

CHAPTER 1:

PROJECT DESCRIPTION

INTRODUCTION AND BACKGROUND

The New York City Department of Environmental Protection (NYCDEP) proposes to continue the watershed Land Acquisition Program (LAP) in the three surface water watersheds that constitute the New York City surface water supply system; the three watersheds are the Delaware, Catskill, and Croton Watersheds. With the expiration of the existing Public Water Supply Permit (WSP) in January 2012, NYCDEP submitted an application for a new 10-year WSP on January 21, 2010, in accordance with the 2007 Filtration Avoidance Determination (FAD) issued by the U.S. Environmental Protection Agency (EPA), seeking permit approval prior to January 2012 to continue LAP through the year 2022. Per agreement with NYSDEC, other regulators (NYSDOH, USEPA), West of Hudson community representatives and representatives of environmental organizations (together “West of Hudson Watershed Stakeholders”) after the submittal of the WSP application, it has been agreed that the term of the successor WSP will be 15 years. The future program that would be covered under the new WSP is referred to herein as the “Extended LAP.”

In addition, a companion Agreement will be signed by many of the parties to the 1997 Watershed Memorandum of Agreement (1997 MOA), reaffirming the parties’ commitments under the 1997 MOA and making additional commitments with respect to the LAP and related programs going forward.

The goal of the New York City Department of Environmental Protection (NYCDEP) Land Acquisition Program (LAP) is to acquire fee simple and conservation easement interests to protect environmentally-sensitive land in the New York City (City) watershed as a part of the City’s overall Watershed Protection Program. LAP is a key component of the City’s efforts to continue to provide high quality drinking water without filtration of the Catskill-Delaware (Cat-Del) System,¹ which provides water to over 9 million residents of the City and nearby communities in New York State. Since its creation in the 1990s, LAP has protected, through acquisition, over 100,000 acres of land in the 1 million-acre Cat-Del System and over 2,000 acres of land in the Croton System. The land and easements acquired are to be maintained in perpetuity as undeveloped land for watershed protection. Together with lands protected by the State and other entities, these acquisitions have raised the level of permanently protected land in the Cat-Del System from 24 percent in 1997 to 34 percent today.

¹ Although the Catskill watershed and Delaware watershed are distinct geographical features, they are functionally managed together and for regulatory purposes are considered a single integrated system.

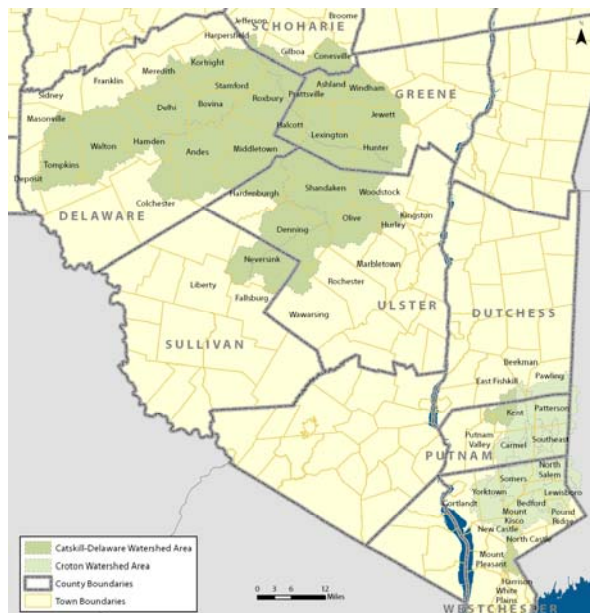
Extended New York City Watershed Land Acquisition Program DEIS

This Environmental Impact Statement (EIS) was prepared to support the City's application for the WSP. It is anticipated that the future WSP would continue to authorize land acquisition in the three watersheds for watershed protection purposes, with a substantially greater emphasis on acquisitions in the West of Hudson portions of the Cat-Del System.

OVERVIEW OF THE NEW YORK CITY WATER SUPPLY SYSTEM

The New York City water supply system provides drinking water to almost half the population of the State of New York—eight million people in New York City and one million people in Westchester, Putnam, Orange, and Ulster Counties—plus the millions of commuters and tourists who visit the City throughout the year. The source of this superior water is a network of 19 reservoirs and three controlled lakes in a 1,969 square mile watershed that extends 125 miles to the north and west of New York City. Overall, the system has a total storage capacity of approximately 550 billion gallons. Consumption in the year 2000 averaged 1.2 billion gallons a day. The Croton system, the City's first upstate water supply, provides about 10% of the daily consumption. The other 90% comes from the Cat-Del system (see Figure 1-1a).

Figure 1-1a- Map of Catskill/Delaware and Croton Watersheds



The Catskill system consists of two reservoirs—Schoharie and Ashokan—located west of the Hudson River in Ulster, Schoharie, Delaware, and Greene Counties. Water leaves the Schoharie Reservoir via the 18-mile Shandaken Tunnel, which empties into the Esopus Creek and then travels 22 miles through the Esopus to the Ashokan Reservoir. Water leaves Ashokan Reservoir via the 75-mile-long Catskill Aqueduct, which travels to the Kensico Reservoir in Westchester County. The Catskill system provides, on average, 40% of the City's daily water supply.

The Delaware system is comprised of four reservoirs west of the Hudson River: Cannonsville, Pepacton, and Neversink in the Delaware River basin, and Rondout in the Hudson River basin. The outflow from the first three reservoirs arrives in the Rondout via three separate tunnels;

water then leaves Rondout and travels to West Branch Reservoir in Putnam County via the 90-mile Rondout/West Branch Tunnel. Water from West Branch then flows through the Delaware Aqueduct to the Kensico Reservoir. The Delaware system provides 50% of the City's daily demand. Because waters from the Catskill and Delaware watershed are commingled at Kensico Reservoir, they are frequently referred to as one system: the Catskill/Delaware system.

The Croton watershed is located entirely east of the Hudson River in Westchester, Putnam, and Dutchess Counties, with a small portion in the State of Connecticut. Historically, 10 percent of the City's average daily water demand is provided by the Croton system, although in times of drought it may supply significantly more water. The City is in process of constructing a water treatment plant to filter the Croton water supply. It should be noted that the Croton Falls and Cross River Reservoirs, although located in the Croton System, can provide water to the Delaware Aqueduct during periods of drought and would thus be considered part of the Cat-Del System under those conditions and consequently part of the 2002 FAD. Consistent with the 1905 Water Supply Act, the City's water supply system provides over one million upstate consumers with drinking water. See Figure 1-1b.

New York City Water Supply Upstate Consumers

Total typical daily consumption
outside New York City is
131 million gallons per day.

Delaware Aqueduct

1. Marlborough
2. Newburgh Town
3. Greenburgh
4. Blythdale Children Hospital
5. Westchester Joint WW#1
6. Westchester County WD#1

Catskill Aqueduct

7. New Paltz
8. Wallkill Correction Facility
9. Stewart Air Field
10. St. Joseph's
11. Newburgh, City
12. Cornwall-on-Hudson
13. New Windsor
14. Cold Spring
15. Graymore
16. Putnam Valley
17. Continental Village
18. Peekskill
19. Cortlandt
20. Montrose WD
21. Yorktown
22. Orchard Hill
23. New Castle (Millwood)
24. New Castle
25. Pleasantville
26. Cottlage School
27. Thornwood
28. Cedar Knoll School
29. Valhalla
30. Hawthorne
31. Westchester County WD-3
32. Sleepy Hollow
33. Tarrytown
34. Greenburgh (Knollwood)
35. Elmsford
36. Greenburgh (Hartsdale)
37. UW New Rochelle
38. Scarsdale
39. UW New Rochelle
40. Yonkers
41. Yonkers
42. Yonkers
43. Mt. Vernon

New Croton Aqueduct

44. New Castle
45. Ossining
46. Briarcliff Manor
47. Sleepy Hollow
48. Tarrytown
49. Irvington
50. UW New Rochelle

Croton Lakes & Reservoirs

51. Carmel
52. Putnam Hospital
53. Brewster Heights WD
54. Westchester County WD-2
55. Walter Franks
56. Katonah
57. Hunterbrook Cove
58. Ossining
59. Croton-on-Hudson

Kensico / Rye Lake

60. Westchester Joint WW#1
61. Harrison

48" Pipe Line

62. Westchester County WD#1
63. Westchester County WD#1

NYC/Westchester Cnty Line

64. Mt. Vernon/Bronx Distribution
65. Mt. Vernon @ 19 Seton
66. Mt. Vernon @ 23 Seton
67. Mt. Vernon @ 45 Amondson
68. Mt. Vernon @ 29 Seton
69. Mt. Vernon @ 13 Seton
70. Mt. Vernon @ 31 Seton
71. UW New Rochelle/Bronx Dist.
72. UW New Rochelle @ Split Rock
73. UW New Rochelle @ Roosevelt
74. Mt. Vernon/Bronx Distribution
75. Mt. Vernon/Bronx Distribution

Miscellaneous

Over 50 Interconnections between
communities

Montrose
Verplank
Buchanan

Orange
County

Bronxville
Pelham
North Pelham
Tuckahoe
Dobbs Ferry
Ardsley
Hastings
New Rochelle
Eastchester

