little of the budgeted funds spent, as discussed below.

Eight projects still in design or planning stage - Eight projects were still in the design or planning phase, and the City had spent only \$7.6 million (7 percent) of the \$102.7 million allocated to these projects. In addition, the City had not initiated the environmental review or bidding for construction for six of these projects, which are not slated to be completed until 2025, 3 years after the original completion date.

For example, the illustration below is for the Saint Bernard Neighborhood Campus infrastructure project. This project site was slated to hold up to **5 million gallons** of stormwater in underground detention basins. The project would also create rain gardens to improve stormwater management within neighborhood intersections. As shown in the illustration, taken at Milton Street,⁷ the City had not started construction, and the site was still in its original state. In addition, the City had spent only \$1.1 million of \$15.4 million (7 percent) allocated to this project and did not plan to complete this project until April 27, 2025.

After 6 years, the City had spent only 7 percent of the \$102.7 million allocated to eight of its projects that were still in the design or planning stage. The City originally planned to complete the projects by September 2022.

Illustration: Saint Bernard Neighborhood Campus infrastructure project



See appendix C for details on each project and appendix D for illustrations for another five projects.

Milneburg Neighborhood Stormwater Resilience-Microgrids slated for cancellation - Six years into the program and after spending \$293,316 on these two projects, the City proposed an amendment to terminate the projects, which were originally budgeted at more than \$14 million.⁸ These two projects would have provided stormwater storage and generated local energy for distribution to the Gentilly neighborhood. However, the projects never got out of the planning phase. The City stated that it would repay HUD the funds spent on these projects but had not done so and had also not received HUD's approval of the action plan amendment to officially terminate the projects as of the end of our audit fieldwork.

⁷ These pictures were taken on January 26, 2023. In April and September 2023, we visited the site and confirmed that the City had not taken any action at this site.

⁸ \$14,390,019

Water monitoring still underway after 5 years— This project had been underway for 5 years, but the City had spent only \$365,137 of the \$1.2 million allocated (28 percent) and still had a lot of work remaining. Specifically, the City stated that while the erosion vulnerability report and green infrastructure testing were complete and the project had progressed from installation to the data collection phase, the project still had to complete the monitoring report, modeling, and a workshop to go over lessons learned.

The City Had Spent Almost Half of Its National Disaster Resilience Planning and Administration Funds With Little Progress Toward Program Completion

The City disproportionately spent more of its National Disaster Resilience funds on planning and administration combined than on the design and construction of its planned projects and program activities. The City allocated \$13 million for planning (\$6.3 million) and administration (\$7 million) to plan and carry out its National Disaster Resilience program activities. However, as of July 2023, the City had spent more than \$6 million (45 percent) of its planning⁹ (\$3.8 million) and administration¹⁰ (\$2.2 million) funds, while it had disbursed only \$15.7 million (12 percent) of the \$127.9 million allocated for its activities, a 4-to-1 spending ratio. City officials did not explain why the City's planning and administration costs were so high. During our July 2023 update meeting, the City stated that it planned to reevaluate the method used to charge its program costs. For example, the City stated that it planned to charge direct costs¹¹ for staff working on the infrastructure projects rather than planning costs or administration costs, or both. However, the City did not provide an updated budget plan.

The City's Program Administration Deficiencies Caused Extensive Delays and Disproportionate Spending

City officials cited various reasons for the project delays, including (1) a cyberattack on its computer systems (December 2019), (2) COVID-19 (March 2020), (3) Hurricane Zeta (October 2020), and Hurricane Ida (August 2021). However, our audit identified that the City (1) did not sufficiently plan, (2) lacked a staffing plan and sufficient staff, (3) did not understand how to charge costs, and (4) had a flawed monitoring risk assessment as the main causes for the significant delays in the City's infrastructure projects and the disproportionate spending of its planning and administration funds.

Insufficient planning - The City did not properly plan for the implementation of these projects by not obtaining upfront and timely cooperation from the various entities involved in the projects before applying for the National Disaster Resilience grant. For example, for the Milneburg project, the City failed to provide the project site property owners, the Milne Trust, with the details of the project in a timely manner. It was at a January 8, 2020, meeting, 3 years after the grant agreement was executed, that the

⁹ HUD Notice CPD-2023-06 defines planning costs (capped at 15 percent of the total grant amount) as costs of data gathering, studies, analysis, preparation of plans, and the identification of actions that will implement such plans.

¹⁰ HUD Notice CPD-2023-06 defines administration costs (capped at 5 percent of the total grant amount) as reasonable general costs of grant management that do not include staff and overhead costs directly related to carrying out other CDBG-DR eligible activities since those costs are eligible as part of such activities.

¹¹ HUD Notice CPD-2023-06 defines activity delivery costs as allowable costs incurred for implementing and carrying out eligible program activities. It also stated that these costs must be allocable to a program activity; can include direct costs integral to the delivery of the final assisted activity; and under certain circumstances, may include indirect costs.

owners learned that the project involved taking water from the Press Street canal. The owners did not agree to the use of the proposed location and taking water from the Press Street canal. Therefore, the owners decided not to allow the City to use the site for this stormwater storage project. The owners later provided a termination letter to the design team, dated March 13, 2020. In another example, the City moved to terminate the Microgrids project beginning in May 2022, more than 5 years after the grant period began, because it did not have an agreement with Entergy, one of the City’s major partners, and there was a possibility of its not meeting the grant expenditure deadline. If the City had sufficiently planned the projects, it would have determined that the Milneburg and Microgrid projects would fail early in the start of the program, and it could have reallocated the funds for these projects or created new projects that would have allowed for expeditious completion.

No staffing plan and insufficient staffing - The City did not establish a staffing plan at the inception of or during the grant period for the National Disaster Resilience grant. A staffing plan ensures that there are sufficient staff allocations made to meet the program goals. The City also had a high staff turnover rate, which impacted the programs’ progress. For example, the City lost one manager and two directors in 2018 and had three different Disaster Program managers between 2017 and 2022 and two different Housing Policy and Community Development directors between 2018 and 2022. Therefore, it had to farm out tasks to other departments that were indirectly related to the National Disaster Resilience program, which may have contributed to the increase in costs charged to the grant planning and administration funds. Had the City established a staffing plan, it would have had a plan of action to supplement the absence of leadership within the same department(s) and ensured the forward progress of its programs and projects. Further, without a staffing plan, the City could not ensure that it had sufficient staff to carry out the work and to support the percentage of time charged for planning and administration tasks throughout the grant period.

In addition, the City did not have adequate staff to execute portions of the infrastructure projects and did not have internal staffing to complete the procurement for the infrastructure project activities. When the grant performance period started in 2017, the City’s organizational chart showed that it planned to have 12 department leads, such as deputies, directors, and managers, to oversee 20 lower-level employees, totaling 32 staff members. According to the City’s records, from 2018 to 2022, its National Disaster Resilience staff fluctuated between 19 and 30, never getting to the initially planned staff count of 32 (table 1). In one example, during the Energy Redundancy and Monitoring project activity, the City experienced a delay in the project due to a change of project managers.

Table 1: The City’s 2018-2022 National Disaster Resilience staffing levels

Year	Department leads	Employees	Total
2018	2	17	19
2019	2	20	22
2020	2	28	30
2021	1	22	23
2022	1	28	29

The City did not properly charge costs - We found a few instances¹² where the City erroneously charged costs to the National Disaster Resilience grant for employees who were not working on the grant and incorrectly recorded and paid expenditures for employees without adequate supporting documentation. When we asked the City about these charges and why it had spent such an exorbitant amount of its administration funds in comparison to its program funds, the City's Director of Administration Support stated that planning and administration expenses that should have been charged as direct costs to the grant projects, were misallocated. Because the City did not understand how to properly allocate costs, it mistakenly charged costs to various National Disaster Resilience projects and program activities. In addition, the City could not estimate how much in costs had been mistakenly charged. Instead of retroactively ensuring that incurred costs were allocated correctly, which could have improved its unbalanced 4-to-1 spending ratio, the City stated that it would not go back and review all the past charges to properly allocate the costs. If the City goes back and reviews those past charges for accuracy, it could have more funds available to administer and oversee its National Disaster Resilience program for the remaining grant period.

The City misallocated expenses but stated that it would not go back and properly allocate them.

Flawed monitoring risk assessment- The City did not adequately monitor the infrastructure projects. HUD and the City's monitoring plan required the City to provide adequate oversight of its programs and conduct monitoring of all projects before closeout.¹³ Specifically, the City's monitoring plan stated that risk assessments were used to determine the risk of a set of projects or programs. The plan further stated that risk established should be used to prioritize and determine the frequency of monitoring reviews. The criteria used for the risk assessment were (1) funding amount,¹⁴ (2) complexity,¹⁵ (3) implementation,¹⁶ (4) relevant experience, (5) compliance history, and (6) project timeline.¹⁷ High-risk assessment rankings received monitoring once a year.

We found the City assessed risks presented by its subrecipients and contractors but not at the project or program level. Based upon the risk assessment criteria in the City's monitoring policy, the 11 infrastructure projects met the high-risk rankings in 4¹⁸ of the 6 categories and each should have received onsite monitoring. Although the City conducted monitoring reviews on two subrecipients¹⁹ related to the National Disaster Resilience grants, these reviews did not include any reviews of the infrastructure projects themselves.

