

STATE OF NEW YORK  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
625 Broadway  
Albany, New York 12233-1550

In the Matter of the Application of

**SUFFOLK COUNTY WATER AUTHORITY**

for a permit pursuant to  
Environmental Conservation Law ("ECL") Article  
15 and Part 601 of Title 6 of the Official  
Compilation of Codes, Rules and Regulations  
of the State of New York ("6 NYCRR")  
to install a public water supply well  
(Middleville Road No. 3)  
on the south side of Middleville Road,  
Town of Huntington, Suffolk County, New York

DEC Project No. 1-4700-00010/00583

**Recommended Decision  
and  
Hearing Report**

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/s/

Maria E. Villa  
Administrative Law Judge

May 7, 2007

## PROCEEDINGS

The Suffolk County Water Authority ("SCWA" or "Applicant") applied for a permit pursuant to Article 15, Title 15 of the New York State Environmental Conservation Law ("ECL") and Part 601 of the Official Compilation of Codes, Rules and Regulations of the State of New York ("6 NYCRR") to install a public water supply well (the "Well") on the south side of Middleville Road, in the Town of Huntington, Suffolk County, New York (SCTM #400-60-1-1.002).

The proposed Well, referred to as "Middleville Road Well No. 3," is part of the SCWA's Middleville Road well field site in East Northport, and would have a capacity of 300 gallons per minute ("gpm"). The Well has already been installed as a test well, and is drilled approximately 844 feet deep, with a screened interval of 801 to 841 feet, in the Lloyd Sands aquifer (the "Aquifer"). Section 15-1502(2) of the ECL defines the Lloyd Sands to mean "that geological strata generally known to be the deepest and oldest water-bearing layer of the Long Island aquifer system and shall not include bedrock."

The SCWA proposes to use water from the Well to blend with an existing, permitted well known as Middleville Road Well No. 1, which was taken out of service due to elevated nitrate levels and perchlorate contamination in the upper glacial and Magothy aquifers. Middleville Road Well No. 1 is screened in the Magothy aquifer at a depth of 470 to 540 feet below grade, and has a capacity of 1,400 gpm. The SCWA contended that blending water from the proposed Well with Well No. 1 will dilute the nitrate concentration below the State-established maximum contaminant level ("MCL") for nitrate, and provide a safe and sufficient domestic water supply in the SCWA's Northport Intermediate Pressure Zone.

The proposal is subject to the provisions of ECL Article 15, Title 15 and 6 NYCRR Part 601 that govern applications for water supply permits. In addition, in order to obtain a permit, the SCWA sought an exemption, pursuant to ECL Section 15-1528(4), from a statutory moratorium on installing public water supply wells in the Aquifer. The statute provides that the Commissioner of the Department of Environmental Conservation ("Department") "may grant exemptions to the moratorium upon a finding of just cause and extreme hardship." The statute requires further that an adjudicatory hearing be held, and findings presented to the Commissioner, prior to granting an exemption. ECL Section 15-1528(4).

The moratorium does not apply to "coastal communities," as defined in Section 15-1502(1). As part of its application, the SCWA argued that the Well is not subject to the moratorium, because it is located in a statutorily defined coastal community. The SCWA maintained that consequently, there is no requirement that the Department make a finding of "just cause and extreme hardship" prior to granting the permit.

Department Staff referred the SCWA's application to the Office of Hearings and Mediation Services ("OHMS") because ECL Section 15-1528(4) mandates that an adjudicatory hearing be held before any exemption from the moratorium is granted. Although Department Staff supported granting the permit under the "just cause and extreme hardship" exception of Section 15-1528(4), Department Staff disagreed with the SCWA's contention that the proposed Well would not be subject to the moratorium because it is located in a "coastal community" as defined in Section 15-1502(1).

The project is an unlisted action pursuant to the State Environmental Quality Review Act ("SEQRA"), ECL Article 8. On January 29, 2004, the SCWA, as lead agency, issued a negative declaration after determining that the project would not have a significant effect on the environment, and that a draft environmental impact statement would not be prepared. The SCWA's SEQRA review was coordinated with the Department, the Suffolk County Department of Health Services (Bureau of Drinking Water), the New York State Environmental Facilities Corporation, and the New York State Department of Health (Bureau of Public Water Supply Protection).

On March 15, 2004, the application was deemed complete, and a Notice of Complete Application and Public Hearing (the "Notice") was published in the March 23, 2005 edition of the Department's electronic *Environmental Notice Bulletin*. The Notice was also published in *Newsday* on March 31, 2005. The proceedings in this matter following the publication of the Notice are summarized briefly below, and are described in more detail in the issues ruling (Matter of Suffolk County Water Authority, Ruling on Issues and Party Status, 2005 WL 3078503 (Nov. 9, 2005) ("Issues Ruling")).

Pursuant to 6 NYCRR Section 624.13(a)(2)(ii), this hearing report is being circulated to the parties as a recommended decision, at the Commissioner's direction.

### Legislative Public Hearing

Pursuant to the Notice, the legislative public hearing was held on May 10, 2005 at the Department's Region 1 office in Stony Brook, New York. The seven persons who spoke at the hearing opposed the project, with the exception of Timothy Hopkins, Esq., the SCWA's General Counsel. Mr. Hopkins responded to comments made by several of the speakers.

### Issues Conference

The record of the issues conference was opened immediately following the legislative public hearing. The Notice set a deadline of April 29, 2005 for the receipt of any petitions for full party status or amicus status. No petitions were received by that date. During the May 10, 2005 issues conference, argument was heard concerning a late-filed petition for party status submitted by Sarah Meyland, Esq. on May 10, 2005. The petition was filed by Ms. Meyland on her own behalf and on behalf of Laurie Farber, the Conservation Chair of the Sierra Club, Long Island Group; Shirley Siegal, of the League of Women Voters of Nassau County; Elizabeth C. Remsen of the North Shore Land Alliance, Inc.; and Matthew T. Meng, of the East Norwich Civic Association and the Long Island Drinking Water Coalition.

These petitioners asserted that good cause for the late filing existed, because they had not received adequate notice of the proceeding. After hearing argument from the participants, the administrative law judge ("ALJ") permitted these petitioners to supplement their petition for party status pursuant to Section 624.5(b)(5) of 6 NYCRR.<sup>1</sup> The supplemental submission was timely received on May 23, 2005.