At Hillview Reservoir
Uptake Chamber

Amawalk Heights
Somers
Cortlandt
Yorktown

Memaroneck
Rye
Portchester
Larchmont

North Castle
White Plains
Scarsdale (Eastchester)
Mt. Vernon
Yonkers

Bronx Residents

Dutchess
County

Putnam
County

Rockland
County

Westchester
County

Hillview
Reservoir

Bronx

Boyd's Corner
Reservoir

Lake
Gleneida

West Branch
Reservoir

Middle
Branch
Reservoir

Bog Brook
Reservoir

East Branch
Reservoir

Diverting
Reservoir

Kirk Lake

Croton Falls
Reservoir

Amawalk
Reservoir

Muscoot
Reservoir

Titicus
Reservoir

Cross River
Reservoir

New Croton
Reservoir

Kensico
Reservoir



- Catskill/Delaware Watershed
- Croton Watershed
- Rivers and Reservoirs
- Catskill Aqueduct and Tunnels
- Croton Aqueduct
- Delaware Aqueduct and Tunnels
- County Borders
- State Borders

map not to scale

www.nyc.gov/dep

PURPOSE AND NEED

The mission of the Land Acquisition Program (LAP) is to acquire fee simple and conservation easement interests to protect environmentally-sensitive land in the New York City (City) watershed as a part of the City's overall Watershed Protection Program. LAP is a key component of the City's efforts to increase watershed protection and avoid filtration of the Cat-Del System, which provides water to over 9 million residents of the City and nearby communities in New York State. Land acquisition is an anti-degradation strategy, which seeks to avoid potential adverse water quality impacts associated with development and other land uses. The Extended LAP is needed to continue to support FAD requirements and to focus additional attention to basins and sub-basins with a low percentage of protected lands. LAP acquisition criteria are evolving to meet this objective.

PROGRAM TO DATE

The LAP grew out of the City's response to the Federal Safe Drinking Water Act Amendments (1986) and Surface Water Treatment Rule (SWTR, 1989). As a result of an increased awareness of the threat posed by micro-organisms in unfiltered surface water systems, the SWTR required such public water supplies to either filter their supply or meet specific "filtration avoidance criteria." The City, through its Department of Environmental Protection, sought to meet those criteria and avoid filtration through the development of a comprehensive Watershed Protection Plan for the Cat-Del System.

Under the SWTR, an applicant for filtration avoidance needs to "demonstrate through ownership and/or written agreements with landowners within the watershed that it can control all human activities which may have an adverse impact on the microbiological quality of the source water." Increased ownership of watershed lands is a key component of the City's ability to meet this condition. Prior to 1997, the City owned approximately 35,500 acres of land in the Cat-Del System (excluding reservoirs), and the State of New York owned another 202,000 acres, for a total protected land base of approximately 24 percent of the watershed land area. Since the early 1990s, the City has sought to increase those percentages through a robust land acquisition program.

NYCDEP initially sought to establish a land acquisition program in the Cat-Del System as a condition of the first FAD, issued by the EPA in 1993. In August 1993, the City applied for a Water Supply Permit (WSP) from the New York State Department of Environmental Conservation (NYSDEC). That application, and the City's concurrent efforts to promulgate new Watershed Rules and Regulations with the New York State Department of Health (NYSDOH), met strong resistance from municipalities in the watershed. While many residents in these upstate communities supported such land protection efforts for various reasons, many also viewed these efforts as a threat to local economic development.

Over the ensuing three and a half years, the City, Federal and State regulators, local governments and environmental organizations engaged in a variety of efforts to resolve these issues, which resulted in a comprehensive New York City Watershed Memorandum of Agreement (MOA) in January 1997. Under this landmark agreement, the City agreed to undertake a wide array of programs to protect water quality while also supporting local economic development. The MOA called on the City to dedicate up to \$300 million for a land acquisition program in the Cat-Del System, and identified specific program parameters and acquisition procedures, as detailed below in Section II.B.

Extended New York City Watershed Land Acquisition Program DEIS

In January 1997, the City received a WSP issued by NYSDEC, and the first real estate closing under LAP occurred in October, 1997. The WSP was issued for a ten-year period (through January 2007), with a five-year renewal option (through January 2012) that was exercised. Since 1997, EPA has issued several FADs that have continued to place a strong emphasis on land acquisition. In 2007, EPA, in collaboration with DOH and NYSDEC, issued a ten-year FAD that required the City to dedicate an additional \$241 million for land acquisition in the Cat-Del System. The 2007 FAD also required the City to apply for a new WSP in January 2010. As a prelude to that permit application, the FAD called for a “long-term land acquisition strategy...for the period from 2012 to 2022” to be submitted by September 30, 2009.

With the expiration of the existing WSP in January 2012, NYCDEP submitted an application for a new WSP in January 2010 with permit approval requested prior to January 2012 in order to continue LAP from January 2012 through 2022. Based on discussions with the West of Hudson Watershed Stakeholders after the submittal of the WSP application, NYSDEC agreed that the term of the successor WSP will be 15 years. This Environmental Impact Statement (EIS) supports the application for the WSP. It is anticipated that the future WSP would continue to authorize land acquisition in the three watersheds for watershed protection purposes, with an emphasis on acquisitions in the West of Hudson portions of the Cat-Del System.

Under the MOA, the City was required to solicit at least 355,050 acres of land in the Cat-Del System, with specific acreage requirements by basin and priority area. These solicitation requirements were met by 2006 and the City agreed to conduct additional solicitation and re-solicitation on an annual basis as a result of the 2002 and 2007 FADs. The City’s solicitation requirements and results in the Cat-Del System are summarized in Table 1-1.² For the purposes of the FEIS, July 2009 data referenced in the September 2009 Long-Term Plan will serve as the baseline for analysis.

² Since virtually all eligible lands in Priority Areas (PA) 1 and 2 were solicited while only 75% of lands in Priority 3 and 50% of Priority 4 had been solicited as of 2006, almost all newly solicited lands thereafter derived from the remaining unsolicited lands in PAs 3 and 4. These two PAs are found in the Cannonsville, Pepacton, Schoharie, and Neversink Basins.

Table 1-1

Solicitation and Acquisition Status by Basin
as of July, 2009

District	Basin	MOA Solicitation		Acres Acquired (LAP Fee + CE)
		Requirement	Acres Solicited	
EOH	Kensico	950	1,071	207
	West Branch	14,250	14,676	8,602
	EOH Sub-total	15,200	15,747	8,809
WOH	Ashokan	46,530	46,417	11,480
	Rondout	29,052	30,126	6,583
	Neversink	12,910	21,891	2,974
	Schoharie	68,700	95,491	19,000
	Pepacton	78,630	122,016	18,861
	Cannonsville	105,028	143,820	13,065
	WOH Sub-total	339,850	459,761	71,943
Cat-Del Totals		355,050	475,508	80,752

In addition to the lands solicited and acquired directly by the City (as shown in Table 1-1), the City funds the acquisition of conservation easements by the Watershed Agricultural Council (WAC) on agricultural land. That program (see below under “Rights Acquired”) resulted in the acquisition of an additional 16,954 acres of farm easements through July, 2009, which acreage is not shown above – nor are acres of farms solicited by WAC.

REAL ESTATE METHODS AND PROCEDURES

LAP utilizes a number of methods and procedures that were devised early in the program’s development and are guided by the principles and restrictions set forth in the MOA and WSP. These methods and procedures govern the way the City contacts landowners, how appraisals are conducted, the real property rights to be acquired, provisions for public recreational access on lands acquired in fee simple, and how the City pays property taxes on property rights acquired. The City has a strong record of compliance with its MOA, FAD and WSP obligations. The key components of such compliance are as follows:

Willing Buyer / Willing Seller (MOA ¶ 60/ 1997 WSP Special Condition 5)

Landowners and the City must both enter into a proposed transaction on a strictly voluntary basis. Landowners are under no obligation to sell until and unless they sign a contract of sale.

Fair Market Value (MOA ¶ 61/ 1997 WSP Special Condition 13)

Land and easements are appraised at fair market value by independent, certified NY State Appraisers commissioned by the City. Landowners have the right to present their own appraisals, made by certified appraisers, which must be considered by the City’s appraiser. The City’s offer, however, is the value determined by its appraisal, after consideration of any such alternate appraisal. That is, the City does not negotiate price with landowners, but rather makes

an offer of the appraised amount, which the landowner is free to accept or reject. Only under very limited circumstances (mortgage or tax foreclosure, legal judgment) can the City acquire land at below fair market value.

Solicitation (MOA ¶¶ 60, 64, 65 and Attachment Z)

The City's obligation to diligently pursue acquisition is defined in Attachment Z of the MOA. Although the City retains the flexibility to decline to appraise a property upon inspection, the City is obligated (except in very limited circumstances and subject to regulatory approval) to pursue acquisition once an appraisal is ordered. Since 1997 under the MOA (and since 2002 pursuant to the FAD), the City has been required to meet a series of annual targets for landowner solicitation and resolicitation. Hereafter, the term "solicitation" includes both "original solicitation" in which the City makes the initial outreach to pursue acquisition of a property, and "re-solicitation," in which the City makes subsequent attempts to contact the same or subsequent landowner of a given property, after being unable to make contact or reach agreement at the point of original solicitation.

