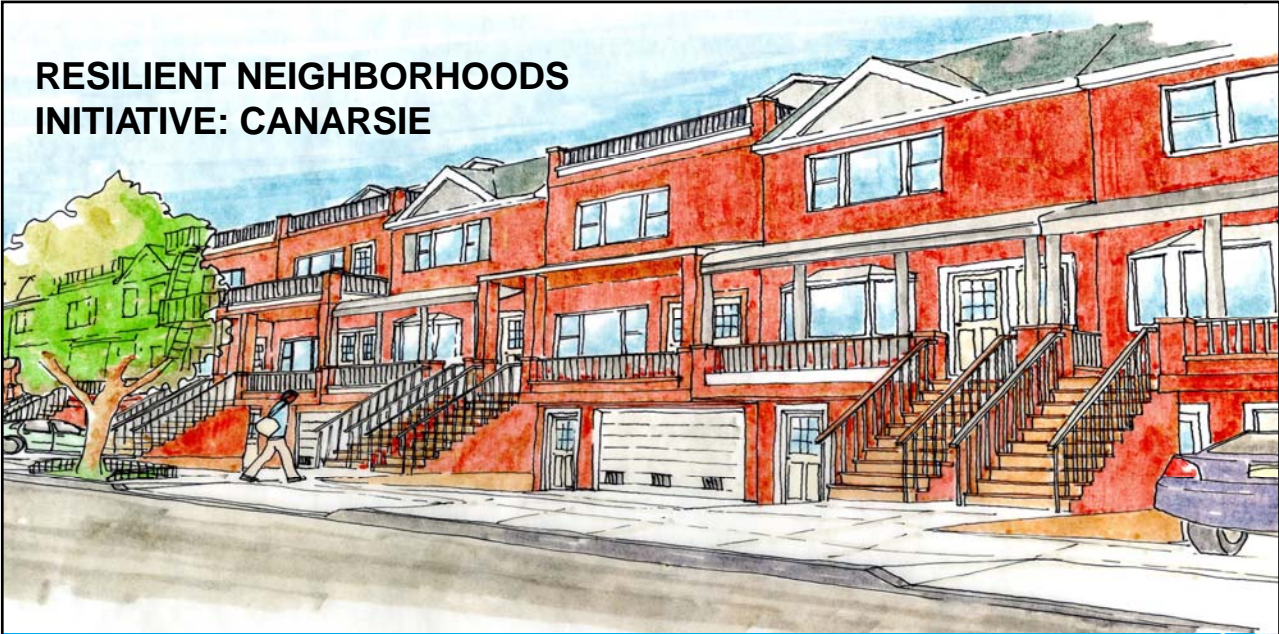
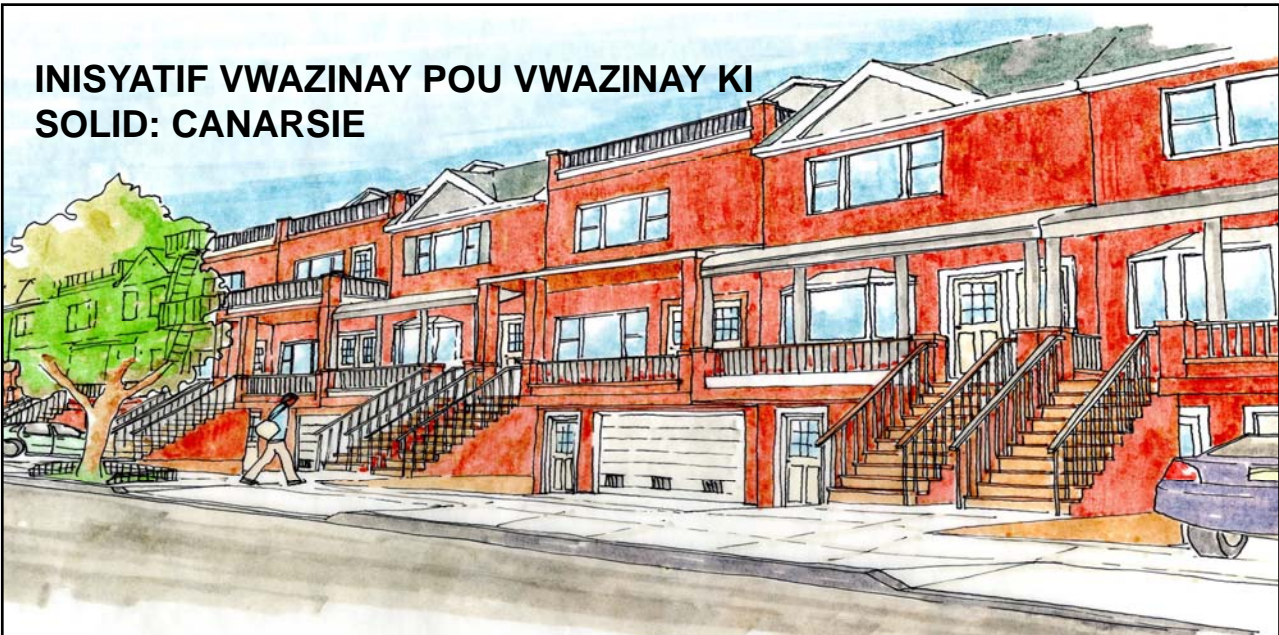


