

Recent Flashpoints in a Famous Regional Case Study: Compensation for Ecosystem Services and Rural Development

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On June 29, 2009, the Supreme Court of the United States declined to review a decision by the United States Court of Appeals for the Second Circuit, which dismissed a request to stop New York City's exemption from a requirement to build a \$6-8 billion drinking water filtration system.¹ The Supreme Court denial allowed the world's largest unfiltered water system to continue its policy of providing compensation to rural areas upstream in exchange for their protection of New York City's drinking water supply with ecosystem services.² The United States Environmental Protection Agency (EPA) had granted the exemption, called a Filter Avoidance Determination (FAD), in 2007 for a longer-than-normal period of ten years, marking the institutional success of the City's ecosystem services program.³ Since 1997, New York City's work has been cited and lauded by ecosystem services proponents around the world.⁴ However, the lawsuit, brought by several towns in the City's watershed, shows that the lingering disagreements with rural communities upstream have not been extinguished as was first hoped at the outset of the program.⁵ This paper will relate the creation of the City's ecosystem services program, examine two of its major policy provisions, and discuss the significance of upstream rural communities' recent actions.

¹ *U.S. Supreme Court Declines to Review Filtration Rule Waiver for New York City*. BNA ENV'T REP. CUR. DEV., July 3, 2009 at 1569.

² *Id.*

³ *EPA Extends Waiver For New York City To Avoid Filtration Over Next 10 Years*. BNA ENV'T REP. CUR. DEV., Aug. 3, 2007, at 1696.

⁴ *E.g.* U.N. ECON. COMM'N. FOR EUR. (UNECE), RECOMMENDATIONS ON PAYMENTS FOR ECOSYSTEM SERVICES IN INTEGRATED WATER RESOURCES MANAGEMENT (2006) http://www.unece.org/trans/osce/osceunece/misc_Zaragoza_Recommendations.pdf (calling the New York example "striking.")

⁵ Jennifer Church, *Avoiding Further Conflict: A Case Study of the New York City Watershed Land Acquisition Program in Delaware County, NY*, 27 PACE ENVTL. L. REV. 393, 394 (2009).

In 1986, the EPA amended the 1974 Safe Drinking Water Act.⁶ This amendment requires that the EPA make a rule setting filtration standards for water systems that depend on surface water reservoirs.⁷ The resulting Surface Water Treatment Rule (SWTR)⁸ required that surface water reservoir systems either filter their water systems,⁹ or apply and obtain a FAD from the EPA by showing that their watershed would continue to provide water of sufficient quality without filtration.¹⁰

Given the promulgation of the SWTR and New York City's dependence on surface water reservoirs, the City had a choice: it could either build a filtration plant, or it could apply for the FAD and take measures necessary to meet the EPA requirements.¹¹ Official estimates for the cost of a filtration plant in 1990 amounted to between \$6 billion and \$8 billion, plus operating costs of between \$200 and \$400 million annually.¹² The City could only make rough cost estimates of the actions it would need to undertake to comply with EPA regulations, but it estimated the cost of an ecosystem services would approach approximately \$1.5 billion.¹³ New York began considering these investments in the context of its special police powers over its watershed lands.¹⁴ Since the New York State Legislature's 1905 McClellan Act creating the New York City Board of Water Supply and investing it with powers of eminent domain, New York City had possessed power to impound water sources in its watershed to secure adequate

⁶ Safe Drinking Water Act Amendments of 1986, Pub. L. No. 99-339, 100 Stat. 642 (codified as amended 42 U.S.C. §§ 300f to j-26 (2006)).

⁷ 42 U.S.C. §§ 300f to j-26 (2006).

⁸ 40 C.F.R. §§ 141-142 (2010).

⁹ *Id.* § 141.73.

¹⁰ *Id.* § 141.71(b)(2)(iii). In 1996, Congress further amended the Safe Drinking Water Act, and EPA amended the SWTR with the Interim Enhanced Surface Water Treatment Rule (IESWTR). 40 C.F.R. Subpart P § 141 (1996).

¹¹ Church, *supra* note 5, at 398.

¹² DAVID K. GORDON & ROBERT F. KENNEDY, JR., *THE LEGEND OF CITY WATER: RECOMMENDATIONS FOR RESCUING THE NEW YORK CITY WATER SUPPLY* 1 (1991).