The ALJ ultimately determined that additional notice of the proceedings was required, because adequate notice, within the meaning of 6 NYCRR Section 624.3(d), had not been provided. Accordingly, a supplemental notice was published in the June 8, 2005 issue of the Department's *Environmental Notice Bulletin*, and in *Newsday* on June 13, 2005.

Pursuant to the supplemental notice, a timely petition for party status dated June 28, 2005 was filed by Sarah Meyland, Esq. in her individual capacity, and also on behalf of Rea Schnittman,

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<sup>1</sup> Section 624.5(b)(5) provides that "[w]here the ALJ finds that a prospective party did not have adequate time to prepare its petition for party status, the ALJ shall provide an opportunity for supplementation of the petition."

the Nassau County League of Women Voters, the North Shore Land Alliance, the Sierra Club, the East Norwich Civic Association, the Long Island Drinking Water Coalition, the Huntington League of Women Voters, the Conservation Board of the Village of Lloyd Harbor, Friends of the Bay, Residents for a More Beautiful Port Washington, and the League of Women Voters of Suffolk County (hereinafter referred to as "Petitioners").

The issues conference continued on July 12, 2005, and was concluded on that date. By letter dated August 2, 2005, the County of Nassau sought to file an untimely petition for full party status, which the SCWA opposed. In the November 9, 2005 Issues Ruling, the ALJ granted party status to Petitioners, and amicus status to the County of Nassau. The County appealed the denial of its request for full party status. Deputy Commissioner Carl Johnson<sup>2</sup> affirmed the ALJ's denial. Matter of Suffolk County Water Authority, Interim Decision of the Deputy Commissioner, at 8; 2006 WL 165794, \* 3 (Jan. 19, 2006) ("Interim Decision").

#### Adjudicatory Hearing

The adjudicatory hearing took place on September 12, 13, and 14, 2006. The SCWA was represented by its General Counsel, Timothy J. Hopkins, Esq., and offered the testimony of Herman J. Miller, P.E., Richard G. Bova, and Steven R. Colabufo, all of whom are employees of the SCWA. Mr. Miller is the SCWA's Deputy Chief Executive Officer for Operations. Mr. Colabufo is the SCWA's Lead Hydrogeologist, and Mr. Bova is a geologist.

Department Staff was represented by Craig L. Elgut, Esq., Region 1 Acting Regional Attorney. Department Staff did not call any witnesses. Petitioners were represented by Sarah Meyland, Esq., and by E. Christopher Murray, Esq., of the law firm of Reisman, Peirez & Reisman, Garden City, New York. Petitioners called Robert Raab, P.E., Commissioner of Public Works, City of Long Beach; Shirley Siegal; Samuel Ungar, Esq.; Hon. Rosemary Bourne, Mayor, Village of Oyster Bay Cove; Sarah Meyland, Esq.; William Seevers, P.E., a principal with Environmental Technology Group; Michael Alarcon, Nassau County Department of Health; Hon. May Newburger, Director, Nassau County Planning Federation; Hon. Judith Jacobs, Nassau County legislator; Hon. Harvey Weisenberg,

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<sup>2</sup> Then-Acting Commissioner Denise M. Sheehan delegated decision making authority in this matter to Deputy Commissioner Carl Johnson by memorandum dated March 1, 2005. This memorandum was forwarded to the then-identified participants in this proceeding by letter dated March 2, 2005.

Member, New York State Assembly; and Hon. Denise Ford, Nassau County legislator, to testify at the hearing.

Following receipt of the transcript, the SCWA and Petitioners timely filed initial briefs on February 12, 2007, and February 9, 2007, respectively. The County of Nassau filed its amicus brief on February 9, 2007. Reply briefs were timely received from the SCWA and Petitioners on March 9, 2007, and the record closed on that date.

#### **FINDINGS OF FACT**

1. The proposed Well, which has already been installed as a test well, is located in the SCWA's Northport Intermediate Pressure Zone, on the south side of Middleville Road, approximately 2,300 feet west of Old Bridge Road, Town of Huntington, Suffolk County, New York (SCTM #400-60-1-1.002).

2. The Magothy aquifer is present at the site of the proposed Well.

3. Existing Middleville Road Well No. 1, which has been out of service for a number of years due to nitrate contamination, is screened in the Magothy aquifer at a depth of 470-540 feet below grade, and has a capacity of 1,400 gpm.

4. The Raritan formation at the Middleville Road site is greater than 100 feet thick.

5. Chloride levels detected in the Magothy aquifer at Middleville Road Well No. 1 are approximately 22 milligrams per liter ("mg/l"). The generally accepted pristine or background concentration of chloride in the Magothy aquifer is less than 10 mg/l.

6. Treating chloride contamination costs between \$.60 and \$3.00 per thousand gallons, and the cost of treating nitrate contamination is approximately \$2.59 per thousand gallons.

7. The capital cost to install a water main to pipe water is approximately \$591,000 per mile for a 16-inch diameter water main and approximately \$792,000 per mile for a 24-inch diameter water main. Twenty-two miles of pipeline would be required to convey water to the Northport Intermediate Pressure Zone from the Middle Island/Yaphank area, a site outside the Northport Intermediate Pressure Zone, at a cost of \$13 to \$17 million.

8. Additional electrical costs and the costs of booster stations would also be incurred in order to transmit water long distances.

9. The SCWA has a customer base of approximately 378,000 customers. The average customer uses approximately 160,000 gallons of water per year.

### **DISCUSSION**

As discussed in greater detail below, the SCWA argued that it had demonstrated "just cause and extreme hardship," and that consequently, it was entitled to an exemption from the statutory moratorium. In the alternative, the SCWA maintained that because the Well is located in a "coastal community," within the meaning of the statute, the moratorium is not applicable, and the permit should be granted on that basis.

Department Staff agreed with the SCWA's position that "just cause and extreme hardship" had been shown, but contended that the Well would not be located in a coastal community. Petitioners asserted that the SCWA's application did not satisfy the "just cause and extreme hardship" standard, and argued further, as did the County of Nassau in its amicus brief, that the Well is not located in a coastal community.

#### Statutory and Regulatory Provisions

Section 15-1528(2) provides that:

[a] moratorium shall be established on the granting of new permits to drill public water supply, private water supply or industrial wells into the Lloyd Sands or to permit new withdrawals of water from the Lloyd Sands. Such moratorium shall apply to all areas that are not coastal communities. The waters of the Lloyd Sands shall be reserved for the use of coastal communities during the moratorium, however, nothing herein shall affect the permits of wells presently screened in the Lloyd Sands and withdrawing water therefrom.