**RESILIENT NEIGHBORHOODS
INITIATIVE: CANARSIE**



**NYC
PLANNING**

**INISYATIF VWAZINAY POU VWAZINAY KI
SOLID: CANARSIE**



**NYC
PLANNING**

A more resilient New York City

A more resilient NYC is one where neighborhoods, buildings and infrastructure can withstand and recover quickly from flooding and climate events.

#ONENYC

This requires **multiple lines of defense:**

- infrastructure hardening where feasible,
- emergency preparedness, and
- **utilizing building code and zoning** as tools so buildings are protected from future flooding due to sea level rise.



3

Yon vil New York ki pi solid

Yon vil New York ki pi solid se youn kote vwazinay yo, bilding yo, ak enfracstrikti yo ka reziste epi kanpe sou de pye yo byen vit apre inondasyon ak evènman klimatik.

#ONENYC

Sa a mande **plizyè defans alafwa:**

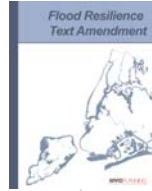
- bay enfracstrikti a plis jarèt kote li posib,
- prepare pou ijans, epi
- **itilize kòd konstriksyon ak zonaj** kòm zouti pou pwoteje bilding yo kont inondasyon pi devan lè nivo lanmè a monte.



4

Flood resilience zoning (DCP)

Flood Text (2013) initial, temporary regulations building off EO 230



SRNR (2015) provides additional zoning relief to expedite recovery



Flood Text II (2018) to be updated and made permanent



Executive Order 230 (2012) mayoral override of zoning



PFIRM + Freeboard (2012) DOB requires most restrictive map; additional elevation



SIRR Report (2013) long-term, citywide resiliency framework



Build it Back (2015) lessons learned in rebuilding effort inform zoning changes



One New York (2015) moves from recovery to future resiliency

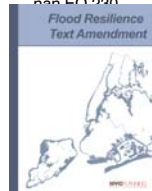


Neighborhood Studies (2014-17) will inform the text and local rezonings



Zonaj Pou Rezistans ak Inondasyon (DCP)

Tèks Inondasyon (2013) premye regleman tanporè bilding ki soti nan EO 230



SRNR (2015) bay plis soulajman zonaj pou kanpe sou de pye nou pi vit



Tèks Inondasyon II (2018) gen pou yo mete li ajou ak pou li vin pèmanan



Lòd Egzekitif 230 (2012) majistra a chanje lwa zonaj



PFIRM + Franbò (2012) DOB egzije kat jwografik ki gen plis restriksyon an; plis elevasyon



