NEW YORK STATE | Homes and Community Renewal

Mapping to Support CDBG-DR Compliance

New York State Homes & Community Renewal
Office of Resilient Homes & Communities

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1

Service Areas

2

Low and Moderate Income Area Benefit National Objective

24 CFR 570.483(b)(1)

(i) An activity, the benefits of which are available to all the residents in a particular area, where at least 51 percent of the residents are low and moderate income persons. Such an area need not be coterminous with census tracts or other officially recognized boundaries but must be the entire area served by the activity. Units of general local government may, at the discretion of the state, use either HUD-provided data comparing census data with appropriate low and moderate income levels or survey data that is methodologically sound. An activity that serves an area that is not primarily residential in character shall not qualify under this criterion.

NATIONAL ARCHIVES

Code of Federal Regulations

A point in time eCFR system

3

Key requirements

- **Primarily residential**
- **Benefits are available to all residents**
  - Infrastructure
  - Public Service activities open to the public
  - Buyouts (open space/flood mitigation benefit)
  - Economic Revitalization (e.g. small businesses serving LMI areas)
  - Schools
  - NO water/sewer hookups (must meet LMH)
- **51% or more LMI**

4

Except that…

Exception criteria

- Per 24 CFR 570.208(a)(1)(ii)
- HUD applies to CDBG-DR State grantees, for example, in 5/18/23 FRN for 2021 Disasters (similar language in Universal Notice III.B.1.a.):
  - The LMA benefit requirement is modified when communities have few, if any, areas within their jurisdiction that have 51 percent or more LMI residents. In such a community, activities must serve an area that contains a percentage of LMI residents that is within the upper quartile of all census-block groups within its jurisdiction in terms of the degree of concentration of LMI residents. HUD determines the lowest proportion a grantee may use to qualify an area for this purpose
  - FY 2025 Exception Grantees, Based on 2016-2020 ACS - HUD Exchange

5

Except that…

American Community Survey 5-Year 2016-2020 Low and Moderate Income Summary Data (HUD FY25)

UOGID	Name	Sta	Type	Lowmoduniv	Lowmod	Lowmod_pct	Upper Quartile
360152	Amherst Town	NY	Metro City	117,765	35,630	30.26%	42.20%
360352	Babylon Town	NY	Metro City	208,885	84,705	40.55%	50.80%
360744	Brookhaven Town	NY	Metro City	469,555	181,945	38.75%	49.60%
361380	Colonie Town	NY	Metro City	79,100	26,970	34.10%	44.70%
362572	Greece	NY	Metro City	95,185	36,790	38.65%	50.50%
362688	Hamburg Town	NY	Metro City	57,925	17,110	29.54%	40.40%
363088	Huntington Town	NY	Metro City	198,735	56,300	28.33%	37.90%
363160	Islip Town	NY	Metro City	327,355	128,094	39.13%	48.40%
366468	Tonawanda Town	NY	Metro City	71,405	25,190	35.28%	44.50%
369027	Dutchess County	NY	Urban County	245,945	91,319	37.13%	48.90%
369029	Erie County	NY	Urban County	314,610	98,400	31.28%	46.10%
369055	Monroe County	NY	Urban County	374,760	113,650	30.33%	44.20%
369059	Nassau County	NY	Urban County	1,217,170	398,175	32.71%	41.90%
369067	Onondaga County	NY	Urban County	314,945	99,580	31.62%	44.50%
369071	Orange County	NY	Urban County	282,685	100,819	35.66%	48.20%
369119	Westchester County	NY	Urban County	415,515	116,565	28.05%	38.20%

6

Universal Notice

III.D.6.e. LMI benefit for infrastructure activities.

- HUD is waiving 24 CFR 570.484 and 24 CFR 570.200(a)(3) only to the extent necessary to add this alternative requirement: CDBG-DR grantees funding infrastructure projects may count funds expended for infrastructure activities towards benefitting LMI persons and meeting the overall benefit requirement by multiplying the total cost (including CDBG-DR and non-CDBG-DR costs) of the infrastructure activity by the percent of LMI persons in the service area, except that the amount counted shall not exceed the amount of CDBG-DR funds provided.

Not subject to the UN? Consider a waiver request!

7

Policy considerations

What is a project/activity?

- Not well defined by 24 CFR 570
- An eligible activity (or group of eligible activities) that meets a national objective and an eligible end-use on its own

To aggregate or not to aggregate?

✅ *Does each site work together as part of a system with each individual site dependent on, or contributing to, the overall functioning of the system? Is the service area contiguous?*

- Multiple culvert projects to mitigate flooding on an evacuation route
- Multiple projects along a stream to mitigate flooding on a town's riverfront

❌ *Does each site function independently and benefit a hyper-local area? Are the service areas non-contiguous?*

- Bioswales to address neighborhood flooding in different neighborhoods
- Disaster preparedness workshops in the highest-risk areas of a city

❗ *Always with the exceptions- sometimes it's ok to have a project with a non-contiguous service area!*

- Nonprofit organized field trips to local mitigation projects for schoolchildren in low-income areas

8

More policy considerations

What is the benefit?

