

introduction

Water, clean water, is one of life's most basic elements. Yet as with so many government services, it is taken for granted until its quality or supply is threatened. At this point, government intervention is not simply accepted, but expected. But, what if such action, in helping many, threatens a smaller, yet substantial second party? This paper, examines such an event and the way several individuals and groups used the issue to defend and promote their interests.

In 1989, the Environmental Protection Agency promulgated the Surface Water Treatment Rule, requiring water suppliers to meet specific water quality and watershed control criteria. The enactment of this law engendered a five-year battle between New York City and the upstate towns where its watersheds exist. Several unique elements added to the complexity of this battle: a historically strained relationship between New York City and its upstate neighbors, the financial position of New York City, the economic dependence of watershed residents on recent development in their region, the balkanized condition of upstate town governance, and the fact that New York City forefathers had presciently purchased upstate watershed lands, granting the city a voice in their use. The study begins with a brief history and characterization of the New York City Water Supply; examines the position taken by four principle parties to the conflict: 1) New York City, 2) a coalition of upstate watershed towns, 3) New York State, and 4) independent water advocates; reports the outcome of the conflict, both its immediate provisions and post settlement growing pains; and concludes with lessons from the conflict which can be applied to the ever proliferating economic/environmental conflicts taking place both on the national and global level.

new york city water supply – history and characterization

Water has played a crucial role in the history of New York. Early Manhattan settlers obtained water for domestic purposes from shallow, privately owned, wells. As the population of the city increased, the well water became polluted and supply became insufficient. In 1832, a severe cholera epidemic prompted the city to investigate a source of fresh, clean water and by December of that same year, a city report had determined that the Croton River in upper Westchester County provided the best source for additional water. Despite the seemingly grave need, the cost of constructing an aqueduct to transport the water quelled enthusiasm for the project. Not until 1835, when fire threatened the profits of landowners, developers, banks, and insurance companies, did the effort begin in earnest¹. By the 1880's, New York City again faced a water shortage, prompting the construction of a second aqueduct: the New Croton. In 1896, lack of water (and its attendant threat of pestilence and conflagration) confronted Brooklyn, and ultimately became an incentive for Brooklyn to join Manhattan, Queens and Staten Island in the consolidation of New York City.

Today, ninety percent of New York City water comes from the Catskills/Delaware Watershed² and ten percent comes from the Croton Watershed³. This system of reservoirs was built in seven stages and completed in 1967. Beginning in 1905, the work was performed under the auspices of the Board of Water Supply, a creation of New York State legislature. In addition to creating the board, this legislation also allowed the city to acquire lands surrounding the reservoirs. By virtue of this ownership, the city gained a voice in the land use decisions of these parcels.

New York City water has long had a reputation for being the finest in the nation and has been delivered to its consumers – nine million total (one-half of the state's population) – without filtration, using only disinfection by chlorination. This water quality was affected measurably, although not critically, by the

¹ A second cholera epidemic occurred in 1835 as well.

² Six reservoirs in the five-county Catskills Region of New York State.

³ Ten reservoirs and three controlled lakes linked to the Catskill/Delaware system through a series of underground aqueducts.