Rapò SIRR (2013) kat alontèm pou tout vil la ka gen plis rezistans



Rekonstwi li (2015) leson nou te aprann nan jeffò rekonstriksyon enfòmè chanjman nan zonaj



Yon Sèl New York (2015) soti nan retablisman pou ale nan rezistans pi devan

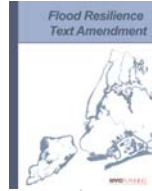


Etid Sou Vwazinay a (2014-17) pral enfòmè tèks ak rezonaj lokal yo



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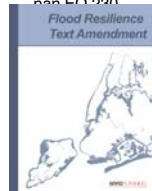


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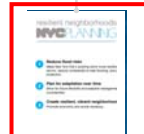
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Yon Sèl New York (2015) soti nan retablisman pou ale nan rezistans pi devan



Etid Sou Vwazinay a (2014-17) pral enfòme tèks ak rezonaj lokal yo



Resilient Neighborhoods Initiative

Reduce flood risks

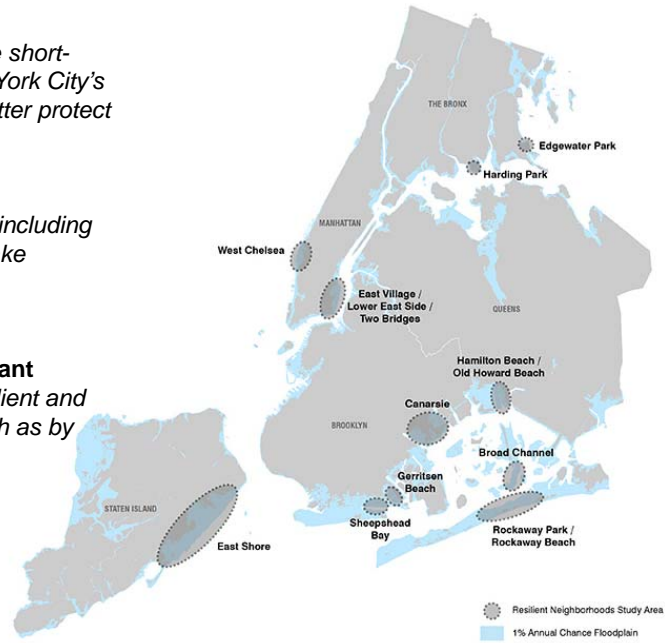
Develop zoning strategies and other tools to advance short-term, cost-effective investments that can make New York City's building stock more resilient to severe storms and better protect our coastline.

Plan for adaptation over time

Climate change will increase coastal risks over time, including more tidal flooding in some areas. It is important to take measures to reduce the long-term vulnerabilities that neighborhoods will face over time.

Ensure neighborhoods are both resilient and vibrant

Encourage high-quality development that is both resilient and respects each neighborhood's built environment, such as by limiting building height and improving public space.



9

Inisyativ Vwazinay ki Solid

Redwi risk pou gen inondasyon

Devlope estrateji zonaj ak lòt zouti pou avanse envestisman bon mache pandan yon ti tan ki kapab fè bilding Vil New York yo gen plis rezistans kont gwo tanpèt epi pwoteje kòt nou yo.

Plan pou adaptasyon apre yon tan

Chanjman klimatik pral ogmante risk sou kòt yo apre yon tan, tankou plis inondasyon akòz mare kèk kote. Li enpòtan pou nou pran mezi pou redwi risk alontèm vwazinay nou yo pral sibi apre yon tan.

Asire vwazinay yo solid epi y ap vibre

Ankouraje bon kalite devlopman ki rezistan epi ki respekte anviwònman konstriksyon chak vwazinay, tankou limit wotè bilding yo epi amelyore espas piblik y o.