¹³ Graciela Chichilnisky & Geoffrey Heal, *Economic Returns from the Biosphere*, 391 NATURE 629 (1998).

¹⁴ James Salzman et al. *Protecting Ecosystem Services: Science, Economics, and Law*, 20 STAN. ENVTL. L.J. 309, 316 (2001).

water quantity.¹⁵ New York Public Health Law 1100 extended New York City's authority in 1953 to provide the Commissioner of the New York City Department of Environmental Protection (NYCDEP) and the Board of Water Supply with the authority to promulgate regulations to protect the quality of the water.¹⁶ The people of the watershed could only influence usage of surface water resources of their area through the New York State Department of Health, which had authority to review or deny the City's regulations under the statute.¹⁷ During the 20th century, New York City periodically engaged in impoundment of large tracts of land for reservoirs and connecting water infrastructure throughout the Catskills, which understandably bred resentment in the rural population of the watershed.¹⁸

In 1990, New York City began a long and difficult process to work out how it might protect its watershed to comply with EPA rules.¹⁹ The City started proceedings to use eminent domain to acquire property in the Catskills and issued regulations to tightly control land use, development, and wastewater discharges.²⁰ The serious public relations problems resulting from the City's attempt to use eminent domain and lawsuits by the newly-organized Coalition of Watershed Towns, a group of thirty-four towns and five counties, forced the City to begin serious negotiations with the upstream communities in 1994.²¹ Governor Pataki brokered these high-level negotiations that eventually included the City, the State, the EPA, seventy-three

¹⁵ Act of June 3, 1905, ch. 723, 1905 N.Y. Laws 2022.

¹⁶ N.Y. Public Health Law § 1100-05; Michael C. Finnegan, *New York City's Watershed Agreement: A Lesson in Sharing Responsibility*, 14 PACE ENVTL. L. REV. 577, 616 (1997). Finnegan served as N.Y. Gov. Pataki's Counsel and brokered the New York City Watershed Agreement. Finnegan, *supra*, at 577.

¹⁷ Public Health Law § 1100(1); Finnegan, *supra* note 16, at 616.

¹⁸ Finnegan, *supra* note 16, at 591.

¹⁹ *Id.* at 619.

²⁰ *Id.*

²¹ *At Last, A Watershed Agreement*, N.Y. TIMES, Nov. 3, 1995, at A28; Finnegan, *supra* note 16, at 621.

municipalities, eight counties, and five environmental non-profit organizations.²² These negotiations led to the 1997 “Memorandum of Agreement” (MOA) between the parties.²³

The agreement embodied in the MOA was especially significant because the City promised to realistically compensate upstream areas for the ecosystem services they provided.²⁴ The MOA consisted of a three major policy thrusts: Land Acquisition, Watershed Rules and Regulations, and Watershed Protections and Partnership Programs.²⁵ Although a comprehensive discussion of the MOA and subsequent policies are outside the scope of this paper,²⁶ two major policy areas illuminate the successes and challenges of providing clean water to the consuming region and offering sufficient prosperity to the provider region. First, within the Watershed Protections and Partnership Programs policy area, the Whole Farm Planning program of the Watershed Agricultural Program exemplifies a broad and continuing success.²⁷ Second, the more controversial policy, which has recently led to the boiling over of disagreements, is New York City’s Land Acquisition Program.²⁸

The Watershed Agricultural Program (WAP) is a \$39 million program paid for by the City to provide funding to cover watershed farmers’ implementation of best practices with

²² ROBERT J. MASON, COLLABORATIVE LAND USE MANAGEMENT: THE QUIETER REVOLUTION IN PLACE-BASED PLANNING 95-97 (2008).

²³ *Id.*

²⁴ Finnegan, *supra* note 16, at 644.

²⁵ ENVTL. FACILITIES CORP., *New York City Watershed Memorandum of Agreement* (Jan. 21, 1997) <http://www.nysefc.org/home/index.asp?page=294>; Mark Pires, *Watershed Protection for a World City: The Case of New York*, 21 LAND USE POL’Y 161, 167 (2004).

²⁶ For a good discussion of the issues relating to the original MOA agreement and derivative policies, see NATIONAL RESEARCH COUNCIL, WATERSHED MANAGEMENT FOR POTABLE WATER SUPPLY: ASSESSING THE NEW YORK CITY STRATEGY 11 (2000) (describing environmental characteristics of the watershed as well as the controversy and agreement between the city and watershed towns).

