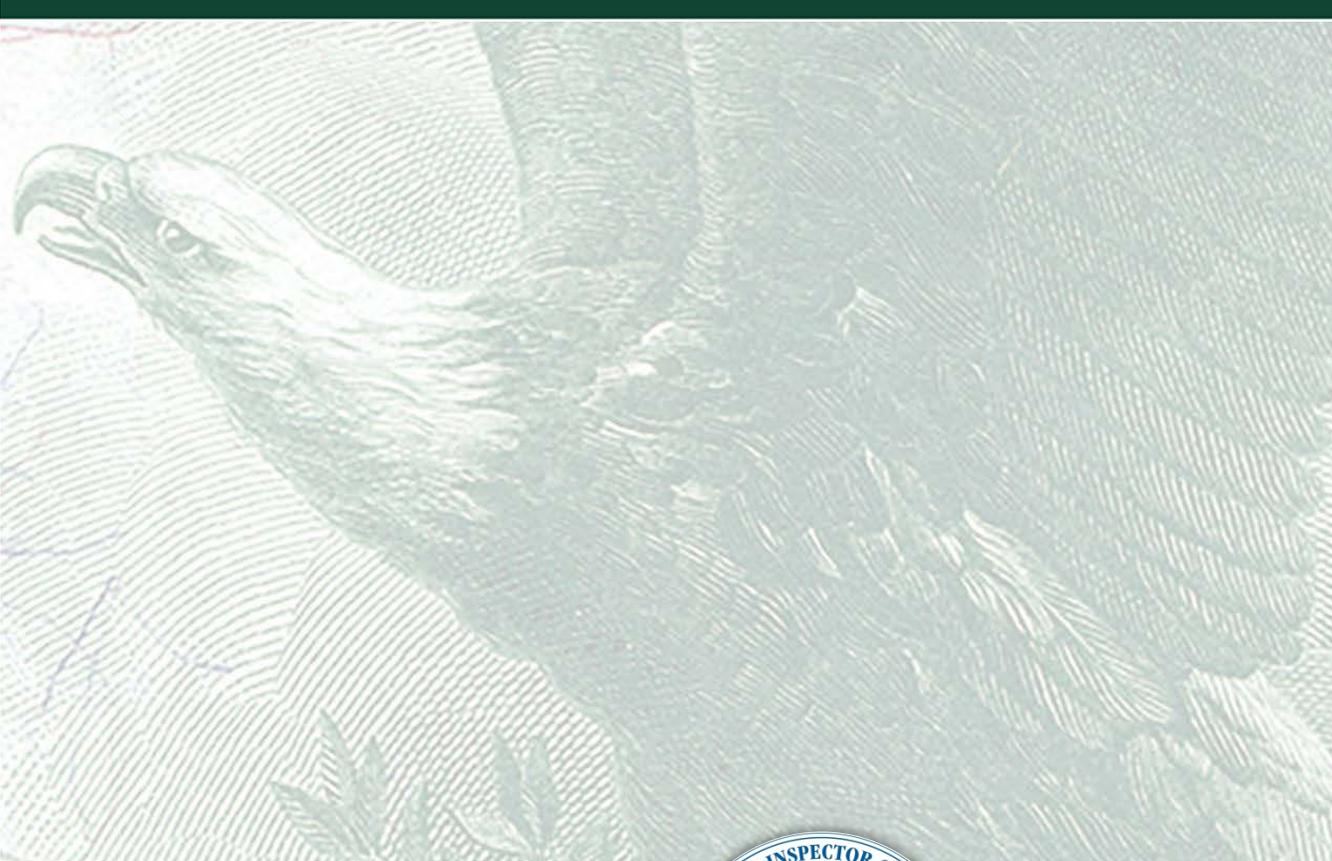




Evaluation Report

Progress in Protecting Against Asbestos Exposure, Contaminated Soil, and Illegal Dumping in the TARP- Funded Demolition Program in Detroit



SIGTARP



OFFICE OF THE SPECIAL
INSPECTOR GENERAL FOR
THE TROUBLED ASSET
RELIEF PROGRAM



OFFICE OF THE SPECIAL INSPECTOR GENERAL
FOR THE TROUBLED ASSET RELIEF PROGRAM
1801 L STREET, NW
WASHINGTON, D.C. 20220

March 19, 2020

MEMORANDUM FOR: Honorable Steven T. Mnuchin – Secretary of the Treasury

FROM: Honorable Christy Goldsmith Romero – Special Inspector General for
the Troubled Asset Relief Program/**signed/**

SUBJECT: Review of TARP-Funded Demolition Program in Detroit (Wayne
County), Michigan (SIGTARP 20-001)

One of Treasury’s ongoing uses of TARP dollars is to fund demolitions of blighted houses and apartment buildings through the Hardest Hit Fund program, a program administered by state housing finance agencies. According to Treasury’s HHF contract for Michigan, “The Blight Elimination Program’s primary purpose and goal is to focus efforts on decreasing foreclosures and stabilizing neighborhoods through the demolition and greening of vacant and abandoned single family and multi family structures in designated areas across Michigan.” Nearly half (44%) of all Treasury-reported demolitions (16,543 of 37,950) in HHF occurred in the last two years.¹ This includes a significant number of demolitions in Detroit.

Detroit was one of the first cities with TARP-funded blight demolitions. It has the most TARP dollars and demolitions of any city, spending \$235 million, with Michigan having at least another \$50 million available.²

In November 2017, SIGTARP, based on work of the U.S. Army Corps of Engineers (the “Corps”), identified three areas of risk: 1) proper removal and storage of asbestos and other hazardous material; 2) proper dumping of all debris and waste in appropriate landfills or recycling facilities; and 3) filling in the demolition hole with only clean soil. We made six recommendations.

SIGTARP’s recommendations assist state agencies in fulfilling their contractual obligations to Treasury to establish internal controls to ensure compliance with all laws and regulations. In addition to legal compliance, requiring best practices—such as the ones used by the Corps or articulated by the U.S. Environmental Protection Agency—can increase effectiveness and

¹ From the third quarter 2017 to the third quarter 2019 (the latest Treasury data).

² As of the latest Treasury data available, there have been 12,679 HHF demolitions in Detroit alone. In comparison, this number dwarfs the number of demolitions statewide for Indiana (2,887), South Carolina (882), Illinois (357), Tennessee (72), Mississippi (4), and Alabama (3). It is just under the total number of properties demolished in Ohio (14,324).



efficiency in reaching Treasury’s goal of neighborhood stabilization, while preventing costly fraud, waste, and abuse. Requirements established at the state agency level bring program consistency. Not all cities or counties in a state may have the same technical resources or expertise for blight elimination.

In this follow-on review, SIGTARP evaluated the implementation by Treasury, as well as the Michigan Homeowner Assistance Nonprofit Corporation and the Michigan State Housing Development Authority (collectively “Michigan agency”) of our 2017 recommendations. We also assessed any ongoing risks in the three recommendation areas.

Summary of Results:³

- ***Treasury did not issue new program requirements. Treasury had the U.S. Environmental Protection Agency (EPA) advise the state agencies on best practices. Treasury also discussed best practices during regular teleconferences and at a summit. Treasury, however, did not issue new program requirements to implement the recommendations.***
- ***The Michigan agency made significant progress in implementing some of SIGTARP’s November 2017 recommendations, significantly mitigating risk.***
 - The Michigan agency has increased its oversight over demolitions by not paying TARP dollars until it receives documentation of (1) all demolition inspections, including, for example, open-hole inspections to ensure all debris has been removed; (2) waste manifests to protect against illegal dumping; and (3) source of dirt and truck tickets used as backfill. The Michigan agency also requires local partners to maintain laboratory test results on backfill from a commercial or industrial site. As part of this review, the Michigan agency also agreed to begin weekly monitoring of contractors that received suspensions, debarments, and stop work orders.
 - These internal controls, along with improved internal controls by the City of Detroit to monitor dirt used at demolitions, go far to mitigate the risks previously raised by SIGTARP.
- ***The Michigan agency will need to be vigilant in overseeing demolitions to ensure their internal controls are effective and in areas where the Michigan agency did not implement or partially implemented SIGTARP’s recommendations. Some level of risk remains based on contractor violations and the findings of the Corps’ recent soil testing.***
 - The Michigan agency partially implemented SIGTARP’s recommendation to ban contractors fined or charged with violations, which prevents a demolition

³ SIGTARP conducted this evaluation in accordance with “Quality Standards for Inspection and Evaluation” established by the Council of the Inspectors General on Integrity and Efficiency (CIGIE). See Appendix A of the report for a discussion of the evaluation’s objective, scope and methodology.



- contractor banned by one city from working in this program in multiple cities or states. As part of this review, the Michigan agency agreed to begin weekly monitoring of contractor debarment/suspension and stop work order lists. The Michigan agency has also withheld contractor invoices while charges were pending. However, it has not banned those contractors, some of which are repeat offenders.
- Between February 2016 and May 2017, Michigan’s Department of Environment, Great Lakes, and Energy (“EGLE” formerly known as “MDEQ”) found violations of federal and state air quality regulations for asbestos on demolitions in Detroit (12 HHF and 29 non-HHF), involving multiple contractors.
 - These violations resulted in a \$100,000 court judgment against the city and land bank in December 2018, and new requirements for greater city oversight over contractors.
 - This included, among other things, the city hiring asbestos inspectors with no financial stake in the outcome of the inspection, pre-demolition asbestos inspections for at least 50% of all demolitions, accreditation and training for city officials, the city to direct all demolition personnel, and city project liaisons to cease performing a demolition if they observe regulated asbestos containing material (“asbestos” or “RACM”) at any time during demolition, and public reporting of inspections.
 - From June 2017 to 2019, the city’s records show at least 10 violations by contractors in HHF, including some of the larger contractors with multiple violations. For example:
 - In 2019, a contractor received violations for knocking down a property without passing a Post Abatement Verification, and failing to remove asbestos;
 - In 2018, the city suspended one contractor for 355 days through November 2019, for failure to remove asbestos prior to demolition, and failure to contain asbestos in leak tight, properly labeled containers;
 - In 2018, the city suspended one contractor for 90 days for knocking down the wrong house;
 - In 2018, a contractor received a violation for illegal dumping based on improper disposal of dirt/backfill at four properties;
 - In 2018, a contractor received a violation for failure to wet debris and failure to deposit asbestos; and
 - In October 2017, one HHF contractor received a violation of demolishing property without passing a Post Abatement Verification of asbestos.



- The Michigan agency also did not implement SIGTARP's recommendation to conduct random soil testing. As a part of this review, SIGTARP contracted with the Corps to conduct soil samples and borings on four sites in Detroit (two involving demolitions in 2019, one in 2017, and one in 2016), and a Visual Site Inspection of one in-process demolition in Detroit.
 - The Visual Site Inspection revealed for that demolition the city and its contractors appeared to follow best practices for earth moving, temporary environmental control, and waste management.
 - The soil samples found that all four properties had elevated levels of arsenic above the allowed criteria, but at levels consistent with expectations for an urban area. No asbestos was found.
 - The soil borings found: (1) backfill that did not meet contract specifications at two sites; (2) brick pieces and other debris in fill material at three sites; (3) three of the properties that did not meet the fill depth below grade requirement; and (4) density of backfill that did not appear to be compacted appropriately at all four sites.
 - In light of the current status of the program, SIGTARP now recommends random soil testing, including soil borings, in cities/counties with ongoing demolitions based on contractors with prior violations.
- The Michigan agency also agreed to implement SIGTARP's recommendation to review and receive inspection reports with asbestos surveys detailing the asbestos or other hazardous material on the property to comply with regulations on asbestos and other hazardous materials. This comparison is an important internal control to ensure that all hazardous material has been properly removed, stored and transported pursuant to legal requirements. Another important control that SIGTARP recommended that the Michigan agency partially implemented is for the Michigan agency to include an internal control ensuring the proper storage of asbestos in leak-tight and properly labeled containers and comparing the asbestos survey to the federal and state asbestos and air quality regulatory reports (NESHAP). As part of this review, the Michigan agency has agreed to compare the asbestos survey with regulatory reports (NESHAP) and to obtain the air quality clearance test results. The Michigan agency told SIGTARP it would consider adding an internal control that SIGTARP recommends in this report, to obtain contractor-supplied photographs to demonstrate that containers have been properly stored and labeled.

The risks in our 2017 report have been significantly mitigated by the Michigan agency by implementing, or agreeing to implement, several of SIGTARP's recommendations. These actions, along with improvements by the city of Detroit to track dirt and violations, serve as an example to Treasury and other state agencies that have ongoing HHF demolitions that SIGTARP recommendations can and should be implemented to protect the entire program.