10

Timeline

- **Spring 2013 – Winter 2014** Canarsie New York Rising Program
- **June 2014** Canarsie Resilient Neighborhoods Initiative Kickoff at CB18
- **Fall 2014 – Spring 2015** Community Advisory Committee Meetings
- **June 2016** Fresh Creek Civic Association
- **November 2016** Councilmember Maisel Briefing
- **March 2017** Canarsie Climate Forum
- **April 2017** Brooklyn Borough Board



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Pwogram

- **Prentan 2013 – Ivè 2014** Pwogram Pou Leve Canarsie New York
- **Jwen 2014** Lansman Inisyatif Vwazinay Canarsie Solid CB18
- **Otòn 2014 – Prentan 2015** Rankont Komite Konsèy Kominotè
- **Jen 2016** Asosyasyon Sivik Fresh Creek
- **Novanm 2016** Nòt Manm Konsèy Maisel
- **Mas 2017** Fowòm Sou Klima Canarsie
- **Avril 2017** Komite Minisipalite Brooklyn



12

2007 Flood Insurance Rate Map



13

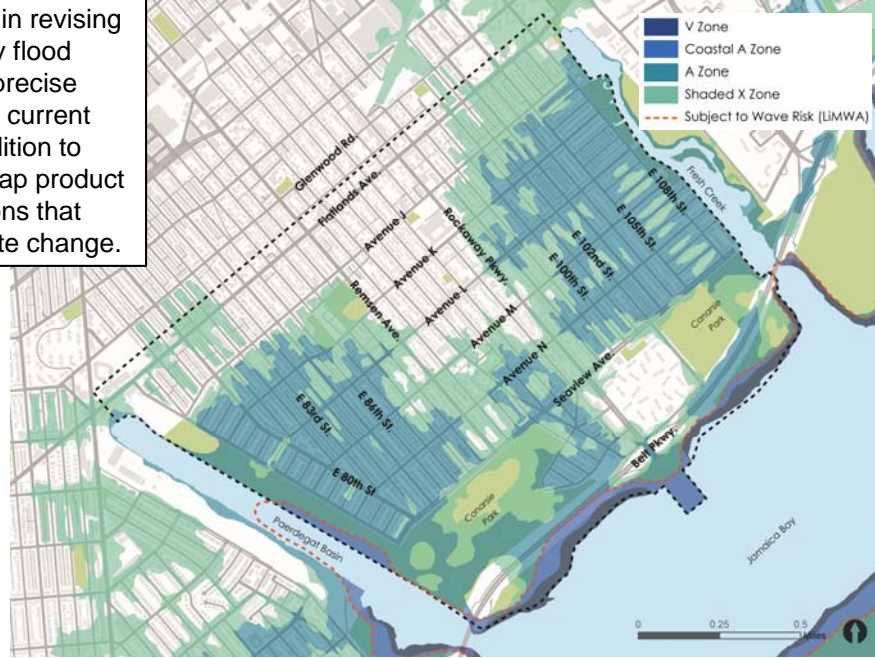
2007 Kat To Asirans Inondasyon



14

2015 Preliminary Flood Insurance Rate Map

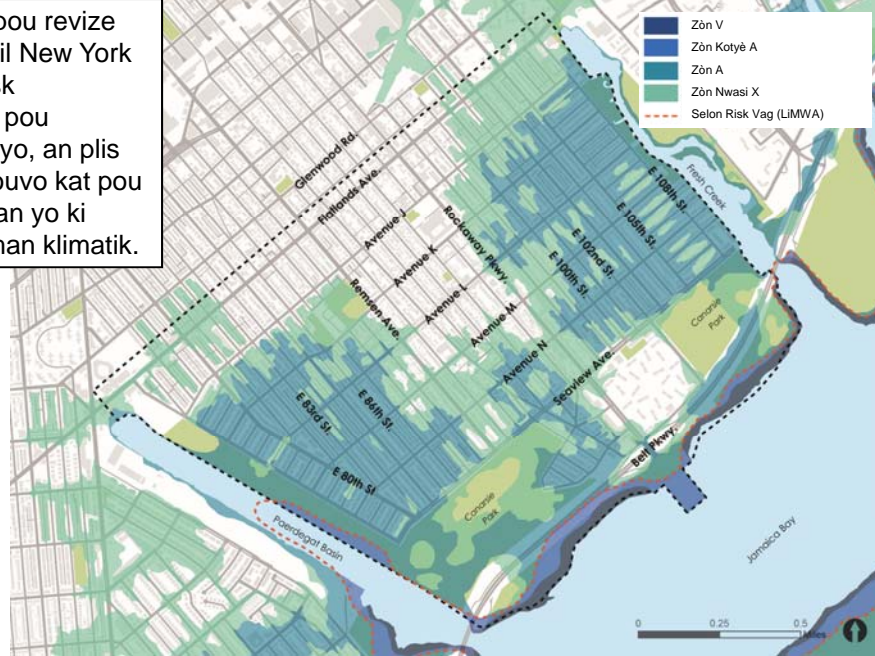
FEMA is working in revising the New York City flood maps with more precise flood risk data for current conditions, in addition to creating a new map product for future conditions that account for climate change.



15

2015 Kat To Asirans Inondasyon Preliminè

FEMA ap travay pou revize kat inondasyon Vil New York la ak plis done risk inondasyon presi pou kondisyon aktyèl yo, an plis kreyasyon yon nouvo kat pou kondisyon pi devan yo ki konte pou chanjman klimatik.



