COMMUNITY DEVELOPMENT BLOCK GRANT

2013 DISASTER RECOVERY (CDBG-DR) ACTION PLAN

SUBSTANTIAL AMENDMENT

Proposed Uses of the Third Allocation of CDBG-GR Funds Under the Disaster Relief Appropriations Act, 2013 (Public Law 113-2) through the U.S. Department of Housing and Urban Development (HUD)

Approved by HUD June 29, 2015
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Overview

Community Development Block Grant - Disaster Recovery (CDBG-DR) Grants are being made available through the U.S. Department of Housing and Urban Development (HUD) for the purpose of assisting recovery in the most impacted and distressed areas identified in response to the President’s declaration of a major flood event occurring in Chicago in April 2013. These funds may be used only for specific disaster recovery related purposes. Relevant HUD guidance for this funding was published at Federal Register/Volume 78, No. 241, Docket No. FR-5696-N-07.

The Federal Register Notice published on January 8, 2015 as Docket No. FR-5696-N-13 under the heading: Third Allocation, Waivers, and Alternative Requirements for Grantees Receiving CDBG-DR Funds in Response to Disasters Occurring in 2013, effective date January 13, 2015, advises the public of a third allocation of funding for 2013 disasters, and includes mitigation and resilience as part of the recovery effort. This Notice requires that a substantial amendment to the CDBG-DR Action Plan must be submitted to HUD within 120 days of that effective date. As such, the City’s amendment is due to HUD by May 13, 2015.

This document serves as a second substantial Action Plan amendment to the City of Chicago’s prior approved Action Plan (Substantial Amendment). This amendment is required by HUD as the amount of City of Chicago CDBG-DR funding has now increased by $11,075,000 to a total of $63,075,000. It has been developed in accordance with the Disaster Relief Appropriations Act, 2013 (Public Law 113-2).

The use of CDBG-DR funds will be consistent with HUD requirements to address unmet needs and resiliency that have not been satisfied by other public or private funding sources like Federal Emergency Management Association (FEMA) Individual and Public Assistance funds, Small Business Administration (SBA) disaster loans, the United State Army Corps of Engineers or private insurance. In addition, per HUD requirements, the plan also ensures that CDBG-DR funds are spent fully on the City areas most impacted by the April storms and only on community areas located within the city’s jurisdiction.

The City of Chicago will use this Substantial Amendment to guide the distribution of the CDBG-DR grant funds for necessary expenses related to disaster relief, long term recovery, restoration of infrastructure and housing, and economic revitalization. It has been designed to be consistent with the HUD primary objective of providing funds for local projects with activities that fulfill the national objective of benefitting areas in which low- and moderate-income persons reside. At least fifty percent (50%) of the
CDBG-DR grant award must be used for activities that benefit low- and moderate-income persons. Funds must be expended within two years of the date HUD obligates funds to Chicago, that is, two years from the date the amendment is signed by HUD.

The approved Action Plan, approved Substantial Amendment, and Substantial Amendment for the third allocation, as submitted to HUD on May 12, 2015, are posted on the City of Chicago website at: [www.cityofchicago.org/grants](http://www.cityofchicago.org/grants).

All sections of the Action Plan and first Substantial Amendment remain in effect unless otherwise noted herein.

**Background**

On April 17 and 18, 2013, a storm system swept through Chicago that produced approximately 5.5 inches of rain in Chicago during a 24-hour period or the equivalent of a “10-year storm”, the type of storm that occurs once every ten years based on historical storm frequency tables. The storm brought extensive damage to certain areas of the city that are highly vulnerable to flooding. The heavy rains experienced during the 2013 flood resulted in sewer overflows, basement floods, and backflow of water from the Chicago River into Lake Michigan. On April 18, 2013, Illinois Governor Pat Quinn declared a state of emergency, and 38 counties, including Cook County, were declared state disaster areas. On May 10, 2013, the U.S. Department of Homeland Security’s FEMA issued a Presidential Disaster Area declaration.

As a result, HUD initially allocated CDBG-DR funding in the amount of $4.3 million to the City of Chicago to help in recovery efforts of community areas that were most impacted by the storms. The City’s Action Plan committed $4.3 million towards infrastructure restoration, specifically to the water, sewer and drainage system in Chicago’s south side community areas impacted by the April floods. The Action Plan was approved by HUD on August 25, 2014.