Because the City did not consider projects or programs during its monitoring risk assessment process, it monitored only two subrecipients under the National Disaster Resilience grant based on its risk assessment rankings. This system of ranking and monitoring was flawed because it resulted in entire

¹² We provided the details of these, and corrective actions needed in a management letter to HUD.

¹³ Regulations at 2 CFR (Code of Federal Regulations) 200.329 and City of New Orleans CDBG Disaster Recovery Program Monitoring Plan, May 2019

¹⁴ High risk is \$1 million and over.

¹⁵ High risks are construction projects.

¹⁶ Subrecipients implementing the projects are high risk.

¹⁷ High risk is 12-24 months.

¹⁸ The infrastructure projects met the criteria for funding amount, complexity, implementation, and project timeline.

¹⁹ Subrecipients NORA (2018) and Deltares (2018 and 2022)

projects and programs being unmonitored. This lack of monitoring (1) contributed to poorly implemented projects and programs and (2) limited the City's ability to promptly identify and address any problems or challenges with project and program execution. Further, since this was a critical part of the National Disaster Resilience program, the City should have changed the risk assessment process to include the grant programs and projects as part of the review during the grant period.

Conclusion

Due to the City's insufficient planning, lack of adequate staffing, lack of a staffing plan, and flawed risk assessment process, the City experienced delays in the completion of its infrastructure projects, resulting in the City's Gentilly area's being left highly susceptible to damage from future rain and flood events. This implementation delay defeated the sole purpose of the National Disaster Resilience grant, which was to improve the City's ability to withstand the effects of future disasters. Since the inception of the National Disaster Resilience program, the Gentilly area has experienced at least ten rain events, which caused major flooding and damage due to the City's drainage systems being overwhelmed. These projects could have helped to alleviate or assist with some of that drainage. If the City is unable to complete these projects, it will continue to be highly susceptible to significant damage from rain and flooding. Further, it will not be positioned to withstand future extreme rain and flood events, a prime objective of the National Disaster Resilience grant award. Every hurricane season that passes without these projects' being completed poses a threat to the City's infrastructure.

In addition, given the high rate of planning and administration funds already spent, the City being behind pace, and with about 6 years remaining for completion of the program, it may not have enough planning and administration funds to adequately administer the program. Without sufficient administration funds, the City will not be able to pay staff to perform the monitoring and oversight of the program activities, needed to ensure that the National Disaster Resilience projects are completed within the expected milestones. In addition, the City may not be able to properly plan for the increase or decrease in staff capacity, based on its ongoing project work and planning and administration fund balances for the grant. The City's relaxed stance on the errors in its charges to the administration funds may result in a loss of or diminished funds, which are needed to properly execute and operate the National Disaster Resilience grant. If the City runs out of funds, it will need to allocate non-Federal funds, which may be limited, to complete the monitoring and oversight of the National Disaster Resilience program.

Recommendations

We recommend that HUD require the City to

- 1A. Reassess the eight infrastructure projects still in the design or planning phase to determine whether the City can complete the projects or how the remaining funds could be best used within the 6 years remaining for the grant period to ensure that the City is protected from future storm and rain events.
- 1B. For the \$14,683,335 originally budgeted for the Milneburg and Microgrid projects, work with HUD to (1) determine whether its planned action plan amendment would constitute the need to submit a substantial action plan amendment, (2) ensure that any modifications in its action plan amendment would lessen the susceptibility of rain and flood events within the Gentilly area, and (3) require that any activities

pursued under the action plan amendment could reasonably be expected to be completed by the September 30, 2029, deadline.

- 1C. Review the number and type of positions for its National Disaster Resilience staff that are responsible for the oversight and completion of infrastructure projects and ensure that it has the appropriate staffing levels to complete adequate monitoring and oversight of the projects.
- 1D. Revise its risk assessment plan and process to ensure that monitoring is regularly conducted for its infrastructure projects through project completion, including establishing a monitoring schedule to ensure the progression and completion of the infrastructure projects.
- 1E. Develop and submit to HUD for approval an updated planning and administration budget and staffing plan, after reassessing the infrastructure projects in recommendation 1A, to complete the National Disaster Resilience projects with the funds and within the timeframe remaining.
- 1F. Analyze the method used to charge planning and administration costs to ensure that all costs are applied to the correct costs category and are valid charges to the National Disaster Resilience grant.
- 1G. Review misallocated planning and administration funds and reallocate any mistakenly allocated funds to the correct National Disaster Resilience project or grant activity. This measure could make available additional funds for program oversight.
- 1H. Develop a plan for how the City will continue to fulfill the required monitoring and oversight responsibilities of the National Disaster Resilience programs and projects if it runs out of planning and administration funds before it completes these programs and projects.

The City's Retrofit Program, in Many Cases, Did Not Reduce Flood Risk

The Retrofit program did not always improve the program participants' ability to withstand future extreme events. Specifically, there were issues with the property updates completed, and program participants experienced problems with the program. In addition, NORA, the City's subrecipient, did not always follow the program policies and procedures when determining eligibility. This condition occurred because (1) NORA did not always follow program guidelines, (2) the City did not monitor the Retrofit program or ensure that NORA complied with its own program requirements, and (3) NORA did not provide adequate contractor oversight. As a result, the program, as designed, would not always help with reducing stormwater runoff from these properties or reduce the individual or collective flood risks in the Gentilly area as planned and had placed more burden on the program participants.

The Property Updates Did Not Always Work as Designed

50 property inspections revealed that property updates made under the City's Retrofit program did not always work as designed. The City designed the Retrofit program to assist low- to moderate-income homeowners in the New Orleans Gentilly area by funding updates to help manage and reduce stormwater runoff from their private properties and to reduce individual and collective flood risk for future rain and flood events. The updates included items such as (1) removing and replacing concrete slabs with pavers²⁰ to better absorb rainwater; (2) installing rain barrels and planter boxes to catch rainwater; and (3) adding beautification, such as plants, flowers, and trees. NORA, through the City, awarded qualified homeowners with grants of up to \$25,000²¹ to cover 100 percent of the cost for the design and installation of stormwater management interventions.

Based on a statistical sample, we performed physical inspections or observations for 50 of 184 properties, with updates received through the Retrofit program completed between November 2019 and April 2022. For 37 properties, we performed physical inspections. For 13 properties, we were unable to schedule physical inspections with program participants but drove by the properties and made observations.

Our inspector assessed and ranked the quality of the contractor's initial work and the condition of the property updates. Of the 37 physically inspected properties, the inspector assessed both the condition of the updates for 25 properties and the quality of the contractor's initial work for 8 properties at below average. Assessed deficiencies included the following:

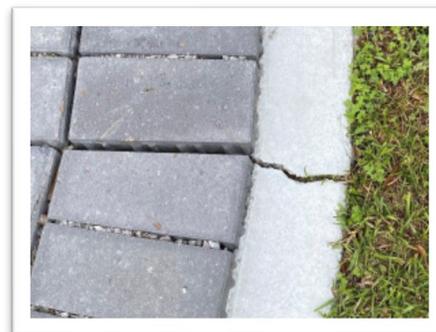
- Thirty-two properties had issues with concrete edging and cracking, causing the pavers to separate and preventing them from properly absorbing the water (illustration A).

All 50 properties had issues with weed infiltration, gravel washing, and settlement.

²⁰ A paver is a paving stone, tile, or brick-like piece of concrete commonly used as exterior flooring.

²¹ Some grants exceeded this amount with prior approval from NORA and the City.

Illustration A: Concrete edging cracking and separation of pavers



- Planter boxes, designed to catch rainwater, were made of inferior material that had rotted and fallen apart in six instances²² (illustration B). For example, during the property inspection for one, the program participant stated that the contractor built the planter box with pine wood, which caused the planter box to form mold and mildew, and all of the plants in the planter box died. In addition, since the planter box was placed against the house, it damaged the siding of the house (illustration C). Therefore, the program participant had to pay \$160 for help with removing the planter box.

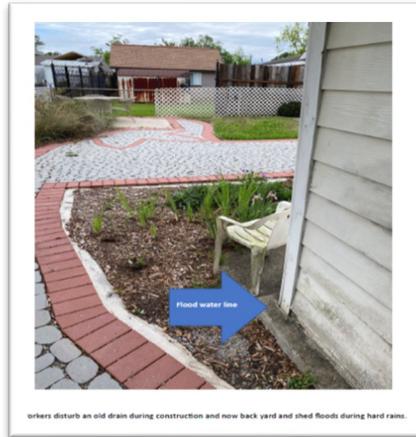
Illustrations B and C: Planter box falling apart and siding damage from a planter box.



- During the inspection of one property, the program participant stated that her property had major flooding because the contractor removed a water drainage system, despite her disagreement. Specifically, underground drains were installed on the property many years ago, which would take the water out of the backyard to the front street drains. Since the contractor removed the drainage system, when it rained hard, rainwater filled her backyard, and water came from both sides of the house. In addition, the shed in the backyard was flooding (illustration D). In one instance, during a hard rain, the water came into her house, and she had to file an insurance claim to make repairs to her home. The program participant reported the issue to the City and the contractor and sent pictures of the flooding. The City came out to take pictures of the property but had not resolved the issues.

²² Not all homes had planter boxes installed as part of their contracts.