16

Canarsie's Building Types



easier to retrofit



harder to retrofit



17

Kalite Konstriksyon Canarsie



pi fasil pou modènize

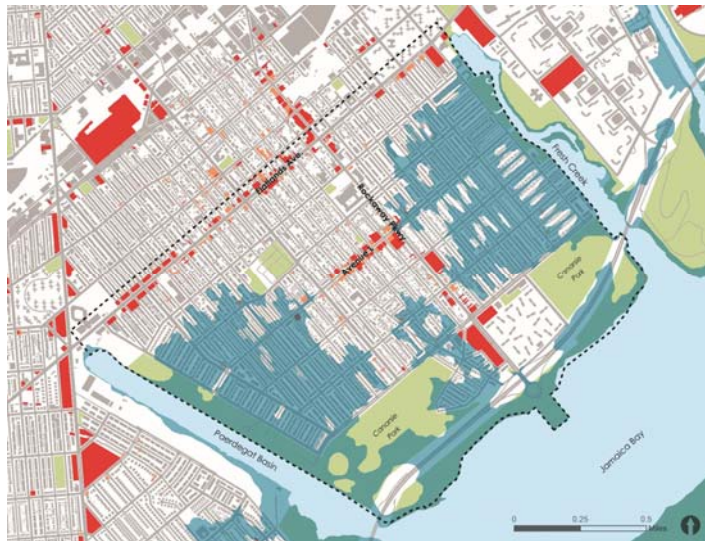


pi difisil pou modènize



18

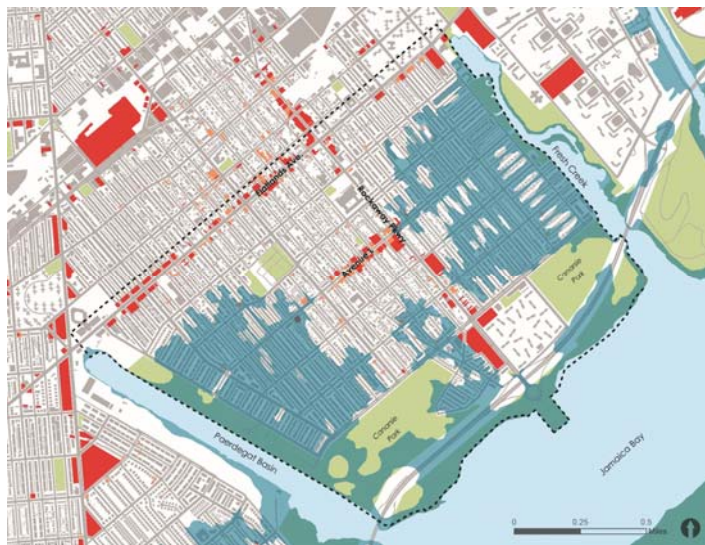
Canarsie's Retail Corridors



- Commercial Uses**
- Mixed Commercial/Residential
 - Commercial/Office
 - PFIRM 1% Annual Chance Floodplain



Koridò Boutik Canarsie



- Utilize Komèsyal**
- Komèsyal Ansan ak Rezidansyèl
 - Komèsyal / Biwo
 - PFIRM Plèn Inondab ak Risk Anyèl 1%



Resiliency Challenges in Canarsie

- Dense residential area of over **83,000 residents and 17,900 residential units**
- **80% of units are in attached or semi-detached buildings**
- **86% of homeowners have mortgages**
- Many homes in Canarsie have **critical systems such as heaters in cellars and basements that are below the DFE and subject to flooding**
- Some homeowners have converted garages and storage spaces to residential areas such as dens or separate residential units



21

Defi Rezistans nan Canarsie

- Zòn rezidansyèl ki dans ak plis pase **83,000 rezidan ak 17,900 inite rezidansyèl**
- **80% inite yo se bilding ki atache oswa semi-atache**
- **86% pwopriyetè kay yo gen ipotèk**
- Plizyè kay nan Canarsie gen **sistèm kritik tankou chofaj nan sousòl yo ki anba DFE epi yo ka inonde**
- Kèk pwopriyetè kay te fè espas pou garaj ak depo yo tounen espas rezidansyèl tankou biwo oswa kote separe pou rete.



22

What We've Learned

Based on our work in Canarsie, and other floodplain communities, we've learned:

- 1 Height**