On June 3, 2014, HUD announced a second allocation of $47.7 million for recovery efforts. With this allocation, the City committed $35 million toward public infrastructure projects and $10.3 million to housing rehabilitation and mitigation for homeowners and renters. The City devoted $2.4 million to administrative costs, to include oversight, planning, and monitoring. This Substantial Amendment to the Action Plan was approved by HUD on February 9, 2015.
On January 8, 2015, HUD announced a third allocation of $11.075 million to further address disaster relief, long-term recovery, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas. The City proposes to dedicate these resources to replace Works Progress Administration (WPA) streets that currently exist without curbs and gutters, and with minimal drainage facilities. These public way infrastructure improvements will bring the City’s low to moderate income community areas most impacted by the April 2013 flood event closer to resilience, specifically addressing infrastructure limitations and underlying conditions that can contribute to the flooding of residences.

This table illustrates how all funds programmed by this amendment (3rd award) and prior versions are budgeted:

<table>
<thead>
<tr>
<th>PROPOSED REVISED BUDGET</th>
<th>FIRST AWARD: $4.3*</th>
<th>SECOND AWARD: $47.7*</th>
<th>THIRD AWARD: $11.075*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL AWARD: $63.075*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>*expressed in millions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADMINISTRATIVE COST</th>
<th>1st Award</th>
<th>2nd Award</th>
<th>3rd Award</th>
<th>Match</th>
<th>Total Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: Planning and Administration</td>
<td>$0</td>
<td>$2.40</td>
<td>$0</td>
<td>$0</td>
<td>$2.40</td>
<td>City oversight, planning and monitoring</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUBLIC INFRASTRUCTURE</th>
<th>1st Award</th>
<th>2nd Award</th>
<th>3rd Award</th>
<th>Match</th>
<th>Total Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: Street Sewer Repair</td>
<td>$4.30</td>
<td>$25.00</td>
<td>$0</td>
<td>$26.07</td>
<td>$55.37</td>
<td>New sewers to address damage from inundation</td>
</tr>
<tr>
<td>Project: Albany Park Tunnel Mitigation</td>
<td>$0</td>
<td>$10.00</td>
<td>$0</td>
<td>$39.00</td>
<td>$49.00</td>
<td>Infrastructure improvements to mitigate future flooding</td>
</tr>
<tr>
<td>Project: WPA Replacement</td>
<td>$0</td>
<td>$0</td>
<td>$11.075</td>
<td>$0</td>
<td>$11.075</td>
<td>Replacement of WPA streets</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HOUSING PROJECTS</th>
<th>1st Award</th>
<th>2nd Award</th>
<th>3rd Award</th>
<th>Match</th>
<th>Total Cost</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: **Single and Multi-Family Homeowner and Renter Assistance Program</td>
<td>$0</td>
<td>$10.30</td>
<td>$0</td>
<td>$0</td>
<td>$10.30</td>
<td>Rehabilitation and mitigation program for single and multifamily housing and assistance to renters</td>
</tr>
</tbody>
</table>

Total | $4.3 | $47.7 | $11.075 | $65.07 | $128.145 |

Note: **This program is now known as the Residential Flooding Assistant Program (RFAP)

The public comment period for this second Substantial Amendment opened April 8, 2015 and closed on May 8, 2015. Public comments should be emailed to OBMGMU@cityofchicago.org or send written correspondence to the attention of Teri Campbell at the Office of Budget and Management, City Hall, 121 N LaSalle Street, Room 604, Chicago, IL 60602.
Impact and Unmet Needs Assessment
This third allocation of CDBG – DR funds to Chicago provides additional funds for recovery to areas impacted by the flood event of April 2013, including mitigation and resilience as part of the recovery effort. This substantial amendment incorporates all the data and tables provided in the Needs Assessment of the Action Plan and subsequent Substantial Amendment but provides additional data gathered in connection with the development of this second substantial amendment.