Illustration D: Flood line from heavy rain because of the contractor's removing drainage system (side of backyard)



- Other deficiencies included a safety hazard in one instance due to the movement of pavers and poor quality of work (illustration E), contractors' leaving construction debris and materials in one instance (illustration F) on the property; a rain barrel platform made out of improper materials and buckling from the weight of the barrel in one instance (illustration G), and water runoff issues in two instances.

Illustrations E, F, and G: Movement of pavers, materials left on the property by the contractor, and rain barrel platform buckling due to improper materials used for building.



- For 12 properties, the gutter downspouts were not routed away from the homes, causing rainwater to back up around the house instead of filtering it away from the house (illustration H).

Illustrations H: Gutter downspouts not routed away from homes.



- For one property, the contractor billed the City for more work than it completed. Specifically, the contractor billed, and the City reimbursed the contractor for the installation of 306 square feet of pavers and 498 square feet of infiltration trench. However, during the onsite inspection, our inspector measured the area and determined that the contractor only installed 292 square feet of pavers and 316 square feet of infiltration trench, 14 and 182 square feet, respectively, less than it billed. This resulted in \$5,078²³ in overpayments for the work not performed by the contractor.

In addition, all 50 of the properties had issues with weed infiltration (illustration I); gravel washing from the paver cracks, which hold the pavers together for maximum rain absorption; and settlement, which could worsen flooding (illustration J).

Illustrations I and J: Weed Infiltration growing over pavers and gravel washed from paver cracks, with some settlement of pavers.



²³ The \$5,078 consists of the \$4,616 difference from what was charged and what should have been charged (\$18,064-\$13,448) plus the 10 percent construction fee of \$462.

Participants Experienced Problems With the Program

We interviewed 41²⁴ of the 50 sampled program participants about their experience with the Retrofit program. Many experienced significant problems, ranging from the lengthy or complicated application process, which impeded the start and finish of construction, to the additional burdens on the program participants because of the improvements, such as weeds growing through the pavers, foundation damage, increased flooding, brick and paver separation, and gravel settlement. Of the 41 participants interviewed, 31 (76 percent) expressed problems. Specifically,

- 27 participants (66 percent) expressed concerns about the pavers cracking, weeds, dead plants, and flooding;
- 12 participants (29 percent) said that the application process was long or complicated; and
- 4 participants (10 percent) said that the updates made flooding worse.

Of 41 participants interviewed, 27 (66 percent) had problems with paver cracking, weeds, dead plants, and flooding.

For example, one participant stated that she had been in her home since 1977 and the updates had not prevented or assisted with flooding. She further stated that because of the updates, (1) her yard got a lot of water that she did not previously have, (2) the pavers were sinking into the ground, and (3) the contractor did not put anything down to keep weeds from growing through the paver cracks. In addition, some participants were elderly or had medical conditions that would not allow them to physically pull weeds or fix installation errors. Unfortunately, most program participants stated that the City or NORA did not provide contact information for problem resolution and that they did not know that they could contact the City regarding the issues. Furthermore, those who attempted to contact the City did not know who to contact to obtain relief. Of eight homeowners who contacted NORA, the City, or both, only one had the construction-related issue resolved. During our update meeting with the City in July 2023, the City stated that it would follow up on the issues we identified to them.

The City's Subrecipient, NORA, Did Not Follow Program Guidelines for Participant Eligibility

Our review of 50 sampled participant files determined that NORA did not always ensure that program participants met program eligibility requirements. To be eligible, program participants had to (1) own and occupy a home located within the Gentilly area, (2) maintain flood insurance for the requisite period based on the applicant's flood zone, (3) have annual household income that did not exceed 80 percent of the area median income, and (4) attend a green infrastructure training workshop.

For 27 of 50 program participants (54 percent) with disbursements totaling \$668,103, NORA did not have adequate file documentation to support eligibility. Missing documentation included proof of green infrastructure training and income eligibility documentation, such as tax returns, bank statements, and household composition documents. See table 2.

²⁴ One program participant reported selling the house in August 2021.

Table 2. Program participant file review results

<u>Eligibility issues identified</u>	<u>Number of samples</u>	<u>Amount disbursed</u>
No green infrastructure training	23	\$568,756
Inadequate income documentation	4	\$99,347
Total		\$668,103

The green infrastructure training was designed to educate program participants on the details of the updates to be made to their property before installation. This eligibility requirement was one of the most important requirements because it allowed program participants to see what they were committing to before signing the grant agreement. Without this training, property owners blindly agreed to the updates and the stipulations in the grant agreement. For example, according to the grant agreement signed between NORA and the program participants, program participants were required to maintain the property updates for 5 years, which included maintaining weed infiltration or other activities that required a financial or physical requirement. Some program participants who did not receive the green infrastructure training stated that the training would have been helpful and that they would have opted out of the program had they known the financial and physical burden caused by the updates.

A Lack of Monitoring and Contractor Oversight Impacted the Effectiveness of the Retrofit Program

Although HUD held the City responsible for the oversight of its programs and activities,²⁵ the City did not monitor the Retrofit program or ensure that NORA complied with its own program requirements, which impacted the effectiveness of the program. As previously discussed, the City's monitoring risk assessment process was flawed, and the monitoring the City did conduct did not include projects and programs. A review of the City's monitoring reports between 2018 and 2022 determined that the City did not monitor the Retrofit program during the scope of our audit. Although the City monitored NORA in 2018, this monitoring review did not specifically look at the Retrofit program as whole but, rather, provided an onsite review of NORA's overall fiscal and programmatic compliance.

In addition, NORA did not provide adequate contractor oversight. After the initial site assessment, NORA did not perform inspections during and throughout the construction of the property updates. NORA performed only a final inspection of the property updates at the end of construction. Performing onsite visits and assessing the execution of the property updates at several intervals during the construction process would have helped with identifying potential structural or engineering issues and ensuring that the quality of work met the statement of work requirements in the contract.

²⁵ Regulations at 2 CFR 200.329 state that the (1) City is responsible for oversight of the operations of the Federal award-supported activities; (2) City must monitor its activities under Federal awards to ensure compliance with applicable Federal requirements and that performance expectations are being achieved; and (3) monitoring by the City must cover each program, function, or activity.

Conclusion

Because the City did not monitor the Retrofit program and ensure that NORA complied with its own program requirements, participants who received property updates through the Retrofit program were left vulnerable to flood risks in the Gentilly area. In addition, NORA did not provide adequate contractor oversight, which resulted in updates that posed safety hazards and caused siding and structural damage to the properties. The program, as designed, would not always help with reducing stormwater runoff from properties or reduce the individual or collective flood risks in the Gentilly area as planned. Instead, the program placed more burden on the program participants. Since the updates had placed more financial and physical burdens on program participants, some of whom were elderly and had medical conditions, they may not have been able to meet the maintenance requirements laid out in the agreement. Financial burdens include filing claims and spending money for flooding and other damage, purchasing weed killer, or paying someone to maintain the weeds. Physical burdens include having to manually pull the weeds growing through the pavers or removing cracked pavers. Noncompliance with the grant agreement required program participants to repay the grant funds in whole or in part. With assistance provided ranging from \$17,609 to \$25,000, it was unlikely that these low- and moderate-income program participants would be able to repay this unduly burdensome expense.

Recommendations

We recommend that HUD require the City to

- 2A. Provide monitoring reports and supporting documentation to show that it conducted periodic monitoring of NORA's performance and compliance with program rules and regulations and ensured that NORA promptly remedies any findings or concerns. This includes, but is not limited to, ensuring that NORA (1) provides adequate oversight of the contractors providing service under the program and (2) maintains documentation to support eligibility for program participants.
- 2B. Develop and implement a methodology for NORA to conduct periodic evaluations at appropriate points during the construction process to assess the quality of the work on all new properties and correct any issues identified.
- 2C. Develop and implement a plan for how to review the condition of the property updates and determine where repairs are needed.
- 2D. Analyze the effectiveness of the Retrofit program and identify what improvements are needed to better benefit program participants and lessen their burden, to include obtaining input from program participants, and implement those improvements.
- 2E. Support or repay, from nonfederal funds, \$5,078 in the square footage overcharge for work not completed, according to the project design and invoice documentation.
- 2F. Provide supporting documentation for the 4 program participants that did not have adequate income documentation. If the supporting documentation cannot be provided, repay, from nonfederal funds, \$99,347.

- 
- 2G. Since the property updates have been completed for the 24 program participants that did not receive the green infrastructure training, provide documentation that any subsequent program participants completed the green infrastructure training workshop before the grant agreement is signed and construction begins.

Scope and Methodology

We performed our audit both onsite at the City of New Orleans' and NORA's offices in New Orleans, LA and offsite from October 2022 through July 2023. Our audit scope covered the CDBG-National Disaster Resilience grant activity from January 19, 2017, through September 30, 2022. We expanded our scope to October 2023 to include updated grant activity; more specifically, grant expenditure and infrastructure projects' progress, and HUD financial reports, as of October 2023.

