

*August 18, 2015*

**New York City-Funded Flood Buyout Program  
Property Evaluation and Selection Process**

Pursuant to the Mid-Term Revisions to the 2007 FAD (2014) the City, in conjunction with West-of-Hudson stakeholders, has developed a NYC-Funded Flood Buyout Program (FBO Program). The purpose and benefits of this new program are detailed in the City's April 30, 2014 Program Plan. This document outlines how the FBO Program could be most efficiently and appropriately organized. The purpose of this document is to describe the categories of properties that may be acquired under the FBO Program and a framework for assessing the eligibility and priority of specific properties. The document also describes the process through which local municipalities will provide concurrence for DEP to pursue properties under the FBO Program, which will vary based on the category of property as defined in Section A below. Properties and/or property categories that are not deemed acceptable by the local community will not go through the process to determine eligibility.

Once a property is determined to be eligible under the FBO Program, it will then be subject to the processes and procedures of DEP's Land Acquisition Program (including appraisal procedures unique to the FBO Program as specified in the FBO Program Plan dated April 30, 2014). DEP's real estate process is not described in detail in this document.

**A. Overview of Property Categories and Program Organizational Roles**

The stakeholders have identified five distinct categories of properties that may be eligible for acquisition under the NYC-funded FBO:

- 1. Hydraulic Study Properties** – i.e., derived from an engineering analysis conducted under Local Flood Analysis ("LFA"), New York Rising, or another such program;
- 2. CWC's Flood Hazard Mitigation Implementation Program ("FHMIP")** – where a property is eligible for Relocation Assistance under CWC's FHMIP<sup>1</sup>;
- 3. Individual Buyout Properties** – Necessary for completion of a planned community-approved Stream Project;
- 4. Individual Buyout Properties** – Erosion Hazard; and
- 5. Individual Buyout Properties** – Inundation Hazard.

Section B. below describes the process for communities to agree to participate in each of these five categories of buyouts. For each category of buyout described above, there will be a defined process for identifying candidate properties, ensuring support by critical stakeholders, evaluating the extent of the hazard and eligibility of the property, and selecting the highest priority properties for acquisition. The process may be slightly different and the involved parties and their roles may vary by category of buyout (and by county or town), but in general the roles would be as follows:

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<sup>1</sup> For DEP's FBO program, community approval is required for all categories of properties except for "anchor businesses" which must be included as part of CWC's FHMI Program.

**Outreach Lead:** The entity that explains the program, coordinates with municipalities, fields inquiries and then guides the property owner through the initial phases of the Program. This entity would most frequently be at the County level (e.g. Planning Department, Soil and Water Conservation District (“SWCD”), Cornell Cooperative Extension, or Emergency Services), although in some cases towns may choose to take on this role. The Outreach Lead would initiate informational meetings with municipalities to explain the program and field inquiries prior to the opt-in process, coordinate review of program-related municipal resolutions, and assist in property-specific issues including approval to proceed and identifying the municipality’s preferences for future ownership and management. Where no local entity is willing or able to undertake this role, DEP would be available to be the Outreach Lead for a particular category of property.

**Assessment Lead:** The entity responsible for evaluating specific properties (in categories that communities have provided concurrence) for inclusion in the FBO Program, collecting relevant information about properties, and determining what property evaluation process is appropriate, based on the property’s category. The Assessment Lead must be technically competent to complete detailed hydraulic analyses, supported by consultant services where necessary. The Assessment Lead could be the same organization serving as Outreach Lead or a separate governmental entity or outside consultant. This entity could be the Assessment Lead for one, several, or all of the five buyout categories. For example, in a given County, a planning department might be Assessment Lead for Inundation properties, but the SWCD might be the Lead for Erosion and Hydraulic Study properties. The Assessment Lead would be responsible for producing a written evaluation of each property under consideration, with such reports distributed to the local community and other stakeholders. Where no local entity is willing or able to undertake this role, DEP, the CWC and or their respective consultants would be available to be the Assessment Lead for a particular category of property.

**B. Municipal Concurrence Process**

As noted above, the FBO Program will not acquire properties unless the proposed acquisition is agreed to by the municipality (Town or Village) it is located in. The specific procedure(s) used to confirm such municipal concurrence will vary based on the property category, as follows:

1. **Categories 1, 2, and 3** (Hydraulic Study, CWC’s FHMP and Individual Buyout Properties Necessary for Completion of a Stream Project). These categories of acquisitions all relate to programs with extensive community participation. Accordingly, the referral for acquisition of a property in one of these categories by a municipality, Soil and Water Conservation District, or CWC will be deemed to constitute municipal concurrence. For these categories, the municipality will be involved in review and approval of each proposed acquisition as it originates.