fifteen percent growth in population within the Delaware/Catskill watershed area from 1970 to 1985(Calhoun, [on-line] <www.westchesterlandtrust.org/watershed/olive.htm>). During the same period, the Croton Watershed region grew at a rate of thirty-nine percent (Calhoun), placing its water in violation of the 1989 Surface Water Treatment Rule, which set maximum contaminant level goals of zero for Giardia lamblia, viruses, and Legionella (the rule was strengthened in 1996, however because it becomes effective in January of 2002 is not immediately applicable to this conflict.) These goals were to be met in the following ways: requirements for maintenance of a disinfectant residual in the distribution system; (2) removal and/or inactivation of 99.9% for Giardia and 99.99% for viruses; (3) combined filter effluent turbidity performance standards based on 4-hour monitoring for treatment plants using conventional treatment or direct filtration; and (4) watershed protection and other requirements for unfiltered systems (E.P.A.). Filtration, at an estimated cost of \$600 million (Martin, *The New York Times*, December 2, 1998) to New York City, was required at Croton. Realizing filtration could also become necessary at the Delaware/Catskill watershed, with an estimated cost of \$6-8 billion (Frankel, *USA Today*, February 28, 1995), the city acted aggressively. In 1990, it began enhancing and enforcing its long dormant watershed regulations, prompting chary upstate towns to band together and protect their economic livelihood. As conflicts between the city and upstate groups escalated, the state realized that it would need to intervene in order for a solution satisfactory to both parties to be achieved. (As creations of the state, any substantial costs to these towns eventually find their way into the state budget). After lobbying for an extension to a federally mandated deadline, in 1995 the state fostered an agreement in principle between the city and the towns through seven months of intense, closed-door sessions. The agreement became official on January 21, 1997 with the signing of the "Memorandum of Agreement" (MOA) for the long-term protection of water quality in the New York City Watershed. The MOA was widely praised for providing a regional compromise that served the economic needs of all parties to the conflict.

the parties

new york city

New York City was the first to bear the burden of ensuring its water quality and from the onset it took an aggressive stance. Lawsuits were filed against individuals, businesses and municipalities for faulty sewage systems and other threats to the watershed. Money was set aside for the purchase of development rights and buffer. Finally, the city promised to strengthen and more strictly enforce the existing watershed regulations. Albert Appleton, the city's Commissioner of Environmental Protection, was the primary advocate for these policies and promised to protect the water for its nine million users, claiming it was "economic folly" (as quoted in *The New York Times*, September 20, 1991) to endanger the water's quality. Despite his staunch policies, Mr. Appleton became well respected by watershed residents and farmers for his concern for their livelihood, which he expressed in visits to the watershed region. Through these exchanges, the consequences of his policies became evident, and he began working with farmers on compromises. The city committed \$3.4 million to study farm operations and pay for improvements on model farms. In addition, it encouraged practices like plowing along the natural contours of the hillsides to reduce the erosion of soil into the reservoirs. By stabilizing and reducing the entry of pollutants into the reservoirs, the city hoped to avoid the need for a filtration plant.

Despite the hard-line by the city against watershed residents, evidence existed to suggest that the city was at least partially responsible for the condition of its watershed. Although in 1990, the city's Department of Environmental Protection Watershed Police⁴ made 185 pollution arrests, the same force made no arrests during its first eighty-four years. Its Lieutenant, Ronald Gatto, even testified in 1991 that he was told by superiors to go easy on polluters dumping sewage into tributaries of the reservoirs. This was done, some said, to curry favor with upstate legislature, whose support might be needed in state legislation for city projects. In addition, nine city owned and operated sewage plants were in violation of state guidelines, resulting in fines of tens of millions of dollars by the State Department of Environmental Conservation from 1984 to 1994 (Berger, *The New York Times*, May 5, 1994). Skepticism on the part of

⁴ Created in 1906 to protect the dams, gate houses, and other property of the water systems. It also served to protect watershed residents and labor camps during construction. Today its mission has expanded to include protecting water quality.

upstate residents was rife, and they viewed the avoidance of an expensive filtration mandate and its impact on an already tight budget as usurping the importance of water quality, whether under the administration of Mayor David Dinkins (1990-93) or Mayor Rudolph Giuliani (1994-present).