The following data sources were relied upon to update the needs assessment for this substantial amendment:
- FEMA Individual and Public Assistance (IA) data
- SBA data
- City 311 call data
- United States Census data
- United States Department of Agriculture (USDA) Emergency Watershed Repair Program
- City hydraulic sewer model data
- City data on Works Progress Administration street locations
- Chicago Metropolitan Planning Assistance (CMAP) data

Economic Recovery Needs
As noted in the Action Plan and subsequent Substantial Amendment there is no evidence of unmet need in this area at this time. The City will continue to reach out to the SBA to determine if unmet need in this area is later identified.

Housing Recovery Need
In our previous Substantial Amendment we identified unmet need of homeowners and renters in response to the flooding. Data from FEMA showed verified losses for 22,472 owned units and 8,605 rented units totaled $30 million, and $10 million respectively, while the FEMA Verified Loss Assistance (FVLA) totaled $27 million and $8 million respectively.

By January 2014, of the more than 43,000 individuals who applied for FEMA Individual Assistance in Chicago, 75 households still required repair and rebuild assistance, 71 required mold remediation assistance, 62 required appliance repair and replacement. Almost two years after the storm approximately 100 households with unmet needs remain. These households have unmet need that will be addressed with the CDBG-DR resources allocated to the Residential Flooding Assistance Program discussed in the previous Substantial Amendment. With $10.3 million set aside for this single and multi-
The intent is to both address unmet needs and help qualifying residents with mitigation and resiliency measures to prevent future flooding.

Infrastructure Recovery Needs

After consulting with FEMA, no additional Public Assistance data is available. At this time, the City has updated its internal risk analysis and reviewed unmet needs in response to the 2013 flood and has identified an additional major area of infrastructure need: reconstruction of WPA streets to mitigate future flooding.

Chicago still has streets built as part of the WPA public works program in the 1930s and 1940s. The streets were originally built without curbs and gutters, and with minimal drainage facilities. These streets often contain sewer pipes for sanitary flow from the adjacent buildings, but they typically do not have catch basins or a separate storm sewer pipe to capture and convey storm water. When Chicago receives intermediate to large storms, these streets typically flood. This excess storm water can flood homes or overflow to the sewer pipes in adjacent streets, which then can lead to basement flooding backups if those adjacent sewer pipes do not have the capacity to convey all of this storm water.

Ensuring that the homes damaged by the April 2013 flooding are resilient requires strategies to mitigate risk at the block and community level. Repairing and instituting flood mitigation strategies at the individual residence level, while helpful for the individual household, only addresses a symptom of a larger problem: existing infrastructure is inadequate to accommodate storm water from even moderate storms. Efforts at the individual residence level leave neighboring houses vulnerable to the risk of flooding; mitigating the risk of flooding for these communities requires a comprehensive resiliency strategy at the block and community level. WPA streets that lack the necessary infrastructure to accommodate storm water represent a significant risk, making houses in the communities where they exist more prone to flooding.

This third CDBG-DR allocation allows the City to implement infrastructure projects that will build on the household mitigation funded with a previous allocation of CDBG-DR funds. These projects will move from mitigation at the individual household level to resilience at the block and community level. Blocks and communities are made resilient through infrastructure that adds capacity to the sewer system or keeps water from entering the sewer system in the first place. Specifically, the City will address resiliency within distressed south side community areas most impacted by the April floods: Auburn.
Gresham, Avalon Park, Burnside, Calumet Heights, Chatham, Greater Grand Crossing, Pullman, Roseland, South Chicago, South Shore, Washington Heights, West Englewood, and West Pullman. These community areas contain a large number of census tracts where a majority of households have a combined income of less than $25,000. See Appendix D for a map showing the targeted Community Areas with the low- and moderate-income Census Tracts in Chicago. Rebuilt WPA streets will help alleviate and reduce flooding in communities where the financial need is greatest as shown in the table below. These areas have ten (10) miles of WPA streets; replacing these streets would require approximately $30 million. With these funds the City will be able to replace roughly 3.5 miles in the areas most distressed by the April 2013 floods. With the combination of direct housing assistance through the RFAP program and funding for the WPA streets, these communities will be brought closer to resiliency.