2. **Categories 4 and 5** (Individual Buyout Properties – Erosion Risk and Inundation Risk). For these categories the municipality must indicate concurrence at two stages:
  - a. First, in order for properties in either Category 4 or Category 5 to be considered by the Outreach Lead, the municipality must opt into the FBO Program by entering into an agreement with the Outreach Lead. That agreement will define which FBO Program categories the municipality is opting in to, and the scope of services to be conducted by the Outreach Lead.<sup>2</sup> If the municipality chooses to conduct the Outreach Lead role itself, the municipality will enter into an agreement directly with CWC or pass a resolution confirming its decision to opt into the Program;
  - b. Once the municipality opts into Categories 4 and/or 5 as described above, the Outreach Lead will field inquiries on specific properties from interested owners and the evaluation process will be conducted as described in Sections C.4 and C.5 below. Each property that is recommended for acquisition will be submitted by the Outreach Lead to the Town, and the acquisition process (i.e. appraisal) will not commence until the municipality passes a property-specific supporting resolution.
  - c. Category 5 Individual Buyout Properties – Inundation Risk includes Phase I and Phase II properties (see Section D.2 below). Phase I properties will be eligible for consideration at the outset of the program. To ensure a robust program going forward, Phase II properties will be automatically eligible for consideration by municipalities three years from the date of the Water Supply Permit modification. Notwithstanding, a municipality can opt into Phase II before such date, if it so chooses.

**C. Property Evaluation Process**

The five property categories identified in Section A above will have distinct procedures for evaluation, which are detailed below:

**1. Hydraulic Study Properties**

- a. Acquisitions of properties that are needed to facilitate flood hazard mitigation projects selected by the applicable municipality through the LFA process will be considered “pre-qualified” for the FBO Program, since a rigorous assessment of project costs and flood mitigation benefits is included in the LFA process. The Outreach Lead will coordinate with the applicable municipality to develop an outreach strategy for the affected properties.
- b. Acquisitions proposed to facilitate flood hazard mitigation projects selected by the applicable municipality through a process other than LFA, such as NY Rising, that includes an engineering analysis meeting the standards of the LFA program (as confirmed by DEP) may also be eligible for evaluation under the FBO Program. In such cases, if the project and associated acquisitions are endorsed by the municipality, the Assessment Lead will evaluate the proposed acquisitions and make recommendations to the City and the

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<sup>2</sup> The opt in process for Categories 4 and 5 will be on a rolling basis, so municipalities will be able to Opt In to the program, or to amend their decision, at any time.

municipality. If the project is approved, the Outreach Lead will work with the applicable municipality to develop an outreach strategy for the affected properties.

**2. CWC Flood Hazard Mitigation Implementation Program**

The Relocation Assistance effort, which falls within CWC's Flood Hazard Mitigation Implementation Program, will have its own set of criteria and decision matrix that is managed by CWC. Threshold eligibility includes whether a property contains an "anchor business," a "critical community facility," or any structures identified by LFAs. Candidate FBO Program properties identified through CWC that result from Relocation Assistance will be vetted through local communities by CWC prior to recommending the project to the FBO Program.

**3. Individual Buyout Properties - Stream Projects**

In cases where the preferred design alternative of a stream restoration project cannot be undertaken without the removal of a structure, the property on which the structure is located may be eligible for evaluation under the FBO Program. If the SWCD/DEP design team identifies a potential acquisition in the Stream Project's Conceptual Design Report, the following process is envisioned (assuming the landowner is willing, the applicable municipality supports the stream restoration project, and the stream restoration project is being conducted pursuant to a stream management agreement with the applicable municipality). This category is expected to generate a relatively small number of properties:

- a. The SWCD contacts the Outreach Lead regarding its proposal to consider buyout of a particular property or properties as part of a stream project;
- b. The Outreach Lead contacts the municipality about the potential project and explains the benefits of the acquiring the property;
- c. If the municipal board passes an approval resolution, the SWCD and/or the Outreach Lead contacts the Landowner (LO) to discuss the possibility of the purchase. If the Landowner has interest, the Outreach Lead will send information about the program, pre-application materials, and will seek permission to enter property from the LO to evaluate the property;
- d. The Outreach Lead and SWCD will conduct a site visit, meet with the LO and conduct an assessment of the configuration, feasibility and benefits of the proposed acquisition;
- e. The Outreach Lead and SWCD meet with the municipality and DEP representatives to review the assessment and consider whether to proceed to real estate process; and
- f. If the municipality and DEP representatives agree to proceed with the transaction the LO may apply to the program and the acquisition process begins.