Rights Acquired

Through LAP the City has to date acquired, or funded the acquisition of, three distinct types of property interests:³

Fee Simple – The City acquires land outright. This is the City's preferred acquisition method. Fee simple acquisition results in the highest level of management, allows the City to consider recreational, natural resource management and other uses on the property acquired, and makes the most efficient use of City staff resources.

Conservation Easements – In cases where landowners want to retain ownership and exclusive use of their land, conservation easements ("CEs") allow protection through the acquisition of perpetual deeded rights. Although initial acquisition costs are lower than for fee simple purchases, CEs involve significantly higher long-term costs for monitoring and potential enforcement of deed provisions. CE purchases are pursued on larger properties whose owners are not interested in selling fee simple interest.

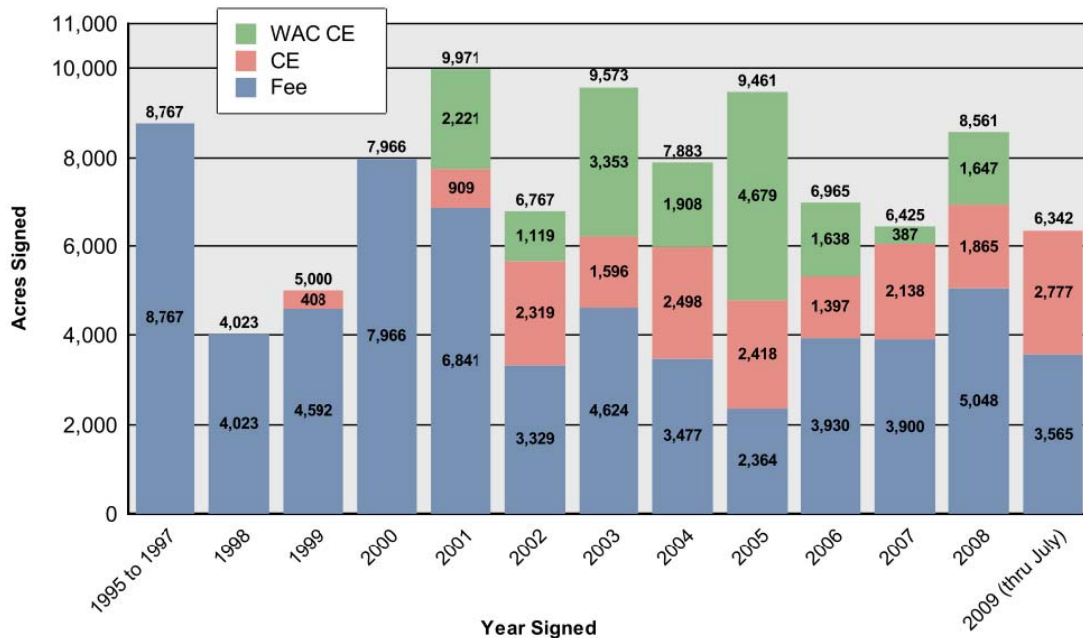
Watershed Agricultural Easements – The City also funds the acquisition of CEs on farms by the Watershed Agricultural Council (WAC). These CEs, which involve the farmer's

³ As explained in detail below, the draft WSP would create additional categories of property interests, all of which may be acquired by partner organizations. With respect to properties acquired in fee, in addition to general acquisitions as NYCDEP has historically pursued, NYCDEP may acquire "Riparian Buffer in fee," real property (including floodplains) adjacent to streams, lakes, rivers, wetlands, and/or water bodies which may not meet the otherwise applicable size thresholds and which may be acquired in areas where LAP acquisitions are otherwise excluded. Similarly, in addition to the NYCDEP conservation easements and Watershed Agricultural Easements that have been acquired under the LAP to date, the WSP describes two other categories of Watershed Conservation Easements: Riparian Buffer Easements (on real property meeting the same criteria as Riparian Buffers in fee) and Watershed Forest Conservation Easements, on real property in forest production or designated for future forest production.

implementation of a Whole Farm Plan that governs best management practices for agricultural uses, allow for a diversity of farm-related uses but preclude most other types of development.

A summary of acres acquired by Real Estate type and year is shown in Figure 1- 2 below.

Figure 1-2-Acres Acquired by Real Estate Type and Year



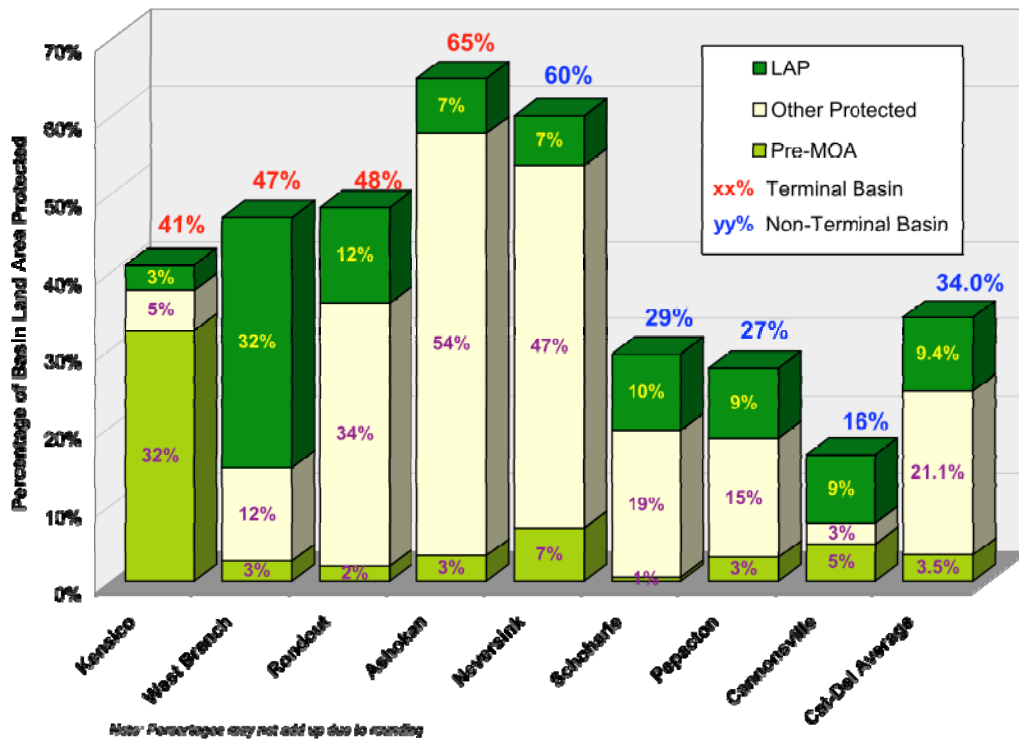
Property Taxes (MOA ¶ 79 and 80/ WSP Special Conditions 18-20)

The City pays property taxes on all land and CEs acquired under LAP, including any lands under watershed agricultural CEs that are not agriculturally-exempt. The City pays taxes on eased properties in proportion to the value of the easement acquired as set forth in NYS Real Property Tax Law. Under the MOA, the City has committed not to challenge tax assessments on such lands absent specified circumstances not anticipated to occur.

PLANNING PRINCIPLES

The Cat-Del watershed spans just over 1 million acres draining into nine reservoirs in eight upstate counties. Figure 1-3 shows protected land as a percentage of land area by basin.

Figure 1-3: Protected Land as a Percentage of Basin Land Area



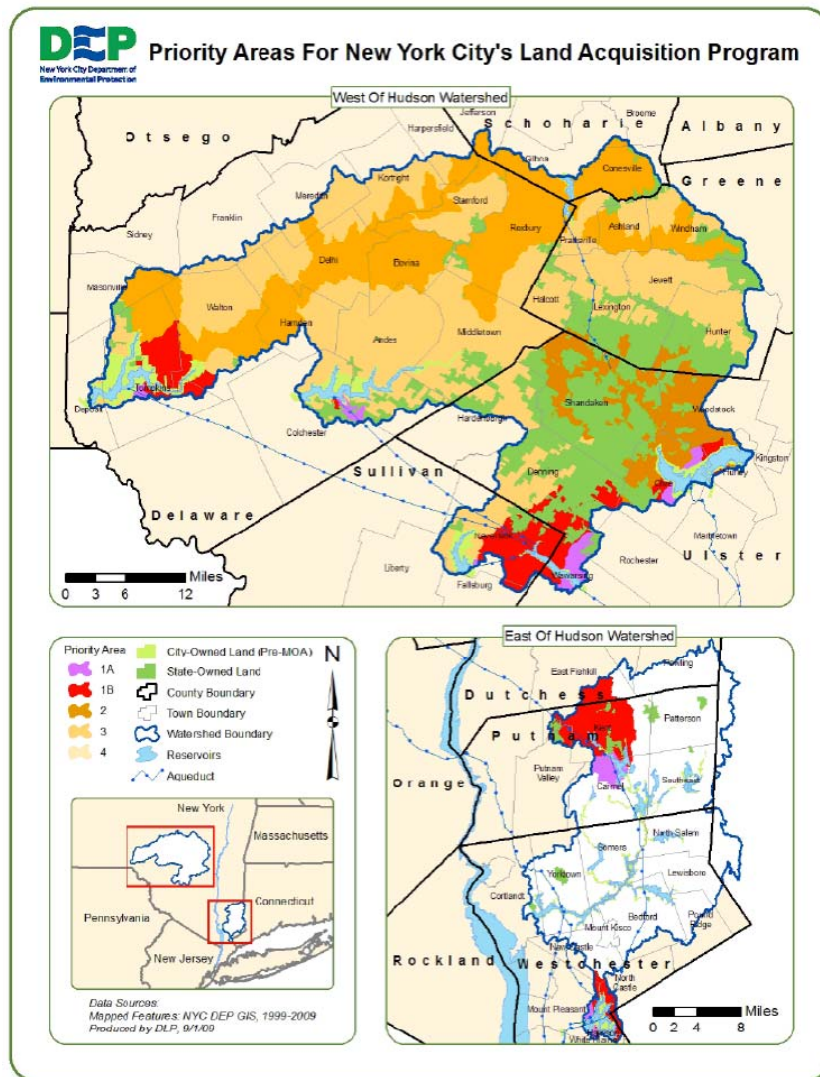
The identification of the most important parcels for acquisition within this vast watershed is an ongoing process based on a number of geographic, topographic, cost and real estate factors. LAP first prioritizes property for solicitation on the basis of its location within the water supply system, followed by site-specific characteristics. These principles are embodied in the Priority Area and Natural Features Criteria provisions of the MOA as discussed below.