To accomplish our objective, we

- Reviewed relevant laws, regulations, and program guidance.
- Reviewed the grant agreement between HUD and the City, dated January 19, 2017.
- Reviewed HUD's June 2019 monitoring report on the City's grant.
- Reviewed the City's organizational structure and written policies for the National Disaster Resilience program.
- Reviewed the City's audited financial statements for 2016, 2017, 2018, and 2019.
- Reviewed the City's action plans and action plan amendments as applicable.
- Reviewed the City's Retrofit and infrastructure program activities.
- Reviewed the City's expenditure files.
- Reviewed the City's monitoring reports on its National Disaster Resilience subrecipients.
- Reviewed HUD's Disaster Recovery Grant Reporting system reports.
- Interviewed City officials to obtain an understanding of the City's program processes and procedures.
- Interviewed the City's subrecipient staff to obtain clarification regarding certain documentation.
- Interviewed program participants.
- Conducted site visits.

For the Retrofit project file review, from a universe of 184 private property units consisting of the total number of applicants that applied for the home improvement program and had property updates completed between January 19, 2017, and September 30, 2022, we selected a representative statistical sample of 50 property units for our review. We used the representative statistical sampling method because we wanted to select units without bias from the audit population. This method also allowed us to make mathematically defensible projections on the timeliness of the completion of the property updates, in the event we identified timeliness issues. Projecting on other potential issues would have required a 100 percent review, which we determined was not feasible. We reviewed the property unit files to determine whether the (1) City completed the property updates timely, based upon the timeframes established by program policies and procedures, (2) participants were eligible, and (3) energy efficiency, stormwater management, home elevation, and storm resilience features and improvements to the Retrofit private properties reduced flood risk, slowed land subsidence, improved energy reliability, and encouraged neighborhood revitalization, which would assist the City with recovering from or withstanding future disasters. For timeliness, the sample results did not yield any significant issues. Through the file reviews, we assessed the reliability of the City's computer-processed data regarding the Retrofit property units and determined that the data were generally reliable.

For the infrastructure project file review, we performed a 100 percent review and selected the entire National Disaster Resilience infrastructure universe of 11 project activities to review. We used this

sampling method because the universe was small enough to feasibly perform the review. We reviewed all 11 of the infrastructure projects to determine when the projects were implemented, current phases of the project work, and the likelihood of the City's completing the projects by the revised September 30, 2025,²⁶ expenditure deadline date. Through the file reviews, we assessed the reliability of the computer-processed data regarding the National Disaster Resilience infrastructure activities and determined that the data were generally reliable.

For the expenditure file review, from a universe of 165 administration expenditure line items totaling more than \$2.1 million and completed by the City between January 1, 2017, and March 8, 2023, we used the stratified random sampling method to select 49 expenditure line items for review. We used this sampling methodology because it is known to reduce variability in the data and improve the accuracy of the results. We reviewed the expenditure file documentation to determine whether the City complied with eligibility requirements and ensured that each expenditure was supported and reasonable. Through the file reviews, we assessed the reliability of the computer-processed data for the disbursed amounts and determined that the data were generally reliable. We did not identify any significant issues during this review.

To determine the amount of funds to be put to better use of \$14,683,335 we used the amount of funds budgeted for the Milneburg and Microgrid projects that were slated for cancellation as of July 17, 2023.

We conducted the audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective(s). We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

²⁶ Public Law 117-103, Consolidated Appropriations Act 2022, extended the expenditure deadline to September 30, 2025, but Public Law 117-328, Consolidated Appropriations Act, 2023, has extended the expenditure deadline further to September 30, 2029.

Appendixes

Appendix A – Schedule of Questioned Costs and Funds To Be Put to Better Use

Table 3. Schedule of questioned costs and funds to be put to better use.

Recommendation number	Unsupported 1/	Funds to be put to better use 2/
1B		\$14,683,335
2E	\$5,078	
2F	\$99,347	
Totals	\$104,425	14,683,335

1/ Unsupported costs are those costs charged to a HUD-financed or HUD-insured program or activity when we cannot determine eligibility at the time of the audit. Unsupported costs require a decision by HUD program officials. This decision, in addition to obtaining supporting documentation, might involve a legal interpretation or clarification of departmental policies and procedures.

2/ Recommendations that funds be put to better use are estimates of amounts that could be used more efficiently if an Office of Inspector General (OIG) recommendation is implemented. These amounts include reductions in outlays, deobligation of funds, withdrawal of interest, costs not incurred by implementing recommended improvements, avoidance of unnecessary expenditures noted in preaward reviews, and any other savings that are specifically identified. In this instance, eight of the City's infrastructure projects were grossly delayed and stuck in the design or planning phase. Requiring the City to reassess the eight infrastructure projects still in the design or planning phase to determine whether the remaining \$14,683,335 in funds could be better used in a timelier manner to ensure that the City is protected from future storm and rain events will ensure that the City makes the best use of its disaster funds.

Appendix B – Auditee Comments and OIG’s Evaluation

Ref to OIG Evaluation – Auditee Comments

OFFICE OF HOUSING POLICY AND COMMUNITY DEVELOPMENT
CITY OF NEW ORLEANS

LATOYA CANTRELL
MAYOR

TYRA JOHNSON BROWN
DIRECTOR

February 2, 2024

████████████████████
████████████████████ Office of Inspector General (OIG)
U.S. Department of Housing and Urban Development (HUD)
500 Poydras St, Suite 1117
New Orleans, LA 70130

RE: City of New Orleans Response to NDR Recommendations

Dear Ms. Carney:

The City of New Orleans is in receipt of the HUD OIG draft report which was submitted on January 17, 2024. The City of New Orleans and HUD OIG conducted an exit conference on Tuesday, January 23, 2024 to discuss the results of the review and draft report. The City’s response to the recommendations cited by HUD OIG are provided below:

Infrastructure Review

1A. Reassess the eight infrastructure projects still in the design or planning phase to determine whether the City can complete the projects or how the remaining funds could be best used within the 6 years remaining for the grant period to ensure that the City is protected from future storm and rain events.

City of New Orleans Response to Recommendation 1A:

As provided in the City’s response dated May 25, 2023, the City experienced four major disasters since the grant was allocated to the City. The City provided a spending plan showing that the majority of the funds for the projects would be spent during construction. This response and the spending plan are attached as **Appendix A**. CNO has initiated environmental review for all of the Urban Water projects. On July 21, 2023, in CNO’s response to OIG’s draft findings outline, CNO provided updates on environmental review of the Urban Water projects. Since that update, CNO has progressed three (3) projects to environmental approval and authorization of funds: Blue and Green Corridors Phase A, St. Anthony Green Streets Phase A, and St. Bernard Neighborhood Campus Phase A. Additionally, in CNO’s response dated July 21, 2023, the Water Monitoring activity includes several deliverables including a subsidence vulnerability report, testing of established green infrastructure sites, design and installation of a water monitoring network, a water monitoring database, a knowledge gaps report, and an integrated groundwater and subsidence model. As stated in the response, construction activities required for the water monitoring network are complete, as is the subsidence vulnerability report and green infrastructure testing. The activity has progressed from installation to data collection, with the monitoring report, modeling, and lessons learned workshop pending. Water Monitoring involves data collection from the well network, and subsequently data analysis and modeling. It is incorrect that the project has been in construction for five (5) years. Data collection and modeling is ongoing, as collecting water level data over time and over varying environmental conditions is consistent with the approved Action Plan, which describes the activity as “Construction of a district-scale Gentilly Water Monitoring Network, database of groundwater measures, and integration of groundwater and surface water models.” The City’s July 21, 2023 response to the OIG is attached as **Appendix B**.

 **Comment 1 >**

Ref to OIG Evaluation – Auditee Comments

1B. Support or repay \$293,316 in funds spent on the Milneburg and Microgrid projects that have been slated for cancellation.

City of New Orleans Response to Recommendation 1B:

On September 21, 2023, HUD notified CNO that the Consolidated Appropriations Act, 2023, enacted on December 29, 2022, provided that funds under the Act, that were available for obligation through fiscal year 2017, are to remain available until expended for the liquidation of valid obligations incurred in fiscal years 2013 through 2017. HUD provided guidance that the period of performance end date will be extended to September 30, 2029. CNO program staff subsequently met to assess the feasibility of continuing the Microgrids and Milneburg projects, and resumed pre-design activities such as site selection and interagency coordination. CNO notified HUD on November 21, 2023, that they would not be moving forward with the proposed Substantial Amendment 2, attached as [Appendix C](#). Attached to this response as [Appendix D](#), please find a proposed spend plan and schedule for the Milneburg and Microgrid activity showing completion before the end of the period of performance.

 **Comment 2 >**

1C. For the remaining \$14,390,019 originally budgeted for the Milneburg and Microgrid projects, work with HUD to (1) determine whether its planned action plan amendment would constitute the need to submit a substantial action plan amendment, (2) ensure that any modifications in its action plan amendment would lessen the susceptibility of rain and flood events within the Gentilly area, and (3) require that any activities pursued under the action plan amendment could reasonably be expected to be completed by the September 30, 2029, deadline.

City of New Orleans Response to Recommendation 1C:

On September 21, 2023, HUD notified CNO that the Consolidated Appropriations Act, 2023, enacted on December 29, 2022, provided that funds under the Act, that were available for obligation through fiscal year 2017, are to remain available until expended for the liquidation of valid obligations incurred in fiscal years 2013 through 2017. HUD provided guidance that the period of performance end date will be extended to September 30, 2029. CNO program staff subsequently met to assess the feasibility of continuing the Microgrids and Milneburg projects, and resumed pre-design activities such as site selection and interagency coordination. CNO notified HUD on November 21, 2023, that they would not be moving forward with the proposed Substantial Amendment 2, attached as [Appendix C](#). Attached to this response as [Appendix D](#), please find a proposed spend plan and schedule for the Milneburg and Microgrid activity showing completion before the end of the period of performance.