Sometimes a single project can provide multiple types of benefits:

- Park project which beautifies the park while also mitigating flooding in an adjacent neighborhood
- Culvert improvements mitigate flooding in the surrounding neighborhood as well as along a key evacuation route





To aggregate or not to aggregate?

- What is the main purpose of the project? Can one benefit be considered ancillary?

Drawing the Service Area

Established or HUD approved

- Sewer districts, school districts
- NY HUD approved FEMA Public Assistance Match Service Areas

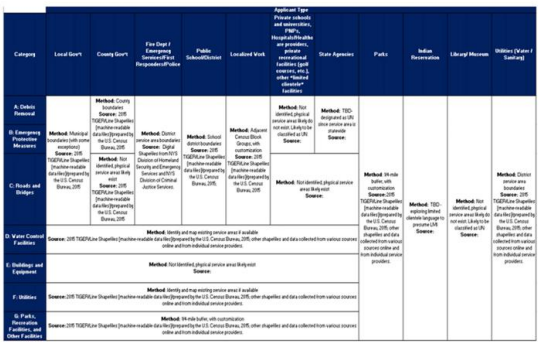
Avoid overlaps with comparable services

- Parks, public services
- Exceptions? NYC small business mapping, really big parks

Map the benefit based on the project details

- What areas will use the mitigated evacuation route? What parts of the watershed will benefit from mitigating upstream flooding?
- Consider standardized radii for different benefit types- e.g. cooling centers in dense neighborhoods
- Leverage your experts!

Appendix 5 – National Objective Service Area Mapping Methodology



Category	Local Gov't	County Gov't	Fire Dept / Emergency Services/First Responders/Police	Public School/District	Localized Work	Applicant Type Private schools and universities, FBO's, Hospitals/Healthcare providers, private recreational facilities (golf courses), etc.), other *limited clientele* facilities	State Agencies	Parks	Indian Reservation	Library/ Museum	Utilities (Water / Sanitary)
A: Debris Removal		Method: County boundaries Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015				Method: Not identified, physical service areas likely do not exist. Likely to be classified as LMI. Source:	Method: TBD- designated as LMI since service area is statewide Source:				
B: Emergency Protective Measures	Method: Municipal boundaries (with some modifications) Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015	Method: Not identified, physical service areas likely exist Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015	Method: District service area boundaries from NYS Division of Homeland Security and Emergency Services and NYS Division of Criminal Justice Services.	Method: School district boundaries Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015.	Method: Adjacent Census Block Groups, with customization Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015	Method: Not identified, physical service areas likely exist Source:		Method: 34 mile buffer, with customization Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015, other shapefiles and data collected from various sources online and from individual service providers.	Method: TBD- exploring limited clientele language to presume LMI Source:	Method: Not identified, physical service areas likely do not exist. Likely to be classified as LMI Source:	Method: District service area boundaries Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015, other shapefiles and data collected from various sources online and from individual service providers.
C: Roads and Bridges						Method: Not identified, physical service areas likely exist Source:					
D: Water Control Facilities	Method: Identify and map existing service areas if available Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015, other shapefiles and data collected from various sources online and from individual service providers.										
E: Buildings and Equipment	Method: Not identified, physical service areas likely exist Source:										
F: Utilities	Method: Identify and map existing service areas if available Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015, other shapefiles and data collected from various sources online and from individual service providers.										
G: Parks, Recreation Facilities, and Other Facilities	Method: 34-mile buffer, with customization Source: 2015 TIGER/Line Shapefiles [machine-readable data files]prepared by the U.S. Census Bureau, 2015, other shapefiles and data collected from various sources online and from individual service providers.										

The standard is "reasonable"

- The principal responsibility for determining the area served by an activity rests with the state. HUD will generally accept a state's determination unless the nature of the activity or its location raises serious doubts about the area claimed by the state.

What data to use?

- Use data from all the smallest census units included in your service area (usually Block Groups in urban areas, Census Place in small towns).
- Use the most recent Census data available in DRGR at project closeout
- BUT if the most recent data "flips" the service area from LMI to non-LMI, consider the "Four Part Test" discussed in Notice CPD-15-05, which allows you to use the old data if:
  - Funds were awarded or obligated before the effective date of the new LMISD,
  - For a specific project,
  - For a specific amount, and
  - For a clearly defined service area

11

Service Area Guidance Haikus

The Service Area
it should be contiguous
Based on the project

Small side streets raised on
either side of town sounds like
different projects

Don't stress out too much
about the exact numbers
"reasonable" is fine

12

Resources

Service Areas

- Guide to National Objectives and Eligible Activities for State CDBG Programs--Chapter 3, Section 3.5.1 (Determining the service area on p. 3-6)
- NY Rising Infrastructure Program POLICY MANUAL- Appendix 5 – National Objective Service Area Mapping Methodology (p. 143)
- RHC Community Reconstruction and Infrastructure Programs *LMI Memo & Service Area Guidance for Policy Analysts & Project Managers* (happy to share it!)