**4. Individual Buyout Properties - Erosion Hazard**

If a Landowner initiates contact with a partner (i.e. the City, Assessment Lead, Town, etc.) seeking to participate in the FBO Program for a property where there is an Erosion Hazard, the partner will direct the Landowner to the Outreach Lead. In some cases, with municipal notification, the Outreach Lead may initiate contact with landowners for properties with known erosion issues. The ensuing process is envisioned as follows:

- a. The Outreach Lead will send out program information, pre-application materials, and seek permission to enter the property from LO to initiate the property evaluation process;
- b. The Outreach Lead will notify the municipality of its intent to meet with the LO, and to have the Assessment Lead evaluate the property;
- c. The Assessment Lead will conduct a site evaluation, including one or more site inspections of the property, in accordance with Section C.1 below and make a recommendation to the Outreach Lead and DEP;
- d. The Assessment Lead will meet with Outreach Lead, municipality, and DEP representatives to review the evaluation and consider whether to proceed to appraisal; and
- e. If the municipality and DEP representatives agree to proceed with the transaction, the LO may apply to the program and the acquisition process begins.

## **5. Individual Buyout Properties - Inundation Hazard**

If a Landowner initiates contact with a partner (i.e. the City, Assessment Lead, Town, etc.) seeking to participate in the FBO Program for a property where there is an inundation hazard, the partner will direct the Landowner to the Outreach Lead. In some cases, with municipal notification, the Outreach Lead may initiate contact with landowners for properties with known inundation issues. The process is envisioned as follows:

- a. The Outreach Lead will send out program information, pre-application materials, and seek permission to enter property from LO to initiate the property evaluation process;
- b. The Outreach Lead will perform a desk reconnaissance of existing information (flood studies, elevation certificates, topographic information, and previous buyout applications) to verify that the property meets minimum qualifications for assessment (location in a mapped 100-year flood zone or evidence of past flood damage). The Outreach Lead can request assistance or information from other entities to assist with initial desk reconnaissance;
- c. The Outreach Lead notifies the municipality of its findings and intent to meet with the LO and have the Assessment Lead evaluate the property;
- d. The Assessment Lead will conduct a site evaluation of the property, including one or more site inspections. The LO will be asked to provide the Assessment Lead with information on previous losses and other relevant documentation. If the Assessment Lead needs additional information, such as an elevation certificate or estimate of flood depth (in instances where the structure has not been substantially damaged or flood depth is unknown), DEP and the Assessment Lead will determine if consultant services are required;
- e. The Assessment Lead prepares an assessment in accordance with Section D.2 below;
- f. The Assessment Lead meets with the City, Outreach Lead and municipality to review the assessment and consider whether to proceed to appraisal; and
- g. If the municipality and DEP representatives agree to proceed with the transaction, the LO may apply to the program and the acquisition process begins.

## **D. Technical Assessment Methods and Evaluation Criteria**

This section provides details on the methods that will be employed by the Assessment Lead to evaluate Erosion Hazard and Inundation Hazard properties that are proposed for acquisition as described in Sections C.4 and CB.5 above.

### **1. Erosion Hazard**

The evaluation approach taken by the Assessment Lead will involve verifying the risk that erosion will damage the house/structure in the near future. The Assessment Lead will conduct all necessary analyses and provide a written recommendation to the partners (Outreach Lead, City and municipality). The partners will have an opportunity for comment and discussion prior to a final decision being made to proceed with the acquisition.

The risk assessment will identify properties where there is a substantial and imminent risk to life and property. Eligible properties must have a structure located very near the edge of an eroding bank or failing slope. The structure must be in imminent threat of failing or a slope stability analysis conducted by a qualified engineer must show that the structure is likely to fail within a short time horizon (1-5 years). Where the threat is imminent, the condition would be documented with photographs, narrative from the landowner, and supported by the best professional judgment of the Assessment Lead. If the initially available evidence supports additional analysis because the erosion or slope failure risk is obscure, DEP or the municipality may require that a qualified engineer complete a slope stability analysis to determine the extent of the threat and the eligibility of the property.

In conducting the risk assessment, the Assessment Lead will consider the potential costs of buyout or other options for eliminating the risk compared against the cost of mitigating the erosion or the failure of the hillslope.

The history of damages to the structure can be an indicator of risk. Previous repairs, efforts to mitigate bank failure and comparison to similar properties could be considered in the evaluation of risk. The cost comparison of a buyout versus mitigation measures will also consider the availability of funding for mitigation measures from other sources. If the Assessment Lead determines that mitigation funds are not available or will not be available on a timely basis to alleviate the imminent risk, then mitigation measures may not be considered a cost effective option.

### **2. Inundation Hazard**

Technical evaluation of inundation-prone properties by the Assessment Lead will be based on review of Digital Flood Insurance Rate Maps (“DFIRMs”), depth grids, survey information and information provided by the property owner. In some cases it may be necessary for the Assessment Lead to survey a structure’s elevation if it has not been previously substantially damaged and the depth of flooding is unknown. If a flood study is approximate or does not exist, then the depth of flooding will be more

difficult to determine. As in the case of the erosion hazard properties, the inundation properties would be defined by the level of risk.