 **Comment 2 >**

1D. Review the number and type of positions for its National Disaster Resilience staff that are responsible for the oversight and completion of infrastructure projects and ensure that it has the appropriate staffing levels to complete adequate monitoring and oversight of the projects.

City of New Orleans Response to Recommendation 1D:

In HUD's exit interview with the City on January 23, 2024, HUD [REDACTED] indicated that HUD requested organizational charts from CNO and never received them. On October 21, 2022, the City of New Orleans (CNO) provided organizational charts for the City, Project Delivery Unit, and Office of Community Development. The original response containing these organizational charts are attached to this response as [Appendix E](#). OIG further requested staff job descriptions and percentage of staff allocation, which were provided on January 26, 2023 and May 15, 2023 respectively. The staff position descriptions are provided as [Appendix F](#), and percentage of staff allocation as [Appendix G](#). As shown in the attached documents, CNO assigned a mix of administrative, technical, financial, and project management staff to the program. Position descriptions for staff indicate the necessary complexity for overseeing a multi-million dollar grant-funded program, with staff assigned for project oversight, regulatory oversight, procurement, reimbursement, and other functions. The City has also provided its updated organizational chart [Appendix H](#) as illustrated in the organizational chart, please note Project Managers and Grant Managers do not manage or supervise any staff they only manage the project assigned to them. The updated chart is very specific to staff who work on the grant on a daily basis whereas the other organizational charts are for the many departments that touch the grant. All persons listed on the departmental organizational charts do not work on the NDR grant.

 **Comment 3 >**

Ref to OIG Evaluation – Auditee Comments

 **Comment 4 >**

1E. Revise its risk assessment plan and process to ensure that monitoring is regularly conducted for its infrastructure projects through project completion, including establishing a monitoring schedule to ensure the progression and completion of the infrastructure projects.

City of New Orleans Response to Recommendation 1E:

The City of New Orleans has enhanced its risk assessment and monitoring tools to ensure projects are meeting performance metrics and goals and to monitor on a monthly basis the progression, deliverables, and effective completion of the NDR projects.

 **Comment 5 >**

1F. Develop and submit to HUD for approval an updated planning and administration budget and staffing plan, after reassessing the infrastructure projects in recommendation 1A, to complete the National Disaster Resilience projects with the funds and within the timeframe remaining.

City of New Orleans Response to Recommendation 1F:

The City agrees with this recommendation and will review our staffing plan. Most of the staff that currently works on the NDR grant are activity delivery. Our local HUD office provided the City with the recent CPD 2023-06 notice that provides guidance on staff time allocation. The Office of Housing Policy and Community Development will utilize this CDP notice to host a multi-departmental training on planning, administration, and activity delivery costs to ensure staff understand how to accurately allocate the time they worked on the NDR activities. The City has enacted a plan to have staff go over their previously submitted timesheets to ensure that they are charging to activity delivery instead of administration and planning. We would like to also point out that the City has several planning partners that worked on planning activities to ensure the grant was properly planned. We do not anticipate any shortcomings as it relates to the planning activity.

 **Comment 6 >**

1G. Analyze the method used to charge planning and administrative costs to ensure that all costs are valid charges to the National Disaster Resilience grant.

City of New Orleans Response to Recommendation 1G:

The City agrees with this recommendation. Before submitting invoices for reimbursement, the Fiscal Unit will closely review the charges allocated to the NDR grant to ensure all charges are allocable to the grant. As an added step, while monitoring the grant, the Monitoring Unit will periodically review invoices to ensure only NDR charges are permitted for reimbursement under the grant.

 **Comment 7 >**

1H. Review misallocated administration and planning funds and reallocate any mistakenly allocated funds to the correct National Disaster Resilience project or grant activity. This measure could make available additional funds for program oversight.

City of New Orleans Response to Recommendation 1H:

The City agrees with this recommendation. Our local HUD office provided the City with the recent CPD 2023-06 notice that provides guidance on staff time allocation. The Office of Housing Policy and Community Development will utilize this CDP notice to host a multi-departmental training on planning, administration, and activity delivery costs to ensure staff understand how to accurately allocate the time they worked on the NDR activities. The City will reallocate any misallocations and notify HUD.

 **Comment 8 >**

1I. Develop a plan for how the City will continue to fulfill the required monitoring and oversight responsibilities of the National Disaster Resilience programs and projects if it runs out of planning and administration funds before it completes these programs and projects.

City of New Orleans Response to Recommendation 1I:

Most of the staff that currently works on the NDR grant are activity delivery. The City will complete quarterly assessments of the balance of the administration and planning activities and use this data to project the remaining funds needed to complete the grant based on the last activity's construction completion date. Although the grant was extended until 2029, the City is projected to complete construction of all activities several years before this date.

Ref to OIG Evaluation – Auditee Comments

 **Comment 9 >**

Retrofit Program Review

The New Orleans Redevelopment Authority (NORA) serves as the City's subrecipient to the \$141.2 million National Disaster Resilience (NDR) Grant and was allocated \$5.9 million (4.2%) to implement new stormwater management interventions on privately owned property to promote best practices in diverting stormwater away from the public drainage system. In addition, NORA's obligations as subrecipient was to complete 140 installations between February 1, 2017 through January 31, 2023, a seven (7) year term. NORA completed 194 Community Adaptation Program (CAP) installations during the subrecipient agreement term. NORA has submitted a formal response to the issues cited in the HUD OIG draft report (Appendix I). NORA conducted an inspection review of the CAP properties by a 3rd party inspector, the results of the inspection are attached in Appendix J for HUD OIG's review. The City of New Orleans also conducted its own inspection of the 37 properties cited by HUD OIG and the summary results of the review are attached in Appendix K. However, below are the responses to the recommendations cited in OIG's Retrofit Program Review:

2A. Provide monitoring reports and supporting documentation to show that it conducted periodic monitoring of NORA's performance and compliance with program rules and regulations and ensured that NORA promptly remedies any findings or concerns. This includes, but is not limited to, ensuring that NORA (1) provides adequate oversight of the contractors providing service under the program and (2) maintains documentation to support eligibility for program participants.

City of New Orleans Response to Recommendation 2A:

The City of New Orleans conducted a monitoring review of NORA on April 11, 2023 which concluded on December 7, 2023. The monitoring report (Appendix L) was submitted to NORA on December 7, 2023 which resulted in fifteen (15) findings in regards to NORA's performance, oversight and compliance with the program rules and regulations. NORA is required to respond to the requested corrective action and resolve the findings by February 7, 2024. The City will continue to ensure NORA is monitored throughout the year via onsite monitoring, inspections desk reviews, contractor evaluation, and performance reporting to ensure compliance and adequate oversight of eligibility, performance, efficiency, allowability, reasonableness, and allocability.

 **Comment 10 >**

2B. Develop and implement a methodology for NORA to conduct periodic evaluations at appropriate points during the construction process to assess the quality of the work on all new properties and correct any issues identified.

City of New Orleans Response to Recommendation 2B:

NORA's project teams include licensed landscape architects and/or engineers, as well as licensed general contractors, that are responsible for design and construction of Community Adaptation Program projects to the appropriate technical specifications. The licensed landscape architect or engineer is solely responsible for construction administration, as is typical in residential construction projects. NORA's program staff does conduct periodic progress evaluations during the construction process, but such evaluations are not determinative of construction quality. In short, NORA relies upon the expertise of the professional construction administration providers it retains. Upon satisfactory completion, the final inspection is signed off upon by the homeowner, design professional, construction contractor, and NORA program staff which happened in each instance. NORA will consider modifications to its current construction monitoring process based on the complexity and construction schedule for individual projects.

 **Comment 11 >**

2C. Develop and implement a plan for how to review the condition of the property updates and determine where repairs are needed.

City of New Orleans Response to Recommendation 2C:

The Community Adaptation Program Policies and Procedures currently require an assessment of property conditions at installation as well as at various points during the five-year maintenance period. When needed, participants are advised in writing of any required maintenance and repairs. NORA continues to conduct inspections in accordance with its program policies and procedures.

 **Comment 12 >**

Ref to OIG Evaluation – Auditee Comments

 **Comment 13 >**

2D. Analyze the effectiveness of the Retrofit program and identify what improvements are needed to better benefit program participants and lessen their burden, to include obtaining input from program participants, and implement those improvements.

City of New Orleans Response to Recommendation 2D:

NORA has analyzed the effectiveness of the Community Adaptation Program and found it to be highly effective. Each of the 194 properties completed in the program to date has a design capacity that allows the average project to detain over 1 inch of rain and nearly 3,000 gallons of stormwater. The combined stormwater storage capacity across all sites is approximately 575,000 gallons. Please see the attached capacity table for individual project details. NORA survey data shows that 98% of participants are satisfied with the program and NORA remains committed to improving the program to better support program participants.

 **Comment 14 >**

2E. Repay, from nonfederal funds, \$4,019 in the square footage overcharge for work not completed.