The Corps' findings from recent soil testing, as well as contractor violations, indicate that some level of risk remains in the Blight Elimination Program. The Michigan agency will need to be vigilant in overseeing demolitions to ensure their internal controls are effective, and in areas where the Michigan agency either did not implement or partially implemented SIGTARP's recommendations. Treasury should require the Michigan agency, and state agencies with ongoing demolitions should, implement the two new recommendations in this report.

We reviewed Treasury's comments and made changes to the report as appropriate. We appreciate the cooperation of Treasury staff.



Background

Congress authorized Treasury to use TARP to protect home values and preserve homeownership.⁴ One of the TARP programs that Treasury created for those purposes is the Hardest Hit Fund (“HHF”). Michigan was the first state to propose using HHF to eliminate blight through demolitions – a shift from mortgage assistance to homeowners. Prior to 2016, HHF was a \$7.6 billion program. In 2016, Congress added \$2 billion.

Nearly half (44%) of all HHF demolitions (16,543 of 37,950) occurred in the last two years.⁵ As of Treasury’s latest reporting, state agencies have spent nearly \$600 million, and with drawdowns from Treasury, have \$74 million to spend on blight demolitions until December 2021.

As of Treasury’s latest reporting, \$308 million in TARP has been spent on 19,421 demolitions in Michigan, and there is nearly \$51 million remaining. Treasury contracts with the Michigan Homeowner Assistance Nonprofit Corporation and the Michigan State Housing Development Authority (collectively “Michigan agency”) to administer HHF. The Michigan agency contracts with the Detroit Land Bank Authority (“land bank”) as the local partner. The City of Detroit (“city”) is also involved in demolitions.

Treasury exercises oversight, including in 2016, suspending demolitions in Detroit for two months, resuming after the Michigan agency added stronger controls. Treasury’s contracts require state agencies and contractors to comply with laws, regulations, and rules, to develop internal controls to ensure compliance, and to verify that those controls are effective.

In addition to conducting, supervising, and coordinating audits/evaluations, SIGTARP also conducts investigations of TARP. In September 2019, the Department of Justice (“DOJ”) and SIGTARP announced that a federal court sentenced to prison Aradondo Haskins, the City of Detroit’s “Field Operations Manager” who was the primary point of contact for contractors, after his conviction for bribery and fraud in connection with the HHF demolition program.⁶ In exchange for cash bribes, Haskins provided a contractor with confidential information about bids that the contractor used to submit bids low enough to ensure contract awards. Haskins had also received bribes from a subcontractor when he previously worked for Adamo Group, one of the largest contractors in the program. DOJ and SIGTARP also announced that a court sentenced to prison an Adamo Group executive for taking bribes and kickbacks on 71 occasions from a subcontractor in exchange for confidential information on bids.⁷

After receiving a request by U.S. Representatives Brenda Lawrence and Rashida Tlaib, SIGTARP initiated this evaluation.

⁴ See The Emergency Economic Stabilization Act of 2008.

⁵ For time period 3Q 2017 – 3Q 2019 (the latest Treasury data available as of the drafting of this report).

⁶ See https://www.sig tarp.gov/Press%20Releases/Haskins_Press_Release_9.23.2019.pdf, accessed 2/19/2020.

⁷ See https://www.sig tarp.gov/Press%20Releases/Detroit_Demolition_Press_Release_9.10.2019.pdf, accessed 2/19/2020.



Status of the Michigan Agency’s Actions to Implement SIGTARP’s 2017 Recommendations to Increase State Agency Oversight Over Demolitions and Install Statewide Safeguards

Treasury did not issue new program requirements. Treasury had the U.S. Environmental Protection Agency (EPA) advise the state agencies on best practices. Treasury also discussed best practices during regular teleconferences and at a summit. Treasury, however, did not issue new program requirements to implement the recommendations. The Michigan agency made significant progress. It took the following actions:⁸

SIGTARP Recommendation	Status of the Michigan Agency’s Implementation
<p>(#1) Treasury should require state agencies to, and state agencies should, prevent contractors or any other entity or person who has been charged or fined for violations of local, state, Federal environmental, or safety requirements from participating in the Blight Elimination Program under HHF. If the person or entity has been charged and is later found not guilty, that person could be allowed to participate, but should not participate while charges are pending.</p>	<p>Partially Implemented</p>
<p>(#2) Treasury should require state agencies to, and state agencies should, install safeguards and a quality assurance program by establishing technical requirements for all engaged in work in the Blight Elimination Program that are consistent with regulations and best practices, including in the following high-risk areas:</p> <ol style="list-style-type: none"> 1) proper removal and storage of asbestos and other hazardous material; 2) proper removal and dumping of all debris in approved landfills or recycling facilities; 3) filling in demolition holes with only clean soil from approved sources; and 4) proper seed inoculation, compaction and grading, and dust and noise control. 	<p>Partially Implemented</p> <p><i>(1), (3) Implemented</i> <i>(2), (4) Partially Implemented</i></p>
<p>(#3) To protect Americans from exposure to asbestos or other hazardous material, and to prevent waste, fraud, and abuse, Treasury should require state agencies to, and state agencies should, conduct oversight of the quality of the demolitions and related activities, including by not paying any TARP dollars until the state agency has:</p> <ol style="list-style-type: none"> 1) received and reviewed documentation of inspections, by a qualified inspector, during the removal of all material containing asbestos or other hazardous material; 2) ensured that the inspection confirms the proper handling, proper storage in leak-tight and warning-labeled containers, and disposal of hazardous material in compliance with the state’s technical requirements, and all other applicable requirements, including those of the Occupational Safety and Health 	<p>Partially Implemented</p> <p><i>(1) Implemented</i> <i>(2) Partially Implemented</i> <i>(3) Agreed to Implement in this review</i></p>

⁸ During this review, the Michigan agency revised its program rules requiring contractors to submit air clearance documentation and dirt source approvals for individual HHF property files, and requiring Michigan agency staff to monitor contractors that received suspensions, debarments, or stop work orders.



SIGTARP Recommendation	Status of the Michigan Agency's Implementation
<p>Administration (OSHA), the National Emissions Standard for Hazardous Air Pollutants (NESHAP), and state and local requirements; and 3) compared the inspection report with the hazardous material analyses or plans, the asbestos abatement or other hazardous material work plan, the asbestos health and safety plan, chain of custody manifests, and other documents related to compliance with OSHA and NESHAP requirements.</p>	
<p>(#4) To protect Americans from exposure to contaminated material filled into the demolition hole, Treasury should require state agencies to, and state agencies should: 1) institute safeguards by determining in its requirements the approved sources for fill dirt; 2) conduct oversight of the quality of demolitions and related activities, including by not paying any TARP dollars until the state agency has reviewed documentation of: a) the purchase and delivery of fill dirt from an approved source; and b) an inspection of the open hole to ensure that all demolition debris has been removed and all foundation material has either been crushed or removed in accordance with applicable Federal, state, and local regulations and with the contract requirements; and 3) confirm and document that the hole is only filled with clean material from the approved source. The state agency should also conduct periodic soil testing, at random intervals, for every contractor. The frequency of the soil testing should relate to the experience of the contractor, and any issues raised from the documentation or lack of documentation.</p>	<p>Partially Implemented <i>(1) Agreed to Implement in this review</i> <i>(2a,b) Implemented</i> <i>(3) Partially Implemented</i></p>
<p>(#5) To protect Americans from exposure to illegal dumping, Treasury should require state agencies to, and state agencies should: 1) install safeguards by determining technical requirements to require that all materials removed are disposed at an appropriate waste or recycling facility, and creating a list of approved waste or recycling facilities; and 2) conduct oversight over the quality of the demolitions and related activities, including by not paying any TARP dollars until the state agency has reviewed documentation, including (a) landfill receipts and waste manifests to confirm the disposal at an approved facility; and (b) truck weight tickets showing the weight of debris that left the demolition site matched the weight received at the landfill or recycling facility.</p>	<p>Partially Implemented <i>(1), (2a) Implemented</i> <i>(2b) Not Implemented</i></p>
<p>(#6) Treasury should require state agencies to, and state agencies should, conduct oversight over the quality of the demolitions and related activities, including by not paying TARP dollars until it receives evidence of compliance with all seed inoculation, compaction/grading, and dust/noise control requirements in accordance with applicable Federal, state, and local regulations and with contract requirements.</p>	<p>Partially Implemented</p>



Safeguards to Prevent Contaminated Soil

The Michigan agency implemented SIGTARP’s recommendations to not pay TARP dollars without documentation of: (1) open hole inspections to ensure that all demolition debris is removed; and (2) the purchase and delivery of fill dirt from an approved source.

In 2017, SIGTARP made recommendations to Treasury to implement internal controls to ensure that no debris is left in the demolition hole and only clean soil is used as backfill. Subsequently, the Michigan agency changed program requirements to obtain “backfill load tickets” with the source of dirt, documentation of delivery, and documentation of all inspections (open hole, knock down, load out, observations, final grade or winter grade). The Michigan agency also now requires the local partner, such as a land bank, to have laboratory testing for dirt from a commercial or industrial site with results approved by the building authority managing demolitions.⁹ For dirt from a residential site or gravel pit, the Michigan agency requires a contractor statement that the source material is free of environmental contamination, is from a native source, and free of debris, concrete and other unsuitable substance. The Indiana agency also implemented the recommendations.¹⁰

In 2019, the Michigan Department of Environment, Great Lakes, and Energy (“Michigan Department of Environment” or “EGLE”) learned of debris buried in HHF demolition sites. In 2019, after receiving allegations, EGLE inspected eight sites related to one contractor and found asbestos-containing materials at three sites. EGLE issued violations and recommended that the city reassess the contractor’s other sites. According to EGLE, “There are no requirements under state environmental laws, for municipalities or their contractors to maintain records of solid waste disposal, test backfill soils, or get prior authorization from EGLE for these activities.”

SIGTARP found construction debris buried in HHF demolition sites in Indiana. SIGTARP’s investigation resulted in a Department of Justice resolution of False Claim Act violations against a contractor who dumped construction debris in the demolition hole and billed as if the contractor had filled the hole with clean dirt.¹¹

⁹ In three of the 10 properties that SIGTARP selected for review of demolitions from September 2018-2019, SIGTARP identified that the city raised concerns about one of the soil samples exceeding allowed criteria. SIGTARP found the Michigan agency does not obtain soil test results for commercial backfill source, but agreed to obtain this information as part of this review.

¹⁰ Requiring recipients to: (1) upload soil tickets; (2) certify that the dirt meets a specified technical requirement, is free of rocks/stones larger than two inches in diameter, is screened and free of contaminants and deleterious substances; and (3) provide report/testing results from the material supplier to verify compliance with the specified technical requirements. See https://www.877gethope.org/generated/uploads/102_BEP_Notice_18-102_Amended_Greening_Form_Open_Hole_Inspection_Requirement.pdf https://www.877gethope.org/generated/uploads/107_BEP_Notice_18-107_Amendment_to_BEP_Notice_18-99_Certification_of_Clean_Fill_Material.pdf, accessed 2/19/2020

¹¹ In October 2018, SIGTARP and the Department of Justice announced resolution of False Claims Act charges against Martin Enterprises, who from 2014 to 2016, was awarded all of the HHF contracts in Ft. Wayne, Indiana, and was paid \$2 million. SIGTARP’s investigation found that Martin dumped construction debris into the hole, covered it with a layer of clean dirt, falsely billed as if all clean fill dirt was used, and was paid with TARP. See https://www.sig tarp.gov/Press%20Releases/Martin_Enterprises_Press_Release.pdf, accessed 2/19/2020



The U.S. Environmental Protection Agency (“EPA”) discussed best practices in a 2013 report on residential demolitions in the region including Michigan, Ohio, Indiana, and Illinois that stated, “An outdated and inadequate demolition practice involves filling the site with the demolition debris itself and/or using low quality soil. Sources of backfill soil may not be free of contaminants or may have high clay contents that inhibit the infiltration of storm water. Some backfills may contain rocks, broken concrete, or other deleterious material that leaves sites in a poor condition for future reuse....Current demolition practices may leave an unfortunate legacy of land contamination when house debris is used as fill material as part of the current demolition process. There are significant environmental, liability, and redevelopment issues with this demolition practice.”¹²

Soil borings in 2019 by the Corps, on behalf of SIGTARP, found brick pieces in backfill for three of four properties, including rock and concrete at one property. The Corps’ report is attached as Appendix B. EGLE explained that although state law does allow for brick and concrete to be used as backfill, the city of Detroit elected not to use brick or concrete as backfill.¹³ The Corps found that the backfill in the three sites did not conform to contract requirements.