By Income

<table>
<thead>
<tr>
<th>Community Area</th>
<th>Population</th>
<th>Median Income</th>
<th>Income &lt; $25,000</th>
<th>Percent of households &lt;$25,000</th>
<th>Unemployed (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn Gresham</td>
<td>49,634</td>
<td>$30,900</td>
<td>7,161</td>
<td>41.7%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Avalon Park</td>
<td>9,589</td>
<td>$45,465</td>
<td>1,150</td>
<td>29.8%</td>
<td>21.1%</td>
</tr>
<tr>
<td>Burnside</td>
<td>3,508</td>
<td>$26,343</td>
<td>510</td>
<td>48.3%</td>
<td>18.6%</td>
</tr>
<tr>
<td>Calumet Heights</td>
<td>14,382</td>
<td>$55,617</td>
<td>1,096</td>
<td>19.6%</td>
<td>20%</td>
</tr>
<tr>
<td>Chatham</td>
<td>33,272</td>
<td>$30,572</td>
<td>5,993</td>
<td>42.5%</td>
<td>24.0%</td>
</tr>
<tr>
<td>Greater Grand Crossing</td>
<td>32,873</td>
<td>$29,254</td>
<td>5,580</td>
<td>44.3%</td>
<td>23.0%</td>
</tr>
<tr>
<td>Pullman</td>
<td>7,262</td>
<td>$42,939</td>
<td>969</td>
<td>32.5%</td>
<td>22.8%</td>
</tr>
<tr>
<td>Roseland</td>
<td>45,285</td>
<td>$37,967</td>
<td>5,254</td>
<td>33.8%</td>
<td>20.2%</td>
</tr>
<tr>
<td>South Chicago</td>
<td>29,458</td>
<td>$30,559</td>
<td>4,574</td>
<td>42.5%</td>
<td>19.7%</td>
</tr>
<tr>
<td>South Shore</td>
<td>50,138</td>
<td>$30,421</td>
<td>10,022</td>
<td>43.5%</td>
<td>19.8%</td>
</tr>
<tr>
<td>Washington Heights</td>
<td>26,021</td>
<td>$41,348</td>
<td>2,651</td>
<td>28.5%</td>
<td>20.8%</td>
</tr>
<tr>
<td>West Englewood</td>
<td>35,294</td>
<td>$26,451</td>
<td>4,944</td>
<td>47.7%</td>
<td>35.9%</td>
</tr>
<tr>
<td>West Pullman</td>
<td>30,771</td>
<td>$39,878</td>
<td>3,217</td>
<td>34.3%</td>
<td>19.2%</td>
</tr>
</tbody>
</table>

Source: Community Data Snapshots, Chicago Metropolitan Agency for Planning (CMAP) (updated March, 2014)

Risk Analysis Update
As discussed in the Action Plan and previous Substantial Amendment, outdated and undersized sewer mains, many of which are over a century old, are currently inadequate to contain the volume of rainfall
experienced in recent years in connection with climate change, which was evidenced in a dramatic fashion by the flooding of streets and neighborhoods across the City in April of 2013. In 2012, the City began an aggressive infrastructure improvement program focusing on modernizing and expanding the City’s water and sewer infrastructure. In the coming decade, the City will replace 900 miles of water mains, replace or reline 760 miles of sewer pipes, line 160,000 catch basins, and renew 12 pumping stations and 2 purification plants. In connection with the general capital improvement of sewer mains, Department of Water Management (DWM) has also been working with Metropolitan Water Reclamation District (MWRD) to identify sewer replacement and improvement projects to address areas of the City that are prone to flooding due to outdated infrastructure. In planning such projects, DWM and MWRD share computer modeling data on their respective sewer collection and conveyance systems to ensure operational consistency throughout Chicago.

The City uses three different types of data and analysis to select the storm water infrastructure projects that will reduce flooding risk to Chicagoans. This included the use of the City’s hydraulic citywide trunk sewer computer model, analysis of reported instances of flooding to the City’s 311 system, and evaluation of applications by private homeowners to FEMA for individual assistance.

The City has used a hydraulic citywide trunk sewer computer model for the last five years to evaluate existing flood risk and determine the most effective infrastructure replacement projects. The model contains three basic components. The first is the existing sewer pipe network in the City of Chicago. The second component included in the model is the land use factors that determine runoff. This includes the amount and location of impervious or paved surfaces, the features that restrict flows (like flow restrictors in sewer catch basins), and the number of building downspouts that are disconnected from the sewer system. The third component of the model is the amount of rainfall that is expected from different types of storms.