City of New Orleans Response to Recommendation 2E:

Upon investigation of the issue, it has been determined that the contractor was not overpaid. NORA investigated the concern about potential contractor mismeasurement for improvements installed as part of CAP180820-004 and confirmed that there were errors in measurement on the original invoice as billed. The City of New Orleans has provided the corrected invoice (**Appendix M**) and designs indicating the actual installations. Due to modifications made during construction, the as-built area of pavers installed was decreased to 306 square feet. Additionally, the square footage for the Infiltration Trench was increased from 326 square feet to 498 square feet. The modifications resulted in an increase in the total construction cost from \$24,992.26 to \$25,788.44. The contractor was paid \$24,992.26 and the CAP program has a maximum cost for construction installation plus construction administration fee at \$25,000, resulting in an underpayment of \$7.74. This finding should be removed from the OIG Report.

 **Comment 15 >**

2F. Provide supporting documentation for the 4 program participants that did not have adequate income documentation and 1 program participant that did not have adequate homeownership documentation. If the supporting documentation cannot be provided, repay, from nonfederal funds, \$124,347.

City of New Orleans Response to Recommendation 2F:

The City and NORA provided HUD OIG with supporting homeownership documentation including evidence of the homestead exemption (**Appendix N**) for the one (1) program participant where it was requested. The City and NORA also provided HUD OIG with supporting income documentation (**Appendix O**) including income recertification for three of the four program participants where it was requested. This finding should be removed from OIG's report, except for the one (1) participant that has not been recertified. It should be noted that all the homeowners identified by HUD OIG met the income certification requirement upon determination of eligibility to participate in the program.

 **Comment 16 >**

2G. Since the property updates have been completed for the 24 program participants that did not receive the green infrastructure training, provide documentation that any subsequent program participants completed the green infrastructure training workshop before the grant agreement is signed and construction begins.

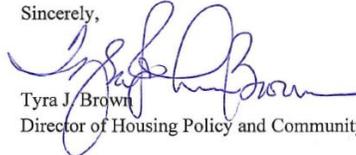
City of New Orleans Response to Recommendation 2G:

NORA has provided green infrastructure training for all program participants. Prior to the COVID-19 pandemic, the events were structured as large scale, in-person group events held in community centers. As a result of the pandemic, the format of the GI training workshop events was required to change to a one-on-one meeting between applicants and contractors. This training was held socially distant, outdoors, and on-site for the safety of all participants and in accordance with local public health rules and regulations in effect during the pandemic. NORA has provided HUD OIG evidence of green infrastructure training for all sampled participants and NORA will continue to provide green infrastructure training for future participants.

Ref to OIG Evaluation – Auditee Comments

The City of New Orleans takes these recommendations very seriously and will work continuously with HUD representatives to ensure compliance with all corrective actions and HUD requirements. If you have any questions or further information is required, please feel free to contact Ronald Fornerette, Jr. at (504) 658-4252 or email him at rcfornerette@nola.gov.

Sincerely,



Tyra J. Brown
Director of Housing Policy and Community Development

TJB/rcf

Cc: Cheryl Breaux

[REDACTED]
[REDACTED]
[REDACTED]

Joseph Threat
Corcherrie Allen
Mary Kincaid
Julien Meyer
Ronald Fornerette
Zivah Bauman
Beyonka Wilson
Erin Gallagher
LaNitrah Hasan
Max Camp

1340 POYDRAS STREET | SUITE 1000 | NEW ORLEANS, LOUISIANA 70112
PHONE 504-658-4200 | FAX 504-658-4238



OIG Evaluation of Auditee Comments

The City provided 21 attachments with its written comments. While we reviewed and evaluated the 21 attachments, due to their volume, we did not include them in this final report.

Comment 1 The City stated that it had experienced four major disasters since the grant was allocated and provided a spending plan. The City also stated that it had initiated environmental reviews for all Urban Water projects and had progressed three projects to environmental approval and authorization of funds. As related to the Water Monitoring project, the City stated that construction activities required for the water monitoring network were complete, in addition to the subsidence vulnerability report and green infrastructure testing. The City stated that it is incorrect that the project has been in construction for 5 years and that data collection and modeling are ongoing, consistent with the approved action plan.

While the City experienced these four disasters, as the report explains, it had made very little progress between receiving its National Disaster Resilience grant in 2017 and the December 2019 cyberattack, which the City cites as the first disaster that contributed to project delays. By December 2019, the City had spent only \$392,314 (less than 1 percent) of its grant and had held HUD’s slow spender designation through January 2024. In addition, while the City provided a spending plan, it did not provide a written reassessment of the infrastructure projects showing how it would successfully complete these projects with the funds and time remaining. The City also did not provide evidence of the environmental review approvals and authorization of funds with its response.

In addition, according to the milestone reports received from the City during the audit and with its response, the City consistently experienced delays as shown in the table below.

Project name	Milestone report project completion dates		
	January 23, 2023, report	May 12, 2023, report	February 2, 2024, report
St. Anthony Green Streets	03/24/2025	03/23/2025	11/27/2025
Blue Green Corridors	11/19/2024	05/08/2025	11/03/2025
Pontilly Neighborhood Green Infrastructure	02/12/2025	03/24/2025	07/14/2025
Dillard Wetlands	10/05/2024	01/24/2025	10/01/2025
Mirabeau Water Garden	06/04/2025	06/20/2025	04/30/2026
Energy Redundancy & Monitoring	12/10/2023	04/18/2024	12/27/2024
St. Bernard Neighborhood Campus	11/19/2024	01/19/2025	09/06/2025
Microgrid	Canceled	Canceled	06/30/2027
Milneburg	Canceled	Canceled	04/30/2026

For the Water Monitoring project, we reevaluated the July 2023 response, which indicated that the installation of the groundwater wells was complete and the server network was installed, but it still had a lot of work remaining. Therefore, we revised the report to state “underway” rather than “construction.”

The City should work with HUD during the audit resolution process to fully implement recommendation 1A.

Comment 2

Regarding draft report recommendations 1B and 1C, the City stated that on September 21, 2023, HUD notified the City that the funds were to remain available and that the period of performance end date would be extended to September 30, 2029. The City also stated that its program staff met to assess the feasibility of continuing the Microgrids and Milneburg projects and resumed predesign activities, such as site selection and interagency coordination, and notified HUD on November 21, 2023, that it would not move forward with the proposed substantial amendment II, which was to terminate the Microgrids and Milneburg projects.

In the proposed substantial amendment II, the City anticipated that the projects would have protracted design delays. For the Milneburg project, the City determined that it had never obtained title to the property location and that the installations would require coordination of a cooperative endeavor agreement. For the Microgrid project, the City experienced delays due to staff turnover. In addition, for the project to move forward, the City would either have to request a substantial amendment to change the location of the microgrid to outside the district to power a suitable stand-alone facility related to disaster resilience or execute a distribution agreement with Entergy, both presenting substantial delays to the project. The City proposed to use the funds from these projects to cover increased supply costs for other infrastructure projects and to cover more participants under the Retrofit program.

Based on the language from the proposed substantial amendment II, the City would need to start the planning and implementation process, for which it had previously spent \$293,316, from ground zero. With more than 7 years having passed and the City’s history of insufficient planning, no staffing plan, insufficient staffing, and depleting planning and administration funds, we are concerned that the City will not be able to complete these projects by the dates in the spending plan (See comment 1.) In addition, while the City provided a spending plan, it did not provide a written assessment showing the feasibility of continuing these projects or how it will successfully complete the projects with the funds and time remaining. The City also did not provide documentation supporting that it had resumed predesign activities. Further, although the grant expenditure deadline has been extended, as stated in the report, with the implementation and completion delays, the City’s Gentilly area is still being left highly susceptible to damage from future rain and flood events. The longer these projects are delayed, the greater the likelihood of disaster and damage.

Based on the City's response, we removed the recommendation to support or repay funds already spent for the Microgrids and Milneburg projects (draft report recommendation 1B). However, the City should work with HUD during the audit resolution process to fully implement our recommendation regarding the remaining funds budgeted for the Microgrids and Milneburg projects (final report recommendation 1B). We also updated recommendation 1B to include all funds originally budgeted for these projects, since the City rescinded substantial amendment II.

Comment 3

The City disagreed that it had not provided organizational charts, as we stated during the exit conference. With its response, the City provided organizational charts for the City, the Project Delivery Unit, and the Office of Community Development, which it originally provided to us in October 2022, and the staff position descriptions and staff allocation that it originally provided to us in January and May 2023. The City stated that all persons listed on the departmental organizational charts do not work on the National Disaster Resilience grant. The City also provided an updated National Disaster Resilience organizational chart with this response. The City clarified that project managers and grant managers do not manage or supervise any staff and manage only the project assigned to them.

With the City's updated clarification on the responsibilities of project and grant managers, we revised table 1 in the finding to accurately reflect the number of department leads and employees using the City's staff allocation listings.

We acknowledge that we received the departmental organizational charts during the audit, as stated by the City. However, our comment during the exit conference referred to the National Disaster Resilience-specific organizational charts representing each year during the grant period, which we did not receive during audit fieldwork. The National Disaster Resilience-specific organizational chart attached to the City's written response is the first mention and production of this document. The staff listings and allocations also did not provide a clear understanding of how the City determined its staffing levels or the method for staff allocations. Therefore, the City should work with HUD during the audit resolution process to fully implement final report recommendation 1C.