Four Part Test

- Notice CPD-15-05 *Transition Policy for Low-Moderate Income Summary Data Updates during Fiscal Year 2015 for Community Development Block Grant Disaster Recovery (CDBG-DR) grantees and Neighborhood Stabilization Program (NSP1, NSP2, and NSP3) grantees*

13

Hurricane Sandy Policy Driven Mapping: Lessons from New York

14

Hurricane Sandy Policy Driven Mapping: Lessons from New York*

*Also a Haiku

15

The Reasonable Standard

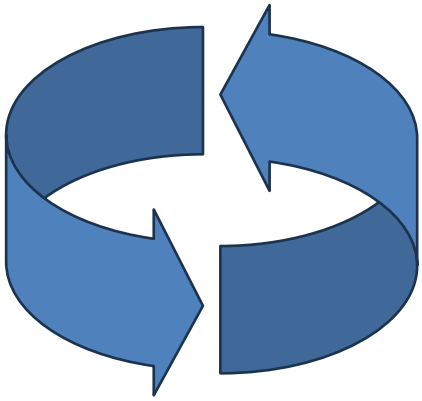
- "Reasonable" as a standard purposefully gives grantees flexibility.
- There are many possible, reasonable service areas for any single project
- However to meet a reasonable standard, it is on you as a grantee to justify any service area you create.
- In our Sandy grant we have over 500 area benefit activities across the state that require a service area.
- We quickly discovered that part of being reasonable while maximizing LMI dollars in our grant was being creative, consistent, and careful in our documentation.



16

Our Circular Process

- Our policy driven mapping process was started by creating maps from community meetings to determine policy.
- Compliance is often a loop: policy interpretation followed by action, then interpreting action to refine policies.
- My goal today is to help you make fewer revolutions around that wheel than we did.



17

Our Circular Process

Vendor Initial Maps
- Initial maps were loosely based on community planning areas
- Completed by an external vendor
- These initial maps were educated guess at national objective and allowed us to calculate LMI

Creation of Service Area Guidance
- As projects progressed through the program we discovered a need to refine maps to have consistent justifiable maps for primary beneficiaries
- Systematic review of types of projects to write guidance

Establish New Process
- Creating service areas that both max LMI spending and are complaint is a creative process
- Program team and GIS experts need to work together at the correct point in time to achieve both goals

Refine and Maintain
- Maintaining the process and is key to being consistent
- Documenting your decisions allows you to be flexible in cases

18

Service Area Considerations

Factors
Nature of the activity
Location of the activity
Accessibility issues
Availability of comparable activities
Defined boundaries

19

Service Area Considerations

Factors	Park
Nature of the activity	Hand full of benches, new playground, resiliency work
Location of the activity	Small neighborhood park or larger capacity?
Accessibility issues	How many entrances? Is there a car park?
Availability of comparable activities	Is there another park nearby? Is this the only park with a public pool?
Defined boundaries	Is it attached to a school?

20

Service Area Considerations

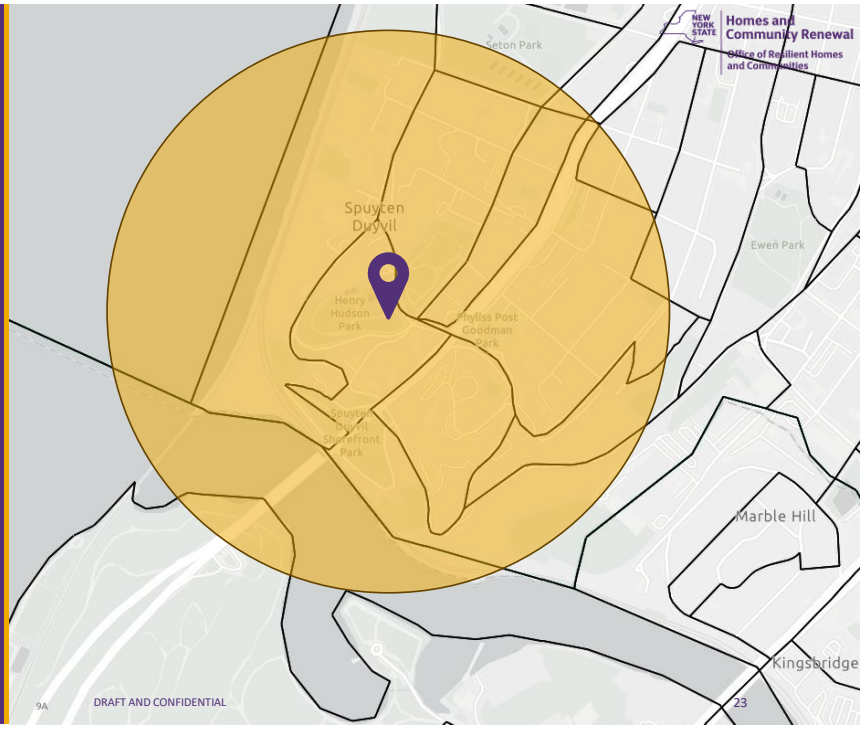
Factors	Park	Flood mitigation
Nature of the activity	Hand full of benches, new playground, resiliency work	Fix small local flooding, 100-year flood?
Location of the activity	Small neighborhood park or larger capacity?	On a small residential street, emergency route
Accessibility issues	How many entrances? Is there a car park?	
Availability of comparable activities	Is there another park nearby? Is this the only park with a public pool?	Is there other flood mitigation happening in the same area?
Defined boundaries	Is it attached to a school?	Emergency evacuation route?