²⁷ Appleton, Albert F., *How New York City Used an Ecosystem Services Strategy Carried out Through an Urban-Rural Partnership to Preserve the Pristine Quality of its Drinking Water and Save Billions of Dollars*, 9 (November 2002) <http://assets.panda.org/downloads/pesnewyorkappleton.pdf>. Appleton, the author of this piece, served as Commissioner of the New York City Department of Environmental Protection, which had authority over many watershed issues, from 1990-1993. *Id.* at 4.

²⁸ Church, *supra* note 5, at 402.

regards to runoff.²⁹ Farming was a top cause of pollution in the watershed, and dairy farming posed a particular problem.³⁰ After the attempt at top-down regulatory controls that provoked public outcry in the upstream community, the City approached farmers about creating a cooperative program.³¹ If the farmers would recognize the needs of New York City, it would work with the farmers to clean up the water from their farms and pay the costs.³² The farmers' wanted to ensure that the program remained voluntary because they were wary of City regulations that did not fit their needs.³³ In the ensuing negotiations, the City agreed that the farmers would create their own voluntary program, if the farmers could guarantee that within five years over 85% of all farmers in the watershed would join.³⁴ Concurrently, the City relaxed its traditional non-point source watershed regulations by exempting any farmer who participated in the new program.³⁵ The farmers designed and marketed the program, which was called Whole Farm Planning, to other farmers in the watershed.³⁶

This program became operational in 1993 during the time of high tension between the city and the upstream communities, and in 1994 the City transferred administration of the program to the non-profit Watershed Agricultural Council.³⁷ Five years after its implementation, the WAP had secured the participation of 93% of watershed farmers in Whole Farm Planning, an extremely high participation rate for a voluntary program.³⁸ It is difficult to isolate watershed

²⁹ Pires, *supra* note 25, at 167.

³⁰ NATURAL RES. DEF. COUNCIL, A GUIDE TO NEW YORK CITY'S RESERVOIRS AND THEIR WATERSHEDS v. (1993); Finnegan, *supra* note 16, at 585.

³¹ Appleton, *supra* note 27, at 6.

³² *Id.*

³³ *Id.*, at 8.

³⁴ *Id.*, at 7.

³⁵ *Id.*, at 9 (exempting willful polluters from protection).

³⁶ Appleton, *supra* note 27, at 9.

³⁷ *Id.*

³⁸ *Id.*

water quality benefits from implementing the Whole Farm Planning at farms across the region,³⁹ but the widely-implemented management practices are known to reduce agricultural contaminants in farm runoff water.⁴⁰ The 2007 FAD raised the participation requirement threshold to 90% for the large farms west of the Hudson River and included provisions begun in the 2002 FAD to continue requiring smaller farms in the watershed to adopt Whole Farm Plans.⁴¹ As the 2007 FAD resulted from negotiations between EPA and the City, it is likely that this increase in the participation requirement to 90% of large farms signaled a desire to solidify gains and recognition that the program had already proved successful.⁴²

The controversial policy area examined here is the Land Acquisition Program (LAP), which is the cause of recent litigation and current strife between the City and upstream rural communities.⁴³ Land acquisition has been and remains one of the most important and effective strategies for protecting a watershed like that of New York City.⁴⁴ However, given the longstanding controversy between the City and rural upstream areas regarding land acquisition, the watershed towns wanted specific institutional protection of their interests in the 1997 MOA in exchange for agreement to the City's \$300 million Land Acquisition Program (LAP).⁴⁵ After negotiation, the City agreed in the MOA not to take by land eminent domain.⁴⁶ It would only acquire property from a willing seller as a willing buyer paying fair market value.⁴⁷ It also agreed to consult the local government before it closed on any land acquisitions to consider the

³⁹ NATIONAL RESEARCH COUNCIL, *supra* note 26, at 11.

⁴⁰ John M. Thurgood, *Bedded Pack Management System Case Study*, 11 (September 2009) http://nycwatershed.org/pdfs/Cornell_AEM_eb0916.pdf.

⁴¹ U.S. ENVTL. PROT. AGENCY, *Final 2007 Filtration Avoidance Determination* 16 (2007) <http://www.epa.gov/region2/water/nycshed/2007finalfad.pdf>.

⁴² *See Id.* at 51.

⁴³ Church, *supra* note 5, at 393.

⁴⁴ U.S. ENVTL. PROT. AGENCY, *supra* note 41, at 42.