Homeowners may face the loss of subgrade spaces when retrofitting
- 2 Height**
Properties owners may want to address future risk by over-elevating
- 3 Ground Floors**
Current incentives to keep active ground floors may not be enough
- 4 Homes in M Districts**
Existing homes in M. Districts, if damaged, may not be able to rebuild
- 5 Old Homes in Small Lots**
Old bungalow homes on small lots may need more flexibility to rebuild in the future

HOME 23

Sa Nou te Aprann

Selon travay nou nan Canarsie, ak lòt kominote ki gen plèn inondab, nou te aprann:

- 1 Wotè**
Pwopriyetè yo kapab pèdi espas tè lè y ap modènize
- 2 Wotè**
Pwopriyetè yo kapab vle monte pwopriyete yo pou jere risk ki ka gen pi devan
- 3 Red-Chose**
Konpansasyon ki genyen kounye a pou kenbe red-chose yo aktif kapab pa ase
- 4 Kay Nan Distri M yo**
Kay ki genyen nan Distri M yo kapab pa ka rekonstwi si yo domaje
- 5 Ansyen Kay nan Ti Teren**
Ansyen kay yon etaj sou ti teren yo kapab bezwen plis fleksibilite pou rekonstwi pi devan

HOME 24

Resiliency Framework

ZONING STRATEGIES

Attached/Semi-detached Housing

Identify citywide zoning modifications that make it easier to undergo retrofitting and replace ground floor uses in vertical additions.



Detached Housing

Identify citywide zoning modifications that make it easier for detached homes to elevate to a height that allow for use of ground floor for parking and storage.



ADDITIONAL RESILIENCY STRATEGIES

Retail Corridors

Canarsie's retail corridors are not in the floodplain. Strategies should be pursued to strengthen existing and future businesses.