The model creates outputs such as runoff volumes, water levels in the sewers, and flow metrics such as total volume, peak flow, or amount of combined sewer overflows (CSOs). The City can evaluate how changes to the inputs of the model, such as an increase in rainfall, reduction in impervious surfaces, or the size of sewer pipes, result in different model outputs such as flood risk reduction, CSO frequency reduction, and reduced inflows to treatment plants.
The City used its computer sewer model to analyze areas of flood risk following the April 2013 storms. The City identified areas that have insufficient sewer capacity and were inundated during these rain storms. When sewers are inundated, the storm water runoff backs up out of the sewers and flows back into basements and streets.

The second analysis performed by the City was to examine calls received to the City’s 311 system. The City’s 311 system is a phone- and web-based portal where citizens can log nonemergency complaints or requests for assistance. The City tracks two types of calls to 311 related to flooding: water-in-basement and water-in-street. The City believes this is a good proxy for the location of actual flooding since 311 calls represent known occurrences of flooding by citizens. However, the City also believes that 311 calls often underrepresent flooding occurrences for a variety of reasons. Some citizens may not call 311 because they don’t know about the system and/or they choose to handle their flooding situation on their own. The City evaluated 311 calls during the events of April 17-18, 2013 to understand which areas experienced flooding (Appendix A).

The City’s third analysis was an evaluation of the areas of Chicago that had high levels of claims for FEMA Individual Assistance in connection with federal declaration 4116- DR_IL. Since these claims went to residents with verified flooding loss, this data set represents actual flooding occurrences (Appendix B).

The culmination of this risk analysis led to the identification of WPA streets as a significant risk in areas of the south side prone to flooding.

**Works Progress Administration (WPA) Street Program**

For this substantial amendment, the City will allocate $11.075 million from its third allocation of CDBG-DR funding to rebuild WPA streets to a resilient standard in areas that both had flooding during the April 2013 storms and are at higher risk for flooding due to future storms as demonstrated by the City’s hydraulic computer model, 311 calls during the April 2013 storm, and FEMA Individual Assistance claims. The City will focus these investments in key community areas in the south side of Chicago.

The WPA street projects will predominantly benefit residents of low- and moderate-incomes on the City’s south side. The City will rebuild WPA streets in the following community areas: Auburn Gresham, Avalon Park, Burnside, Calumet Heights, Chatham, Greater Grand Crossing, Pullman, Roseland, South Chicago, South Shore, Washington Heights, West Englewood, and West Pullman. These were some of
the most affected areas during the April 2013 storm, and these neighborhoods routinely deal with flooding from severe rainstorms. See Appendix A for a map showing these Community Areas with 311 calls from April 17-18, 2013 and see Appendix B for FEMA Individual Assistance applications for FEMA-4116-DR-IL as of August 2013.

The City will rebuild WPA streets in these community areas to improve storm water management and reduce flooding. Since these WPA streets are typically not connected to the City’s sewer system, runoff can overflow onto private properties and/or overtax the sewer pipes of adjacent blocks. To improve storm water management, the City will construct green storm water infrastructure features on WPA streets to provide a location to store water, thus reducing flooding in the neighborhood. Based on the configuration of each street, the City will build an infiltration trench and/or a bioswale that will capture storm water. Infiltration trenches are located in the parking lane of the road and are designed to include permeable pavement that directs water into a gravel bed below the road surface. Bioswales are located in the parkway between the road and the sidewalk and use plants, trees, and a drainage bed of soil and gravel to capture and filter storm water runoff from the street. The City will also repave these streets so that the pitch of the road surface directs storm water runoff into the infiltration trench and bioswale.

The City has rebuilt WPA streets in recent years, and DWM worked with a leading national engineering firm to develop standard cost estimates for rebuilding WPA streets to a resilient standard. The City calculates that the cost to rebuild one mile of WPA streets is approximately $2.9 million. This includes building curbs, gutter, ADA-compliant sidewalks, a repaved road surface, and green storm water infrastructure.