As noted above, the "Lloyd Sands" means "that geological strata generally known to be the deepest and oldest water-bearing layer of the Long Island aquifer system and shall not include bedrock." Section 15-1502(2). The Magothy aquifer is the aquifer layer

above the Lloyd Sands. The Appellate Division, Second Department described the aquifer configuration as follows:

there are four major underground reservoirs, or aquifers, from which the residents of Long Island draw their fresh water. The uppermost aquifer is the glacial aquifer, followed in descending order by the Jameco aquifer, the Magothy aquifer and finally the Lloyd aquifer, the deepest and purest of the four.

Matter of Town of Hempstead v. Flacke, 82 A.D.2d 183, 184 (2<sup>nd</sup> Dept. 1981).

As discussed in greater detail below, the SCWA asserted that the proposed Well would be located in a coastal community, and that the statutory moratorium was therefore inapplicable. The SCWA argued further that even if the application was subject to the moratorium, the SCWA demonstrated "just cause and extreme hardship," pursuant to Section 15-1528(4), such that the permit should be granted.

Based upon this record, this hearing report and recommended decision concludes that the proposed Well is not located in a coastal community within the meaning of the statute, and that the SCWA has demonstrated just cause and extreme hardship such that the permit can be granted.

#### Coastal Community

The statute provides that the moratorium applies to "all areas that are not coastal communities." Section 15-1528(2). A "coastal community" is defined in Section 15-1502(1) to mean "those areas on Long Island where the Magothy aquifer is either absent or contaminated with chlorides." Section 15-1528(1) directs the Department "to identify those areas of Long Island within the counties of Kings, Queens, Nassau and Suffolk which, for the purposes of this section, shall be considered coastal communities." To date, this designation has not been made.

It is undisputed that the Magothy aquifer is present at the site of the proposed Well. Although the phrase "contaminated with chlorides" is not defined in the statute, Applicant and Petitioners, as well as the County of Nassau in its *amicus* brief, took the position that the statutory language is clear and unambiguous. Nevertheless, the parties advanced different interpretations of the phrase.

In its initial application, the SCWA stated that there was no coastal community that would be impacted by the proposal, noting that "[i]n effect, this well will be serving the community along the coast, although it is not a 'coastal community' for purposes of Article 15." Exhibit (hereinafter "Exh.") 4, at 19. The SCWA stated that the community in question is not "coastal" because the Magothy aquifer is contaminated with nitrates, rather than chlorides. Id.

The SCWA subsequently reversed this position and revised its application to add the assertion that the Well is, in fact, situated in a coastal community, as defined in Section 15-1502(1). SCWA raised this argument for the first time as part of its October 29, 2004 response to Department Staff's second request for information. Accordingly, when this matter proceeded to hearing, the SCWA advanced two arguments in support of its permit application: that an exemption to the moratorium should be granted, because the SCWA had demonstrated "just cause and extreme hardship," and in the alternative, that the Well is located in a coastal community, and thus would not be subject to the statutory moratorium.

Department Staff opposed granting the permit on the basis that the Well would be located in a "coastal community," as did Petitioners and the County of Nassau. In the issues ruling, the ALJ determined that this question would be addressed in post-hearing briefing, following development of a factual record. Issues Ruling, at 15, 2005 WL 3078503, \* 26.

#### Jurisdiction

As an initial matter, Petitioners maintained that this forum lacks jurisdiction to determine whether the Well would be located in a "coastal community." According to Petitioners,

the only role for an adjudicatory hearing is if the moratorium applies as determined by DEC, whether or not an exemption should be granted based on a finding of just cause and extreme hardship. There is simply no subject matter jurisdiction for this adjudicatory hearing to make a determination of whether or not the Northport Intermediate Zone is a coastal community.

Petitioners' Post Hearing Memorandum of Law, at 48 (citations omitted).

Petitioners went on to argue that the Department had already determined that the Northport Intermediate Zone is not a coastal community, and that those findings "may not be disturbed through this adjudicatory hearing procedure." Id. at 49. In further support of their position, Petitioners noted that objections to subject matter jurisdiction may not be waived. As a result, according to Petitioners, such jurisdiction cannot be conferred here by Petitioners' failure to raise the issue at the outset of the administrative process.

Petitioners' arguments with respect to jurisdiction are not supported by the language of the moratorium law. Such a construction of the statute would make Department Staff's determination as to a locality's status as a "coastal community" essentially unreviewable by the Commissioner. This interpretation is not consistent with the statutory scheme, which vests authority in the Commissioner to grant or deny a permit to drill into the Aquifer, following the development of an evidentiary record.

In this context, the role of the administrative law judge, and the function of an adjudicatory hearing, is to develop a factual record for the Commissioner's consideration. To the extent the factual record informs the Commissioner's review of a determination of coastal community status where that status is in question, the Commissioner's authority should not be circumscribed in the manner advanced by Petitioners.

#### Saltwater Intrusion

The SCWA contended that because chloride concentrations in the Magothy aquifer at the Middleville Road site exceeded background levels, the Magothy is "contaminated with chlorides" as defined by the statute. ECL Section 15-1502(1). According to the SCWA, the statute does not draw a distinction between chloride contamination as a result of saltwater intrusion and the presence of elevated chloride levels as a result of land use activities. The SCWA concluded that the proposed Well would not be subject to the moratorium.

Petitioners argued that the plain meaning of the term "coastal community" "dictates that it is referencing areas along Long Island's shoreline or coastal waters which could be a source of saltwater intrusion." Petitioners' Post Hearing Memorandum of Law, at 50. Petitioners went on to point out that the Well is not close to the shoreline or to coastal waters, and that there is no evidence in the record that saltwater intrusion has occurred at this location. In Petitioners' view, chloride

contamination from land use activities is not encompassed within the term "contaminated with chlorides."

The County of Nassau asserted that Department Staff had correctly determined that the proposed Well would not be located in a coastal community, and urged that this finding be upheld. According to the County, Department Staff "enunciated a commonsense interpretation of 'coastal communities,' hewing exactly to the Legislature's definition." Amicus Brief, at 13.