If the Town is interested, the local Code Enforcement Officer would be well suited to conduct much of the evaluation process, in conjunction with the SWCD and coordinated by the Assessment Lead.

The Assessment lead for inundation properties will conduct the following steps:

- a. Check to see if the structure has a flood history with the property owner and the local code officer. Has it been substantially damaged or is it a repetitive loss or severe repetitive loss structure? If yes, review the losses in comparison to the full value assessment. If not, proceed to the next step;
- b. Review of best available information including preliminary maps to determine if the structure is in the floodway, or the Base Flood Elevation<sup>3</sup> (“BFE”) or equivalent at the property. This can include DFIRMs, 1% recurrence depth grids, or the output of a hydraulic model. Use a LiDAR based DEM to estimate the structure’s Lowest Adjacent Grade (LAG). This will provide a ballpark estimate of flooding for the structure;
- c. Acquire structure data – area, number of floors and foundation (basement / crawlspace / slab-on grade);
- d. Conduct a preliminary Benefit Cost Analysis (“BCA”) using FEMA models for residential structures, or use current FEMA standards for qualification for Hazard Mitigation Grant Program (“HMGP”) FBO Programs; and
- e. Consider merits of including the property in the FBO Program in larger community planning context. Is the structure adjacent to another FBO Program structure? Does the potential for relocation exist, particularly on the existing parcel, outside of the 100-year and 500-year floodplain? Could the structure be elevated or losses reduced by other means using other funding sources (raising utilities, filling basement, venting crawl space)?

The Inundation Hazard category will be broken out into two phases - Phase I and Phase II. Collecting the data described above would allow the property to be evaluated to see if it qualifies as a Phase I or II high flood risk.

Phase I: A Phase I high flood risk property is one that: (1) may have previously been substantially damaged, or based on depth damage<sup>4</sup> analysis, one that is likely to be substantially damaged in a flood with a high probability of recurrence (greater than 1% annual chance recurrence); (2) a repetitive or severe repetitive loss parcel as identified by FEMA or which can be documented by the property owner or local code enforcement officer (These Properties in either of these categories may or may not be in the floodway. If the property is in the floodway, it may be considered a higher priority based on the greater potential for off-site benefits.); or (3) parcel is located in the floodway and has been previously flooded.

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<sup>3</sup> The Base Flood Elevation is the elevation of the 1% annual chance return (100 year) flood.

<sup>4</sup> As provided by FEMA’s BCA Analysis software

If a structure has been previously substantially damaged and not brought up to code, the property may be eligible. Structures previously flooded and subsequently brought up to code, including elevation to 2 feet above the BFE as required by NYS law, would not be eligible for buyout. Some properties may not have a history of substantial damage if the area has not experienced a recent flood disaster.

Nonetheless, the use of the flood studies and depth damage analysis should help determine long term risk of damage from flood inundation for these properties.

Phase II: A Phase II high flood risk property is one that (1) is located in a FEMA designated 100-year floodplain, has been previously flooded and has experienced significant damage to the structure but may not be substantially damaged and therefore not eligible under FEMA's Flood Buyout Program, or (2) a structure that has been previously flooded and can be relocated on the existing parcel, outside the 100-year and 500-year floodplain. They may also be located near other high flood risk properties and their acquisition may help reduce flood elevations for other properties.

The Assessment Lead will conduct the analysis described here and provide a written recommendation outlining the rationale for inclusion, or not including the property in the FBO program to the landowner, copying the Outreach lead, the municipality and DEP.

#### E. FBO Program Evaluation and Reporting

DEP will include FBO program summaries in FAD annual and semi-annual Land Acquisition Program deliverables (submitted each year by March 31 and July 31, respectively) which are posted on DEP's web page. To ensure a successful and robust FBO Program going forward, a program evaluation report will be prepared by the New York City Department of Environmental Protection (DEP) and submitted to the New York State Department of Environmental Conservation (DEC) for its review and approval. This program evaluation report will be submitted to DEC two years from the date of the Water Supply Permit modification. The report will include detail on public meetings on the NYCFBO Program, towns and villages that have "opted in" to the program, numbers of properties under contract and closed, total and average acreage and cost and towns and villages in which these purchases are occurring. DEC in consultation with New York State Department of Health (DOH) will review the program evaluation reports to determine if the FBO Program has been successful in achieving its goals and objectives and if it should, as developed, continue forward or if modifications are necessary. If such approval has not been granted and modifications are necessary, DEP will submit a request to DEC for a permit modification to amend its FBO Program based on DEC's and DOH's review.