upstate watershed towns

Every year since 1913, the town of Boiceville holds a reunion on Labor Day to recognize the families who were forced off their land when the New York City reservoirs were built. Boiceville is not alone, Olive, West Shokan, Brodhead Bridge, Brown Station, West Hurley, Glenford, Ashton and Gilboa all made sacrifices (that have not been forgotten) for city water. So when New York City introduced a plan specifying up to five hundred feet of buffer zone between water courses and septic systems, promised stricter adherence to existing regulations, and proposed limiting development with the buffer zones to ten percent of the land area, the towns were outraged, claiming that the rules could prevent potential development of 17,000 acres in Delaware County alone (Shaman, *The New York Times*, September 20, 1991). In response, the Coalition of Watershed Towns, an inter-municipal body composed of and representing thirty-five towns in the five west of Hudson counties, was formed and summarily sued the city to prevent land acquisition. The formation of this coalition was important, because it gave the upstate towns a unified voice that historically they had lacked. Following the Coalition's lawsuit, a suit followed from a group of forty-five Putnam County developers, who charged that their property had been devalued without fair compensation. Thirty-four towns and five villages in a second watershed filed a similar suit charging economic harm. In addition, a report for Putnam County claimed the city's new regulations would cost the county over three thousand jobs by the year 2000 and increase taxes by sixteen percent. In total, the upstate towns calculated that city regulations would allow them (the city) to control up to forty percent of watershed land. Instead of land use regulations, the upstate municipalities asked the city to provide financial support for the watershed towns own efforts at compliance, many which had watershed protections of their own. City efforts were viewed as redundant, imperial, or both.

independent water advocates

A third party to the battle were advocates for the water. Perhaps the most prominent was lawyer Robert Kennedy Jr., who parlayed his nationally recognized name to gain sympathy for his environmental causes and those of the Hudson Riverkeeper. Formed by Robert H. Boyle in 1983, the Hudson Riverkeeper is a group who patrols the Hudson (and other riparian areas) full-time in order to “take care of [them] so that there are always plenty of fish and the water is clean and safe for everyone who lives around it” (as stated on the Hudson Riverkeeper website, <www.riverkeeper.org/story/background.html>). Kennedy strongly advocated the regulatory measures promoted by the city and supported their desire to avoid filtration, arguing that filtration was tremendously costly (in his view hampering city land purchases in the watershed which would further protect the water). Not only was filtration expensive, Kennedy believed it sent a tolerant message regarding developmental pollution, and as a mechanical solution, was unreliable as a sole measure. Bolstering this claim was a 1993 Milwaukee event where more than 100 people died and some 400,000 people became seriously ill from cryptosporidiosis, despite a filtered water system. The intestinal disease, caused by a parasite that lives in cow's stomachs, can find its way into reservoirs through farm runoff. As the conflict evolved, Kennedy's support for the water remained constant, even though his position towards the city changed with the administrations. A big supporter of Mr. Appleton (who served under Mayor Dinkins), Kennedy accused the Giuliani administration of allowing the watershed rules to become lax. Despite these incriminations, Kennedy and Riverkeeper ultimately supported the MOA when signed. Joining them were the Catskill Center for Conservation and Development, the Trust for Public Land, the Open Space Institute, and the New York Public Interest Research Group.

Other environmental groups were opposed to the MOA: the Natural Resources Defense Council (NRDC), the Environmental Defense Fund, the New York City chapter of the Sierra Club, the City Club, the New York City Audubon Society and the Center for the Biology of Natural Systems. These groups felt the agreement was lax in regard to development standards in the watershed. They believed the MOA was a necessary first-step but criticized the authorization of sewage plants in what they deemed critical areas,

loopholes regarding blacktopping in the buffer zones, and insufficient controls on city money for upstate economic development. The environmental groups also took umbrage with their exclusion from the negotiations preceding the MOA, a measure taken by Governor Pataki to relieve the negotiators from outside distractions.