The County cited to the Second Department's decision in Matter of Town of Hempstead v. Flacke, supra, which considered a petition pursuant to Article 78 of the New York Civil Practice Law and Rules ("CPLR") to review the Department's denial of an application for a permit to deepen two wells in the northwest corner of the Roosevelt Field shopping center on Long Island. 82 A.D.2d 183 (2<sup>nd</sup> Dept. 1981). The County pointed out that the decision "makes repeated reference to saltwater intrusion." Amicus Brief, at 22 (citing Matter of Town of Hempstead v. Flacke, 82 A.D.2d at 186 (noting that "[a] major increase in pumpage from the Lloyd could cause the point of saltwater intrusion to move shoreward, jeopardizing the water supplies of the barrier beach communities," and that the Nassau County Master Water Plan concluded that "[s]altwater encroachment is the major constraint on the use of the Lloyd Aquifer").

The County contended further that the legislative history of the moratorium statute demonstrates that the Legislature's use of the term "contaminated with chlorides" in Section 15-1502(1) referred to saltwater intrusion. The County cited a memorandum in support authored by Ms. Newburger,<sup>3</sup> the bill's sponsor, in which she stated that

[p]resent understanding has modified our view of the Lloyd and emphasized the Lloyd's vulnerability to chemical contamination near the north side of the Island, and its susceptibility to saltwater intrusion due to over pumping. A 1973 USGS report by G.E. Kimmel noted that withdrawals from the Lloyd have caused and/or accelerated landwater movement of saltwater into the Lloyd along the south shore. . . . Coastal communities on both the north and south shores have become

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<sup>3</sup> At the time the Lloyd moratorium legislation was proposed, Ms. Newburger was a member of the New York State Assembly.

dependent on Lloyd waters due to the absence of the Magothy aquifer or due to saltwater intrusion of the Magothy.

July 14, 1986 Letter from Hon. May W. Newburger to Governor Mario M. Cuomo (Amicus Brief, at 20 and Exhibit A).

The County also relied upon the Department's findings of fact in a 1979 Lloyd well permit application for the Town of Hempstead, which were attached to Ms. Newburger's letter. The County argued that those findings "point[ed] up a specific legislative concern for saltwater chloride intrusion." Amicus Brief, at 21, Exhibit B. The findings stated that

decreased recharge plus the increased pumpage due to the increased population of the Island has resulted in saltwater intrusion into the glacial, Jameco and Magothy aquifers under the southernmost portion of the Island in Nassau County. . . . the Lloyd aquifer is the sole source of water supply for the communities of Long Beach, Lido Beach and Point Lookout. It is likely that major increased withdrawals from the Lloyd aquifer could cause the saltwater/freshwater interface to move shoreward, thus placing the water supply of the barrier beach communities in jeopardy.

Id. According to the County, this legislative history, coupled with the Second Department's discussion of saltwater intrusion in Matter of Town of Hempstead, supra, at 185-88, evidences that "when the Legislature spoke of chloride contamination, it meant saltwater contamination, not low, background levels of chlorides." Amicus Brief, at 22.

The County's interpretation is too narrow. The decision in Matter of Town of Hempstead predates the enactment of the statute, and the court was not construing the meaning of the phrase "contaminated with chlorides" that was ultimately incorporated in the moratorium law. While the court's decision and the statute's legislative history evidence a clear concern with respect to saltwater intrusion, the term "saltwater intrusion" was not incorporated in the statute itself, and as a result, the legislative intent to limit the meaning of chloride contamination to saltwater intrusion is not express. As a result, the statute can be fairly read to refer to chloride

contamination from both saltwater intrusion as well as land use activities.

The SCWA went on to assert that the State Legislature intended to expand the definition of a "coastal community" beyond "barrier beach" communities and those with saltwater intrusion. The SCWA noted that while the Magothy aquifer is present below all of the "barrier beach" communities, the definition of "coastal community" is not limited to "barrier beach" communities, "but also [includes] other areas where there is chloride contamination in the Magothy aquifer and areas where there is no Magothy aquifer at all." Applicant's Post-Hearing Reply Brief, at 11. In support of this argument, the SCWA cited to Ms. Newburger's testimony at the adjudicatory hearing, in which she acknowledged that she was aware of the distinction between chloride contamination attributable to saltwater intrusion and chloride contamination from land use sources. Tr. at 572-73. As the SCWA pointed out, had the Legislature wished to restrict the definition of a "coastal community" only to areas subject to saltwater intrusion, or only areas on the coast, it could have done so.

The SCWA also made reference to a July 17, 1986 letter included in the moratorium law bill jacket. The letter, from James N. Baldwin, Executive Deputy Secretary of State to the Hon. Evan A. Davis, Counsel to Governor Cuomo, commented that Section 15-1502(1)

would define the term "Coastal Communities" as "those areas on Long Island where the Magothy aquifer is either absent or contaminated with chlorides." The term "Coastal Communities" as defined in the bill, does not relate to its definition; if this bill were approved, a community located midway between Long Island Sound and the Atlantic Ocean, thereby having no coastal boundary, would nevertheless be a "Coastal Community" for purposes of Title 15 if the Magothy were either absent or contaminated; this is akin to defining a cat as a dog.

Exhibit 76, p. 3. The SCWA's witness, Mr. Miller, asserted that the Governor subsequently signed the bill into law "with this knowledge and understanding." Miller Prefiled Rebuttal, at 11-12. The SCWA concluded that the Legislature evidenced a clear intent to expand the definition of "coastal communities," and

that the Middleville Road site falls within the scope of the statutory definition.

Mr. Miller testified further that the Lloyd moratorium law was passed in 1986, the same year that the Department's Final Long Island Groundwater Management Plan was issued. Id. at 14. Mr. Miller pointed out that the document states that

[a]bove-background concentrations of chloride in groundwater are caused by discharges from sewage or individual treatment plants, septic tank/cesspool systems, storage and use of highway deicing salts, landfills, well casing fractures, and saltwater intrusion.

Exh. 46, at II-22. In the SCWA's view, this context provides further support for the argument that if the legislature had intended to refer only to saltwater intrusion, it would have specifically done so.

The SCWA's argument is persuasive. As noted above, the legislation does not limit the definition of a "coastal community," nor does it refer to "saltwater intrusion." Rather, the statute is broadly worded to encompass both contamination attributable to saltwater migration as a result of overpumping, as well as chloride contamination from other sources.