Example A: Park

- We have made many improvements to a range of parks
- We determined a loose methodology of a quarter or half mile buffer for park improvements
- This is the baseline determination for a park, we have many examples of caveats in addition to this buffer including:
  - Larger areas for parks dependent on use (Niagara falls state park is very different from my neighborhood playground)
  - Inclusion of recreation centers or concert stages
  - Number of parking spaces available
  - Density of the area

Park Example

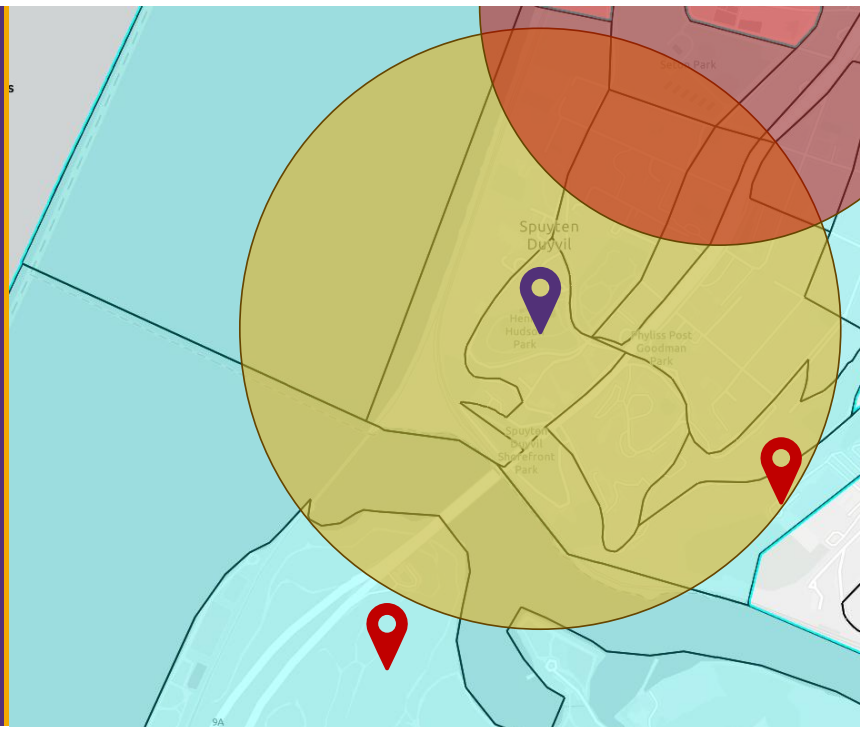
- Improvements to a park
- Typical half a mile boundary around park



23

Park Example

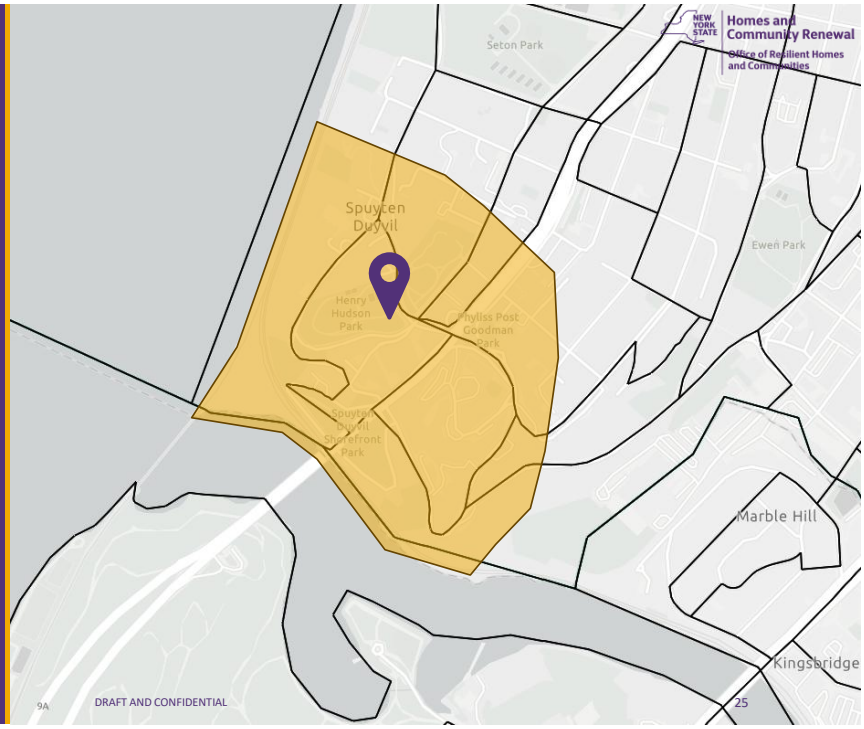
- Improvements to a park
- Typical half a mile boundary around park
- Service area needs adjusting:
  - Other parks to consider
  - Geographic concerns of a few areas e.g. Manhattan, walkability