Potential for Coastal Protection

Canarsie is surrounded by city and federally owned parkland which could be leveraged to create coastal protection against serious flooding events



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Kat pou Rezistans

ESTRATEJI ZONAJ

Kay ki Atache/Semi-Atache

Idantifye modifikasyon zonaj nan tout vil la ki kapab fè li pi fasil pou modènize ak ranplase itilizasyon red-chose nan adisyon vètikal yo.



Kay ki Detache

Idantifye modifikasyon zonaj nan tout vil la ki te kapab rann li pi fasil pou kay yo monte nan yon wotè ki t ap pèmèt yo itilize red-chose yo pou pakin ak depo.



PLIS REZISTANS ZONAJ

Koridò Boutik yo

Koridò Boutik Canarsie yo pa nan plèn inondab la. Nou kapab itilize estrateji pou bay biznis ki genyen yo ak sa ki pral genyen pi devan yo jarèt.



Potansyèl pou Pwoteksyon Kotyè

Canarsie antoure ak espas vèt ki pou gouvènman federal la ak minispalite a epi nou te kapab pwofite sou yo pou kreye yon pwoteksyon kotyè kont gwo inondasyon



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Zoning Strategies

Flood Text II



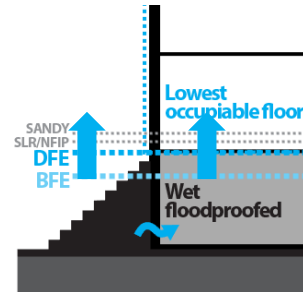
1

Make the provisions of the current, temporary 2013 Flood Text **permanent**



2

Fix and improve provisions based on lessons learned from Resilient Neighborhood Studies and other areas in the floodplain



3

Begin to **promote** new development + proactive retrofitting to high resiliency standards



27

Estrateji Zonaj

Tèks Inondasyon II



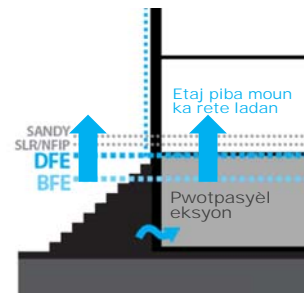
1

Fè pwovizyon dènve Tèks Inondasyon tanporè 2013 la vin **pèmanan**



2

Ranje epi amelyore pwovizyon yo selon leson nou te aprann nan Etid Vwazinay Solid yo ak lòt zòn nan plèn inondab la



3

Kòmansè **pwomouvwa** nouvo devlopman ak modènizasyon pw-aktif a estanda rezistans wo



*SLR = Nivo Lanmè a Monte
DFE = Altitud Inondasyon Plan an
BFE = Altitud Inondasyon Debaz

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Flood Text II Outreach Timeline

Given the difficult issues involved, DCP plans a robust public engagement process:



As part of this outreach process, DCP will:

- **Partner with stakeholders** to educate and promote awareness of flood risk and resiliency issues
- **Explain how zoning tools** relate to resiliency
- **Explore unique neighborhood issues** through in-depth public presentations and workshops
- Develop a proposal through an **iterative process** that is shaped by feedback

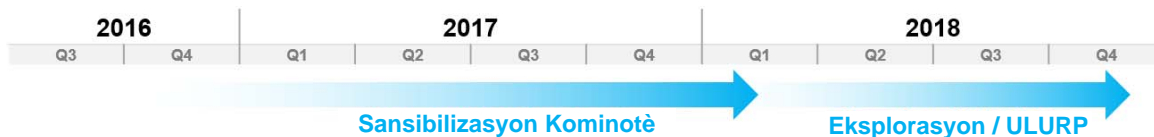
* Schedule is tentative and subject to change



29

Pwogram Sansibilizasyon Tèks Inondasyon II a

Poutèt difikilte ki te aenven yo, CDP planifve von bon pwosesis anqaiman piblik la



Kòm yon pati nan pwosesis sansibilizasyon an, DCP pral:

- **Asosye ak pati prenan yo** pou edike ak poumouvwa sansibilizasyon risk inondasyon ak zafè rezistans
- **Eksplike kijan zouti zonaj yo** gen rapò ak rezistans
- **Eksplòre pwoblèm inite vwazinay yo** ak prezantasyon ak atelye apwofondi pou piblik la
- Devlope yon pwopozisyon ak yon **pwosesis entèaktif** ki fòme ak fidbak

* Pwogram nan se jis yon tantativ epi li gendwa chaje

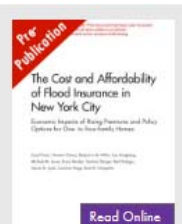


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City Flood Insurance Affordability Study

The Cost and Affordability of Flood Insurance in New York City Economic Impacts of Rising Premiums and Policy Options for One- to Four-Family Homes

by Lloyd Dixon, Noreen Clancy, Benjamin M. Miller, Sue Hoegberg, Michael M. Lewis, Bruce Bender, Samara Ebinger, Mel Hodges, [Gayle M. Syck](#), Caroline Nagy, Scott R. Choquette
Related Topics: [Community Resilience](#), [Flooding](#), [Insurance](#), [New York City](#), [Residential Housing](#)



Key Findings/Next Steps

- Many neighborhoods including Canarsie will be especially hard hit when risk increases and rates move toward actuarial rates. Rates could reach up to \$4000 a year.
- City is advocating that FEMA explore more cost-effective retrofitting strategies.



31

Etid Abòdabilite Asirans Inondasyon Vil la

Pri ak Abòdabilite Asirans Inondasyon Nan Vil New York

Enpak Ekonomik Prim k ap Monte yo ak Chwa Politik pou Kay Youn a De Fanmi yo

selon [Lloyd Dixon](#), [Noreen Clancy](#), [Benjamin M. Miller](#), [Sue Hoegberg](#), [Michael M. Lewis](#), [Bruce Bender](#), [Samara Ebinger](#), [Mel Hodges](#), [Gayle M. Syck](#), [Caroline Nagy](#), [Scott R. Choquette](#)
Sijè Asosye: [Community Resilience](#), [Flooding](#), [Insurance](#), [New York City](#), [Residential Housing](#)



Rezilta Kle / Pwochen Etap

- Anpil vwazinay tankou Canarsie pral frape espesyalman fò lè risk yo ogmante epi to yo vin ale vè to aktiryèl yo. To yo ka monte jiska \$4000 pa ane.
- Minisipalite vil la ap goumen pou FEMA eksplòre plis estrateji modènizasyon ki pa twò chè.



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Next Steps



- Report release in late April/early May
- 2017-2018 outreach on Flood Text II
- Proposed zoning modifications will be part of Flood Text II



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Pwochen Etap yo



- Piblikasyon rapò nan fen avril / kòmansman me
- 2017-2018 sansibilizasyon sou Tèks Inondasyon II
- Modifikasyon zonaj pwopoze yo pral fè pati Tèks Inondasyon II a



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Flood Insurance and Retrofitting Resources

Flood risk information and address lookup

floodhelpny.org

Free Home Resiliency Audit Program (includes professional engineering audit, elevation certificate, and personalized home resiliency plan)

floodhelpny.org/en/rtapp_landing

For more information and updates visit our website:

www.nyc.gov/resilientneighborhoods

or email us:

ResilientNeighborhoods@planning.nyc.gov



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Asirans Inondasyon ak Resous Modènizasyon

Enfòmasyon sou risk inondasyon ak chèche adrès

floodhelpny.org

Pwogram Verifikasyon Rezistans Kay Gratis la (ki gen ladan verifikasyon jeni, sètifika elevasyon, ak plan rezistans kay pèsonalize)

floodhelpny.org/en/rtapp_landing

Pou jwenn plis enfòmasyon ak dènye nouvèl, ale sou sitwèb nou nan:

www.nyc.gov/resilientneighborhoods

oswa voye yon imèl bay nou nan:

ResilientNeighborhoods@planning.nyc.gov



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