Nevertheless, the presence of chlorides, from whatever source, at the Middleville Road site is not sufficient in this case to establish that the Well is located in a coastal community. Even if chlorides are present, the SCWA must still establish that chloride levels amount to "contamination." As the court in Matter of Town of Hempstead made clear,

the commissioner's determination is entitled to great weight, especially where, as here, it is in an area requiring specialized, scientific knowledge. . . . The commissioner's conclusion [to deny the permit] was rational, based on a proper weighing of [the water district's] contingent, short-term need for nonpotable water against the long-term needs of the barrier beach communities (and perhaps, eventually, all of Long Island) for pure Lloyd water.

182 A.D.2d at 187-88, 189. With respect to saltwater intrusion, it may be appropriate in some cases for the Commissioner to determine that lower levels of chlorides constitute contamination, because there is a strong likelihood that overpumping in those areas will draw a saltwater plume into the Lloyd. A slight increase in chlorides may be an indication that higher concentrations will follow. In areas where contamination from land uses leads to elevated chloride levels, the Commissioner may wish to take into account other factors, such as the cost of treatment, or the impacts upon public health. Thus, it is necessary to examine the SCWA's contention that the chloride levels at the site of the proposed Well amount to "contamination" within the meaning of the statute.

### Chloride Levels

In its post-hearing brief, the SCWA contended that the proposed Well would be located in a coastal community, pursuant to ECL Section 15-1502(1), because the Magothy aquifer at Middleville Road is contaminated with chlorides. The SCWA maintained that the statutory language is clear and unambiguous, and that the undisputed evidentiary record establishes that chloride contamination at 22 milligrams per liter ("mg/l"), or more than double the naturally occurring background levels, is present at the site. The SCWA offered the testimony of its lead hydrogeologist, Steven Colabufo, who stated that the generally accepted pristine or background concentration of chloride in the Magothy aquifer is less than 10 mg/l. Colabufo Prefiled Direct, at 12-13.

The SCWA provided the results of analyses of samples taken at two wells (Middleville Road Well Nos. 1 and 2) screened in the Magothy aquifer. Exh. 7, at 2. According to the SCWA, the sampling results for both of the wells "consistently show chloride contamination, making the area a coastal community." Id. Mr. Colabufo stated that when Middleville Road Well No. 1 was first installed in the 1970s the chloride levels were measured at 8.5 mg/l, "which is consistent with the natural, background chloride concentration of less than 10 mg/l." SCWA's Post-Hearing Brief, at 9; Colabufo Prefiled Direct, at 13; Exh. 38. Mr. Colabufo testified that recent chloride levels have been as high as 22.2 mg/l. Colabufo Prefiled Direct, at 13; Exhs. 7A, 38 and 39.

The SCWA pointed out that Petitioners' witness, Sarah Meyland, acknowledged that pre-development chloride concentrations in Long Island groundwater are less than 10 mg/l, and that increases above that level are associated with

contamination from land-use sources. Meyland Prefiled, at 3; Exh. 136, at 43. According to the SCWA, the Magothy aquifer is "contaminated with chlorides" within the meaning of the statutory definition when chloride concentrations exceed naturally occurring, background levels.

The SCWA noted further that Ms. Meyland's prefiled testimony characterized chloride levels of 22 mg/l at the site of the proposed well as "contamination." Meyland Direct, at 2. Nevertheless, the SCWA's assertions are contradicted by Ms. Meyland's direct testimony in which she states that "SCWA is fully aware that low background concentrations of chloride do not indicate contamination as defined by the statute." Meyland Prefiled, at 4.

The SCWA disputed the testimony of Petitioners' witness, Michael Alarcon, of the Nassau County Department of Health, who asserted that the term "coastal community" includes only those areas where water from the Magothy aquifer is unfit for use because chloride levels exceed the 250 mg/l MCL drinking water standard. Alarcon Prefiled, at 26-27. That standard is set forth in the New York State Department of Health regulations at 10 NYCRR Section 170.4.

In response, the SCWA offered the testimony of Mr. Miller, who stated that chloride is not an unwholesome or undesirable element, and that

[w]hen chloride concentrations in groundwater become higher than the drinking water standard, the water is still not "unfit for use" for drinking water purposes; it is still capable of being used. It just makes the water more expensive to use for drinking water because you have to treat it to reduce the concentrations of chloride so the water does not have a salty taste.

Miller Prefiled Rebuttal, at 1-2. This testimony is not compelling, because the SCWA's reasoning that water is not "unusable" when it exceeds the MCL because it can be treated would by extension mean that any level of contaminant in groundwater would be acceptable assuming that appropriate treatment could reduce that contamination below the MCL.

Mr. Miller testified further that the New York State Sanitary Code uses the word "contaminant" when there is any amount of a particular substance present in drinking water, and

that the United States Geological Survey considers chloride contamination to be present when there is any amount above the natural, background level. Id., at 2-3; Exh. 136, at 43; 10 NYCRR § 5-1.1(g). The SCWA urged that this interpretation should be adopted in this case.

In further support of its position, the SCWA maintained that the court in Matter of Town of Hempstead "utilized the term contamination in accordance with its plain meaning." SCWA's Post-Hearing Reply Brief, at 7. The court stated that

[i]n addition to the problem of saltwater intrusion, there is also a problem of chemical contamination, which has significantly affected the upper three aquifers. The detection of such contamination in the Lloyd (previously thought to be impermeable because of the thick layer of Raritan clay separating it from the Magothy) "dictates a need for extreme care to be taken in evaluating new water supply applications."

82 A.D.2d at 188 (citing Matter of Town of Hempstead Roosevelt Field Water District, ALJ's Hearing Report, at 6, 1981 WL 142257, \* 10 (May 1, 1981)). According to the SCWA, the decision compels the conclusion that the plain meaning of the phrase is the "detection of chemical contamination." SCWA's Post-Hearing Reply Brief, at 7.

Mr. Miller, the SCWA's witness, observed that Petitioners' use of the term "contaminated" in connection with other constituents was inconsistent with Petitioners' arguments as to chloride contamination. Miller Prefiled Rebuttal, at 3. In that regard, he noted that Petitioners used the term "contaminated" to refer to groundwater containing any detectable level of a chemical, for example, volatile organic compounds. Id.