24

Park Example

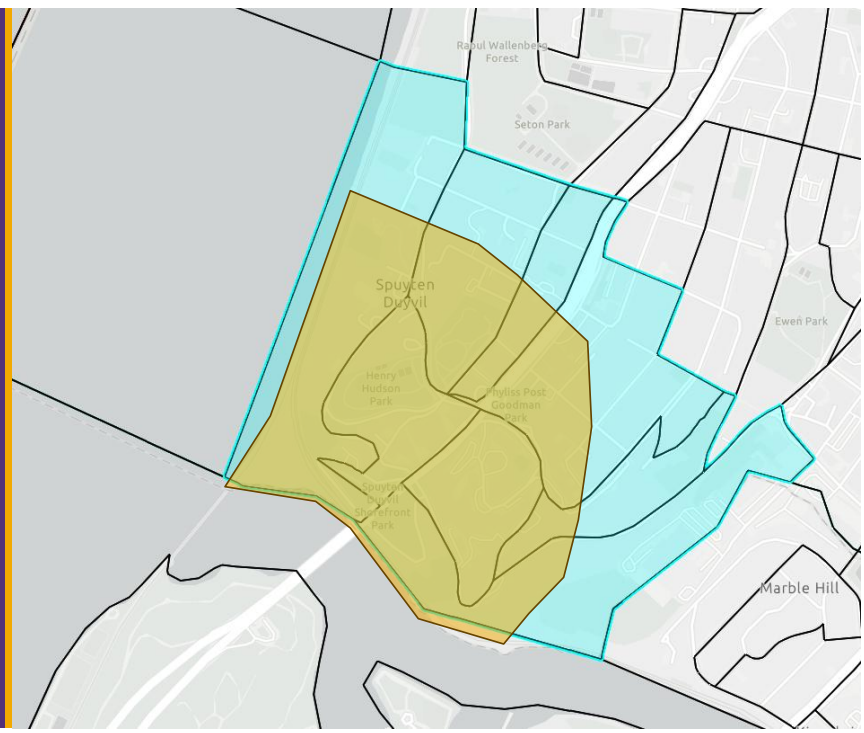
- Improvements to a park
- Adjusted boundary is smaller



25

Park Example

- Improvements to a park
- Adjusted boundary is smaller
- LMI Block groups more appropriately selected
- Determining LMI, select the block groups and calculate LMI



26

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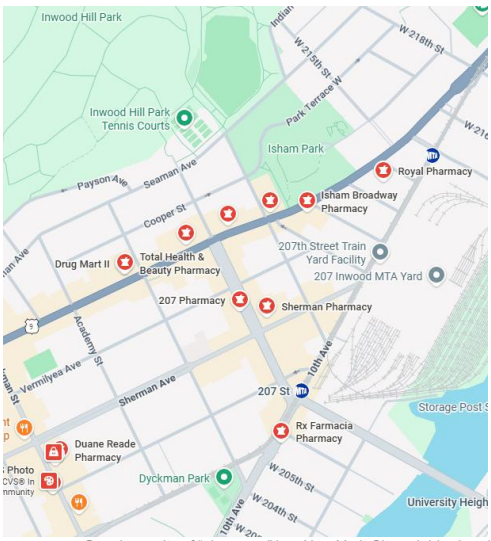
Measuring LMI

- 21.5% of the service area population is LMI

County	Tract	Block Group	Low/Mod Populaiton	Population	Low/Mod Percent
Bronx County	29301	1	205	910	22.5%
Bronx County	29301	2	170	680	25.0%
Bronx County	29302	1	150	1040	14.4%
Bronx County	29302	2	285	1490	19.1%
Bronx County	29302	4	230	1005	22.9%
Bronx County	30100	1	130	820	15.9%
Bronx County	30100	2	165	275	60.0%
Total			**1335**	**6220**	**21.5%**

Density Caveat

- This park is next to other public parks, but is located in the dense area of New York City
- Is it reasonable that someone would use and benefit form both parks?
- Similar question in a Small Business program in New York City
- Is it reasonable a resident would use more than one pharmacy? **Absolutely!**
- A memo was written and we were able to quickly map quarter-mile service areas rather than laboriously create unique areas



Google results of "pharmacy" in a New York City neighborhood

Example B: Firehouse

- Our firehouse service areas follow the fire district, which NY has available statewide

	Firehouse A	Firehouse B
Fire District LMI?	Yes	No

29

Example B: Firehouse

- Our firehouse service areas follow the fire district, which NY has available statewide