Over 10 miles of WPA streets are located in the low- and moderate-income community areas of Auburn Gresham, Avalon Park, Burnside, Calumet Heights, Chatham, Greater Grand Crossing, Pullman, Roseland, South Chicago, South Shore, Washington Heights, West Englewood, and West Pullman (Appendix C). Below is a chart that demonstrates the need to replace WPA streets in communities most impacted by the April 2013 flood. The FEMA case files in these community areas represent nearly half of the 324 case files opened citywide and as shown in Appendix B, are representative of the 24,411 FEMA-approved claims for individual aid.
Community Area flooding in April 2013 and WPA streets

<table>
<thead>
<tr>
<th>Community Areas</th>
<th>Length of WPA Streets (miles)</th>
<th>Number of 311 calls during April 17-18, 2013</th>
<th>Number of FEMA case files</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auburn Gresham</td>
<td>1.36</td>
<td>116</td>
<td>25</td>
</tr>
<tr>
<td>Avalon Park</td>
<td>0.29</td>
<td>23</td>
<td>7</td>
</tr>
<tr>
<td>Burnside</td>
<td>1.22</td>
<td>49</td>
<td>3</td>
</tr>
<tr>
<td>Calumet Heights</td>
<td>0.12</td>
<td>166</td>
<td>8</td>
</tr>
<tr>
<td>Chatham</td>
<td>0.79</td>
<td>207</td>
<td>11</td>
</tr>
<tr>
<td>Greater Grand Crossing</td>
<td>0.78</td>
<td>37</td>
<td>12</td>
</tr>
<tr>
<td>Pullman</td>
<td>0.62</td>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>Roseland</td>
<td>0.85</td>
<td>170</td>
<td>36</td>
</tr>
<tr>
<td>South Chicago</td>
<td>0.45</td>
<td>64</td>
<td>4</td>
</tr>
<tr>
<td>South Shore</td>
<td>0.48</td>
<td>31</td>
<td>5</td>
</tr>
<tr>
<td>Washington Heights</td>
<td>0.60</td>
<td>144</td>
<td>15</td>
</tr>
<tr>
<td>West Englewood</td>
<td>1.05</td>
<td>57</td>
<td>15</td>
</tr>
<tr>
<td>West Pullman</td>
<td>1.53</td>
<td>87</td>
<td>28</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>10.14</strong></td>
<td><strong>1199</strong></td>
<td><strong>174</strong></td>
</tr>
</tbody>
</table>

*Source: FEMA Individual Assistance data, 311 City data, DWM infrastructure data*

Based on the City’s cost estimates, approximately 3.8 miles of the WPA streets listed above will be rebuilt using $11.075 million in CBDG-DR funding. The City is currently conducting additional engineering analysis to determine the exact location and length of each WPA street project to undertake in these community areas. Additional engineering analysis is necessary to provide a precise calculation for each project since each street will need to be designed and built to address the conditions of that street and neighborhood. The design and location of bioswales and infiltration will be determined by a series of factors, including soil type and the location of potential obstacles such as utilities, driveways, and existing trees. Any WPA streets not rebuilt through this allocation will remain a priority for future funding as it becomes available.

*Green Infrastructure*

As part of Mayor Emanuel’s *Building a New Chicago* infrastructure renewal program, the City of Chicago has made a significant commitment to invest in green storm water infrastructure. As part of the City’s Green Stormwater Infrastructure Strategy, the City will invest $50 million over 5 years to incorporate natural features into capital projects to capture storm water before it runs off into the City’s overtaxed sewer system. Through this investment program, the City is currently undertaking a series of projects,
including converting asphalt schoolyards into green playgrounds and incorporating bioswales into street reconstruction projects.

For the infrastructure projects included in this substantial amendment, the City will incorporate green infrastructure as the primary strategy to reduce flooding and capture storm water. This will include the construction of bioswales and infiltration trenches that use vegetation and seek to more closely mimic the pre-development hydrology of Chicago. The City will also explore the use of porous asphalt for the reconstruction of WPA streets where feasible and appropriate. Porous asphalt is different than typical hot mix asphalt due to the presence of reduced sand or fines that leave stable air pockets and void spaces that allow storm water to infiltrate through the asphalt and aggregate and into the sandy soil, thus mimicking natural processes. The City has used porous asphalt for several street and alley projects in the past, including a recent sewer reconstruction project on the South Side of Chicago. Suitability will be determined based on whether there is a sand soil substrate, if traffic volumes are sufficiently low, and whether there are conflicts with other underground utilities such as water mains.