The Michigan agency had not implemented SIGTARP’s recommendation to maintain a list of approved sources for dirt, but as part of this review, the Michigan agency implemented this new internal control. As of January 2020, the Michigan agency is now monitoring all sources from any category of dirt for each HHF property to ensure that only approved backfill sources are used.

The City of Detroit improved its monitoring of sources of dirt. Other cities may not have the same resources or technical expertise as Detroit. The City of Detroit has improved its monitoring of the sources of dirt. In November 2018, the city launched an updated “backfill platform” that tracks dirt by address and available quantity by source for each contractor. The contractor must certify to the source of the dirt. The city hired an environmental consultant who approved numerous sources of dirt with three acceptable types of sources:

- *Category 1: residential construction*
- *Category 2: virgin sources such as sand/gravel/quarry:* The city requires written certification by the contractor attesting to the origin of the material and address, and the substance, such as content and mix of the materials. The request must be

<https://www.oversight.gov/sites/default/files/oig-reports/Oversight.gov%20Investigation%20Summary%20-%20Martin%20Enterprises%20FINAL.pdf>, accessed 2/19/2020.

¹² See “Road to Reuse: Residential Demolition Bid Specification Development Tool,” published by EPA, <https://www.epa.gov/sites/production/files/2013-09/documents/road-to-reuse-residential-demolition-bid-specification-201309.pdf>, Pages.2 and 7, accessed 2/19/2020. Following SIGTARP’s 2017 report, Treasury distributed EPA’s report to HHF state agencies during a Blight Elimination Program best practices call.

¹³ The city requires, “The backfill material shall be clean soil. The soil shall consist of mineral soil material such as crumbling yellow clay or loam that is suitable for backfilling basements and grading the lots. Soil recovered from street sweeping or from other recycling process is not acceptable....The soil material shall be free of rock or gravel larger than 1” in dimension, debris, waste, frozen material, concrete, brick, wood chips, demolition debris, vegetable, or other deleterious matter.”



approved. Contractors are required to provide weekly tracking logs showing source and end use locations, quantities, and dates of usage.

- *Category 3: non-residential/non-virgin sources such as commercial/industrial sites, road construction sites, agricultural sites:* Category 3 must be evaluated by a qualified environmental professional per a specified chemical analysis in accordance with EPA methods, Michigan metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc), and other criteria. The city requires contractors seeking review and approval of category 3 backfill material to submit a certification that the specific dirt is not contaminated and is suitable as backfill, or to have \$1-2 million in liability insurance.

As of May 2019, the city began requiring a visual backfill inspection to see the backfill as it is going into the ground. However, that requires precise timing for the inspector to be there at the same time as the delivery trucks. Of the 10 demolitions SIGTARP reviewed, 7 came after the requirement to have visual backfill inspections. In 1 of the 7 demolitions, the trucks were not there for the backfill operation when the inspector arrived.

The city's backfill platform is catching violations. A city official told SIGTARP that between January and February 2019, the backfill platform denied 71 backfill transactions from one contractor (19 of these were HHF properties) for failure to comply with program requirements. Most of the backfill for these transactions originated from other sites where the contractor stockpiled the materials until needed at a demolition site. The city's environmental consultant denied the transactions, which resulted in stop work orders and corrective action plans requiring the contractor to excavate the backfill and conduct soil testing.

Safeguards for Proper Removal and Storage of Asbestos and Other Hazardous Material

The Michigan agency implemented SIGTARP's recommendations to increase its oversight over the removal of asbestos and other hazardous material by requiring documentation of all demolition inspections. The Michigan agency now obtains the city inspector's observation checklist, which among other things, provides verification of the wetting process to control dust that may be caused from asbestos and lead, and requires mandatory annual environmental training requirement for all contractors.¹⁴ The Michigan agency also now obtains hazardous waste/asbestos manifests. Also, in 2019, the state agency held three environmental trainings in coordination with EGLE. Additionally, as part of this review, the Michigan agency has agreed to begin obtaining the air quality clearance test results.

¹⁴ By obtaining the checklist, the Michigan agency has also partially implemented SIGTARP's 2017 recommendation to receive evidence of compliance with all seed inoculation, compaction/grading, and dust/noise control requirements in accordance with applicable Federal, state, and local regulations and with contract requirements. Although the land bank states that the checklist addresses noise control, SIGTARP's review of seven checklists showed that noise control was not included. Additionally, the Corps found inappropriate compaction in four of four sites.



The Michigan agency also agreed to implement SIGTARP’s recommendation to review and receive inspection reports with asbestos surveys detailing the asbestos or other hazardous material on the property to comply with regulations on asbestos and other hazardous materials. This comparison is an important internal control to ensure that all hazardous material has been properly removed, stored and transported pursuant to legal requirements. Another important control that SIGTARP recommended that the Michigan agency partially implemented is for the Michigan agency to include an internal control ensuring the proper storage of asbestos in leak-tight and properly labeled containers and comparing the asbestos survey to the federal and state asbestos and air quality regulatory reports (NESHAP). As part of this review, the Michigan agency has agreed to compare the asbestos survey with NESHAP regulatory reports and to obtain the air quality clearance test results.

Violations Related to Asbestos at Demolition Sites

Constant vigilance in oversight by the Michigan agency is critical given the violations already found related to asbestos at HHF Detroit demolition sites. EGLE found violations related to asbestos in HHF demolitions in Detroit, as discussed in a 2019 letter:

EGLE has issued several violation letters to municipalities conducting demolitions and renovations with Hardest Hit Funds. Regarding the city of Detroit’s Blight Elimination Program specifically, EGLE has recently entered into a Consent Judgment with the city of Detroit/Detroit Building Authority/Detroit Land Bank (City) based on the multiple violation letters that were issued over the past five years. The Consent Judgment addresses past violations and requires better contractor oversight by the City.

The December 2018, \$100,000 court judgment against the city and land bank were for charges of violations of the federal air quality regulations (NESHAP) and state air quality rules for asbestos from February 2016 – May 2017 in 12 HHF and 29 non-HHF demolitions in Detroit involving multiple contractors.¹⁵ The consent judgment requires:

- The city to retain qualified asbestos inspectors that have no financial relationship to anyone participating in the demolition program and who have no financial stake in the outcome of asbestos inspections;
- The city inspectors to perform pre-demolition asbestos inspections at a minimum of 50 percent of the facilities to be demolished each month – a percentage that the city may request to be reduced after six months of no violations or which may be increased if violations found – and provide a report within seven working days to the city, with the city to make the inspection report publicly available on its website

¹⁵ See <https://www.michigan.gov/egle/0,9429,7-135-3308-486280--,00.html>, https://www.michigan.gov/documents/deq/Detroit_Asbestos_Consent_Judgment_dated_121918_642059_7.pdf, accessed 2/19/2020.



within seven working days of receiving the report and at least three days prior to demolition;

- Certain city officials to attend training and receive accreditation;
- The city to direct all demolition personnel, and city project liaisons to cease performing a demolition if they observe regulated asbestos containing material (“asbestos” or “RACM”) at any time during demolition; and
- The city to make publicly available on a website the waste shipment records for each demolition.

From June 2017 to 2019, the city’s records show at least 10 violations by contractors in HHF, including some of the larger contractors with multiple violations. For example:

- In 2019, a contractor received violations for knocking down a property without passing a Post Abatement Verification, and failing to remove asbestos;
- In 2018, the city suspended one contractor for 355 days through November 2019, for failure to remove asbestos prior to demolition, and failure to contain asbestos in leak tight, properly labeled containers;
- In 2018, the city suspended one contractor for 90 days for knocking down the wrong house;
- In 2018, a contractor received a violation for illegal dumping based on improper disposal of dirt/backfill at four properties;
- In 2018, a contractor received a violation for failure to wet debris and failure to deposit asbestos; and
- In October 2017, one HHF contractor received a violation of demolishing property without passing a Post Abatement Verification for asbestos.

To address some of the issues in these violations, in addition to the internal controls recommended by SIGTARP that the Michigan agency has implemented or agreed to implement in this review, SIGTARP now recommends that Treasury require state agencies to obtain contractor pictures of containers storing asbestos or other hazardous material given that this is typically stored on the street where there are neighboring houses. These pictures should show properly labeled leak-tight containers that along with inspection reports assist state agencies in ensuring that hazardous material is stored in compliance with law and regulations.

Safeguards to Prevent Illegal Dumping

To protect Americans from exposure to illegal dumping, SIGTARP recommended in 2017 that Treasury require state agencies to, and state agencies should:



- 1) install safeguards by determining technical requirements to require that all materials removed are disposed at an appropriate waste or recycling facility, and creating a list of approved waste or recycling facilities; and
- 2) conduct oversight over the quality of the demolitions and related activities, including by not paying any TARP dollars until the state agency has reviewed documentation, including
 - (a) landfill receipts and waste manifests to confirm the disposal at an approved facility; and
 - (b) truck weight tickets showing the weight of debris that left the site matched the weight received at the landfill or recycling facility.

The Michigan agency implemented SIGTARP’s recommendation to require waste manifests. This is an important control to document the landfill being used.

The Michigan agency did not implement SIGTARP’s recommendation to require the truck weight tickets showing the weight of debris that left the demolition site matched the weight received at the landfill or recycling facility. Receipt of the truck weight tickets would give a further internal control to the Michigan agency to ensure compliance with laws and regulations related to dumping debris. In 2018, a contractor received a city violation for illegal dumping of dirt/backfill at four properties in HHF. In 2020, a contractor received a violation for improper storage and stockpiling of demolition debris and soil on property in the city of Detroit instead of taking it to an approved landfill. This was a direct violation of the contract requirements.

The Michigan agency implemented SIGTARP’s recommendation to create a list of approved waste or recycling facilities by using an already created state-wide list. This is an important control. MDEQ has issued 51 violations to one landfill actively used for HHF demolitions. In September 2019, the EPA put this landfill facility under consent order for failure to maintain proper cover integrity, good air pollution control practices, or management of leachate, failure to cover exposed waste, and to dispose of asbestos containing waste material. The Michigan agency will benefit by ensuring the state-wide list is up-to-date to ensure they are not approving payments for contractors that use unapproved landfills or facilities or those with repeat violations.

Banning Contractors Charged or Fined for Violations of Environmental or Safety Requirements

The Michigan agency has agreed to partially implement SIGTARP’s 2017 recommendation to ban from the program contractors charged or fined for violations of local, state, or Federal environmental or safety requirements, ending the ban if the contractor was later found not guilty.

As part of this review, the Michigan agency agreed to begin weekly monitoring of contractors that received suspensions, debarments, and stop work orders. They should stay vigilant to use this monitoring to ban contractors for the program. A demolition



contractor may be banned by one city, but also working in this program in multiple cities or states. Using a statewide system, as SIGTARP recommended in 2017, and notifying Treasury protects the program and TARP dollars from fraud, waste, and abuse on a statewide and national basis.

State Agency Periodic Soil Testing

The Michigan agency did not implement SIGTARP's recommendation to conduct periodic soil testing. SIGTARP engaged the Corps to conduct soil testing on four completed demolition sites. The testing revealed fill such as brick, and compaction that did not comply with contract specifications. In light of the current status of the program, with less cities with ongoing demolitions, SIGTARP now recommends random soil testing, including soil boring, in cities/counties with ongoing demolitions based on contractors with prior violations.¹⁶

¹⁶ The Michigan agency could pay for soil testing from its HHF administrative expense budget, rather than a per property cost.



The Army Corps of Engineers' 2019 Soil Testing Of Four Hardest Hit Fund Demolition Sites, And One In-Process Demolition In Detroit.

The Corps tested soil at four sites on behalf of SIGTARP in late 2019. Two of the properties were demolished in 2019, a third in 2017, and the fourth in 2016. The Corps found that contract specifications were not met at all four sites.

The Corps' soil sampling resulted in a finding that all properties contained arsenic concentrations above the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact. The Corps stated that overall site average concentrations are within normally expected values given the location of properties within an urban environment, the naturally occurring variations of arsenic concentrations statewide.¹⁷

The Corps also found that two of the properties did not meet acceptable fill description specified by the City of Detroit. The Corps found that three of the properties did not meet the fill depth below grade requirement. The Corps found that none of the properties met the acceptable compaction requirements.