	Firehouse A	Firehouse B
Fire District LMI?	Yes	No
Other considerations	Area is safely LMI	Improvement is a generator intended to run an emergency shelter attached to the firehouse

30

Example B: Firehouse

- Our firehouse service areas follow the fire district, which NY has available statewide

	Firehouse A	Firehouse B
Fire District LMI?	Yes	No
Other considerations	Area is safely LMI	Improvement is a generator intended to run an emergency shelter attached to the firehouse
Is another area feasible?		Use emergency shelter guidance of a walking distance

31

Example B: Firehouse

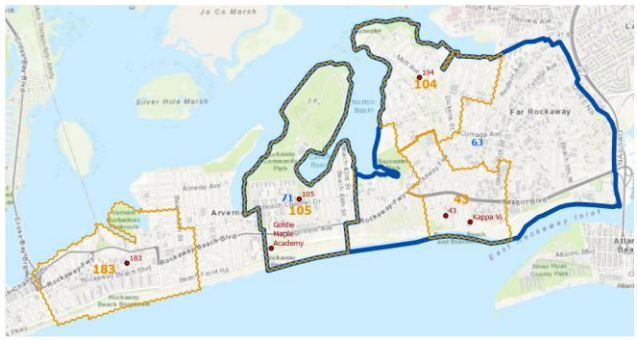
- Our firehouse service areas follow the fire district, which NY has available statewide

	Firehouse A	Firehouse B
Fire District LMI?	Yes	No
Other considerations	Area is safely LMI	Improvement is a generator intended to run an emergency shelter attached to the firehouse
Is another area feasible?		Use emergency shelter guidance of a walking distance
Is the new area LMI?		Yes!

32

Example C: Public Service – Rockaway Living Classroom

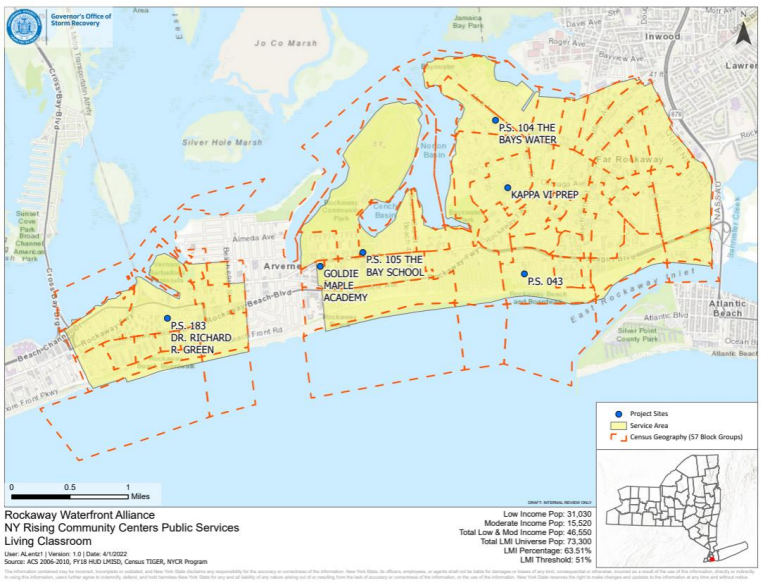
- A component of a public services activity included a program for K-12 classes along the waterfront to provide students with environmental education on issues of climate change, conservation, and resiliency in preparing for disasters
- The larger school district was NOT LMI
- But the schools we have logged as participating were in LMI areas
- We found local data mapping the “attendance zones” of these schools which we’re all LMI
- However the area was not contiguous. Calculate LMI and residential separately or justify a single calculation based on the nature of the activity



33

Example C: Public Service – Rockaway Living Classroom

- Final map is published
- Map template follows symbology conventions and includes LMI calculation
- Residential model ensures the residential requirement is met
- Census data is also exported for our closeout checklist of the activity
- All documented decisions are then finalized in our Service Area Review powerpoint



34

34

Example C: Public Service – Rockaway Living Classroom

NYCR-0088 | CR-NYRCCRockawayWaterfrontAlliance-PS-LMI

Service Area:

- Data sources used for analysis: NYC Open Data school districts and public school locations, https://data.cityofnewyork.us/Education/2017-2018-School-Zones/ghq4-ydq4
- Four activities, multiple service areas – confirmed, all meet LMI requirements (used ACS 10, FY18 – active LMISD at time of original checklist signature)
- For three of the activities, the entirety of the Rockaway Peninsula is an appropriate geographic area. Boundary follows the shoreline to the north, west, and south, and the NYC/Nassau county boundary to the east.
- For the Living Classroom activity, used the "attendance zones" within the school district which delineate which residents have access to which public school. These zone boundaries were dissolved into one service area.

Unresolved Concerns (if any)**:**

[RSA] Almost everything (location description, geography) has been updated in DRGR – but unsure how to report beneficiaries on the Measures tab for activities with multiple sub-activities. Note: geography tab includes all block groups in the Rockaway Peninsula.