new york state

From a political standpoint, one of the most intriguing events in the watershed conflict came in 1994, when George Pataki was elected governor. Mr. Pataki, the former mayor of Peekskill and member of the state legislature twice voted against the city's regulatory powers in the watershed and even sponsored a bill in the State Senate to this effect. Now he and Mayor Giuliani (who had endorsed Mario Cuomo in the gubernatorial race) would have to cast personal politics aside and forge an agreement. An eleventh-hour approval of a watershed protection plan by outgoing Governor Cuomo, which would satisfy both Mayor Giuliani (who would have a plan favorable to the city) and Governor-elect Pataki (who could avoid confronting a contentious issue in his first term) received consideration. The measure was ultimately dismissed. Eric Goldstein of NRDC described the decision aptly: "It's a seductive idea, to save the Governor-elect from having to deal with a thorny issue at the outset. But if you ultimately think the city needs the cooperation of upstate communities to implement a comprehensive program, this would send the opposite message", (as quoted in *The New York Times*, December 1, 1994).

In March of 1995, the state (Department of Environmental Conservation), in response to demands from the Coalition of Watershed Towns, made its first move in their favor by imposing stricter regulations on city land acquisitions. Although land acquisitions were already subject to state approval, new permit restrictions gave the towns sixty days to respond to acquisition offers from the city, and allowed them further recourse through appeal. The following month, five days prior to the federal deadline, the state won an extension from the E.P.A. to complete a plan for the watershed. By the end of October, after state negotiating sessions where each side was sworn to secrecy in order to keep both sides focused on goals rather than public reactions, an agreement in principle was reached. Governor Pataki's reputation

as a conservationist and his time representing the watershed area, a common concern for the environment by all parties, and a consensus building approach where talks were focused on agreement, were viewed as the principle ingredients in creating the urban/rural partnership.

outcomes

After a four-month public review period and 150 public meetings, Governor Pataki, Mayor Giuliani, the U.S. EPA, seven counties, sixty towns, and ten villages signed the New York City Watershed Agreement (also known as the "Memorandum of Agreement" or MOA) on January 21, 1997. The MOA's ability to unite so many groups has made it a model for future regional problem solving, and yet not all groups were represented and acceptance of the MOA was not universal. Americans tend to favor small government solutions. Numerous towns have incorporated themselves, developing policies that insulate them from other municipalities and cities around them. Resistance to outside interference is pronounced; whether in the form of annexation, tax sharing, or even garbage treatment. The MOA was able to transcend most of these conflicts. During the public comment period, after the original signing, numerous changes were made, including providing more opportunities for public involvement in developing protection recommendations and extending EPA's primary enforcement authority over the Catskill and Delaware systems until 2007. In its final form, the MOA consisted of three main components: the Land Acquisition Program, the Watershed Rules and Regulations, and the Watershed Protection and Partnership Programs.

The Land Acquisition Program defines the means by which the New York City Department of Environmental Protection can obtain property for the purpose of assembling buffer lands around the reservoirs and their tributaries. The city may not use its power of eminent domain but instead must acquire property at fair market price that is then subject to taxation. The program establishes minimum acreage and dollar value targets and sets strict priorities for what lands are deemed critical to maintaining water quality. Lands with dwellings on them must be subdivided before city purchase, saving the inhabited land for the owner. Towns may exclude economically valuable lands from the program. The Watershed Rules and Regulations went into effect on May 1, 1997, and are designed to ensure the continued, long-term protection of the City's water supply, while minimizing the adverse economic impacts on Watershed communities. These regulations control pollution sources including wastewater treatment plants, sewer systems, septic systems and storm water pollution. They aim to reduce

contaminants yet provide exemptions for certain activities in designated areas where unique conditions create a substantial hardship on the owner. The exemptions are designed to promote responsible growth in existing areas, while protecting water quality through increased regulation of activities within these areas. When applying for a variance to the watershed regulations the landowner must demonstrate mitigation that matches the established anti-pollution standards.

Finally, a Watershed Protection and Partnership Council was created as a permanent, regional forum to aid in the long-term protection of drinking water quality and the economic vitality of the Watershed communities. New York City agreed to provide over \$270 million in funding over the following ten to fifteen years for partnership programs geared toward state-of-the-art water pollution infrastructure, education, and economic development programs to protect the water and improve quality of life in the Watershed.