19347 Beland, approximately 7.5 miles northeast of downtown Detroit, was demolished in 2019. The Corps found:

- No evidence of asbestos;
- No evidence of chlorides, PAHs, PCB Aroclors or pesticides above state thresholds;
- Inside the former basement footprint: 1 foot of lean clay fill over very loose to loose debris fill consisting of sand, brick, rock and concrete extending to depths of 6.2-6.4 feet below ground surface;
- Backfill material that consisted of very loose to loose construction debris fill at a depth of 10-12 inches below grade, which does not meet the contract specifications

¹⁷ In 2014, the land bank banned the use of dirt from an I-96 reconstruction project based on concerns over soil sampling procedures and chloride levels that exceeded residential use levels. In June 2015, additional testing found arsenic levels above threshold levels that was naturally occurring. Documentation appears that the contractor's use of the I-96 dirt was after the June 2015 testing. Also, the head of the Michigan agency told SIGTARP that it discovered one contractor who had used I-96 concrete that was crushed into sand as backfill in 13 HHF demolition sites and 2 non-HHF demolition sites in September 2014. According to the city, crusher sand from the I-96 reconstruction project would constitute category 2 where testing is not required. At the time, the city had allowed the reuse of clean concrete from residential demolition waste (basement walls, foundation, flooring and any flat concrete surfaces), presuming it is not covered with lead-based paint. However, road construction concrete does not appear to meet this definition. The Michigan agency should determine whether either of these uses complied with the contract requirements, regulations, or other requirements.



– the backfill is described as “(SW) Debris fill,” which is not described as an acceptable soil type and does not meet contract requirements;

- Backfill that is residual hard fill extends higher than three feet below grade which does not meet contract specifications;
- Very loose to loose density of backfill indicates that the material did not appear to be compacted appropriately; and
- Fill material outside former structure footprint: Brick pieces and other debris 4.5 and 8.2 feet below ground surface.

9349 Ravenswood, approximately five miles northwest of downtown Detroit, was demolished in 2019. The Corps found:

- No evidence of asbestos;
- No evidence of chlorides, PAHs, PCB Aroclors or pesticides above state thresholds;
- Inside the former basement footprint: Very soft lean clay fill with brick pieces to a depth of three feet;
- Backfill that is residual hard fill extends higher than three feet below grade which does not meet contract specifications;
- Loose density of backfill indicates that the material did not appear to be compacted appropriately; and
- Fill material outside former structure footprint: Brick pieces and other debris ranging between 2.7 and 5.2 feet below ground surface.

5613 N. Campbell, approximately four miles west of downtown Detroit, was demolished December 6, 2017. The Corps found:

- No evidence of asbestos;
- No evidence of chlorides, PAHs, PCB Aroclors or pesticides above state thresholds;
- Inside the former basement footprint: Backfill consisting of lean clay, brown and gray mottled with 36.9% clay content, which does not meet contract specifications for no more than 35% clay content and only crumbling yellow clay or sandy loam, not blue or gray clay;
- Very soft to medium stiff backfill indicates that the material did not appear to be compacted appropriately; and



- Fill material outside former structure footprint: Brick pieces and other debris between 3.4 and 6.6 feet below ground surface.

2408 McLean, approximately five miles northwest of downtown Detroit, was demolished on November 25, 2016. The Corps found:

- No evidence of asbestos;
- No evidence of chlorides, PAHs, PCB Aroclors or pesticides above state thresholds;
- Inside the former basement footprint: Backfill consisting of loose sand with pieces of brick and demolition debris encountered at the ground surface, which does not meet contract specifications;
- Backfill that is residual hard fill extends higher than three feet below grade which does not meet contract specifications; and
- Loose density backfill indicates that the material did not appear to be compacted appropriately.

Army Corps' Visual Site Inspection of demolition in process in November 2019

The Corps concluded that the city and contractors appeared to follow best practices for earth moving, temporary environmental controls and waste management. Additionally:

- The Corps expressed concern that the contractor proceeded to demolish the structure without securing formal utility clearance statements from the City;
- Engineering safety controls were in place and workers were wearing protective clothing including high visibility vests equipped with air quality samplers;
- The contractor watered down the house for at least five minutes prior to demolition for dust abatement reducing potential hazard to workers and neighbors;
- Storm sewers did not have a silt sack to catch sediment from entering the storm system from the dust control process, which is a contract requirement;
- For the Post Abatement Verification by an independent consultant, the Corps recommended expanding the scope of work to include a reconciliation of the material cited for removal and verification that the material was properly disposed of at a licensed facility through the inspection of the truck tickets;
- After the Corps recommended barricading around the swing radius of the excavator during use, the barricade was erected; and



- After demolition, crews covered the debris pile with plastic and install perimeter barricade fencing to protect until debris removal and backfill (the Corps' Engineering Manual 385-1-1 prohibits stockpiling or accumulation of debris on-site and requires same day disposal).



Conclusions

There has been significant progress at the state agency level in implementing SIGTARP's November 2017 recommendations to mitigate the risks of contaminated dirt, asbestos exposure, and illegal dumping for TARP-funded demolitions in Detroit. The Michigan Homeowner Assistance Nonprofit Corporation and the Michigan State Housing Development Authority (the "Michigan agency") increased its oversight over demolitions and installed internal controls to not pay TARP dollars until it receives documentation of all demolition inspections, waste manifests, and the source of dirt and truck tickets used as backfill. As this review was ongoing, the Michigan agency agreed to implement SIGTARP's recommendation to review and receive inspection reports with asbestos surveys detailing the asbestos and other hazardous material on the property, to compare the asbestos survey with federal and state regulatory reports (National Emission Standards for Hazardous Air Pollutants 10-day notification), and to obtain the air clearance test results. The Michigan agency also agreed to monitor all sources from any category of dirt for each HHF property to ensure approved backfill sources are used and to update its program rules to require contractors to submit dirt source approval documentation. Additionally, the Michigan agency did not implement bans on contractors in violation, but as part of this review agreed to monitor contractor suspensions, debarments, and stop work orders. These significant improvements, along with stronger internal controls by the City of Detroit to monitor dirt used at demolitions, go far to mitigate the risks previously raised by SIGTARP—risks that threaten the program's foreclosure reduction and neighborhood stabilization goals and can lead to costly fraud, waste, and abuse.

The Michigan agency did not implement SIGTARP's recommendations to ensure the proper storage of asbestos in leak-tight and properly labeled containers, to obtain landfill weight truck tickets, and to conduct periodic soil testing. To reduce ongoing risks, the Michigan agency should implement these recommendations.

Treasury did not issue new program requirements to implement SIGTARP's recommendations. Treasury had the U.S. Environmental Protection Agency advise the state agencies on best practices, and Treasury met regularly with the state agencies to discuss best practices, but issued no new requirements. Additionally, in this report, Treasury should also require state agencies with ongoing demolitions in the Hardest Hit Fund to report contractors who have been charged with violations or pending violations given that some contractors work in multiple states.

With the progress made by the Michigan agency, today the program is less risky than it was in 2017. However, contractor violations and recent soil tests by the U.S. Army Corps of Engineers on four properties indicate some ongoing risk:

- *In December 2018, there was a \$100,000 court order against the City of Detroit and Detroit Land Bank based on a state agency finding violations at 12 HHF and 29 non-HHF demolition sites in Detroit from February 2016 to May 2017 of federal and state air quality regulations related to asbestos.*



- *The City of Detroit also found serious violations, including in 2018, 2019, and 2020, such as knocking down houses prior to verification that all asbestos has been removed, failure to store asbestos in leak-tight properly labeled containers, knocking down the wrong house, illegal dumping, failing to wet demolition debris, and improper storage of debris in Detroit rather than taking it to a landfill.*
- *Although the Michigan agency did not implement SIGTARP's recommendation to conduct periodic soil tests, soil tests by the U.S. Army Corps of Engineers, on behalf of SIGTARP, in 2019 found that all four properties had elevated levels of arsenic, above the permitted levels but at levels consistent with expectations for an urban area, but no finding of asbestos.*
- *The Corps also found that backfill did not meet contract specifications at two sites; brick pieces and other debris in fill material at three sites; three of the properties did not meet the fill depth below grade requirement; and density of backfill that did not appear to be compacted appropriately at all four sites. The Corps' Visual Site Inspection of one demolition in process found that the city and its contractors appeared to follow best practices for earth moving, temporary environmental control, and waste management.*

Given that several of the contractors in Detroit, including larger contractors, have already received violations, and soil testing indicates additional problems, the Michigan agency will need to be vigilant in overseeing demolitions to ensure that its recently implemented internal controls are effective, and in areas where the Michigan agency did not implement SIGTARP's recommendations. In particular, it should ban contractors found in violation.

The Michigan agency's improvements serve as an example to Treasury and other state agencies with ongoing HHF demolitions that implementing SIGTARP's recommendations improves the program's compliance with laws, regulations and best practices and prevents fraud, waste, and abuse that could harm Treasury's program goals. Given the volume and pace of demolitions since 2017 (nearly half of all demolitions in the last two years), and the fact that Treasury's latest data show that state agencies have \$74 million remaining to spend on blight demolitions, Treasury should require the Michigan agency, and state agencies with ongoing demolitions, to implement the two new recommendations in this report expeditiously.

Recommendations

1. Treasury should require state agencies with ongoing demolitions in the Hardest Hit Fund to: (1) obtain, before paying TARP dollars, contractor-supplied photographs of leak-tight, properly labeled containers for asbestos storage; (2) require local blight partners and cities/counties to require in post-abatement verification a reconciliation of the material cited for removal with landfill truck tickets to ensure 100% proper disposal; and (3) to conduct random soil testing, including borings, on demolition sites where the contractor has previously violated laws or rules related to soil or asbestos/hazardous materials.
2. Treasury should require state agencies with ongoing demolitions in the Hardest Hit Fund to report to Treasury contractors who have been suspended, sanctioned or banned, given that some contractors work in multiple states.



Appendix A – Objective, Scope, and Methodology

SIGTARP performed this evaluation under the authority of the Emergency Economic Stabilization Act of 2008, which also incorporates some of the duties and responsibilities of inspectors general under the Inspector General Act of 1978, as amended. At the request of U.S. Representatives Brenda L. Lawrence and Rashida Tlaib, SIGTARP initiated an evaluation to update the review of technical and other requirements for demolitions in the HHF Blight Elimination Program in Michigan. The objectives of the evaluation were for SIGTARP to evaluate:

- 1. whether and how its earlier recommendations have been implemented by the Michigan State Housing Development Authority/Michigan Housing Authority (“Michigan agency”), whether there continue to be program risks, and if found, how to mitigate those risks; and*
- 2. in connection with the U.S. Army Corps of Engineers, evaluate selected in process as well as completed demolition activities in Detroit, Michigan, and analyze these activities against industry best practices and safeguards to determine any program risks, and if found, how to mitigate those risks.*

The scope of this evaluation covered changes and enhancements made by Treasury and the Michigan agency and its blight partners in response to SIGTARP’s November 21, 2017 recommendations and in those risk areas.¹⁸ SIGTARP conducted in-person interviews with officials of the U.S. Treasury’s Office of Financial Stability in Washington, D.C., and the Michigan agency in Lansing, Michigan. In Detroit, SIGTARP conducted in-person interviews/meetings with officials from the Detroit Land Bank Authority; the Detroit Building Authority; the City of Detroit’s Building Safety, Engineering & Environment Department; the Michigan Department of Environment, Great Lakes, and Energy; the Detroit Office of Inspector General; the Michigan Land Bank; and the Wayne County Metropolitan Community Action Agency. SIGTARP also conducted telephonic interviews with the Michigan Department of Transportation and the U.S. Environmental Protection Agency.

The scope of the review for documentation and records focused heavily on documentation from 2017 to December 2019 from the Michigan agency, the Detroit Land Bank Authority, and the City of Detroit. SIGTARP also reviewed Treasury’s written program changes. SIGTARP reviewed read-only access of the relevant systems of record used by the Michigan agency, the Detroit Land Bank Authority, and the Detroit Building Authority.

In an analysis of 10 completed Detroit demolitions (see Table 1) involving four contractors from September 2018 to April 2019, SIGTARP tested whether the relevant

¹⁸ See SIGTARP, “*Risk of Asbestos Exposure, Illegal Dumping, and Contaminated Soil From Demolitions in Flint, Michigan and Other Cities*,” dated November 21, 2017.



documents/records from the Michigan agency, Detroit Land Bank Authority, and the Detroit Building Authority existed.

Table 1. HHF Properties Reviewed By Contract Date, Contractor, and Address

RFP Date	Demolition Contractor	HHF Property Address	Zip Code
1.22.19C	Able Demolition	19437 Beland	48234
1.8.19B	Able Demolition	215 W Greendale	48203
11.13.18A	Leadhead Construction	99 W Montana	48203
12.4.18N	Blue Star	13050 Promenade	48213
4.30.19F	Able Demolition	13468 Fenelon	48212
9.18.18A	Able Demolition	4797 Fischer	48214
9.18.18A	Able Demolition	5801 Rohns	48213
9.18.18B	Smalley	17524 Vaughan	48219
9.18.18E	Smalley	13665 Stoepel	48238
9.18.18E	Smalley	9349 Ravenswood	48204

Source: Michigan state agency and the Detroit Land Bank Authority contract data

The U.S. Army Corps of Engineers, on behalf of SIGTARP, conducted a visual site inspection of one in-process HHF demolition in Detroit, and contracted with a third party environmental professional to collect soil samples of four completed HHF demolition sites.