Resolved Concerns (if any)**:**

Original closeout checklist (signed by RSA 10/3/18) reflected service area boundary that was coterminous with the NYRCR planning area, which cannot be used. Additionally, multiple project activities require multiple service areas. Revisions complete.

For the Living Classroom component, the six schools which participated were identified and GS had provided what he called elementary and middle school "districts" to Program (see image 0088_1). RSA noted that the school district boundary dataset from NYC Open Data actually shows all schools falling within the same district (#27) – though these district boundaries are quite large. Policy has approved used district attendance *zones*, which are smaller and more specific to the schools.

For the Living Classroom component, there is a geographic split between one and the rest of those which are contiguous. We initially calculated income/residential separately on each section (methodology typically dictates that split service areas be calculated separated). However, input from GOSR Policy resulted in mapping and calculating this area as a single aggregate service area despite the non-contiguity instead. Email chain for reference located in Supplemental Project Folder/Received Docs.

Overlap:

Rockaway Peninsula (Response & Recovery Workshops, Digital Stewards, First Wave): NYCR-0088 (each of these three activities share the same service area – presumably, they are being treated as standalone activities based on the nature of their activity and thus the overlap is of no concern/is justified, but pointing it out just in case), NYCR-0081, NYCR-0095, NYCR-0080, NYCR-0113

Living Classroom: NYCR-0204, NYCR-0081, NYCR-0095, NYCR-0080, NYCR-0113

Service Area Status:
Final SA – Approved by AP 4/1/22

35

Ida impact

36

The Renters Safe Housing Incentive Program

"…supports and encourages renters impacted by Ida relocating from sub-standard and/or storm-damaged units into **safe permanent housing** by providing Safe Housing incentives, homeownership assistance and/or relocation expenses."

Safe Housing Incentive

- **Consolidated Notice II.B.8 (similar language in Universal Notice III.D.5.i)**

A safe housing incentive is any incentive provided to encourage households to relocate to suitable housing **in a lower risk area** or in an area promoted by the community's comprehensive recovery plan.

- **Consolidated Notice II.B.10 (similar language in Universal Notice III.D.5.i.(i))**

The LMHI national objective may be used when a grantee uses CDBG–DR funds to carry out a safe housing incentive activity that benefits one or more LMI persons. To meet the LMHI national objective, the incentive must be…or (b.) for the purpose of providing or improving residential structures that, upon completion, will be occupied by a qualifying LMI household and will be **in a lower risk area**.

37

Safe housing in a lower risk area

To be eligible for assistance under RSHI, applicants must demonstrate that their permanent housing meets the program's definition of "safe housing." This means that the housing:

• Meets decent, safe, and sanitary standards;

• Is located outside of the floodplain or, if in the floodplain, is elevated above base flood elevation;

• If located in an area at **risk for flooding similar to that of Hurricane Ida** (including but not limited to, if the unit is known to have been damaged as a result of Hurricane Ida), the program will require documentation of the incorporation of industry-recognized flood prevention measures since the storm

38

Documentation Challenges

Renters may not have traditional forms of documentation of Ida impact

- Lost documents due to flooding and/or displacement
- Renters may be more unlikely to apply for and receive FEMA Individual Assistance
- Landlord may not have applied for FEMA assistance
- Building was not directly impacted

As a record setting cloudburst event for the area, many of Ida's impacts occurred outside of the floodplain

- **Tieback:** How do we know if an applicant was impacted if they don't have documentation?
- **Safe Housing definition:** How do we know if a home is at risk for flooding similar to Ida?

39

You guessed it…

MAP IT!

- RHC is using **rain flood modelling software** to review whether a home was likely impacted by Ida or not
- We also considered leveraging **FEMA awards data** from OpenFEMA to map impacts in the immediate vicinity of the home

40

Ida Flood Mapping

Tieback to Storm

- Using the FEMA IA data from the data matching agreement, we observe nearby flooding
- We can also see precipitation levels using the new NOAA U.S. Precipitation Time Series Explorer
- Using a flash flood mapping tool we then also able to model rainwater accumulation