Although the MOA has been in place for almost four years, the controversy within the watershed region has not abated. During the recent election period, records established during the conflict and the negotiations, were further highlighted and/or scrutinized. Robert Kennedy, who originally backed the city's harsher requirements, then criticized the Giuliani administration, and then signed the MOA, went back to criticizing Mayor Giuliani – accusing him of softening on the watershed restrictions to win upstate votes for an anticipated U.S. Senate race. At that time, Mr. Kennedy released a report alleging that the city had allowed developers to build new septic systems on steep slopes around reservoirs, and that it reversed itself on a decision regarding protection of wetlands around upstate reservoirs. The criticisms were not new, but rather timed to make them a political issue. While the watershed did not become a major issue in the New York Senate race, Mr. Kennedy did his best to keep it on the political agenda and addressing the candidates.

Economics has had its own, post-agreement voice. Putnam County developers claim that the city has deprived them of much of their land's value by bringing development "to a halt", (Ed Heelan, a Putnam

County real estate developer, as quoted in *The New York Times*, July 27, 1998). They have filed a multibillion-dollar lawsuit based on a law stipulating that any property owner who is forced to remove a building because of watershed regulations or finds his "rights of property are injuriously affected by the enforcement of any such rule or regulation" can sue the offending party⁵.

Finally, a debate, which further exposes the complexities of governance in New York, has developed regarding the expansion of a two-lane country road in Westchester County. In order to accommodate the growth of corporate headquarters along Route 120, the State Department of Transportation has proposed a widening. New York City Comptroller Alan Hevesi, has spoken against the proposal because "...the project would destroy close to four acres of natural wetlands, add more than ten acres of new paved surface, and increase motor vehicle traffic in the immediate vicinity of the Kensico Reservoir" (as stated in a January 14, 2000 press release <www.comptroller.nyc.ny.us/bureaus/press/route120.htm>), thereby subjecting the reservoir to increased pollution runoff. Supporting his concern is an independent, 442-page study by the National Academy of Sciences – a report commissioned by Hevesi, to review, on a scientific basis, the adequacy the specifications within the MOA. Hevesi, it should be pointed out, has mayoral aspirations. His support of the watershed through press releases, the NAS study, and his outspokenness for the Route 120 development, enables him to create a public record to which he can refer in any subsequent campaign.

⁵ Based on a century-old provision of the state's public health law, written when the city was flooding upstate valleys to build its reservoir system.

conclusion

While water quality prompted the reactions in this case study, the defining element was clearly economic. New York City could not afford a multi-billion dollar filtration plant, and acted accordingly. The upstate towns, jaded from previous city efforts, banded together to protect their business interests. The state then had to balance the economic concerns on both sides. For better or worse, political and economic policies in the United States are dictated by dollars and cents. The failure of draconian land use policies in the watershed conflict illustrates to all, and especially those who advocate for the environment, that to succeed in protecting Mother Nature, business interests must be dealt with on their own terms. Moreover, business interests, along with other affected parties, must be given equal voice in the final solution. The MOA was widely praised for doing just that; however, the exclusion of some environmental groups has raised questions regarding the process utilized in reaching it and has certainly hampered its overall acceptance. Given the exigencies of the situation (the U.S. Department of Justice filed a lawsuit against New York City for failing to implement its agreement with the state to build a filtration plant), it is difficult to assess whether the Pataki administration can be criticized for not developing a more inclusive agreement process. Notably, all groups had opportunity to voice concern in the public comment period that followed the MOA's signing. Ultimately, I believe avoiding filtration is the best possible outcome from an environmental perspective. While technology is the best way to deal with pollutants from point sources like sewage plants, nonpoint sources (suburban development and farm runoff) are best dealt with by reducing their pollution production. For now, that appears to have been accomplished.

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