In response, Petitioners asserted that the evidentiary record showed that the amount of chlorides present at the Middleville Road wellfield site is significantly below the 250 mg/l MCL permitted for human consumption under both State and federal regulations. Petitioners reasoned that if the SCWA's interpretation were adopted, every location on Long Island with trace amounts of chlorides in the groundwater would be considered a coastal community. Petitioners cited to Michael Alarcon's testimony that every location on Long Island has trace amounts of chloride in the groundwater. Alarcon Prefiled, at 27.

Petitioners urged that a reading consistent with the SCWA's position would nullify the statute's intent, and should be rejected.

Department Staff disputed the SCWA's contention, arguing that the SCWA's interpretation of the definition of the term "coastal community" is not consistent "with either the letter or intent of the statutory moratorium." Exh. 8, at 1. According to Department Staff, the engineering report that accompanied the original application correctly concluded that the Well is not located in a coastal community. Id. Department Staff went on to state that

[a]s SCWA is aware, the aquifer system underlying Long Island is the largest and one of the most important groundwater resources in New York State. This system is also particularly vulnerable to overuse, pollution, and saltwater intrusion. Therefore, the Department recognizes that the moratorium enacted by the State Legislature in 1986 was established in order to protect and preserve Long Island's aquifer system for present and future generations of users.

Id.

In its amicus brief, the County of Nassau cited to the definition of "contamination"<sup>4</sup> contained in the Department of Health regulations at 10 NYCRR Section 170.3, and Section 170.4, where the allowable limit for chloride is 250 mg/l. The County noted that this is the same limit established by federal National Secondary Drinking Water Regulations, at 40 Code of Federal Regulations 143.3.

In its reply brief, the SCWA countered that these regulatory provisions are not controlling. According to the SCWA, requiring the presence of chlorides at a level greater than 250 mg/l in the Magothy aquifer in order to establish that the aquifer is "contaminated with chlorides" is contrary to the legislative history of the statute. The SCWA argued that pre-enactment decisional law, as well as Ms. Newburger's pre-enactment letter, make reference to "barrier beach" communities where chloride

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<sup>4</sup> Section 170.3(d) defines "contamination" to mean "any substance or characteristic which will make the water unsuitable or unsafe including a constituent or characteristic in an amount exceeding the allowable limits therefor hereinafter set forth."

levels "are and always have been less than 250 mg/l." SCWA's Reply Brief, at 9.

The SCWA went on to observe that Department Staff never indicated that the definition of "contamination" in Part 170 of 10 NYCRR was germane to the "coastal community" issue, nor was that definition mentioned anywhere in the legislative history of the Lloyd moratorium law. The SCWA noted that the definition is specifically limited to Part 170, and that a broader definition of the word "contamination" appears in the State Health Department regulations at 10 NYCRR Section 5-1.1(g). That regulation defines "contaminant" to mean "any physical, chemical, microbiological or radiological substance or matter in water."

In addition, the SCWA noted that, pursuant to Section 170.2 of 10 NYCRR, Part 170 does not apply in New York City. According to the SCWA,

[t]his is an important distinction because Kings County and Queens County which are in New York City both contain Magothy aquifer. In fact, ECL § 15-1528(1) directed the Department of Environmental Conservation to identify areas in Kings and Queens counties that shall be considered "coastal communities." As such, the definition in Part 170 could not have been intended for use in the Lloyd moratorium law and the definition of "coastal communities" contained therein.

SCWA's Post-Hearing Reply Brief, at 5.

The SCWA pointed out that the court in Matter of Town of Hempstead observed that the Lloyd aquifer is "the only source of fresh water for the 'barrier beach' communities of Long Beach, Lido Beach and Point Lookout." 82 A.D.2d 183, 185. The SCWA cited language in the pre-enactment letter stating that the Aquifer is the sole source of water for these municipalities. Emphasizing that the evidentiary record establishes that the chloride levels in these locations ranged from a low of 4 mg/l to a high of only 197 mg/l between 1960 and 2003, the SCWA maintained that under a 250 mg/l threshold for "contamination," these communities would be subject to the moratorium. Exh. 37, at 61. The SCWA went on to point out that the "barrier beach" communities of Jones Beach and Tobay Beach would be similarly situated, because chloride levels in the Magothy aquifer at those

locations were between 3 mg/l and 14 mg/l, and 3 mg/l and 33 mg/l, respectively. Exh. 37, at 61.

Citing to the SCWA's 2006 Annual Drinking Water Quality Report, the County observed that approximately one third of the areas served by the SCWA have average chloride levels in excess of those present at the Middleville Road well field. Exh. 71, at Exhibit G. The County maintained that if the proposed Well were determined to be located in a coastal community as a result of the chloride levels at Middleville Road, "then it follows that one-third of the areas served by the SCWA are also located in coastal communities." Amicus Brief, at 12, fn. 4. The County argued that such an interpretation would render the Lloyd moratorium law meaningless, and reiterated that chlorides detected at the proposed Well represent less than ten percent of the chloride concentration permitted by State and federal regulations for drinking water. These levels, according to the County, do not rise to the level of contamination.

Both Petitioners and the County relied upon the Third Department's opinion in Matter of Duflo Spray-Chemical, Inc. v. Jorling, in which the court construed the word "contamination" in the context of pesticide regulations, and concluded that

the regulations state that pesticides must be used so that *contamination* is prevented, and define "contamination" as presence *in quantities* which may injure the environment. Clearly, this regulatory scheme contemplates more than the mere presence of a pesticide but, rather, presence in quantitatively injurious amounts.

153 A.D.2d 244, 247-48 (3<sup>rd</sup> Dept. 1990) (emphasis in original). The County urged that the word "contamination" in Section 15-1502(1) be read to require not just the presence of a contaminant, "but also some real prospect for injury upon introduction." Amicus Brief, at 10.

The County went on to point out that the definition of contamination in 10 NYCRR Section 170.3(d) was adopted by the Third Department in Concerned Citizens Against Crossgates v. Flacke, 90 A.D.2d 35, 39 (3<sup>rd</sup> Dept. 1982), lv. denied, 58 N.Y.2d 607 (1983). In that case, the court considered whether a developer's application for a State Pollutant Discharge Elimination System ("SPDES") permit violated a proscription on water supply "contamination," which was not defined in the regulation. The court employed the definition at 10 NYCRR

Section 170.3(d), reasoning that Part 170 dealt with water supply sources throughout the State in general. Id. at 38. The court went on to state that

[u]sing this definition, we agree with Special Term's reasoning that since the discharge of pollutants would not automatically contaminate a water supply so long as the level of concentration of the pollutants remains at or below the allowable limits, the SPDES permit did not automatically authorize contamination as prohibited by subdivision (m) of 10 NYCRR 100.17.