SIGTARP conducted this evaluation from June 2019 through February 2020 in Washington, D.C. with on-site visits in July, October and November 2019 in Michigan cities of Detroit and Lansing. SIGTARP visited over 30 HHF properties in Wayne County (Detroit), some of which were in-process demolitions and others completed. The U.S. Army Corps of Engineers’ assessment was conducted by professional engineers in accordance with the National Society of Professional Engineers’ Code of Ethics for Engineers.

SIGTARP conducted this evaluation in accordance with the “Quality Standards for Inspection and Evaluation” established by the Council of the Inspectors General on Integrity and Efficiency (CIGIE). Those standards require that SIGTARP adequately plan the evaluation and the procedures and mechanisms used to gather information ensure that the information is sufficiently reliable and valid. The evidence obtained provides a reasonable basis for the observations, findings, and supported conclusions contained within the evaluation.

Limitations on Data

SIGTARP relied generally on Michigan agency, the Detroit Land Bank Authority, the Detroit Building Authority and other entities listed above to provide complete and relevant supporting documentation SIGTARP requested. To the extent that the documentation provided to SIGTARP by these entities did not reflect a comprehensive response to SIGTARP’s requests or questions, SIGTARP’s review may have been limited.



Use of Computer-Processed Data

SIGTARP relied on computer-processed data provided by the Michigan agency, the Detroit Land Bank Authority, and the Detroit Building Authority. SIGTARP also relied on quarterly performance and financial data provided by the state agency and Treasury. SIGTARP did not validate the accuracy of the data. SIGTARP did not perform data reliability on the data.

Internal Controls

SIGTARP performed a limited review of internal controls by interviewing state agency, city and Federal officials, and reviewing the policies and procedures as it pertains to demolition, environmental, health and safety issues. SIGTARP assessed the effectiveness of certain controls during its limited testing of ten HHF properties.

Prior Coverage

SIGTARP has covered the HHF Blight Elimination Program in the following audit, SIGTARP Quarterly and evaluation reports:

- On July 2, 2019, SIGTARP released an evaluation report titled, "Improvements in State Agency Oversight Needed to Prevent Asbestos Exposure and Fraud in Blight Demolitions."
- On April 30, 2019, SIGTARP Quarterly Report to Congress titled, "Most Serious Management and Performance Challenges and Threats Facing the Government in TARP," Pages 4-5. Also included in SIGTARP Quarterly Reports to Congress January 2019, October 2018, July 2018, April 2018, January 2018, and October 2017.
- On November 21, 2017, SIGTARP released an evaluation report titled, "Risk of Asbestos Exposure, Illegal Dumping, and Contaminated Soil From Demolitions in Flint, Michigan and Other Cities."
- On June 16, 2016, SIGTARP released an audit report titled, "Treasury's HHF Blight Elimination Program Lacks Important Federal Protections Against Fraud, Waste, and Abuse."
- On April 21, 2015, SIGTARP released an audit titled, "Treasury Should Do More to Increase the Effectiveness of the TARP Hardest Hit Fund Blight Elimination Program."

SIGTARP also issued an alert letter on December 14, 2015 that addressed a risk related to diverting TARP funds to demolished live-in properties, which could undermine the success of HHF Blight Elimination Program.



Appendix B – U.S. Army Corps of Engineers Soil Testing
Report and Visual Site Inspection Report

Blight Elimination Program

EVALUATION OF DEMOLISHED PROPERTY SAMPLING RESULTS DETROIT, MICHIGAN

Prepared By:

**US Army Corps of Engineers
Detroit District
477 Michigan Ave.
Detroit, Michigan 48226**

For

**U.S. Department of the Treasury – Special Inspector General
for the Troubled Asset Relief Program (SIGTARP)**

*February 2020
Revision: 01*



1.0 INTRODUCTION AND BACKGROUND

The U.S. Army Corps of Engineers, Detroit District (USACE), at the request of the Office of Special Inspector General for the Troubled Asset Relief Program (SIGTARP), contracted Advanced Environmental Management Group, LLC (AEM Group) to perform soil sampling and analytical services at four properties in Detroit, Michigan. This sampling effort was required in order to help identify and assess any issues resulting from the demolition activities on the properties as follows:

- Obtain representative post demolition soil samples at each property location.
- Provide analytical chemical results to aid in the determination of site environmental compliance with federal, state, and, local regulations.
- Provide analytical physical results to aid in the assessment of adherence to the demolition contract requirements for the backfill material type and compaction.

The objective of this report is to serve as a technical evaluation for determining whether soil located at each property contains Asbestos, Chlorides, and Contaminants of Concern (COC's) concentrations above the State of Michigan's Part 201 General Cleanup Criteria Guidelines. The four properties included in this assessment are as follows:

2.0 SOIL SAMPLING AND ANALYSES

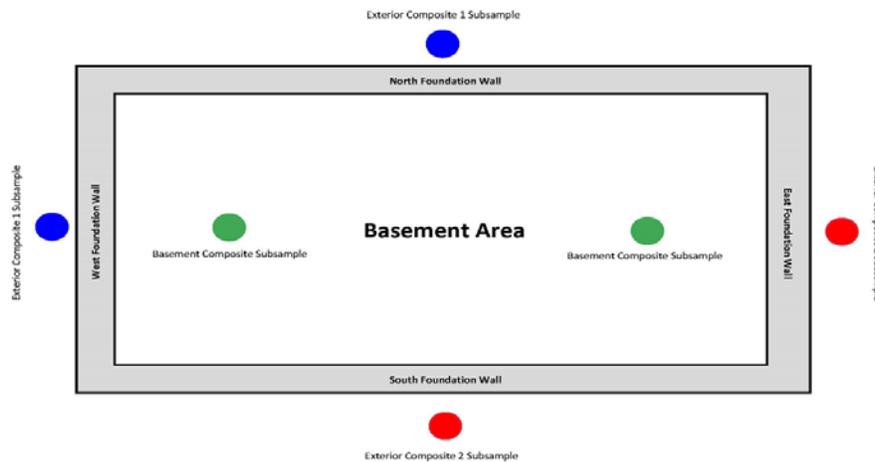
This evaluation is based on analyses performed upon soil samples collected in November and December 2019 from the four listed properties in the Metro Detroit Area. Soil borings from each site were taken using a hollow stem auger with the ability to perform Standard Penetration Test (SPT) ASTM D1586. Borings were taken post demolition and site grading/leveling, extending from the soil surface to a depth equaling the pre-demolition basement floor elevation (up to approximately 10-feet deep). Soil samples were collected using a 2-inch split spoon to obtain the soil volumes required for analytical purposes. The laboratories subcontracted were Trace Analytical Laboratories, Inc., (Trace) of Muskegon, Michigan, for the chemical and physical analyses of the soils, and EMSL Analytical, Inc. (EMSL) of Cinnaminson, New Jersey, for analysis of asbestos in soil. The analytical labs are Department of Defense Environmental Laboratory Accreditation Program (DoD-ELAP), ISO/IEC 17025:2005, The National Environmental Laboratory Accreditation Program (NELAP) accredited laboratories. The soil quality data for each property includes data from 3 composite samples which were assessed for Asbestos, Chlorides, and COC's concentrations compared to the State of Michigan's Part 201 General Cleanup Criteria for Residential Direct Contact.



2.1 Composite Soil Samples

Soil borings at each property were taken to an approximate depth equaling the estimated pre-demolition basement floor elevation (up to a depth of 10 feet). A total of six (6) borings were taken at each site with two (2) borings being within the foundation walls of the demolished property, and one (1) boring along each outer wall of the foundation. The total number of soil composite samples was three (3) per location, not including quality assurance/quality control (QA/QC) samples. Composite soil samples were collected as follows:

Example Site Boring Layout



- Basement Composite Subsample locations had borings taken post demolition and site grading/leveling, extending from the soil surface to a depth equaling the pre-demolition basement floor elevation (up to a depth of 10 feet). The full length of each boring was individually composited with an aliquot of material from each boring being composited into one Basement Composite (BC) sample for chemical and physical analyses.
- Exterior Composite 1 Subsample locations (North & West Foundations Walls) had borings taken post demolition and site grading/leveling, extending from the soil surface to a depth equaling the pre-demolition basement floor elevation (up to a depth of 10 feet). The full length of each boring was individually composited with an aliquot of material from each boring being composited into the Exterior Composite 1 (EC1) sample for chemical and physical analyses.
- Exterior Composite 2 Subsample locations (South & East Foundation Walls) had borings taken post demolition and site grading/leveling, extending from the soil surface to a



depth equaling the pre-demolition basement floor elevation (up to a depth of 10 feet). The full length of each boring was individually composited with an aliquot of material from each boring being composited into the Exterior Composite 2 (EC2) sample for chemical and physical analyses.

2.2 Soil Analysis and Methods

Soil samples were analyzed as follows: Density (ASTM-D854), Specific Gravity (ASTM-D854), Grain Size with Hydrometer (ASTM-D6913), Percent Residue (ASTM-D2216), Ammonia Nitrogen (SM 4500 NH₃-C), Total Khedahl Nitrogen (SM 4500 NH₃-C), Total Phosphorous (A4500-P-E), Total Organic Carbon (ASTM-D2974), Chemical Oxygen Demand (EPA410.4M), Oil and grease (SW-846 9071B), Cyanide (SW-846 9012B), Percent volatile residue (SM2540G), Arsenic, Barium, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Silver, Zinc, PAHs (SW-846 8270C SIM), PCB's (Aroclors, SW-846 8082A), Chlorinated pesticides (SW-846 8081A), Total Chlorides (EPA 300.0 Rev 2.1 or SM 4500-Cl D-11), and Asbestos in soil (EMSL).

Quality assurance (QA)/ quality control (QC) duplicates were submitted for 10 percent of the total samples, excluding physical and geotechnical analyses, in accordance with the approved Field Sampling Plan.

3.0 SOIL EVALUATIONS

The focus of the soil chemical evaluation is on the presence of Asbestos and Chlorides, along with contaminant-related adverse impacts that would occur as a result of direct contact to site materials. To evaluate these risks, contaminate results if the analyte is detected, are compared to the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact along with other relevant local and statewide criteria and background levels.

The focus of the soil physical evaluation is to determine the type of material used for backfilling the property after demolition, as well evaluating the in-place density of the material. Material density was established using the Standard Penetration Test (ASTM D1586) method.

4.0 FIELD SAMPLING EVALUATIONS

4.1 19437 Beland Investigation

This property is located approximately 7.5 miles northeast of downtown Detroit, north of 7 Mile Road, between Outer Drive East and Hoover Street. The property is located on the south half of an empty area that is 90 feet wide and 140 feet long. A historical photograph located on the City of Detroit property website shows the house was a two-story building built upon a basement, with a small front porch and the main floor located approximately two feet above the ground. The house at 19437 Beland Street was demolished in 2019. Historical aerial



photographs showed the house on the adjoining property to the north was demolished in 2016. There were no indications of the adjoining properties being used for abandoned vehicle storage or illegal dumping.

This property is currently owned by the Detroit Land Bank and has a parcel ID of 17015431.

Historical Property Photograph



Post Demolition Property Photograph



4.1.1 Chemical Testing Results

(1) **Inorganic analyses** - Table 2 presents the inorganic analysis results of the property composite soil samples. Analysis of Ammonia, Phosphorous, and Cyanide were all within normal soil levels or not detected.

(a) **Total Chlorides** - Chlorides were not detected above the detection limit in any of the property composite soil samples.

(b) **Asbestos** - Asbestos was not detected above the detection limit in any of the property composite soil samples.

(c) **Metals** - All metals were below State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact except Arsenic in the South and East Exterior Composite (EC2). This composite soil sample had an average Arsenic concentration of 8.4 ppm. Based on the Michigan statewide soil survey performed in 2005, Arsenic concentrations in the State of Michigan can vary widely depending on location and soil type ranging from non-detect to 34 ppm in topsoil. Arsenic concentrations are within normally expected values given the location of the property within an urban environment, the naturally occurring variations of Arsenic concentrations statewide, and an overall site average concentration of 7.0 ppm which meets the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact.