Comment 4

The City stated that it had enhanced its risk assessment and monitoring tools to ensure that projects meet performance metrics and goals and to monitor the progression, deliverables, and effective completion of the National Disaster Resilience projects monthly.

While we acknowledge the City for enhancing its risk assessment and monitoring tools, the City did not provide its updated written risk assessment plan and processes to substantiate its claim. The City should work with HUD during the audit resolution process to fully implement final report recommendation 1D.

- Comment 5 The City agreed with this recommendation and stated that it would review its staffing plan and host multidepartmental training on planning, administration, and activity delivery costs.
- We acknowledge the City for making plans to satisfy this recommendation. The City will still need to work with HUD during the audit resolution process to develop and submit to HUD for approval an updated planning and administration budget and staffing plan, after it reassesses the infrastructure projects in recommendation 1A, to ensure that it will have enough planning and administration funds to complete the National Disaster Resilience projects with the funds and within the timeframe remaining to fully implement final report recommendation 1E.
- Comment 6 The City agreed with this recommendation.
- We acknowledge the City for taking action toward ensuring that all National Disaster Resilience costs are validated. The City should work with HUD during the audit resolution process to fully implement final report recommendation 1F.
- Comment 7 The City agreed with this recommendation and stated that it would reallocate any misallocations and notify HUD.
- We acknowledge the City for taking action toward reviewing any misallocated administration and planning funds. The City should work with HUD during the audit resolution process to fully implement final report recommendation 1G.
- Comment 8 The City stated that most of the staff that currently works on the National Disaster Resilience grant are actively working on completing the projects. The City also stated that it would complete quarterly assessments of the balance of the administration and planning activities and use these data to project the remaining funds needed to complete the grant based on the last activity's construction completion date. The City planned to complete the construction of all activities several years before the grant expenditure deadline.
- We acknowledge the City for its commitment to assessing its balances of administration and planning activities and plans for completing the construction of all activities before the grant expenditure deadline. However, the City did not provide a written methodology or plan for how it will accomplish these goals. The City should work with HUD during the audit resolution process to fully implement final report recommendation 1H.
- Comment 9 The City stated that NORA serves as its subrecipient to implement new stormwater management interventions on privately owned property to promote best practices in diverting stormwater away from the public drainage system. With its response, the City provided NORA's response to the findings cited in this report, NORA's third-party inspector review of eight properties, and the City's inspection results for the 37 properties cited in this report.

NORA was not the auditee, and its response was addressed to the City. However, we did consider the inspection report completed by NORA's third-party inspector and the City's inspection results for the 37 properties cited in this report. The scope of work for NORA's third-party inspector included only eight properties to determine the condition of the design and implementation, functionality of the installations, and homeowner maintenance. Of the eight properties, the inspector also identified issues with the improvements, ranking four in fair condition, three in relatively poor condition, and one in good condition. The third-party inspector also identified new issues with these properties.

For the City's inspection report, the City did not contact homeowners and focused only on the improvements that were installed in the front yards of the 37 properties. In the report, the City stated that the properties were mostly still in good working condition, but several properties were in poor condition and required further inspection or evaluation to determine the underlying issue, while other properties revealed a design issue. The City's report recommended that properties in poor condition have a full in-depth inspection into all elements of the design, installation or construction, and maintenance plans, resulting in a restorative plan of action specific to these properties. The report also recommended that moving forward, NORA refine the design standards and expectations of the projects to result in a longer life cycle of the materials and installation of green infrastructure features. Developing a list of approved plant and other maintenance materials (gravel for pavers, plants for infiltration trenches - native to Louisiana) readily available to homeowners should also be considered. Additionally, including maintenance check-ins and inspections by NORA at varying life cycle intervals may assist in minimizing deferred maintenance and prolong the efficiency of the installed materials.

We acknowledge the City for taking steps to improve the Retrofit program and ensuring that program participants have the proper installations to protect against stormwater damage. The City should work with HUD during the audit resolution process to address all of the issues identified in finding 2.

Comment 10

The City provided documentation showing that it conducted monitoring of NORA on April 11, 2023, which concluded on December 7, 2023, after the completion of our fieldwork. The monitoring report included 15 findings regarding NORA's performance, oversight, and compliance with the program rules and regulations. The City required NORA to respond to and resolve the findings by February 7, 2024. The City stated that it would continue to ensure that NORA is monitored throughout the year.

We acknowledge the City for completing a monitoring review of NORA. Of the 15 findings in the City's monitoring report, the City identified four that were directly related to the Retrofit program, including additional areas of concern outside of our report. We commend the City for identifying additional areas for improvement in its Retrofit program and its commitment to monitor NORA throughout the year. The City should work with HUD during the audit resolution process to ensure that NORA

resolves all findings in its monitoring report and that it fully implements recommendation 2A in this audit report.

Comment 11

The City stated that NORA relies on the expertise of the professional construction administration providers it retains and NORA's staff conducts periodic progress evaluations during the construction process, but such evaluations do not determine construction quality. Upon satisfactory completion, the final inspection is signed off on by the homeowner, design professional, construction contractor, and NORA program staff, which happened in each instance. The City further stated that NORA would consider modifications to its current construction-monitoring process based on the complexity and construction schedule for individual projects.

While we acknowledge NORA's efforts, the City is HUD's grantee and ultimately responsible for the terms and conditions of the grant. NORA is the City's subrecipient. Therefore, the City must provide directions to NORA to ensure that the Retrofit program is executed according to HUD and program rules and regulations. With the issues identified during the audit, a review of the quality of the work being performed is needed to ensure the proper installation and longevity of the improvements. As stated in the report, placing this burden on the participants, who are low- and moderate-income and may not be able to maintain the improvements, defeats the grant benefit purpose and is harmful to the beneficiary, physically and financially. The City should work with HUD during the audit resolution process to fully implement recommendation 2B.

Comment 12

The City stated that the Retrofit policies and procedures require an assessment of property conditions both at installation and at various points during the 5-year maintenance period. When needed, participants are advised in writing of any required maintenance and repairs. NORA continues to conduct inspections in accordance with its program policies and procedures.

While we acknowledge NORA's efforts, NORA is the City's subrecipient. The City is HUD's grantee and ultimately responsible for meeting the terms and conditions of the grant. As such, the City must provide directions to NORA to ensure that the Retrofit program is executed according to HUD and program rules and regulations.

According to the Retrofit policies and procedures, at least three inspections are performed at each property by NORA or a contractor – one at construction completion, one during the 5-year maintenance period, and a final inspection within the last year but before the conclusion of the maintenance period – and additional inspections may occur – earlier or later than described above – as NORA deems necessary. However, NORA's third-party inspector report, provided with the City's response, stated that homeowners would benefit from maintenance check-ins at 1-, 3-, and 5-year milestones to ensure that higher levels of maintenance are being provided and that this practice would also help NORA monitor how the elements ultimately hold up over time, as well as affording NORA the opportunity to adjust the program for improvements as needed. The City's inspection report

recommended that moving forward, NORA refine the design standards and expectations of the projects to result in a longer life cycle of the materials and installation of green infrastructure features. Therefore, the City should work with HUD during the audit resolution process to fully implement recommendation 2C.

Comment 13

The City stated that NORA analyzed the effectiveness of the Retrofit program and found it to be highly effective. The City provided with its response a capacity table for individual project details. The City further stated that NORA survey data show that 98 percent of participants are satisfied with the program and NORA remains committed to improving the program to better support program participants.

The City's response did not include the survey or documentation to support how it determined the capacity calculations. However, based on the responses we received from the sampled participants during our audit, program participants expressed several issues with the program and had no way of knowing how and to whom to report those issues. Therefore, the City should work with HUD during the audit resolution process to fully implement recommendation 2D.

Comment 14

The City stated that upon investigation of the footage overcharge issue, it had determined that the contractor was not overpaid. NORA investigated the concern and confirmed that there were errors in measurement on the original invoice as billed. The City provided the corrected invoice and designs indicating the actual installations with its response to the draft report. The corrected invoice and designs reflected modifications made during construction, resulting in an increase in the total construction cost from \$24,992.26 to \$25,788.44. The contractor was paid \$24,992.26, and the program had a maximum cost for construction installation plus a construction administration fee at \$25,000, resulting in an underpayment of \$7.74. The City requested that this finding be removed from the report.

We disagree that the corrected invoice and designs support the City's response. During the audit, our inspector measured the paver installation at 292 square feet and the infiltration trench at 316 square feet, compared to the updated invoice reflecting 306 and 498 square feet, respectively. Therefore, with the City's updated invoice, dated October 2, 2023, the City overpaid the contractor \$5,078. In addition, the project design documents were different from the documents provided during the audit, although both versions had the same date (August 11, 2020). Therefore, we updated the finding, recommendation, and questioned costs to \$5,078. Since the measurements will need further evaluation, the City should work with HUD during the audit resolution process to ensure that it fully implements recommendation 2E.

Comment 15

The City stated that it and NORA provided us with supporting home ownership documentation for the one program participant for whom it was requested and supporting income documentation, including income recertification, for three of the four program participants for whom it was requested, with its response. The City stated that this finding should be removed from our report, except for the one

participant whose income had not been recertified. The City also stated that it should be noted that all of the homeowners we identified met the income certification requirement upon determination of eligibility to participate in the program.