⁴⁵ Finnegan, *supra* note 16, at 626.

⁴⁶ ENVTL. FACILITIES CORP, *supra* note 25, at para. 59.

⁴⁷ *Id.* at para. 60-61.

local government's concerns, and to submit disagreements to the New York State Department of Environmental Conservation for review.⁴⁸ The City promised to continue to pay taxes on the land it acquired at the fair market value at the time of acquisition.⁴⁹ Municipalities could also mark off where they wanted to protect local land from acquisition.⁵⁰ Unlike in the WAP, however, the NYCDEP retained control of the LAP; it did not create a fixed and permanent body composed of members of the upstream communities for administration of the program.⁵¹

In turn, the City had to convince the Coalition of Watershed Towns to not publicly oppose a substantial acquisition program in their communities.⁵² However, the City and the watershed communities had conflicting goals; the communities wanted the LAP small and controlled, but the City had to implement a substantial enough program to convince the EPA that water quality protection would be safeguarded.⁵³ The negotiations yielded agreement in the MOA that the City would commit \$250 million to land acquisition with an option of up to \$50 million in additional funds if EPA and NYSDOH deemed it necessary.⁵⁴ The MOA and the resulting 1997 FAD required the City to solicit owners of about 355,000 acres of land over the 10 following years, with the order of solicitations prioritized by a metric informed by environmental scientists spelled out in Article II of the MOA.⁵⁵ The Coalition of Watershed Towns agreed to the specified LAP and signed onto the MOA.⁵⁶ The MOA allowed the City to receive a conditional FAD and to apply to the New York State Department of Environmental

⁴⁸ *Id.* at para. 71.

⁴⁹ *Id.* at para. 79.

⁵⁰ *Id.* at para. 68.

⁵¹ *Id.* at para. 59.

⁵² Finnegan, *supra* note 16, at 623.

⁵³ *Id.*

⁵⁴ ENVTL. FACILITIES CORP, *supra* note 25, at para. 74.

⁵⁵ *Id.* at para. 63, 65.

⁵⁶ Church, *supra* note 5, at 399.

Conservation to receive a Water Supply Permit, which was necessary to begin land acquisition.⁵⁷ The City has acquired over 108,000 acres of land in the 1 million-acre watershed since the program began in the late 1990s.⁵⁸ These acquisitions have combined with purchases by the state and federal governments to raise the level of protected land in the watershed from 24 percent in 1997 to 34 percent as of June 2010.⁵⁹

To receive its 2007 FAD from the EPA, the City committed another \$241 million to land acquisition, bringing its total commitment to \$541 million, and agreed to solicit at least 50,000 acres per year for ten years.⁶⁰ However, this latest FAD prompted the reappearance of the tensions between the Coalition of Watershed Towns and the City that had been declared finished with the signing of the 1997 MOA.⁶¹ The Coalition worried that the new, more aggressive purchasing program would clip the wings of its member towns' economic development, increase area land prices faster than the rise of area wages with the result of unaffordable property for working people, and generally precipitate the area's economic decline.⁶²

The Coalition sued, and in December 2008 it argued its case for "review" of the EPA's Final FAD against the EPA in the Second Circuit.⁶³ Among its major claims, the Coalition argued that by requiring the purchase of more land the 2007 Final FAD breached the agreed-upon 1997 MOA that provided for a \$300 million amount of land purchases.⁶⁴ The Coalition further argued that this breach had injured the towns' legal right to economic self-

⁵⁷ See ENVTL. FACILITIES CORP., *supra* note 25, at para. 159(a) (providing that the EPA would grant a conditional FAD, and the Final 1997 FAD would be granted four months later).

⁵⁸ NEW YORK CITY DEP'T OF ENVTL. PROT., *Extended New York City Watershed Land Acquisition Program*, [www.nyc.gov](http://www.nyc.gov/html/dep/html/environmental_reviews/lap.shtml) (Nov. 1, 2010, 12:23 AM), http://www.nyc.gov/html/dep/html/environmental_reviews/lap.shtml.

⁵⁹ *Id.*

⁶⁰ U.S. ENVTL. PROT. AGENCY, *supra* note 41, at 42.

⁶¹ Finnegan, *supra* note 16, at 578 (claiming that the 1997 MOA "ended more than a century of upstate-downstate hostility over conflicting rights to property and water").