Based on evaluated inorganic and metal analyte concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

(2) **Organic analyses**

- a) **PAHs** - Table 2 presents the PAHs analysis results of the property composite soil samples. PAHs analytes were detected in the Basement Composite sample with concentrations ranging from non-detect to 0.98 ppm. PAHs were also detected in the other site composite soil samples, although in very low concentrations. The concentrations of all PAHs were below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PAHs concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

- b) **PCB Aroclors** - Table 2 presents the PCB Aroclor analysis results of the property composite soil samples. PCB Aroclor concentrations were detected above the detection limit in only one sample for one Aroclor in very low concentrations. All other samples and PCB Aroclors were below detection limits. The concentrations of PCBs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PCB Aroclor concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

- c) **Pesticides** - Table 2 presents the Chlorinated pesticides analysis results of the property composite soil samples. DDT and its metabolite, DDE, were detected in 2 samples at very low concentrations. All other samples and other Chlorinated pesticides were below detection limits. The concentrations of Chlorinated pesticides were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated Chlorinated pesticide concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

4.1.2 Physical Testing Results

- (1) **Backfill Material Description and Density** – Borings BC-1 and BC-2, appeared to be located inside the former basement footprint presented on the Sample Location Map, Figure 3, in the AEM Group December 30, 2019 investigation report. The borings encountered approximately 1 foot of lean clay fill over very loose to loose debris fill consisting of sand, brick, rock and concrete extending to depths of approximately 6.2 to 6.4 feet below ground surface.



The fill material in the borings was underlain by native soft to very stiff lean clay (CL) to the extent of the borings at 10 feet.

The City of Detroit Residential Demolition Scope of Services (Scope of Services), dated, August 31, 2018, Section VI, Site Finishing - Part 1.A., specifies that "All holes or voids which result from the demolition and removal of any structure on site must be backfilled to 12" below the surrounding grade level and compacted with clean backfill per the following requirements: 1. After open hole approval and prior to backfill, Contractors must rake any residual hard fill (See "i." below) on the site into the open hole. **Contractors may not rake residual hard fill into any excavation higher than three (3') feet below grade**".

The Scope of Services Section VI: Site Finishing - Part 1.A.2. specifies "all fill material must consist of soil with less than 35% clay content. Contractor must comply with all applicable City ordinances and Program standards. **Acceptable soil types include crumbling yellow clay or sandy loam.** No blue clay or gray clay may be used for backfill material. If a question arises as to the clay content of the fill material, it is the contractor's responsibility to provide documentation that the fill has less than 35% clay content at the contractor's expense. The contractor is prohibited from using the fill material until the report is provided, accepted, and approved by the Owner or authorized representative".

Section VI: Site Finishing - Part 3.G. specifies "**Contractors must place backfill and fill materials in layers not more than 18 inches in loose depth, using appropriate methods of compaction**".

Based on the soil borings, the backfill material consisted of very loose to loose construction debris fill, encountered at a depth of 10 to 12 inches below grade, in boring BC1 and BC2, respectively. USACE concludes that the site backfill does not meet the following contract Scope of Services specifications:

- a) Section VI, Site Finishing - Part 1.A.1. The backfill, or "residual hard fill", extends higher than three (3') feet below grade.
- b) Section VI: Site Finishing - Part 1.A.2. The backfill is described as "(SW) Debris fill", and is not described as an acceptable soil type (crumbling yellow clay or sandy loam).
- c) Section VI: Site Finishing - Part 3.G. The very loose to loose density indicates that the material did not appear to be compacted when placed using appropriate methods of compaction.

(2) **Outside Wall Borings Soil Description** – Borings EC1 NW, EC1 WW, EC2 EW, and EC2 SW, appeared to be located outside the former structure footprint. However, borings EC1 NW, EC1 WW, and EC2 EW encountered brick pieces and other debris to depths ranging between approximately 4.5 and 8.2 feet below ground surface. This indicates that fill material extends at least to these depths at the boring locations. The fill materials consisted of soft to very stiff lean clay and very loose to loose granular soil. The fill soils were



generally underlain by native very stiff lean clay (CL). Boring EC2 SW encountered 10 inches of lean clay fill over loose to medium dense fine sand (SP) extending to a depth of approximately 4.0 feet below ground surface. The sand was underlain by very stiff lean clay (CL) to the extent of the boring at 10 feet.

4.2 5613 N Campbell Investigation

This property is located approximately four miles west of downtown Detroit, north of I-94 and south of Warren Avenue, between Livernois Avenue, Warren Avenue, and McGraw Street. The property is located between two existing houses on a lot that is 30 feet wide by 110 feet long. A historical photograph located on the City of Detroit property website shows the house was a three-story building built upon a basement, with a small front porch and main floor located approximately three feet above the ground. The house was demolished between April 2017 and May 2018.

This property is currently owned by the Detroit Land Bank and has a parcel ID of 16014597.

Historical Property Photograph



Post Demolition Property Photograph



4.2.1 Chemical testing

(1) **Inorganic analyses** - Table 3 presents the inorganic analysis results of the property composite soil samples. Analysis of Ammonia, Phosphorous, and Cyanide were all within normal soil levels or not detected.

(a) **Total Chlorides** - Chlorides were not detected above the detection limit in any of the property composite soil samples.

(b) **Asbestos** - Asbestos was not detected above the detection limit in any of the property composite soil samples.



(c) Metals - All metals were below State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact except Arsenic in the North and West Exterior Composite (EC1). This composite soil sample had an Arsenic concentration of 16 ppm. Based on statewide soil survey performed in 2005, Arsenic concentrations in the State of Michigan can vary widely depending on location and soil type ranging from non-detect to 34 ppm in topsoil. Arsenic concentrations are within normally expected values given the location of the property within an urban environment, the naturally occurring variations of Arsenic concentrations statewide, and an overall site average concentration of 9.4 ppm which is well below the 37 ppm State of Michigan Non-Residential Direct Contact Criteria.

Based on evaluated inorganic and metal analyte concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

(2) **Organic analyses**

a) PAHs - Table 3 presents the PAHs analysis results of the property composite soil samples. Very low concentrations of PAHs analytes were detected above the detection limit in all site composite soil samples. The concentrations of PAHs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PAH concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

b) PCB Aroclors - Table 3 presents the PCB Aroclor analysis results of the property composite soil samples. PCB Aroclor concentrations were detected in only one sample for one Aroclor in very low concentrations. All other samples and PCB Aroclors were below detection limits. The concentrations of PCBs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PCB Aroclor concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

c) Pesticides - Table 3 presents the Chlorinated pesticide analysis results of the property composite soil samples. DDD, a metabolite of DDT, was detected in 1 sample at very low concentrations. All other samples and other Chlorinated pesticides were below detection limits. The concentrations of Chlorinated pesticides were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated Chlorinated pesticide concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.



4.2.2 Physical testing

(1) **Backfill Material Description and Density** – Borings BC-1 and BC-2, appeared to be located inside the former basement footprint presented on the Sample Location Map, Figure 3, in the AEM Group January 3, 2020 investigation report. These borings encountered 6 to 10 inches of topsoil over very soft to medium stiff lean clay (CL) fill to depths of approximately 4.5 to 4.8 feet below ground surface, respectively. In boring BC2, the lean clay fill was underlain by very loose fine sand (SP) fill to a depth of approximately 5.1 feet below ground surface, and possible fill consisting of very loose fine sand (SP) extending to a depth of 7.3 feet below ground surface.

The fill and possible fill material in the borings was underlain by native medium stiff to very stiff lean clay (CL) to the extent of the borings at 10 feet.

The City of Detroit Residential Demolition Scope of Services (Scope of Services), Exhibit A, August 31, 2018, Section VI, Site Finishing- Part 1.A.2. specifies “**all fill material must consist of soil with less than 35% clay content.** Contractor must comply with all applicable City ordinances and Program standards. **Acceptable soil types include crumbling yellow clay or sandy loam.** No blue clay or gray clay may be used for backfill material. If a question arises as to the clay content of the fill material, it is the contractor’s responsibility to provide documentation that the fill has less than 35% clay content at the contractor’s expense. The contractor is prohibited from using the fill material until the report is provided, accepted, and approved by the Owner or authorized representative”.

Section VI: Site Finishing - Part 3.G. specifies “**Contractors must place backfill and fill materials in layers not more than 18 inches in loose depth, using appropriate methods of compaction**”.

Based on the soil borings, the backfill material consisted of very soft to medium stiff lean clay (CL) to depths of approximately 4.5 to 4.8 feet below ground surface, respectively. The particle size distribution report indicates that the basement backfill material contains 36.9% clay. Therefore, the site basement backfill does not meet the following contract Scope of Services specifications:

- a) Section VI: Site Finishing - Part 1.A.2. The backfill is described as “lean Clay (CL), brown and gray mottled”, with 36.9% clay content. The backfill has greater than 35% clay content, and is not described as an acceptable soil type (crumbling yellow clay or sandy loam).
- b) Section VI: Site Finishing - Part 3.G. The very soft to medium stiff consistency indicates that the material did not appear to be compacted when placed using appropriate methods of compaction.

(2) **Outside Wall Borings Soil Description** – Borings EC1 NW, EC1 WW, EC2 EW, and EC2 SW, appeared to be located outside the former structure footprint. However, borings EC1 NW, EC2 EW, and EC2 SW encountered brick pieces and other debris to depths ranging



between approximately 3.4 and 6.6 feet below ground surface. This indicates that fill material extends at least to these depths at the boring locations. These borings encountered interbedded very soft to medium stiff cohesive soil, and very loose to medium dense granular soils, extending to depths ranging between 4.2 and 6.6 feet below ground surface. Lower density soils generally indicate possible fill locations. The granular soils were underlain by native medium stiff to very stiff lean clay (CL).

4.3 2408 McLean Investigation

This property is located approximately five miles northwest of downtown Detroit near Hamtramck and the intersection of I-75 and the Davison Freeway. The property is located in the center of an empty area that is 90 feet wide and 100 feet long. A historical photograph located on the City of Detroit property website shows the house was a two-story building built upon a basement, with a front porch and main floor located approximately three feet above the ground. The house was demolished in 2017. Historical aerial photographs show the properties on either side of the house were vacant as far back as 1999. There were no indications of the adjoining properties being used for abandoned vehicle storage or dumping.

This property is currently owned by the Detroit Land Bank and has a parcel ID of 09005678.

Historical Property Photograph



Post Demolition Property Photograph



4.3.1 Chemical testing

(1) **Inorganic analyses** - Table 4 presents the inorganic analysis results of the properties composite soil samples. Analysis of Ammonia, Phosphorous, and Cyanide were all within normal soil levels or not detected.

(a) **Total Chlorides** - Chlorides were not detected above the detection limit in any of the property composite soil samples.



(b) Asbestos - Asbestos was not detected above the detection limit in any of the property composite soil samples

(c) Metals - All metals were below State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact except Arsenic in the Basement Composite (BC). This composite soil sample had an Arsenic concentration of 11 ppm. Based on statewide soil survey performed in 2005, Arsenic concentrations in the State of Michigan can vary widely depending on location and soil type ranging from non-detect to 34 ppm in topsoil. Arsenic concentrations are within normally expected values given the location of the property within an urban environment, the naturally occurring variations of Arsenic concentrations statewide, and an overall site average concentration of 7.3 ppm which meets the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact.

Based on evaluated inorganic and metal analyte concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

(2) *Organic analyses*

a) PAHs - Table 4 presents the PAHs analysis results of the property composite soil samples. PAHs analytes were detected at very low concentrations or not detected above the detection limit in all site composite soil samples. The concentrations of PAHs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PAH concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials..

b) PCB Aroclors - Table 4 presents the PCB Aroclor analysis results of the property composite soil samples. PCB Aroclor concentrations were not detected above the detection limit for all site composite soil samples. The concentrations of PCBs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PCB Aroclor concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

c) Pesticides - Table 4 presents the Chlorinate pesticide analysis results of the property composite soil samples. DDT and its metabolites DDD, and DDE were detected above detection limits in 1 sample at low concentrations. All other samples and other Chlorinated pesticides were below detection limits. The concentrations of Chlorinated



pesticides were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated Chlorinated pesticide concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

4.3.2 Physical testing

(1) **Backfill Material Description and Density** – Borings BC-1 and BC-2, as well as boring EC 1NW appeared to be located inside the former basement footprint presented on the Sample Location Map, Figure 4, in the AEM Group January 10, 2020 investigation report. These borings encountered granular fill material consisting of loose fine grained sand (SP), loose well graded sand (SW), and loose gravelly sand (SP), with pieces of brick and demolition debris. The fill material extended from the ground surface to depths ranging between 2.3 to 4.2 feet below ground surface.