With regard to the home-ownership documentation, we reviewed the documentation and agree that the participant's eligibility is now supported. We revised the findings and unsupported costs amount accordingly throughout the report.

For the four participants who lacked adequate income documentation, the City provided documentation for different participants not cited in the report, although we provided the names of the participants questioned. Therefore, we did not revise the findings and the unsupported costs amount for these four participants. The City should work with HUD during the audit resolution process to ensure that it fully implements recommendation 2F in this audit report.

Comment 16

The City stated that NORA provided green infrastructure training for all program participants. Before the COVID-19 pandemic, the events were structured as large scale, in-person group events held in community centers. As a result of the pandemic, the format of the green infrastructure training workshop events was required to change to a one-on-one meeting between applicants and contractors. The City stated that NORA had provided us evidence of green infrastructure training for all sampled participants and NORA would continue to provide green infrastructure training for future participants.

We disagree that NORA provided green infrastructure training for all sampled participants. During a December 2022 meeting with NORA's executive director and director of real estate development and planning, the director of real estate development and planning stated that there had been no (green infrastructure) workshops since March 2020 and provided a list of those trained before the pandemic. That list did not include the 24 program participants cited in this report. In addition, by the time we conducted the December 2022 meeting, the sampled program participants had already had construction completed on their properties, with the latest completed in March 2022. Further, the training referenced by the City and NORA had nothing to do with the required green infrastructure training but, rather, with providing information to the program participants related to maintenance, warranty, and inspections. This education was provided by the contractor at the end of the process, once installation had been completed; whereas the green infrastructure training is required to be provided before the installation begins as a part of the eligibility requirements. This finding was also cited in the City monitoring report of NORA's Retrofit program, which was conducted after we completed our fieldwork. The City should work with HUD during the audit resolution process to ensure that it fully implements recommendation 2G in this audit report.

Appendix C – Infrastructure Project Descriptions and Status Details

Table 4. Eight infrastructure projects still in the design or planning phase.

Project name	City description of projects-status	Funds spent	Funds budgeted	Funds remaining
Blue Green Corridors	<p>This project will incorporate rainfall management with symbiotic community benefits. The additional uses envisioned for the neutral grounds and streetscapes include multimodal transportation connections, waterways for rainfall storage, green infrastructure, and public meeting spaces.</p> <p>Projected start date: March 9, 2024 Projected completion date: March 9, 2025</p>	\$3,512,998	\$42,811,380	\$39,298,382
Dillard Wetlands	<p>This project site is a 27-acre dense woodland and includes restoration of the wetland area to reduce flood risk and slow land subsidence. The wetlands will be enhanced to store and treat stormwater runoff. Nonnative and invasive vegetation will be removed, and the site will be planted with native vegetation to restore the forested wetland ecosystem. The project will also beautify the neighborhoods, improve health, and provide opportunities for recreation.</p> <p>Projected start date: March 9, 2024 Projected completion date: March 4, 2025</p>	496,982	6,793,561	6,296,579
Mirabeau Water Garden	<p>This project has a Federal Emergency Management Agency Hazard Mitigation Grant Program (FEMA/HMGP)-funded phase and a National Disaster Resilience-funded phase. It is a public works project that will transform a 25-acre open site into a recreational and educational amenity that reduces flood risk. The 25-acre site will be able to store up to 28-acre feet of stormwater.</p> <p>Projected start date: June 26, 2024 Projected completion date: June 21, 2025</p>	59,084	12,400,871	12,341,787
Gentilly Canals and Lagoons	<p>This project is to create a public art and awareness campaign related to canals. The first two works, "Unity" and "Harmony," designed by Carl Joe Williams and the Youth Artist Movement, have been installed in the neighborhood. Remaining designs will be installed as part of the timeline of the St. Anthony Green Streets project.</p> <p>Project start and completion date: This activity is completely dependent on the timely completion of both the Dillard Wetland and Pontilly projects.</p>	348,996	560,843	211,847
Pontilly Neighborhood Green Infrastructure	<p>This 13-acre project will enhance the FEMA/HMGP-funded phase I green infrastructure and drainage improvements. It will integrate improvements to the Dwyer Canal with a network of green infrastructure interventions along streets, in alleyways, and in Gentilly</p>	135,632	3,393,300	3,257,668

Project name	City description of projects-status	Funds spent	Funds budgeted	Funds remaining
	<p>Woods neighborhoods. Improvements to Dwyer Canal include a pedestrian bridge to connect the two neighborhoods and access the linear park along the canal. This project will provide community-based recreation, such as walking paths and environmental learning opportunities.</p> <p>Projected start date: July 8, 2024 Projected completion date: April 4, 2025</p>			
St. Anthony Green Streets	<p>This project has three phases and will have rain gardens, pervious paving, bioswales, and underground detention, which will provide more than 2 million gallons of detention to help mitigate flooding and reduce the risk of subsidence. The project will have improved parks, located within the middle and south sections of the project, and will provide additional opportunities for active and passive play. This project will include the planting of more than 500 trees to improve the canopy. Additionally, a substantial amount of pavement will be converted to rain gardens and planting areas. The project will also reconstruct several neighborhood roadways to apply complete street concepts that will allow them to serve all users, not just vehicles.</p> <p>Projected start date: April 27, 2024 Projected completion date: April 27, 2025</p>	1,995,138	20,109,826	18,114,688
St. Bernard Neighborhood Campus	<p>This project will serve the enhanced purpose of reducing flooding by storing up to 5 million gallons of stormwater in underground detention basins. Educational water features will be placed along walking trails-paths that meander throughout the project limits to raise awareness of water's role in the New Orleans urban environment. It will also create rain gardens to improve stormwater management within neighborhood intersections.</p> <p>Projected start date: April 27, 2024 Projected completion date: April 27, 2025</p>	1,106,119	15,419,143	14,313,024
Energy Redundancy & Monitoring	<p>In coordination with the Sewerage and Water Board of New Orleans, this project will develop a centralized water-monitoring network, which will track energy use, water levels, and flow through the stormwater network.</p> <p>Projected start date: January 13, 2024 Projected completion date: July 11, 2024</p>	9,182	1,265,178	1,255,996
Totals		\$7,664,131	\$102,754,102	\$95,089,971

Appendix D – Illustrations of Five Infrastructure Projects in the Planning or Design Phase

Illustration A: St. Anthony Green Streets: This project has three phases and will have rain gardens, pervious paving, bioswales, and underground detention. It will provide more than 2 million gallons of detention to help mitigate flooding and reduce the risk of subsidence. As shown in the photos, no construction had begun for this project. The City had spent only \$1.9 million of \$20 million (10 percent) allocated to this project and is not slated to complete this project until April 27, 2025.



(Location: Photos were taken at Filmore intersection, and Allen Toussaint Blvd)

Illustration B: Mirabeau Water Garden: This is a public works project that will transform a 25-acre open site into a recreational and educational amenity that reduces flood risk. The 25-acre site will be able to store up to 28-acre feet of stormwater. As shown in the photos, no construction had begun for this project. The City had spent only \$59,084 of \$12.4 million (.47 percent) allocated to this project and is not slated to complete this project until June 21, 2025.



(Location: Photos were taken at Mirabeau Ave)

Illustration C: Pontilly Neighborhood Green Infrastructure: This project will integrate improvements to the Dwyer Canal with a network of green infrastructure interventions along streets, in alleyways, and in Gentilly Woods neighborhoods. As shown in the photos, no construction had begun for this project.

The City had spent only \$135,632 of \$3.39 million (4 percent) allocated to this project and is not slated to complete this project until April 4, 2025.



(Location: Photo taken at Congress Dr, picture on the left facing east, picture on the right facing west)



(Location: Photo taken at Press Dr, picture on the left facing east, picture on the right facing west)

Illustration D: Dillard Wetlands: This project site is a 27-acre dense woodland and includes restoration of the wetland area to reduce flood risk and slow land subsidence. The wetlands will be enhanced to store and treat stormwater runoff. As shown in the photos, no construction had begun for this project. The City had spent only \$496,982 of \$6.79 million (7.3 percent) allocated to this project and is not slated to complete this project until March 4, 2025.



(Location: Photo taken from a business lot due to inaccessibility to project site. Behind the construction materials, and building is the Dillard Wetlands project site (wooded area).

The photo of the Dillard Wetlands project below shows the project site and was retrieved from the City's website at www.nola.gov.



(Map of the Dillard Wetlands project)

Illustration E: Blue Green Corridors: This project will incorporate rainfall management with symbiotic community benefits. The additional uses envisioned for the neutral grounds and streetscapes include multimodal transportation connections, waterways for rainfall storage, green infrastructure, and public meeting spaces. As shown in the photos, no construction had begun for this project. The City had spent only \$3.5 million of \$42.8 million (8.2 percent) allocated to this project and is not slated to complete this project until March 9, 2025.



(Location: Photo taken near the intersection of Filmore Ave & Franklin Ave)



(Location: Photo taken at the intersection of Elysian Fields and Allen Toussaint Blvd)



(Location: Photo taken at the intersection of Franklin Ave and Allen Toussaint Blvd)