⁶² Church, *supra* note 5, at 402.

⁶³ Coal. of Watershed Towns v. U.S. EPA, 552 F.3d 216, 217 (2nd Cir. 2008).

⁶⁴ *Id.* at 218.

determination.⁶⁵ The Second Circuit denied the request for review and dismissed, and the Supreme Court declined to hear the case in June 2009.⁶⁶ By taking the substantial step of suing the EPA all the way to the Supreme Court, the Coalition clearly voiced its belief that, in light of the growth of the LAP, the LAP was now a serious threat, and the institutional protections negotiated in the 1997 MOA no longer adequately safeguarded watershed communities' interests.⁶⁷

In addition to the litigation, in May 2009, Delaware County, home of many of the watershed towns, released a third-party study it had commissioned with an eye to New York City's request for a Water Supply Permit renewal from the State Department of Environmental Conservation.⁶⁸ The study used demographic data to predict a scenario of population decline, school-age population decline, job losses, and other potential detrimental effects of New York City's land acquisition program.⁶⁹ As of October 2010, the City and the Watershed Towns were continuing their negotiations on the City's Water Supply Permit,⁷⁰ for which comments on the Draft Environmental Impact Statement were due November 22, 2010.⁷¹ In light of its unsuccessful lawsuit, the Coalition hoped to gain additional protections by participating in permit negotiations.⁷²

⁶⁵ *Id.*

⁶⁶ *U.S. Supreme Court Declines to Review Filtration Rule Waiver for New York City*, *supra* note 1.

⁶⁷ *See* Coal. of Watershed Towns, 552 F.3d at 217-218.

⁶⁸ Matthew J. Perry, *County Land Study Blasts NYC Buying*, THE CATSKILL MOUNTAIN NEWS, May 19, 2009 <http://www.catskillmountainnews.com/content/county-land-study-blasts-nyc-buying> (last visited Nov. 1, 2010 1:03 AM).

⁶⁹ DOWNEAST DEV. CONSULTING GRP., THE NEW YORK CITY WATERSHED ECONOMIC IMPACT ASSESSMENT REPORT, EXECUTIVE SUMMARY 6-7 (May 2009).

⁷⁰ Jay Braman, Jr., *NYC Closes in on Catskills Water Supply Permit*, DAILY FREEMAN, August 18, 2010 <http://www.dailyfreeman.com/articles/2010/08/18/news/doc4c6b692062e72325283069.txt> (last visited Nov. 1, 2010 1:16 AM)

⁷¹ NEW YORK CITY DEP'T OF ENVTL. PROT., *supra* note 58.

⁷² Braman, *supra* note 70.

The recent clashes around a program of such scale, level of comprehensiveness, and magnitude of intervention into a rural region illuminate some of the challenges with intensive application of ecosystem services programs.⁷³ On one hand, New York City saved billions of dollars by compensating rural New Yorkers for the ecosystem services that enabled the City to comply with federal law.⁷⁴ On the other hand, those rural areas resisted when faced with perceived further loss of their economic options.⁷⁵ The LAP institutional protections under the MOA benefitting the watershed towns could be seen as extremely forward-looking and generous, but the expanding LAP nevertheless has motivated a backlash that programs such as the Watershed Agricultural Program have not.⁷⁶ This backlash raises the question: is it possible to design a program that provides compensation for metropolitan-scale, comprehensive water quality services that both urban and rural interests will support, if the program must include land acquisition or substantial development controls to sufficiently protect water quality?⁷⁷ Further analysis of the institutional arrangements that might incentivize long-term agreement between rural providing areas and urban consuming areas will be worthwhile if comprehensive ecosystem services projects move forward.

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⁷⁴ Chichilnisky & Heal, *supra* note 13, at 629.

⁷⁵ See Coal. of Watershed Towns, 552 F.3d at 217-218.

⁷⁶ See Coal. of Watershed Towns, 552 F.3d at 217-218; Finnegan, *supra* note 16, at 644.

⁷⁷ Salzman, *supra* note 14, at 316. The recent lawsuit and recrimination comes even in spite of continuing strong reasons to negotiate on both sides. *Id.* New York City is by far the primary user of its watershed and therefore receives the great majority of benefits from watershed improvements negotiated. *Id.* Additionally, the City retains regulatory and eminent domain powers that it declined to enforce to the fullest extent, but whose shadow surely motivates watershed towns to negotiate. *Id.*