The fill material in the borings was underlain by native very soft to hard lean clay (CL) to the extent of the borings at 10 feet.

The City of Detroit Residential Demolition Scope of Services (Scope of Services), Exhibit A, August 31, 2018, Section VI, Site Finishing - Part 1.A., specifies that **“All holes or voids which result from the demolition and removal of any structure on site must be backfilled to 12” below the surrounding grade level** and compacted with clean backfill per the following requirements: 1. After open hole approval and prior to backfill, Contractors must rake any residual hard fill (See “i.” below) on the site into the open hole. **Contractors may not rake residual hard fill into any excavation higher than three (3’) feet below grade”**.

Section VI: Site Finishing - Part 3.G. specifies **“Contractors must place backfill and fill materials in layers not more than 18 inches in loose depth, using appropriate methods of compaction”**.

Based on the soil borings, the backfill material consisted of loose sand (SP, SW) with pieces of brick and demolition debris, encountered at the ground surface. Therefore, the site backfill does not meet the following contract Scope of Services specifications:

- a) Section VI, Site Finishing - Part 1.A.1. The backfill extends higher than three (3’) feet below grade if described as hard fill: and extends higher than 12” below grade if described as acceptable backfill.
- b) Section VI: Site Finishing - Part 3.G. The loose density indicates that the material did not appear to be compacted when placed using appropriate methods of compaction.

(2) **Outside Wall Borings Soil Description** – Borings EC1 WW, EC2 EW, EC2 SW, and SWC, appeared to be located outside the former structure footprint. These borings encountered granular soils consisting of very loose to loose fine grained sand (SP), silty



sand (SM) topsoil, and clayey sand (SC), extending to depths ranging between approximately 2.8 to 4.8 feet below ground surface. It is unknown if the surficial granular soil material is backfill material. The granular soils were underlain by native medium stiff to very stiff lean clay (CL).

4.4 9349 Ravenswood Investigation

This property is located approximately five miles northwest of downtown Detroit, north of I-96 and Grand River, between Livernois Avenue and Joy Road. The property is located on the northern edge of an empty area that is approximately 120 feet wide and 140 feet long. A historical photograph located on the City of Detroit property website shows the house was a two-story building built upon a basement, with a small front porch and main floor located approximately three feet above the ground. The house on this property along with the house on the adjoining property to the south were demolished in 2019. The adjoining house to the north is currently occupied by a three-story house.

This property is currently owned by the Detroit Land Bank and has a parcel ID of 14011967.

Historical Property Photograph



Post Demolition Property Photograph



4.4.1 Chemical testing

(1) **Inorganic analyses** - Table 5 presents the inorganic analysis results of the properties composite soil samples. Analysis of Ammonia, Phosphorous, and Cyanide were all within normal soil levels or not detected.

(a) **Total Chlorides** - Chlorides were not detected above the detection limit in any of the property composite soil samples.

(b) **Asbestos** - Asbestos was not detected above the detection limit in any of the property composite soil samples



(c) Metals - All metals were below State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact except Arsenic in the North and West Exterior Composite (EC1). This composite soil sample had an Arsenic concentration of 11 ppm. Based on statewide soil survey performed in 2005, Arsenic concentrations in the State of Michigan can vary widely depending on location and soil type ranging from non-detect to 34 ppm in topsoil. Arsenic concentrations are within normally expected values given the location of the property within an urban environment, the naturally occurring variations of Arsenic concentrations statewide, and an overall site average concentration of 7.66 ppm which meets the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact.

Based on evaluated inorganic and metal analyte concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

(2) **Organic analyses**

a) PAHs - Table 5 presents the PAHs analysis results of the property composite soil samples. Very low concentrations of PAHs analytes were detected above the detection limit at very low concentrations in both Exterior Composite soil samples (EC1 & EC2). PAHs were not detected in the basement composite soil sample above detection limits. The concentrations of PAHs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PAH concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials..

b) PCB Aroclors - Table 5 presents the PCB Aroclor analysis results of the property composite soil samples. PCB Aroclor concentrations were not detected above the detection limit for all site composite soil samples. The concentrations of PCBs were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.

Based on evaluated PCB Aroclor concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

c) Pesticides - Table 5 presents the Chlorinate pesticide analysis results of the property composite soil samples. DDT and its metabolite, DDE, were detected above detection limits in all site composite soil samples at very low concentrations. All other Chlorinated pesticides were below detection limits. The concentrations of Chlorinated pesticides were all below State of Michigan Part 201 General Cleanup Criteria for Residential Direct Contact.



Based on evaluated Chlorinated pesticide concentrations, material on-site including backfill material does not contain contaminants that would present contaminant-related adverse impacts as a result of direct contact to site materials.

4.4.2 Physical testing

(1) **Backfill Material Description and Density** – Borings BC-1 and BC-2, appeared to be located inside the former basement footprint presented on the Sample Location Map, Figure 3, in the AEM Group December 30, 2019 investigation report. Boring BC1 encountered very soft lean clay (CL) fill over granular fill to a depth of 4.0 feet below ground surface. Boring BC2 encountered very soft lean clay (CL) fill with brick pieces to a depth of 3 feet, over soft lean clay possible fill to a depth of 6 feet below ground surface.

The fill and possible fill material in the borings was underlain by native medium stiff to very stiff lean clay (CL) to the extent of the borings at 10 feet.

The City of Detroit Residential Demolition Scope of Services (Scope of Services), Exhibit A, August 31, 2018, Section VI, Site Finishing - Part 1.A., specifies that **“All holes or voids which result from the demolition and removal of any structure on site must be backfilled to 12” below the surrounding grade level and compacted with clean backfill** per the following requirements: 1. After open hole approval and prior to backfill, Contractors must rake any residual hard fill (See “i.” below) on the site into the open hole. Contractors may not rake residual hard fill into any excavation higher than three (3’) feet below grade”.

Section VI: Site Finishing - Part 3.G. specifies **“Contractors must place backfill and fill materials in layers not more than 18 inches in loose depth, using appropriate methods of compaction”**.

Based on the soil boring logs, the backfill material consisted of very soft lean clay (CL) with pieces of brick, encountered at the ground surface. The particle size distribution report for the basement backfill composite sample (collected from 0 - 8 feet depth) describe the material as clayey sand (SC) with 34.7% clay. Therefore, the backfill does meet the “acceptable fill” clay content specification in Section VI, Site Finishing- Part 1.A.2. of the Scope of Services. However, the site backfill does not meet the following contract Scope of Services specifications:

- a) Section VI, Site Finishing - Part 1.A.1. The backfill extends higher than 12” below grade if described as acceptable backfill.
- b) Section VI: Site Finishing - Part 3.G. The loose density indicates that the material did not appear to be compacted when placed using appropriate methods of compaction.

(2) **Outside Wall Borings Soil Description** – Borings EC1 NW, EC1 WW, EC2 EW, and EC2 SW, appeared to be located outside the former structure footprint. However, all of the outside wall borings encountered brick pieces and other debris to depths ranging between



approximately 2.7 and 5.2 feet below ground surface. This indicates that fill material extends at least to these depths at the boring locations. These borings encountered very soft to soft lean clay extending to depths ranging between 4.0 and 6.4 feet below ground surface, indicating the fill may extend to these depths at the boring locations. The possible fill soils were underlain by native stiff to very stiff lean clay (CL).

5.0 CONCLUSIONS

Although all properties contained a site composite sample with Arsenic concentrations above the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact; overall site average concentrations are within normally expected values given the location of the property within an urban environment, the naturally occurring variations of Arsenic concentrations statewide. All other contaminants of concern were found to be below the State of Michigan's Part 201 General Cleanup Criteria Guidelines for Residential Direct Contact.

The physical sampling and testing is summarized as follows:

- Two of the properties (19437 Beland and 5613 N Campbell) did not meet the acceptable fill description specified in the City of Detroit Residential Demolition Scope of Services, Exhibit A, August 31, 2018, Section VI, Site Finishing, Part 1.A.
- Three of the properties (19437 Beland, 2408 McLean, and 9349 Ravenswood) did not meet the fill depth below grade requirement specified in Scope of Services Section VI, Part 1.A.
- None of the properties (19437 Beland, 5613 N Campbell, 2408 McLean, 9349 Ravenswood) met the acceptable compaction requirements specified in Scope of Services Section VI, Part 3G.

6.0 REFERENCES

Advanced Environmental Management Group, 2019, SIGTARP Sampling and Analysis of Demolished Properties 19437 Beland Street, Detroit, Michigan Report.

Advanced Environmental Management Group, 2019, SIGTARP Sampling and Analysis of Demolished Properties 5613 N. Campbell Street, Detroit, Michigan Report.

Advanced Environmental Management Group, 2019, SIGTARP Sampling and Analysis of Demolished Properties 2408 McLean Street, Detroit, Michigan Report.

Advanced Environmental Management Group, 2019, SIGTARP Sampling and Analysis of Demolished Properties 9349 Ravenswood Street, Detroit, Michigan Report.



State of Michigan Part 201 General Cleanup Criteria for Residential/Non-Residential Direct
Contact

State of Michigan, 2005, Background Soil Survey Report



VISUAL SITE INSPECTION

STAGE 2 – DEMOLITION IN PROCESS

Residential Address: 9204 Winthrop Street

Detroit, Michigan 48228

County: Wayne

Parcel ID#22051589

Date: 13 November 2019

Owner: Detroit Land Bank Authority
500 Griswald Street, Suite 1200
Detroit, MI 48226

Prepared By: US Army Corps of Engineers (USACE), Detroit District

Project Description:

9204 Winthrop Street (Figure 1) is situated on a parcel of land in Detroit, Michigan. The lot covers approximately 3,485 square feet or 0.08 acre with a frontage width of 40.0 feet and yard depth of 108.0 feet. The location of the property is zoned residential and was built in 1941. The single family home is approximately 735 square feet and was built on a basement with one first floor level and an attic. The property did not have a garage or any other accessory buildings. Both adjacent properties are vacant.



Figure 1. Pre Demolition Condition of 9204 Winthrop Street

Stage 1 Prior to Demolition:

The building is almost 80 years old and appeared to be structurally sound. The roof appeared to be intact without any visible holes. The house does not have any historical significance. The demolition contractor hired by the Detroit Land Bank Authority (DLBA) for the project is Inner City Contracting, LLC (ICC) which was established in 2009, meeting the minimum 5 year good standing requirement per the Michigan Homeowner Assistance Nonprofit Housing Corporation's (MHA) Program Operation Manual ("Blight Manual") on Page 6. ICC secured most of the required file documentation per the Blight Manual (Page 28) including property



deed and title insurance from the DLBA. A revised permit for “Notification of Intent to Demolish” dated 26 November 2019 was furnished, along with the Post-Abatement Verification statement (PAV), performed by MWV Environmental Services, Inc., when requested. The Notice of Award between DLBA and ICC was certified by both parties on 20 August 2019 and identifies the correct address to be demolished. ICC did not distribute door hanger notifications to neighboring residents that a demolition is scheduled as required in the scope of services, Section III of contract between the ICC and the DLBA.

Visual Site Inspection:

On November 13, 2019 USACE visited 9204 Winthrop Street to visually inspect Stage 2, Demolition in Progress, of the address. The site appeared to have engineering safety controls in place and workers were wearing the appropriate personal protective equipment with 1-844-DET-DEMO, the telephone number of the Detroit Land Bank Authority, high visibility vests and were equipped with air quality samplers. USACE recommended was given to improve barricading around the swing radius of the excavator during use. ICC complied with the request promptly.

Upon completion of the demolition, crews began covering the debris pile with plastic which is acceptable, and installing perimeter barricade fencing until debris removal and backfill operations are completed at a later date. The USACE’s Engineering Manual 385-1-1 prohibits stockpiling or accumulation of debris on-site and requires same day disposal. Prompt removal of debris ensures a safe working area for workers and residents. ICC controlled site hazards including slips, trips and falls by spreading de-icing salt in the working area and good housekeeping was observed including sweeping the street and a final clean upon demobilization. We believe ICC is following the requirements identified in Exhibit A of the contract to a degree of safe working to complete the scope of work and perform within standard construction and deconstruction practices.

Utilities:

The contractor did not secure formal utility clearance statements from the City of Detroit before demolition operations began at this site. An email dated 20 November 2019 between the City of Detroit and SIGTARP states it was a City of Detroit administrative oversight that failed to provide ICC with copies of aforementioned clearance statements. However, it is industry best practice that the contractors have all required documents available upon request before mobilizing to the site. It is concerning that ICC would proceed to demolish the structure without securing these documents. The email further details that the contractor has access to the DTE Energy (the Detroit energy utility company) website which is used to verify utility clearances for demolition activities in Detroit. This website has disclaimers that the information on that site may not be accurate or reliable.