Resilience Performance Standards
The City certifies that it will apply the resilience performance standards required in section V(2)(e) of the June 3, 2014 Federal Register. During the planning and design phases for the infrastructure projects proposed through this substantial amendment, the City will develop and implement requirements and standards for how these projects can be more resilient under a changing climate and other stresses.

The City has already begun a process to consider how future infrastructure projects can be designed in a more resilient manner. In the City’s Green Stormwater Infrastructure Strategy, the City committed to work with the Illinois State Climatologist and other scientific experts to analyze changing rainfall patterns and update the rainfall frequency standards used during project design and engineering. Having updated rainfall frequency standards will allow the City to better consider future climate conditions in the design of future storm water infrastructure projects. In addition, Mayor Emanuel’s Sustainable Chicago 2015 includes initiatives to implement resilience strategies such as incorporating green standard practices in all City operations and utilize recycled materials in construction projects where feasible.

The City will continue to develop and implement resilience performance standards for the proposed infrastructure projects in this substantial amendment. DWM will work with other City agencies and
outside experts to create standards that will ensure that the City’s storm water infrastructure is better able to withstand and respond to climate change and other risks in the future.

**Long-term Recovery Strategy**

Water was always an issue in the growth and development of the City. The flat terrain, wide, slow flowing rivers and wetlands impacted the locations, pace and design of development. In light of these known problems and the potential for reoccurrence, the recovery process must involve building back stronger, better and more resilient than before. As the climate continues to change, the City must learn from and mimic the functions of its indigenous wetland, through a combination of grey and green infrastructure, to prevent flooding disasters.

HUD requires the City to build in resiliency by using a science-based risk analysis to select, prioritize, implement and maintain infrastructure projects. Housing and infrastructure recovery are the leading priorities that will be addressed with CDBG – DR funds from HUD. The long-term recovery strategy includes developing infrastructure that incorporates mitigation measures including green technologies into all development. It will also mean finding other sources to assist with additional infrastructure resiliency projects to help meet subsequent unmet need.

**Mitigation and Resilience Methods, Policies and Procedures**

The City will incorporate the following components into its long-term recovery strategy:

- **Providing jobs to local workforce.** DWM will be responsible for monitoring construction projects to ensure the City is compliant with Section 3 of the Housing and Urban Development Act of 1968. In addition, the Department of Procurement Services administers a Small Business Initiative (SBI) Construction Program which is designed to encourage local small businesses to have increased opportunities to participate in City-funded construction projects. Initiatives such as this will help inform the local business community of available competitive processes, including those related to CDBG-DR construction and housing rehabilitation activities.

- **Mitigating future risk.** The proposed infrastructure projects will help mitigate future risk by improving the performance of the City’s systems and reducing the possibility of subsequent flooding. Further, the City will apply appropriate construction standards on the proposed infrastructure to mitigate risk. These may include, as appropriate, raising utilities or other mechanical devices above expected flood level and using water resistant paints or other materials.
Leveraging funds and evidence-based strategies. The City identified $65 million of local public sources as leveraged funds for previous allocations of CDBG-DR funds and will pursue other available public and private sources and evidence-based strategies, as appropriate.

Project labor agreements. This will not apply as there are no proposed construction projects where the total cost to the Federal Government is $25 million or more.

Small business assistance and Energy Infrastructure. Limited data was available regarding the impact of the 2013 rainstorm on economic development and small business recovery was not identified as a priority need in the City’s needs assessment. Therefore, small business assistance will not be a component at this time in the long-term recovery strategy. Similarly, as the City’s energy infrastructure was not impacted by the rainstorm, and the proposed projects do not rely upon it, energy infrastructure resilience will not be a component in the long-term recovery strategy.

Public Housing and Assisted Multi-Family Housing
In developing its Action Plan, the Office of Budget and Management (OBM) consulted the Chicago Housing Authority (CHA) to determine if public housing residences were impacted by the storm. CHA reported that Altgeld Gardens Development suffered significant flood damage that impacted basements and sub-basements, electrical and security systems. CHA restored service to the approximate 150 families within several days following the flood April 2013 event. No residents were displaced. No further unmet need has been identified.