Priority Areas

The basins and sub-basins comprising the Cat-Del System were assigned to Priority Areas (as depicted in Figure 1-4) as follows:

- **Priority 1A** – Sub-basins within 60-day travel time to distribution located near reservoir intakes;
- **Priority 1B** – All other sub-basins within 60-day travel time to distribution;
- **Priority 2** – All remaining sub-basins in terminal reservoir basins;
- **Priority 3** – Sub-basins in non-terminal reservoir basins with existing water quality problems; and
- **Priority 4** – All other sub-basins in non-terminal reservoir basins.

Figure 1-4: Cat Del System Priority Areas



The MOA required that the City solicit at least 355,050 acres in accordance with a schedule that reflected LAP's priorities both in timing (higher priority areas were solicited first) and in percentage of eligible lands solicited (ranging from 95 percent of eligible lands in Priority 1A and 1B to 50 percent of eligible lands in Priority 4).

Following the new funding commitments contained in the 2007 FAD, the City's 2008 to 2010 Solicitation Plan called for an additional 90,000 acres of new solicitation. These additional acres were solicited primarily in Priority Areas 3 and 4 (since Priority 1 and 2 had already been almost entirely solicited), effectively raising the level of solicitation in those Priority Areas above the minimum levels specified in the MOA.

Natural Features Criteria

Natural Features Criteria as defined in MOA 63 establish a set of hydrologic and topographic features, one or more of which must be present on a property in order to qualify for acquisition in Priority Areas 2, 3 or 4. (In priority areas 1A and 1B, natural features criteria are not required.) LAP uses the NYCDEP Geographic Information System (GIS) to overlay these features onto digitized tax parcels as part of the parcel evaluation process.

Currently Paragraph 63 of the Watershed MOA establishes criteria that parcels must meet in order to be eligible for acquisition under the LAP, including natural features criteria applicable to parcels in Priority Areas 2, 3, and 4. There are two main categories of natural features criteria.

- 1) Surface water features: Parcels must
 - be at least partially located within 1,000 feet of a reservoir, or
 - be at least partially located within the 100-year flood plain, or
 - be at least partially located within 300 feet of a watercourse, as defined in the Rules and Regulations for the Protection from Contamination, Degradation and Pollution of the New York City Water Supply and its Sources (Watershed Regulations), or
 - contain in whole or in part a federal jurisdiction wetland greater than five (5) acres or a NYSDEC mapped wetland, or
- 2) Slopes: Parcels must contain ground slopes greater than fifteen percent (15%).

Hamlet Designations

Under the 1997 MOA, West-of-Hudson municipalities had the opportunity to identify Designated Areas, including villages, hamlets, village extension areas and industrial/commercial areas, and separately to determine, by resolution, whether to exclude the City's acquisition of property in through LAP in fee simple in these areas. The intent of the Designated Areas was to "...provide reasonable opportunities for growth in and around existing population centers." The designated hamlet areas are shown in Figure 1-5.

In the Extended LAP, NYCDEP would be open to participating in future flood buyout projects if requested by a county or local government.

Use of Water Supply Lands

NYCDEP allows a number of uses on LAP acquired land where consistent with water quality and public safety. Approximately 59,000 acres since 1997 have been opened up to recreational uses such as fishing, hiking, snowshoeing, cross country skiing, bird watching, educational programs, nature study and interpretation, and hunting. In 2008, NYCDEP expanded recreational uses of West-of-Hudson (WOH) lands to include Public Access Areas (PAAs) in which no NYCDEP access permits are required. The majority of WOH lands that are not adjacent to reservoirs are being converted to PAAs and this is the default designation for newly acquired lands. Also in 2008, NYCDEP eliminated the use of the NYCDEP Hunt tag in an attempt to make it easier for the public to access NYCDEP lands. In 2009, NYCDEP also began the Cannonsville Reservoir Boating Pilot Program in which non-motorized vessels (kayaks, canoes, etc.) are allowed, and users do not have to be fishing. Approximately half of the reservoir was open for this project in 2009. During 2010, NYCDEP expanded the pilot area to include the western portion of the reservoir. The entire reservoir is open for recreational boating except a few small areas around City infrastructure and facilities. Furthermore, NYCDEP is developing a comprehensive forest inventory and management plan to address the need for proactive forest management to maintain a healthy forest ecosystem. Since 1997, NYCDEP has opened 1,722 acres City-owned land to forestry.

NYCDEP allows other low-intensity uses of its land including certain agricultural activities. The public may submit proposals and / or bids to conduct agricultural activities on City lands that have had a history of such use. For example, farmers may propose to harvest hay, plant row crops, graze livestock and tap sugar maple trees for maple sap. Proposers / bidders must agree to conduct activities in a manner consistent with water quality protection and as approved by NYCDEP. NYCDEP currently has over 30 active projects. Bluestone mining and forestry can be allowed on eased properties, subject to NYCDEP plan approval.

Most of the uses allowed on NYCDEP lands are subject to separate site specific approvals of land use plans and, in certain instances stormwater pollution prevention plan approvals and environmental review, where applicable. Recreational uses are allowed pursuant to “NYCDEP Rules for the Recreational Use of Water Supply lands and Waters” and regulations that underwent SEQRA review (Negative Declaration dated July 2008). Because these uses are not subject to further review and approval, they are reviewed in this EIS. Agricultural activities are normally undertaken as a continuation of a pre-existing agricultural use which occurred prior to NYCDEP’s acquisition, whether on NYCDEP-owned land, NYCDEP-owned easements, or WAC easements. NYCDEP prepares sustainable forestry project plans for land it owns in the watershed. These plans are subject to SEQRA review before forest improvement projects are permitted. Bluestone mining is currently only allowed on conservation easements, with NYCDEP approvals of mining plans submitted by the landowner; any operation greater than an acre is subject to environmental review under SEQRA as part of obtaining a stormwater permit pursuant to NYCDEP Watershed Rules and Regulations. Smaller sites would have limited impacts. The number of such operations on NYCDEP properties or easements would be small and their location is not reasonably foreseeable. NYCDEP’s requirement to review and approve mining plans does not replace any regulatory oversight required by NYS, which requirements must still be met by the owner of the eased property if thresholds exceed those in NYS regulations.

EXTENDED LAND ACQUISITION PROGRAM

Since 2008, through the City's submission of a WSP application on January 21, 2010 and DEIS on June 1, 2010, NYCDEP has been in active discussions with its regulators (NYSDEC, NYSDOH, USEPA) and West of Hudson Watershed Stakeholders to address concerns about the proposed Extended Land Acquisition Program. The parties to those negotiations have come to agreement on the core permit terms. Other related terms that the parties have agreed to will be memorialized in a separate Agreement, discussed below. Among other changes, the parties agree that the Permit term will be 15 years. This fifteen year term, analyzed in the DEIS as the Greater Impact Alternative, has been incorporated into the project as the Greater Impact Scenario in the FEIS.

The Extended LAP would continue to use the same basic real estate methods solicitation described above, which have resulted in the acquisition by LAP and WAC of over 96,000 acres as of July, 2009.⁴ The Extended LAP program for the period from 2012 to 2022 will refine solicitation activity to focus more attention on certain basins and sub-basins. As described in the September 2009 Long-Term Plan, the prioritization of solicitations will be based on some combination of their location within the system as a whole, the basin or sub-basin's existing level of protection, and a basin's anticipated contribution to future water supply including:

- ☐ Non-terminal reservoir basins with less than 30 percent protected lands;
- ☐ Specific sub-basins with a relatively low percentage of protected lands; and
- ☐ Reservoir basins that are expected to provide larger contributions to future water supply.

Using this strategy, Areas of Focus have been developed to identify basins and sub-basins which warrant additional attention for solicitation based on current levels of protection, success rates, contribution to water supply, and other factors. Parcel selection would include procedures to maximize the water quality benefit of acquisitions.