Demolition:

Figure 2 shows a pre demolition activity that the contractor performed in accordance with industry standard and USACE standards. Figure 2 depicts the contractor implementing an engineering control to abate dust. USACE observed the contractor watering down the house for at least five minutes prior to the start of demolition reducing the potential hazard to the workers and the surrounding property owners. The dust abatement continued throughout the demolition process. An inspection of the surrounding storm sewers revealed that that they were functioning properly but did not have a silt sack in place to catch sediment from entering the storm system during the dust control process. This sediment control action would be consistent with industry standards and is a requirement on most demolition contracts, like the one for this property.



Figure 2. Demolition In-progress Dust Control

Hazardous Substance Abatement:

USACE reviewed the Hazardous/Regulated Materials Survey and Inspection Report completed by ATC Group Services LLC on 03 April 2019. The survey states that all areas of the house were accessible and that 1,921 square feet of Asbestos Containing Material (ACM) was detected, including the siding that was used on the exterior of the building. MWV abated the identified areas and the property passed the environmental inspection completed by ATC Group and documented in the Post-Abatement Verification statement (PAV) dated 28 October 2019. Figure 3 depicts some visual evidence that the ACM exterior siding was removed prior to the start of the demolition process. USACE did see the manifests and load tickets from an approved landfill but the quantities called out in the manifest do not match the quantities called out in the load tickets. This quality assurance oversight could potentially expose the generator of the hazardous material (DLBA) to liability and fraud because the manifest is used to establish the amount and type of material that will be accepted at the landfill. These quantities are typically estimates but in this case the



Figure 3. Visual Evidence that the ACM has been removed prior to the start of demolition



manifest estimated three cubic yards of friable asbestos material and the load tickets from the landfill recorded receipt of eight cubic yards of friable asbestos. The PAV only verifies that the material has been removed from the site but does not verify the final disposition of the material(s). This lapse in quality assurance can be solved if the the DLBA expanded the scope of the contract with ATC group to include in the PAV these post abatement quality assurance steps that will reduce the liability and the potential for fraud to the DLBA.

Safety:

It is recommended a detailed plan be submitted to the DLBA concerning accident prevention and potential hazards with controls, specifically to the surrounding residents. USACE enforces Engineering Manual 385-1-1 Appendix A as a guideline for contractor safety programs to identify the safety and health responsibilities of the company. The contract document requires ICC to comply with the listed rules and regulations in the references section. Most of the rules and regulations apply to environmental considerations, and should include more site specific safety considerations. USACE accomplishes this by requiring a demolition plan with hazard analysis and continued on-going site inspections. Some additional references included should be the National Demolition Association's Demolition Safety Manual and ANSI/ASSE A10.6-2006 (R2016) Safety & Health Program Requirements for Demolition Operations.

Conclusions:

Based on the USACE visual site observations, the City of Detroit and its' contractors appear to be following the best deconstruction/demolition practices for this type of activity and related work including; earth moving, temporary environmental controls, and waste management.

USACE identified two major risks to the DLBA. First, USACE recommends modifying the scope of work to the PAV process to include verification that the hazardous materials removed from the site have been disposed of in an approved landfill. This will be accomplished by a qualified environmental company such as ATC Group who will reconcile the hazardous material manifests against the load tickets from an approved disposal facility. This low cost risk management solution will limit the liability to the DLBA by tracking these hazardous materials through the lifecycle of the project and reduce the probability of fraud.

In addition, USACE did note a minor discrepancy that could be addressed with some additional quality assurance oversight such as a stronger focus on the safeguards of residents during the physical demolition of the properties and the post site security measures to limit access to the property.



Appendix C – Management Comments



DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

March 18, 2020

The Honorable Christy Goldsmith Romero
Special Inspector General
for the Troubled Asset Relief Program
1801 L Street NW, 4th Floor
Washington, DC 20036

Dear Ms. Romero:

I write in response to the Special Inspector General for the Troubled Asset Relief Program's (SIGTARP's) draft report of February 26, 2020 (Draft), regarding an evaluation of blight elimination activities in Detroit, Michigan, funded through the Hardest Hit Fund (HHF). Treasury takes seriously the environmental issues presented by the removal of blighted properties, and we appreciate the work conducted by SIGTARP and the Army Corps of Engineers (Corps). This letter provides Treasury's official response to the Draft.

We are pleased with the Draft's finding that Michigan complied with HHF program requirements and has internal controls to mitigate risks of contaminants within properties demolished and greened through the HHF program.

Background

Treasury established HHF in February 2010 to help prevent foreclosures and stabilize housing markets in areas hardest hit by the housing crisis. State housing finance agencies (together with certain designated entities, HFAs) in 18 states and the District of Columbia use these funds to design and implement more than 90 programs tailored to the specific needs and conditions of their respective communities. Today, the HHF program has nearly concluded. HFAs have until December 31, 2020 to make any final decisions with regard to homeowner applications and blighted property reimbursements, and they must make final program disbursements no later than December 31, 2021. States have drawn approximately \$9.4 billion (98 percent) of the \$9.6 billion allocated to the program, and they have disbursed \$9.4 billion (98 percent) in program and administrative funds.¹ One of the states with the largest HHF allocations (Florida) has already closed its entire program, and we currently expect that up to four additional states will shutter their entire programs by the end of this fiscal year. Accordingly, all of the remaining HFAs have begun winding down.

Eight states created blight elimination programs, three of which are now closed (Alabama, Illinois, and South Carolina). To date, more than 40,000 blighted properties have been demolished, greened, and funded through HHF; another 4,000–5,000 properties have been

¹ Figures as of December 31, 2019.



demolished and greened with funding pending.² In addition, based upon our communications with state HFAs, we estimate that fewer than 3,000 additional properties will be demolished under the program. Put another way, demolition has already been completed for more than 93 percent of properties that will be funded with HHF.³

Since the inception of the HHF program, Treasury's participation agreements with the HFAs have required the HFAs and their contractors to comply with "all Federal, state and local laws, regulations, regulatory guidance, statutes, ordinances, codes, and requirements." This, of course, includes environmental laws and regulations. Treasury has also required the states to implement a system of internal controls designed to ensure compliance with applicable laws, and to provide regular, independent verification that such internal controls are effective. Treasury conducts regular, on-site compliance reviews of each of the HFAs to confirm the presence of internal controls and that the HFAs are following their own policies and procedures. Treasury has further enhanced its sample-based testing during these reviews to address areas at higher risk of noncompliance as needed.

SIGTARP's Draft

The Draft examines how Treasury and the Michigan HFA have implemented SIGTARP's recommendations from its 2017 evaluation of blight elimination in Flint, Michigan. The Draft also includes a review by the Corps of one in-process demolition of a blighted property in Detroit, Michigan, and soil testing of four demolition sites in Detroit.⁴ We note that SIGTARP has denied our multiple requests to share this Draft with the Michigan HFA in order to obtain their feedback, even though the Draft details and analyzes the Michigan HFA's policies and procedures. As we have explained to SIGTARP, this has impeded our ability to review SIGTARP's factual findings and assertions.⁵

We are pleased that the Corps did not detect any contaminants in any of the soil it tested that would present any adverse impacts to the surrounding area or population. We are also pleased that the Corps concluded that Detroit and its demolition contractors follow industry best practices for earth moving, temporary environmental controls, and waste management. We further note that SIGTARP and the Corps found no violations of federal, state, or local environmental laws or regulations.

The Draft does not analyze Treasury's actions in response to SIGTARP's earlier blight recommendations, even though that is one of the two stated SIGTARP objectives for this evaluation. The Draft states that "Treasury did not change program requirements to implement

² Figures as of December 31, 2019.

³ On May 3, 2017, SIGTARP initiated an evaluation of greening and maintenance of blighted properties under HHF (EVAL 010). On March 4, 2020, SIGTARP informed us that it would be closing the engagement without issuing a report, findings, or recommendations.

⁴ Treasury was informed of the findings of this report on February 24, 2020, two days before SIGTARP provided us with the Draft. Prior to that meeting, Treasury had no visibility into any anticipated findings or recommendations. SIGTARP has afforded us 15 business days to respond to the Draft.

⁵ We have raised this concern on numerous occasions, including in our June 26, 2019 management response letter to your draft evaluation of South Carolina's blight elimination program.



the recommendations,⁶ without acknowledging the many actions that Treasury has taken to implement SIGTARP's recommendations. Those actions were previously described in our letter to you of July 6, 2018 (attached), and they include working with the Environmental Protection Agency and each of our state partners to share resources and to implement best practices.

SIGTARP's Recommendations

The Draft contains two recommendations. Recommendation 2 calls for Treasury to require HFAs to report to Treasury contractors that have been suspended, sanctioned, or banned. As SIGTARP notes, some of these contractors could work in multiple states. Therefore, to address this recommendation, Treasury has assembled a list of the relevant state websites that list all contractors who have been debarred from conducting work for that state, and has circulated that website list to all of the HFAs who continue to operate blight elimination programs.

Recommendation 1, which has three subparts, calls for Treasury to impose new, costly, and burdensome requirements on the HFAs, by (a) prohibiting HFAs' use of TARP funds unless the HFAs obtain from their contractors photographic evidence of leak-tight, properly labeled containers for asbestos storage; (b) prohibiting the HFAs' use of HHH funds unless the localities collect and reconcile landfill truck tickets to confirm proper waste disposal; and (c) requiring HFAs to conduct random soil testing on demolition sites at a potential cost of \$17,000 per property.⁷ To put the potential cost of subpart (c) in perspective, the average cost to acquire, demolish, and green a property in Michigan under HHH has been less than \$16,000.⁸ Put another way, every property on which an HFA used funds committed to blight elimination in order to conduct soil testing would result in another blighted property that could not be removed with remaining funding.

Notably, SIGTARP and the Corps did not observe any evidence of improper asbestos storage or waste disposal, nor did they find any evidence of contamination that would present adverse impacts as a result of direct contact with site materials during the soil testing they conducted.⁹ In addition, we have confirmed that all HFAs operating a blight program already have internal controls in place to address the underlying risks targeted by all subparts of Recommendation 1. We also note that the HFAs remain free to supplement their existing internal controls. Treasury therefore declines to impose the additional conditions of Recommendation 1 upon the expenditure of HHH funds.

* * *

⁶ Draft at 9.

⁷ SIGTARP incurred costs of nearly \$17,000 per property to conduct its soil testing. Draft at 16.

⁸ According to Michigan's Quarterly Financial Report for the quarter ending December 31, 2019, the HFA has funded the demolition of 19,421 properties at a cost of \$308 million.

⁹ SIGTARP notes that, in 2018, the City of Detroit suspended one contractor for violations that included a failure to contain asbestos in proper containers. Draft at 15. SIGTARP also notes that, in 2018, the City of Detroit issued a violation to one contractor for illegal dumping. *Id.* However, SIGTARP does not state whether these violations occurred on an HHH property, or whether these violations were caught through the existing internal controls at either the city or state level.



Even as TARP programs wind down and close, we continue to work with our state partners to implement any necessary changes to their programs. Please feel free to contact Treasury's Office of Financial Stability at (202) 622-4421 if you have any questions about this letter.

Sincerely,

Gavin Beske
Deputy Assistant Secretary for Community and
Economic Development

Enclosure



The Office of the Special Inspector General for the Troubled Asset Relief Program (SIGTARP) is a federal law enforcement agency and an independent audit watchdog that targets financial institution crime and other fraud, waste and abuse related to TARP.

SIGTARP audits TARP programs to prevent fraud and abuse, identify wasteful spending, and drive improvements. We ensure these programs are effective and efficient at achieving the U.S. Treasury Department's goals, including neighborhood stabilization and homeownership preservation.

After an audit confirms waste, abuse, or fraud, SIGTARP looks for ways to recover taxpayer dollars and mitigate the risk by leveraging best practices and our extensive knowledge of TARP. We then issue recommendations to the U.S. Treasury Department, which we share with Congress and the public.

Copies of our audits and evaluations are available at www.sig tarp.gov/audits. Copies of our reports to Congress are available at www.sig tarp.gov/reports.

Report fraud, waste, or abuse about TARP at www.sig tarp.gov/hotline or (877) 744-2009.

Members of the media may contact our press office at (202) 927-8940.

Congressional staff may contact our legislative affairs office at (202) 927-9159.

SIGTARP's Audit & Evaluation Division produced this report.

Jennifer Wilson
Deputy Special Inspector General for Audit

Jennifer.Wilson@treasury.gov

(202) 622-1419

1801 L. ST. NW
Washington, D.C. 20006