Sprain Brook Parkway by Yonkers. Mark Vergari/The Journal News

Ida Example

- This area on the right of the map is not in the flood plain

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Ida Example

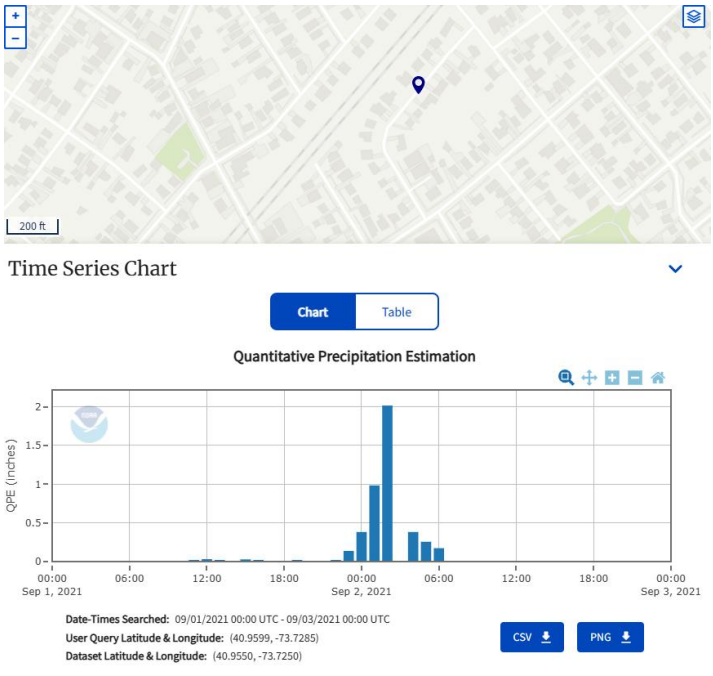
- Our FEMA IA data shows multiple houses along this street with claims of flood damage several feet deep in multiple structures



43

Ida Example

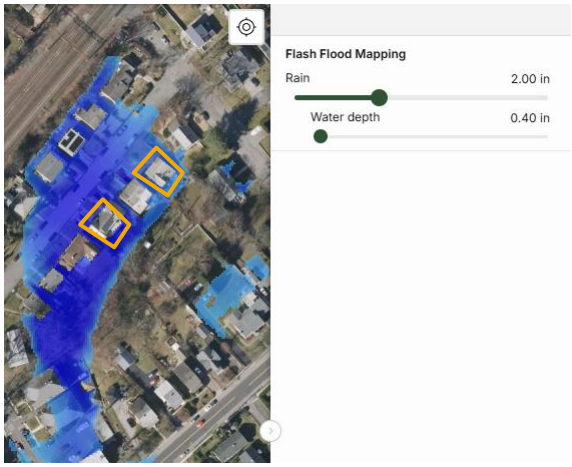
- NOAA's new tool shows up over 2 inches of rain falling per hour during Ida at the highest rate



44

Ida Example

- When we model 2 inches of rain per hour, we can see multiple homes flood
- Our renter is in a structure between two homes that received FEMA awards and flooded several feet
- This analysis shows the home between these two had water accumulation of 1.64ft



45

Map It

- This example renter application was in a structure:
- Not in the flood plain
- Between two structures that flooded and received FEMA awards
- Was in an area that received significant rainfall
- When that rainfall was modelled, their home was predicted to have flooding

- Conclusion: This applicant most likely suffered damages due to Ida flooding



The wake of devastating floods from Post-Tropical Cyclone Ida in the Town of Mamaroneck. (Jeff Edwards | Patch)

46

Limitations

- Current flood modelling program as we use it does not account for drainage (can be accounted for)
- No time component in the model
- Simple water accumulation, not real storm behavior
- Most flood models, even commercial, still use FEMA flood maps as the base for their models



47

Limitations

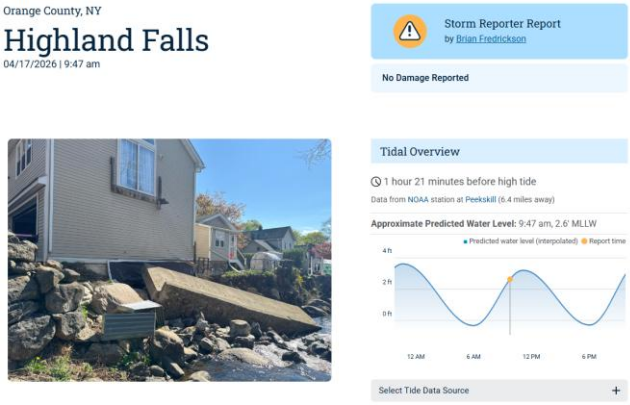
- Conclusion: Verified nearby FEMA data, documented heavy rainfall, and terrain modelling indicate this applicant most likely suffered damages due to Ida flooding
- Next steps for NYS: Verify safety of renters new homes



48

Potential Sources for Flood Data

- Flood simulation—ArcGIS Pro | Documentation
- Flow Accumulation (Spatial Analyst Tools) | ArcGIS Pro documentation
- Sea Level Rise Viewer
- Recipes for Resilience: Flood Depth Grids
- FS Flood Depth Grids
- Hazus | FEMA.gov
- NWS Flood Inundation Mapping – Overview
- USGS Flood Inundation Mapping
- County level GIS data
- First Street Foundation
- Whitebox Tools
- MyCoast – Effortless coastal incident reporting



Recent report of 2026 flooding from mycoast.org in New York State.

49

NEW YORK STATE | Homes and Community Renewal

50

Sources

- 2024 CDBG-DR Clinic: Navigating Eligible Activities and Objectives - HUD Exchange
- 03-Chapter-3-CDBG-National-Objectives-and-Fundability.pdf
- FY 2024 Exception Grantees, Based on 2016-2020 ACS - HUD Exchange
- LMISD Map Application 2016-2020
- Defining LMA Service Areas