Id. According to the County, these precedents established that "contamination" requires more than the trace presence of a constituent, such as chlorides.

The SCWA's argument that the Well is located in a coastal community is unpersuasive, because the assertion that any measurable level of chlorides above background constitutes contamination would negate the moratorium. The statute does not require that chloride levels be merely detectable or measurable; rather, the Legislature chose to use the word "contaminated." The statute cannot be read so liberally as to render the moratorium meaningless, and in this case, the SCWA's reading would lead to that result. Essentially, the rule would be subsumed within the exception.

This hearing report concludes that the 250 mg/l MCL set forth in the State Department of Health regulations, and in the federal statute, is not controlling here. In enacting the Lloyd moratorium, the Legislature did not impose a numerical limit on chloride levels in order to establish contamination. This lack of specificity compels the conclusion that the Legislature intended the Department to exercise its discretion, and arrive at a reasonable, case by case interpretation of the term "contaminated with chlorides." This interpretation must consider the unique circumstances of each application, which can be developed in an adjudicatory hearing, as was the case here, in order to provide the Commissioner with a complete factual record.

Because the SCWA has not established that the site of the proposed Well is within a "coastal community" within the meaning of the statute, the SCWA must satisfy the "just cause and extreme hardship" standard in order to obtain a permit. The following discussion concludes that, on this record, it would be reasonable

for the Commissioner to determine that a finding of just cause and extreme hardship is warranted.

"Just Cause and Extreme Hardship"

The statute requires that an applicant seeking an exemption from the moratorium demonstrate "just cause and extreme hardship." Section 15-1528(4). In that regard, the Issues Ruling identified the following sub-issues for adjudication:

1. Whether the proposed pumping is within the safe yield of the Aquifer. The inquiry will include consideration of the characteristics of the Aquifer, as well as water supply needs.
2. Whether the proposal poses a risk of contamination of the Aquifer from saltwater intrusion or other constituents. This inquiry will include an examination of existing, background chloride concentrations in the Magothy Aquifer.
3. Whether the SCWA took into account appropriate alternatives to the proposal, including alternatives to blending, and the costs associated with those alternatives.

Issues Ruling, at 34; 2005 WL 3078503, \* 25-26.

The Interim Decision concluded that these issues were appropriate for adjudication. Interim Decision, at 1-2; 2006 WL 165794, \* 1. The evidence and the parties' arguments with respect to these issues are considered below. As an initial matter, the SCWA pointed out that the Department has not promulgated any regulations or established any guidelines to inform an applicant as to what is required to establish "just cause and extreme hardship" within the meaning of the statute. In a letter dated May 4, 2004, Department Staff indicated that

the Department does not have specific prior caselaw or hearing records to offer as guidance for establishing and determining "just cause and extreme hardship" as those terms are used in the moratorium statute other than the language of the statute itself.

Exhibit 7X. The SCWA maintained that

[t]he prohibition on withdrawing water from the Lloyd Sands works an extreme hardship on the Suffolk County Water Authority. Preventing SCWA from withdrawing water from the Lloyd will require that it embark on expensive and risky machinations that may imperil the environment, that could jeopardize SCWA's ability to meet demand requirements and are far more expensive.

Exh. 4, Engineer's Report, Exh. E, at 21. The SCWA contended that a community with nitrate contamination and a community with chloride-contaminated water "are similarly situated with respect to the cost of making water in the Magothy aquifer usable for public water supply purposes." SCWA's Post-Hearing Brief, at 24-25.

It is undisputed that treating chloride contamination costs between \$.60 and \$3.00 per thousand gallons, and the cost of treating nitrate contamination is \$2.59 per thousand gallons. Miller Prefiled Direct, at 4-5, 28-29; Exhs. 53 and 54. The capital cost to install a water main is approximately \$591,000 per mile for a 16-inch diameter water main and approximately \$792,000 per mile for a 24-inch diameter water main. Miller Prefiled Direct, at 3; Exh. 52. Additional electrical expenses and the costs associated with booster stations would also be incurred in order to transmit water long distances. Miller Prefiled Direct, at 3-4. Twenty-two miles of water main would be required for the SCWA to pipe water to the Northport Intermediate Pressure Zone, for a total of \$13 million to \$17 million in capital costs. Miller Prefiled Direct, at 3. This evidence concerning costs was un rebutted.

The SCWA took the position that because the expense associated with installing and operating water mains to transmit water over long distances would be the same for either community, "there is no valid public policy reason for discriminating against one of those communities by making it utilize costly treatment processes to address nitrate contamination in the Magothy aquifer when a community with chloride contamination is not required to do so." SCWA's Post-Hearing Brief, at 25. The SCWA went on to assert that a finding of "just cause and extreme hardship" is warranted "because nitrate contamination in the Magothy aquifer is a significantly greater concern from a public health perspective than chloride contamination in the Magothy aquifer." Id. The SCWA noted that the New York State Sanitary

Code provides that a single MCL violation for nitrate constitutes a "public health hazard," because nitrate "can cause acute health conditions in which health deteriorates rapidly over a period of days." Id. at 26 (citing 10 NYCRR § 5-1.1(ar)).

The SCWA went on to point out that the United States Environmental Protection Agency ("EPA") has established a National Primary Drinking Water Standard of 10 mg/l for nitrates in drinking water. Exh. 7F. In this regard, EPA indicates that

[i]nfants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.

Exh. 7F, at 4. In contrast, as the SCWA observed, there is no National Primary Drinking Water Standard for chlorides. Rather, EPA has established a National Secondary Drinking Water Standard (known as Secondary Maximum Contaminant Levels ("SMCLs")) for chlorides. Exh. 7G. EPA does not enforce SMCLs, which serve as guidelines to assist public water supply systems in managing drinking water for aesthetic concerns, including taste, color and odor. Id. Chlorides, like other contaminants for which a SMCL has been established, are considered nuisance chemicals that do not pose a threat to human health at the SMCL. Id. The SMCL for chloride is 250 mg/l, and the noticeable effect for water containing chlorides above that amount is "salty taste," according to EPA. Exh. 7G, at 3.