Many local communities have consistently expressed how important recreational access, forestry and agriculture are to their local economies, which have historically been connected to these land-dependent activities. Under the MOA, the City committed to consider recreational access for lands acquired in fee simple. Since 1997, NYCDEP has expanded the use of City fee-owned lands that support local economic vitality while maintaining its obligation to protect water quality. Increased recreational access, at times in partnership with NYSDEC, has been at the forefront of these changes.

PLANNING PRINCIPLES

Areas of Focus

Areas of Focus have been developed to identify basins and sub-basins which warrant additional attention for solicitation based on current levels of protection, success rates, contribution to water supply and other factors:

⁴ See Table 1-1.

1. Less-Protected Reservoir Basins - The Schoharie, Pepacton and Cannonsville basins are the largest basins in the Cat-Del System, together comprising some 720,000 acres or over 70 percent of the system land area. They contain about 75 percent of the remaining solicited land. For this reason, any acquisition strategy from 2012 to 2022 would necessarily be focused on these three basins. The fact that these three non-terminal basins also contain the lowest percentage of protected lands provides further basis for this focus.

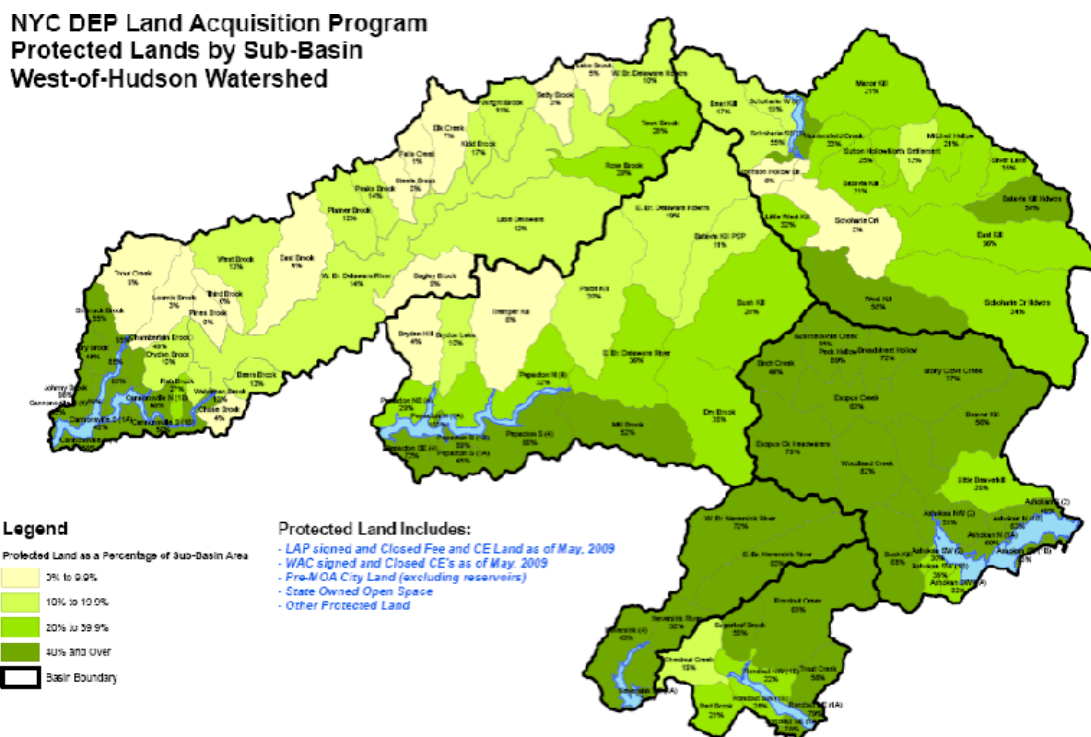
2. Critical Sub-Basins - Each reservoir basin is comprised of discrete sub-basins whose location, topography and land use patterns vary in ways that greatly influence the water quality entering and leaving each reservoir. LAP has identified several categories of sub-basins whose characteristics merit heightened focus:

Sub-Basins Near Intake - Sub-basins which drain directly into a reservoir near intakes⁵ are particularly sensitive because an inflow of pollutants from even a small sub-basin at these locations can have a large impact on the overall quality of water leaving the reservoir. This factor, identified by the City through study of the Malcolm Brook sub-basin at the Kensico Reservoir intake, was reflected in the Priority Area 1A designations for basins within 60-day travel time. LAP plans to extend this concept to specific sub-basins in Priority Areas 3 and 4.

Less-Protected Sub-Basins - While basin-wide protection levels provide a useful tool to evaluate system-wide progress, the distribution of protected lands on a sub-basin level reveals patterns masked at the basin level. As shown in Figure 1-4 Sub-basins with less than 20 percent protected lands are primarily located in the Pepacton and Cannonsville Basins. In cases where these sub-basins are also located near intakes (such as the Tremper Kill, Bryden Hill and Bryden Lake sub-basins north of the Pepacton Reservoir), protection efforts are particularly critical.

⁵ *Intakes* are the point where water leaves the reservoir and enters an aqueduct for transport towards distribution.

Figure 1-6 Percent Protected Lands by Sub-Basin



3. Contribution to Future Supply - The LAP Priority Areas emphasize travel time to distribution as a primary concern for water quality protection. The success of LAP to date in increasing protected lands in Priority Areas 1 and 2 allows additional factors going forward to prioritize future acquisitions to build on this success. One such factor is the proportion of source water originating from each reservoir basin.

Long-term planning by NYCDEP has identified several factors - including improved water quality in the Cannonsville Basin, the pending completion of the Croton Water Treatment Plant, and turbidity in the Catskill System - which may result in supply shifts that should be taken into consideration in planning LAP's solicitation strategy. The Ashokan and Pepacton basins would continue to provide the most supply, with increases projected for Rondout, Cannonsville and the Ashokan basin contributions

4. Develop strategies to promote the wise use of acquisition funds over the long-term - Acquisition costs vary tremendously within the Cat-Del system. Further, the high cost areas (Kensico, West Branch and Ashokan, in descending order) correspond in large part to the basins that now have the highest percentage of protected lands. Therefore the incremental protection value of acres acquired in the less-protected basins WOH is higher than the value of acquiring acreage in more expensive, highly protected basins. For these reasons, LAP's parcel selection strategy will more directly consider cost and levels of protection.

In practice, three of these Areas of Focus (Less-Protected Basins, Critical Sub-Basins and Contribution to Future Supply) overlap to some degree. For example, the sub-basins north of Pepacton Reservoir qualify in all three categories and therefore would be Areas of “High” Focus, while certain sub-basins in Schoharie Basin that already have a high percentage of protected land only qualify on the basis of one factor (Less-Protected Basins) and would receive less focus.

Other Solicitation Criteria

NYCDEP expects to continue to resolicit most of the 375,000 acres of solicited land not yet acquired. The vast majority of these solicited parcels are comprised of vacant land over 20 acres in size or residential parcels over 30 acres with slope or surface water features that merit protection for water quality protection. However some marginal parcels previously solicited would not be actively pursued, and some new lands would be solicited, according to the criteria detailed below:

1. Parcels Adjoining Previously-Acquired Land – Parcels adjoining lands acquired in fee simple should continue to be identified and solicited to support multiple program objectives that are considered accessory to or consistent with protection of water quality, including management efficiency, increased utility for working landscape partnerships, and enhanced recreational opportunities. The importance of these program objectives will result in the solicitation of some connecting parcels that would not otherwise merit strong consideration based solely on size or water quality criteria. The identification of these parcels will be continually updated as new acquisitions occur.

2. Smaller Vacant Parcels in Proximity to Surface Water Features – The Cat-Del System includes over 1,000 vacant parcels of between 10 and 20 acres, taken alone or in small assemblages. On one hand, many of these lots lack the steep slopes or proximity to streams associated with significant water quality impacts. However, other small lots, especially those in proximity to streams, merit protection. Program experience since 1997 has also shown that the management burden of smaller fee lots is relatively minimal, particularly compared with CEs. For these reasons, LAP would identify more small lots near water for solicitation, particularly in Areas of Focus. This strategy would enable LAP to maximize the water quality impact of its acquisitions.

3. Conservation Easements – In contrast to fee simple acquisitions, CEs require a significant ongoing dedication of resources for annual monitoring and occasional enforcement. Despite these long-term costs, CEs provide a unique tool to protect lands (particularly those with residences) whose owners are not interested in selling their land outright.

Size, natural features, development potential and location would be the primary programmatic criteria used to make decisions to pursue a particular CE, but other factors would continue to be considered although in ways that may vary from past practice depending on the level of protection in a given area. These factors include the size and configuration of tax parcels comprising the CE, the presence or absence of other CEs on adjoining or nearby lands, and an analysis of the landowner’s stated plans for future use of the property.