In addition, the City will continue to seek existing assisted multi-family housing developments, including HUD-assisted developments, low-income housing tax credit (LIHTC) financed developments, and other subsidized and tax credit-assisted affordable housing in the community areas most impacted by the storm and conduct outreach to the families through RFAP to identify any unmet needs.

Construction and Rehabilitation Standards
The City certifies that all construction will follow environmental regulations and current city building codes in relation to issues of the flood plain and to the Chicago Building Code. See

Disaster Resistant Housing and Displacement
If any of the funded projects require displacement or relocation of residents, relocations will be funded in accordance with the regulations and limitations set out under the Uniform Relocation Act (URA) and will encourage the provision of disaster resistant housing.

Management of Program Income
The activities proposed in this Substantial Amendment will not result in program income. Should future proposed activities result in program income, the City will comply with HUD requirements found in 24 CFR 570.489.

Monitoring Standards and Procedures
The City will adhere to same project oversight, fiscal and programmatic monitoring, audit procedures, and other monitoring procedures set forth in the original action plan. DWM will be responsible for implementing projects, and OBM will provide fiscal and programmatic monitoring.

Citizen Participation, Accessibility, and Amendments

Public Comment
Per HUD regulations, this draft Substantial Amendment was posted from April 8 to May 8, 2015 to allow for the public to comment on the proposed use of funds on OBM’s City webpage at www.cityofchicago.org/grants. This Substantial Amendment was provided in both English and in Spanish. In addition, a public hearing was held on April 20, 2015 at 6pm at the Chicago Cultural Center, Millennium Park Room – 5th Floor, 78 East Washington Street, Chicago, Illinois, 60602. The City notified the public through media advertisements and electronic mailings. The City will consider all oral and written comments received with regard to this Substantial Amendment.

To date, one email was submitted by the Director of the University Hill Community Council. The council is seeking structural improvements on 89th Street from Princeton to Holland Road, and on Holland Road between 87th and 89th Streets, believing them to be WPA Streets. The submission was acknowledged with a response that this area will be considered during the implementation of the program. Residents and stakeholders can email comments to OBMGMU@cityofchicago.org and send written correspondences to the attention of Teri Campbell at the Office of Budget and Management, City Hall, 121 N. LaSalle Street, Room 604, Chicago, IL 60602. Residents will have ongoing access to OBM’s website.
to review amendments to this Substantial Amendment, if applicable, and other information regarding the City’s CDBG-DR grant, and to provide citizen comments.

Accessibility
The City provides resources to individuals with disabilities and non-English speaking persons to access this Substantial Amendment. The Talking Book Center of the Harold Washington Library Center provides free library services to Chicago residents of all ages who cannot read standard print comfortably due to visual or physical limitations. Private computer workstations with special equipment and software designed for low or no vision are available to use the Internet, read printed material and more. Also, each Chicago Public Library location has two ADA computer workstations and adaptive technologies including JAWS screen readers, magnifiers and videophone to meet the needs of individuals requiring special assistance. Similar adaptive technologies are available at the Mayor’s Office of People with Disabilities and the Chicago Senior Centers.

Requests for special assistance for non-English speaking persons may be directed to the attention of Teri Campbell at 312-744-6670 in OBM’s office. All these resources are and will continue to be made available to assist residents with any amendments or revisions to the Substantial Amendments, if needed, in the future.

Substantial Amendments
Additional amendments to the CDBG-DR Action Plan will be required if the proposed activities are added or deleted from current Substantial Amendments, if there is a change in targeted beneficiary, if funding allocations between project categories increase 20% or more, or if HUD determines that a change is significant and requires public comment. All substantial amendments will be posted for public review and comment in accordance with federal regulation.
Appendix A 311 Calls resulting from April 2013 storms

City of Chicago
311 Calls during April 17-18, 2013 Storm
- Water in Basement
- Water in Street
APPENDIX C WPA streets in Chicago
APPENDIX D Census tracts

[Map showing Moderate-Low Income Census Tracts]