- ***Properties in well-protected Basins and Sub-Basins*** – In locations where protected lands already comprise a high percentage of the basin and/or sub-basin area, potential CE's between 75 and 100 acres will be evaluated to ensure that their development potential and proximity to surface water features merit proceeding with the acquisition;
- ***Properties in Areas of Focus*** – LAP will develop guidelines to acquire smaller CEs (under 75 acres) in less-protected basins and sub-basins, particularly where land use patterns result in a higher degree of landowner interest in CEs in comparison to fee simple acquisition. In **Areas of High Focus**, such as the sub-basins north of the Pepacton Reservoir in Andes and Colchester, smaller parcels will be more likely to be pursued than in other areas; and
- ***Compelling Properties*** – LAP will continue to pursue CEs on properties over 100 acres with significant development potential and proximity to surface water throughout the watershed.

Program Changes

As a result of negotiations between NYCDEP, NYSDEC, other regulators, and West of Hudson Watershed Stakeholders, several components of the Extended LAP have been agreed upon. These components are discussed below.

Hamlet Expansion Areas

As a result of these negotiations, there has been agreement to potential modifications to the 1997 Designated Areas (see page 1-10 above). Under MOA Paragraph 68, West-of-Hudson municipalities were given the opportunity in 1997 to designate areas, including villages, hamlets, village extension areas and industrial/commercial areas, and to determine, by resolution, whether to exclude the City's acquisition under LAP of property in fee simple in these areas. The intent of these "Designated Areas" was to "...provide reasonable opportunities for growth in and around existing population centers."

The aforementioned negotiations focused on the interest of some West-of-Hudson towns in expanding the geographic extent of the Designated Areas beyond those delineated in 1997. The West of Hudson Watershed Stakeholders also expressed an interest in changing the rules governing LAP acquisition in the Designated Areas. In particular, in 2008, the CWT requested and the City and other West of Hudson Watershed Stakeholders agreed that each WOH town could identify additional "Expansion Areas" for future growth. The West of Hudson Watershed Stakeholders agreed that such expansion areas are appropriate given the relatively small size of the MOA Designated Areas (which are already largely developed) and the increased scope of LAP. In addition, the City and the CWT agreed, that municipalities could elect to make both the current designated hamlet areas and these Expansion Areas off limits to virtually all LAP acquisitions (including Watershed Conservation Easements), not just to fee simple purchases as was previously the case⁶. (As explained below, the Riparian Buffers Program, authorizing acquisitions in fee simple and conservation easements of certain buffer properties, may be allowed in areas that are otherwise designated as off limits to the LAP.)

⁶ Except the Riparian Buffer Program

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Seventeen watershed towns have proposed Expansion Areas⁷ (See Table 1-2). The West of Hudson Watershed Stakeholders and individual counties and towns have worked diligently to balance community concerns over opportunities for future development with water quality protection needs in determining the appropriate scope of each town's proposal. The West of Hudson Watershed Stakeholders have agreed on Expansion Areas for all seventeen towns, whose proposals total 26,709 acres. If the hamlets are expanded as proposed, and all of the affected municipalities elect to preclude LAP acquisition in them, approximately 10,500 acres of previously solicited lands would no longer be eligible for acquisition.

Because the expanded hamlet boundaries have been agreed to, pending opt-in provisions by the individual towns as described in the Permit, they are included in the Proposed Action. However, since the extent and scope of LAP exclusions from hamlets will be unknown until acted upon by the towns, there is a possibility that these expanded areas will not be part of the Extended LAP. Therefore, for purposes of the EIS, a No Hamlet Expansion Alternative is also evaluated.

The hamlet designation and expansion areas would be consistent with and reinforced by a number of other existing NYCDEP watershed programs. The proposed expanded hamlets and other existing NYCDEP programs recognize the water quality benefits of encouraging development in areas where it is already concentrated -- and where there is infrastructure to support it. Similarly, they acknowledge the reality that historically, communities have often developed along streams, and therefore that growth within these areas may require construction within the limiting distances where impervious surfaces are generally prohibited under the Watershed Regulations. These Watershed Regulations encourage growth within villages and designated hamlets by providing relief in those areas from the general prohibition against new impervious surfaces within 100 feet of watercourses and wetlands so long as the applicant seeks and obtains NYCDEP approval of a stormwater pollution prevention plan (SPPP). In the recent amendments to the Watershed Regulations, which became effective on April 4, 2010, NYCDEP amended the definition of "hamlet" to ensure that the expanded hamlets will qualify for this regulatory relief. To the extent that SPPPs are required under the Watershed Regulations where they would not otherwise be required under State or federal law, or to the extent that the Watershed Regulations impose more stringent requirements for SPPPs, the City pays the costs for designing, implementing, and maintaining stormwater control measures under the MOA, through the Future Stormwater Program managed by the Catskill Watershed Corp.

⁷ The towns will retain the right to remove – but not add – parcels from the proposed Expanded Hamlets and to formalize the status of such parcels as in or out of the Expanded Hamlets from that point on when the towns adopt resolutions to exclude (or not exclude) acquisition.

Final Town Hamlet Expansion Area Proposals Accepted by the Parties November 30, 2010

Acceptable Town-wide Proposal	Shandaken	78,875	1,561
Sub-Total			1,561

Summary:	Existing MOA Designated Areas:	21,310
	Town Expansion Proposals Acceptable to all Parties:	26,709

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Similarly, NYCDEP-funded wastewater programs under the MOA, primarily intended to control wastewater threats from existing development, also support the smart growth philosophy of encouraging community growth within hamlet areas rather than the diffuse sprawl development that often occurs in the absence of centralized environmental infrastructure. Under the New Sewage Treatment Infrastructure, Community Wastewater Management, and Sewer Extension Programs, NYCDEP has funded the construction of new wastewater infrastructure in a number of villages and hamlets, as shown in Table 1-3. The centralized wastewater treatment facilities at these locations support the widespread local desire for hamlet revitalization. These facilities further the goals embodied in the hamlet provisions of the MOA and the expanded hamlet proposals embraced by communities and NYCDEP by encouraging clean and “green” development in population centers and reducing pressure for development and land consumption in outlying areas.

Table 1-3: Wastewater Infrastructure Funded by NYCDEP

<u>Village/Hamlet</u>	<u>Town or Village/County</u>	<u>Type of Facility</u>
Andes	Andes/Delaware	WWTP
Bloomville	Kortright/Delaware	Community Septic System
Bovina Center	Bovina/Delaware	Community Septic System
Fleischmanns	Fleischmanns/Delaware	WWTP
Grand Gorge	Roxbury/Delaware	Sewer Extensions
Hamden	Hamden/Delaware	Community Septic System
Roxbury	Roxbury/Delaware	Connection to City’s Grand George WWTP
South Kortright	Stamford/Delaware	Community Septic System (in planning stage)
Trout Creek	Tompkins/Delaware	Community Septic System (in planning stage)
Ashland	Ashland/Greene	WWTP
Hunter	Hunter/Greene	WWTP
Lexington	Lexington/Greene	Community Septic System (in planning stage)
Prattsville	Prattsville/Greene	WWTP
Tannersville	Tannersville/Greene	Sewer Extensions
Windham	Windham/Greene	WWTP
Grahamsville	Neversink/Sullivan	Sewer Extensions
Boiceville	Olive/Ulster	WWTP

Natural Features Criteria

As a result of the negotiations among the West of Hudson Watershed Stakeholders, the Extended LAP will incorporate numeric thresholds to define the minimum amount of the specified natural features that must be present on a property to qualify for acquisition. The parties have agreed that properties in Priority Areas 2, 3 or 4, must meet either or both of the following thresholds:⁸

- At least seven percent (7%) of the property exhibits Surface Water Features⁹, or
- At least fifty percent (50%) of the property exhibits slopes greater than 15 percent.

The determination of whether these Natural Features Criteria thresholds are met would be based on the best information available to the City at the time the City orders an appraisal. This modification would remove some lands from eligibility for future solicitation, and would focus LAP on those lands most sensitive for water quality. Table 1-4 shows the impact of the proposed hamlet Expansion Areas (PEAs) and Natural Features Criteria thresholds on the existing pool of solicited lands,

⁸ The draft WSP provides limited exceptions from these thresholds to allow for acquisition of certain properties adjacent to lands owned by the City or State.

⁹ Surface Water Features include 1,000-foot buffers around reservoirs, 300-foot buffers around watercourses, 100-year floodplains, DEC-mapped wetlands, or federal jurisdiction wetlands over 5 acres.

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Table 1-4: Impact of PEA's, MOA Designated Areas and proposed NFC Thresholds on Remaining Solicited Land WOH by County as of November, 2010

	(a)	(b)	(c)	(d)	(e)	(f)
	Impact on Remaining Solicited Acres					
County	Remaining Solicited Acres	Proposed Expansion Areas (PEA)	MOA Designated Areas	NFC: 7% SWC / 50% Steep Slope Threshold	Totals Solicited Acres Impacted (sum of Columns b, c & d)	Remaining Acres Available for Solicitation
Delaware	207,563	4,704	1,462	8,043	14,209	193,354
Greene	62,146	5,101	958	2,368	8,427	53,719
Schoharie	12,883	449	0	517	966	11,917
Sullivan	19,398	0	315	397	712	18,686
Ulster (1)	48,120	243	306	628	1,177	46,943
Totals	350,110	10,497	3,041	11,953	25,491	324,619
Shandaken	13,284		576	0	576	12,708
Totals	363,394	10,497	3,617	11,953	26,067	337,327
Column (a)	Remaining Solicited Acres' are LAP solicited acres WOH not already signed or closed; Includes all Priority Areas; Does not include WAC solicitation.					
Column (b)	Sub-set of Column (a) lying within accepted PEA's in each County. If only a portion of a solicited parcel lies within a PEA, only the acres within the PEA is counted.					
Column (c)	Sub-set of Column (a) lying within each MOA Designated Areas in each County. Acres are counted whether or not the Town has previously elected to exclude LAP acquisitions in fee simple. If only a portion of a solicited parcel lies within an MOA designated area, only the acres within the Des Area is counted.					
Column (d)	Sub-set of Column (a) in properties solicited by LAP whose NFC would fall below the 7% SWC or 50% Steep Slope threshold and also located in Priority Area 2, 3 or 4 and outside the PEA's and MOA Designated Areas.					
(1) Ulster County	Ulster County totals exclude the Town of Shandaken. In lieu of designating specific parcels for its PEA, Shandaken has requested, and the parties have agreed, that the City will not proactively solicit land in Shandaken, but may negotiate with any landowners who initiate contact.					

The proposed Expansion Areas could remove about 10,500 acres from solicitation (based on prior solicitations of eligible land), and the proposed thresholds for Natural Features Criteria could remove roughly another 11,950 acres.

Although the PEAs, MOAs and NFC thresholds would remove about 26,000 acres of solicited land, there would still be a very large universe, about 337,000 acres of remaining eligible land solicited, for NYCDEP to draw from for its future acquisitions in the West-of-Hudson watershed. Therefore NYCDEP does not consider these new limitations to be a constraint on the total number of acres it will acquire, but rather that they will focus acquisitions on different and more sensitive properties within the previously solicited group.

Riparian Buffer Program

The City has agreed to implement an initial three-year Riparian Buffer Program (RBP) in which the City would allocate up to Five Million Dollars (\$5,000,000) of the funds currently committed to the LAP to a program for acquiring Riparian Buffers, in easement or fee. As currently envisioned, the City-funded RBP would be implemented in conjunction with one or more Stream Management Plans developed under the City's Stream Management Program, and would be carried out in partnership with one or more local land trusts. The RBP would involve the acquisition of small parcels along streams, wetlands and other water features. Towns that exclude LAP acquisitions in designated areas may nonetheless opt to allow acquisition of riparian buffers in such areas. Since much of this land is already constrained by regulatory buffers and physical limitations on development, the RBP is not expected to have a large impact on the supply of developable land in towns where it is implemented. The amounts of land protected under the RBP are subsumed within the amounts projected under the Extended LAP for purposes of this EIS.

Forest Conservation Easement Program

The City has also agreed to implement a five-year Forest Conservation Easement Program (“FCE Program”) in which the City would allocate up to six million dollars (\$6,000,000) of funds currently committed to the LAP to acquisitions of easements on forested land. As currently envisioned, the City-funded FCE Program would be implemented in partnership with the Watershed Agricultural Council (WAC) in similar fashion to the Farm Easement Program that has been in operation by WAC and NYCDEP since 1999. The FCE Program would focus on properties that are (1) enrolled in WAC’s Forest Management Program (for which a Forest Management Plan has been developed); (2) enrolled in NYSDEC’s Forest Stewardship Program or Section 480A Forest Tax Law (for which a Forest Management Plan has been developed); or (3) important for other reasons related to water quality. The FCE will complement the land protected by NYCDEP CEs and WAC Farm Easements within the acquisitions analyzed in this EIS, and does not represent an increment for analysis. The amounts of land protected under the FCE program are subsumed within the amounts projected under the Extended LAP for purposes of this EIS.

Enhanced Land Trust Program

The City has further agreed to implement an Enhanced Land Trust Program (“ELT Program”) in which one or more land trusts would (1) acquire large properties that contain improvements such as dwellings, which improvements are otherwise off limits to NYCDEP, (2) facilitate subdivision of the properties, and (3) convey the vacant portion to the City at fair market value, and the residential portion into private ownership on the open market. The ELT Program would be implemented only in those towns that elect to allow the land trust to acquire properties with dwellings (a class of properties that the MOA prevents the City from acquiring itself). As envisioned, the City will pay for most of the carrying costs incurred by the land trust(s) under this program. The amounts of land protected under the ELT program are subsumed within the amounts projected under the Extended LAP for purposes of this EIS.

Use of Water Supply Lands

As discussed in the Program to Date section above, NYCDEP allows recreation, forestry, mining, and low-intensity agriculture on NYCDEP owned lands. These activities are expected to continue and possibly be expanded on lands purchased under the Extended LAP, subject to NYCDEP approvals as applicable and where consistent with water supply protection and operations and public safety.

In addition to the recreational uses that have been allowed on NYCDEP owned lands, under the draft WSP, NYCDEP will allow snowmobile trails where appropriate, sponsored by qualifying organizations. NYCDEP will also continue the pilot boating program in the Cannonsville reservoir and, based on the results of the ongoing evaluation study, will consider whether to continue and/or expand it. The draft WSP requires NYCDEP to submit a report evaluating recreational uses on its watershed property in seven years, based on consultation with other stakeholders, and upon request from NYSDEC every ten years thereafter.

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NYCDEP has also agreed to modify the model conservation easement that it conveys to NYSDEC to provide for the possibility of cell towers and wind turbines on land it owns in fee simple. Such exercise of reserved rights could be triggered by applicants from the community, at which point NYCDEP would determine whether such land use is consistent with applicable standards and conditions; if so, NYCDEP would submit a proposal to NYSDEC to exercise such reserved right. In addition, cell towers and wind turbines will be treated as new reserved rights subject to grantee approvals under conservation easements acquired by NYCDEP and WAC (existing easements that lack this provision will be amended to provide such rights where necessary). NYCDEP and WAC will consider requests to exercise such reserved rights pursuant to terms of the easements and water quality protection measures associated with the proposals.

The Proposed Action for this EIS is the new Water Supply Permit that would allow for continued acquisition under the Land Acquisition Program. As discussed above under *Program to Date*, most of the uses allowed on NYCDEP lands are subject to separate site-specific approvals of land use plans and/or stormwater pollution prevention plans, and environmental reviews, where applicable. Recreational uses, which are allowed pursuant to “NYCDEP Rules for the Recreational Use of Water Supply lands and Waters” underwent SEQRA review (Negative Declaration dated July 2008), and are not subject to further review and approval; therefore, they are not reviewed in this EIS. Other uses are either a continuation of an existing use or are subject to future approvals and environmental review and are not reviewed in this EIS. Proposals for activities under the new provisions within conservation easements for cell towers and wind turbines would be subject to environmental review under SEQRA as part of obtaining a stormwater permit pursuant to NYCDEP Watershed Regulations if they involve more than 1 acre; smaller sites would be expected to have limited impacts. The number of such proposals on NYCDEP properties or easements are expected to be small and their location is not reasonably foreseeable.

Other Permit Elements and Side Agreement

Permit Elements

As a result of negotiations among NYCDEP, NYSDEC, other regulators, and watershed stakeholders since the submittal of the DEIS, several additional refinements and a number of new components have been added to the Extended LAP WSP. Paragraph 25 of the WSP describes “Programs to Foster Cooperation and Requirement to Fund Watershed Protection and Partnership Programs.” The draft WSP includes requirements that NYCDEP continue Partnership Programs with outstanding commitments from the 1997 MOA and/or continuing commitments under the 2007 FAD. It outlines NYCDEP’s commitments to the following Partnership Programs, including the requirement that conditions of any subsequent FADs related to these programs become incorporated into the WSP. The impacts of these programs were included in the environmental review that supported the 2007 FAD (Negative Declaration dated September 2007), to the extent reasonably foreseeable. Environmental review of the continuation of these programs will be conducted, as applicable, to support the FAD review of 2012, subsequent FADs, and for discretionary permits and approvals required for these programs.

Continued Programs:

Septic Remediation and Replacement Program

Septic Maintenance Program

Community Wastewater Management Program

Stormwater Retrofit Program

Education and Outreach Program

Catskill Watershed Corporation General Operating Expenses

Stormwater Coordination Position

Watershed Agricultural Program

Forest Management Plan

Stream Management Program

Water Conservation Program

In addition to the above-referenced “Continued Programs”, the Final WSP commits NYCDEP to fund a Tax Litigation Avoidance Program [WSP para. 25(b)(8)], which is considered an administrative program and not subject to environmental review under SEQRA. The WSP also includes funding for the East of Hudson Non-Point Source Pollution Control Program, for continuing administration and management of an existing regulatory program not including a reordering of priorities.

Side Agreement Elements

In addition to reaching agreement on a number of core terms for the WSP itself, NYCDEP and the West of Hudson Watershed Stakeholders have reached consensus on an Agreement which both reaffirms the parties’ commitments under the 1997 MOA and specifies additional commitments made in connection with the draft WSP and the extended LAP. In many instances, the Agreement will enhance or clarify provisions in the WSP. Specifically, the Agreement will provide for the following, among other things:

- Parties to the Agreement will not challenge the successor WSP or this environmental review.
- The Coalition of Watershed Towns and the Towns of Hamden and Roxbury agree to dismiss pending litigation against the City of New York.
- Parties to the Agreement may enforce the Agreement and the successor WSP pursuant to the conditions of the 1997 MOA, specifically paragraphs 177 and 180 through 183.
- Clarification concerning the City’s commitments under the WSP not to solicit property in the Town of Shandaken for acquisition; to identify when structures on property proposed to be acquired meet the definition of “uninhabitable dwellings”; to use the best

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information available in determining whether property meets the natural features thresholds (“Special Criteria”); and to conduct all appropriate environmental review in the event that the City acquires “replacement lands” after the termination of the LAP.

- Details concerning the rights and responsibilities of NYCDEP and land trusts in implementing the enhanced land trust program.
- Details concerning WAC’s stewardship of Agricultural Easements and commitments to transparency in the implementation of the Easement Program and Whole Farm Program.
- Commitments relating to the stewardship of the City’s fee and easement property, including the availability of natural resources on City property.
- An agreement to support amendments to the Real Property Tax Law to continue the taxability of Watershed Conservation Easements, among other things.
- Details concerning the Tax Litigation Avoidance Program, as required under the draft WSP.
- Requirements that the Towns of Hamden and Kortright amend existing local laws relating to conservation easements.

To the extent the commitments memorialized in the Agreement simply clarify elements of the extended LAP itself, their impacts are addressed in this EIS. The commitments relating to current and potential litigation are not subject to environmental review. The Towns of Hamden and Kortright will be responsible for environmental review of the amendments to their local laws.

PROJECTION OF POSSIBLE FUTURE LAND ACQUISITION, BY COUNTY

10-Year Projection Scenario

For purposes of the EIS, projections were made of potential future acquisitions by the City to understand potential impacts of the Extended LAP. So as not to underestimate socioeconomic or community character impacts, the projections are highly conservative for purposes of developing a reasonable worst case scenario – that is, a high estimate of acquisitions – at the town level for evaluation in this EIS. The projections use the pool of previously solicited lands as a starting point (after removing land already acquired). These acres were then multiplied by an assumed future success rate for each town. The future success rates are conservative, in that they err on the side of over-estimating acquisition. Using the county-wide historical success rate as a starting point, the town-based rates assume that future acquisition will occur at a rate higher than has been seen to date. This approach tends to account for regional differences, without being overly tied to past results, which can be greatly influenced by specific large acquisitions. The average county success rate was then increased for those towns that are in "areas of high focus"

according to the Long-Term Land Acquisition Plan – that is, areas of particular significance in terms of potential impact on water quality, where the City expects to solicit more frequently.

Table 1-5 presents projections for future watershed land acquisitions by county. Acres of fee, conservation easements acquired by NYCDEP (CE), and farm easements acquired by the Watershed Agricultural Council (WAC) that could be acquired through 2022 were projected for each town (town level projections are presented in Chapter 3, *Socioeconomic Conditions*).

Table 1-5: Reasonable Worst Case Projections of Acquisitions Under the Extended LAP

District	County	Historical Success Rate	Fee/CE Acres Acquired Thru July, 2009	Assumed Future Success Rate	Projected Future Acres	Projected Future WAC CE Acres	Total Proj. Acres LAP + WAC
WOH	Delaware	13%	31,290	20%	40,900	13,152	54,052
	Greene	20%	16,108	27%	16,780	952	17,712
	Schoharie	18%	3,385	25%	3,384	1,162	4,546
	Sullivan	14%	3,471	20%	3,983	301	4,284
	Ulster	22%	17,890	25%	15,942	433	16,375
	Sub-Total	16%	71,943	22%	80,940	16,000	96,940
EOH	Dutchess	46%	1,049	25%	307	0	307
	Pulnam	63%	7,563	30%	1,210	0	1,210
	Sub-Total	60%	8,602	33%	1,517	0	1,517
Totals		17%	80,545	22%	82,465	16,000	98,465

Note: Town-Level Projections were not conducted for Westchester County due to low anticipated volume

As shown in Table 1-5, the projected amounts of land in the watershed, particularly in the West-of-Hudson watershed, are higher over the next 12 years than the previous 12 years. This is an unlikely scenario because the City has already solicited much of the land it will be soliciting in the future and the success rates are likely to be somewhat lower rather than higher as shown in the projections, since the remaining lands are largely owned by individuals who have declined to sell in the past. These optimistic projections are therefore highly conservative for purposes of projecting future potential impacts, particularly with respect to socioeconomic and community conditions.

15-Year Greater Impact Scenario

This EIS also evaluates a 15 Year Greater Impact Scenario (previously analyzed as the Greater Impact Alternative under the DEIS). As discussed above, per agreement with NYSDEC, other regulators, community representatives and representatives of environmental organizations since the submittal of the WSP application, it has been agreed that the term of the permit will be 15 years. The analysis in this scenario assumes that NYCDEP would acquire an additional 10 percent above the 10-Year Projection Scenario shown in Table 1-5. As shown on Table 1-6, based on this approach, NYCDEP acquisitions in fee simple and conservation easements in the West-of-Hudson watershed between 2010 and 2027 would total 89,043, as compared with

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80,948 acres through 2022 in the 10-Year Projection Scenario. Acquisitions of farm easements by the WAC from 2010 through 2027 are not expected to exceed the 16,000 acres projected in the 10-Year Projection Scenario.

This scenario is considered to be an extremely conservative (i.e. high impact) estimate of land to be acquired under the Extended LAP. The projections in Table 1-5 use very conservative assumptions to estimate the amount of land to be acquired under the Extended LAP. It is highly unlikely that, even under a 15 year Water Supply Permit, additional land would be acquired beyond the levels estimated in Table 1-5. Nevertheless, NYCDEP evaluated the projections presented in Table 1-6.

Table 1-6: 15-Year Greater Impact Scenario Projections of Acquisitions Under the Extended LAP

District	County	Historical Success Rate	Fee/CE Acres Acquired Thru July, 2009	Assumed Future Success Rate	Projected Future Acres	Projected Future WAC CE Acres	Total Proj. Acres LAP + WAC
WOH	Delaware	13%	31,290	20%	44,990	13,152	58,142
	Greene	20%	16,108	27%	18,436	962	19,398
	Schoharie	18%	3,385	26%	3,722	1,162	4,884
	Sullivan	14%	3,471	20%	4,359	301	4,660
	Ulster	22%	17,690	26%	17,536	433	17,969
	Sub-Total	16%	71,943	22%	89,043	16,000	105,043
EOH	Dutchess	46%	1,049	26%	338	0	338
	Putnam	63%	7,553	30%	1,331	0	1,331
	Sub-Total	60%	8,602	33%	1,669	0	1,669
Totals		17%	80,545	22%	90,712	16,000	106,712

No projections were made for the Croton System or Westchester County. Acquisitions in the Croton Watershed would be highly unusual and only made for a limited set of very water-sensitive lands. For the Kensico Reservoir watershed in Westchester County, very few parcels would be expected to be acquired due to the existing high levels of protection and relatively built-out status of the basin. Due to the highly developed nature of the watershed, land or CEs that would be acquired would tend not to be vacant land, but more likely land that is part of an existing recreational or educational area (such as a golf course or ecological study area) or other such use that could continue under a CE. The potential for these acquisitions are discussed qualitatively but, due to the predicted low levels of acquisition, no potential significant impacts are expected to occur.

EIS PROCESS

This DEIS has been prepared to assist decision-makers by providing a full disclosure of the environmental consequences of the proposed action. The DEIS conforms with the State Environmental Quality Review Act (SEQRA) and its implementing regulations (6 NYCRR Part 617) in accordance with Article 8 of the Environmental Conservation Law and the City Environmental Quality Review (CEQR) Executive Order 91 of 1977 (as amended).

As the first step in the environmental review process, a Draft Scope of Work was issued on February 16, 2010. Public meetings to obtain oral testimony on the Draft Scope were held in Hunter and Delhi, New York on March 23, and March 24, 2010 respectively. The period for submitting written comments remained open until April 5, 2010. A Final Scope of Work was issued on April 30, 2010, finalizing the scope of analysis for the DEIS based on comments received. Based on the Final Scope of Work, a DEIS was prepared and certified as complete on June 1, 2010. The DEIS was circulated for public review. Three joint NYSDEC and NYCDEP public hearings were held to obtain oral testimony on the DEIS and Water Supply Permit Application. These hearings were held on July 12, 2010 at SUNY Delhi, in Delhi, NY, on July 13, 2010, at Hunter Elementary School in Hunter, NY and on July 14, 2010, and at Tri-Valley High School in Grahamsville, NY. The period for submitting written comments remained open until November 22, 2010.

This Final EIS (FEIS) includes written responses to address public comments made on the DEIS (See Chapter 12).

PERMITS AND APPROVALS

NYCDEP has applied to NYSDEC for a Water Supply Permit which will authorize the continuation of the LAP beyond the January 2012 expiration of the 1997 WSP. In addition, NYCDEP consults regularly with NYSDOH, USEPA, and NYSDEC concerning its continued implementation of the requirements for the LAP as set forth in the 2007 Filtration Avoidance Determination. NYCDEP and the West of Hudson Watershed Stakeholders will also enter into a side Agreement reaffirming their commitments under the 1997 MOA and clarifying and expanding upon certain provisions of the WSP.