The SCWA concluded that

[w]hereas the statute provides that there should be no moratorium where there is contamination that merely causes aesthetic problems with the quality of Magothy aquifer water, it is respectfully submitted that the Commissioner should make a finding of just cause and extreme hardship where there is contamination in the Magothy aquifer that creates a "public health hazard" upon a single MCL violation. Whereas the statute provides that there should be no moratorium where there is contamination of the Magothy aquifer that merely imparts the water with a "salty taste", it is respectfully submitted that the Commissioner should make a finding of just cause and extreme hardship where

there is contamination of the Magothy aquifer that has the potential to kill infants within a matter of days.

SCWA's Post-Hearing Brief, at 28.

According to the SCWA, the moratorium "is not and was never intended to be a permanent prohibition on new wells in the Lloyd Aquifer." SCWA's Post-Hearing Reply Brief, at 14. The SCWA went on to note that "[t]hroughout the application process, the SCWA provided all of the information that the Department's professional staff requested for approval of the SCWA's application." Id. at 14-15. According to the SCWA,

Petitioners want the "just cause and extreme hardship" standard to be a constantly moving or constantly changing standard that can never be achieved by any applicant. The Petitioners want to string out and delay the well application process in attempts to wear down potential applicants over a period of years. All the while their [Petitioners'] applications for wells in the Lloyd aquifer get approved in a matter of a few months.

Id. at 17 (citation and footnote omitted).

In its initial brief, the SCWA stated that the Department failed to disclose, in response to the SCWA's Freedom of Information Law request, that a permit was issued for City of Long Beach Well No. 18 in April 2004. SCWA's Post-Hearing Brief, at 21, fn. 1. Well No. 18 is a 1,250 gpm well drilled 1,200 feet below grade in the Lloyd Aquifer in the City of Long Beach. The SCWA indicated that it was not aware that this Well had been permitted until the SCWA received the prefiled testimony of Robert Raab, P.E., the Commissioner of Public Works for the City of Long Beach. The SCWA then filed a motion to compel discovery and subpoenaed the City of Long Beach to obtain a copy of the application materials and the permit. The SCWA went on to state that

[a]ccording to Mr. Raab's prefiled direct testimony (at p. 1, question 5) there was another new Lloyd well permit issued for the City of Long Beach, but the SCWA never received any records for this well in response to the subpoena it served on the City of Long Beach or from the Petitioners in

response to the SCWA's motion to compel discovery or from the Department in response to the SCWA's FOIL requests.

Id. At the hearing Sarah Meyland, Petitioners' witness, testified that the City of Long Beach was permitted to drill replacement wells into the Aquifer as prior wells became unproductive, but has not been allowed to increase capacity. Tr. at 688-89.

In response to the SCWA's arguments, Petitioners contended that by enacting the moratorium statute, the State Legislature made a public policy decision to treat coastal communities differently than inland communities. Petitioners asserted that

[f]or over 50 years, it has been the policy of New York State to reserve the use of the Lloyd for coastal communities. The basis for this restriction is the unchallenged hydrologic reality that the Lloyd is the most fragile and sensitive aquifer on Long Island. It stores only 9 percent of all the groundwater of Long island [sic] and received [sic] only 3 percent of the recharge. The amount of water the Lloyd can provide over the long term is very limited when compared to the water available from the other aquifer formations. And, because it is a true "confined aquifer," it is highly responsive to water withdrawals, showing a reaction to even small withdrawals over large distances.

Petitioners' Post-Hearing Reply Memorandum of Law, at 8. Petitioners went on to argue that in order to protect against abuse of the statutory exemption, the Legislature set a high standard for its application, so that an exemption could only be granted based upon just cause and extreme hardship. Petitioners maintained that

the New York State Legislature made the public policy determination to treat coastal communities different than inland communities, and to only apply the moratorium for drilling wells to inland communities. If SCWA believes that this differentiation is unfair, or not warranted by proper public policy, it should go to the New York State Legislature and seek a change in the law.

Instead, SCWA simply states that because it is unfair to subject SCWA to the moratorium when coastal community water suppliers are free to drill into the Lloyd, just cause and extreme hardship has been demonstrated. This argument is frivolous.

Id., at 9. According to Petitioners, the Legislature's use of the phrase "just cause and extreme hardship" evidenced "the intent that only in severe emergency situations may an exception to the moratorium be granted." Id. at 9-10.

The SCWA's arguments concerning the disparate treatment of communities with nitrate contamination as opposed to chloride contamination are insufficient, standing alone, to demonstrate just cause and extreme hardship in this case. While there may be compelling policy reasons to allow communities access to the Aquifer in situations where nitrate contamination is a concern, or other drinking water standards are exceeded, that is not the case here. There are additional factors, discussed below, beyond exceedance of drinking water standards that must be taken into account in determining whether the SCWA demonstrated "just cause and extreme hardship."

#### Safe Yield

The SCWA performed groundwater modeling to determine the potential effect on the Aquifer if the permit were granted. According to the SCWA, the results of the modeling indicate that pumping from the proposed Well would be within the safe yield of the Aquifer. Colabufo Prefiled Direct at 19-21; Tr. at 382. The SCWA also offered evidence concerning groundwater budgets for the Aquifer as a whole, as well as in Suffolk County, and western Suffolk County. Colabufo Prefiled Direct, at 14-16; Exhs. 32 and 57.

Mr. Bova testified that the SCWA conducted two studies utilizing the Suffolk County Groundwater Model (the "Model"). Bova Prefiled Direct, at 1. One study examined the long-term effects associated with the use of the proposed Well, and the cumulative effect of five additional wells in the Middleville Road area. Id., at 2. The second study examined the source water contributing area of the proposed Well. Id.

Although the Model assigns 85 percent of public water supply pumpage to be returned to the Model as recharge to the Upper Glacial aquifer in unsewered areas, the SCWA utilized a more conservative approach, and "water pumped from the Lloyd aquifer

in all the simulations was treated to be 100% consumptive and not recharged to the model." Id., at 3. Mr. Bova testified that

SCWA chose pumping rates of 100 gpm and 300 gpm in the various steady state simulations. Steady state means that the entire domain is in equilibrium with the amount of water entering the system equal to the amount of water leaving the system. The rate of 300 gpm was used since it is the rate proposed in the Middleville Road Well No. 3 permit. However, a continuous rate of 300 gpm in steady state conditions is highly unlikely. The rate of 100 gpm as the long-term pumping rate is believed to be more realistic, since it represents an annualized average of pumping from these wells, accounting for times when the wells are not in operation.

Id. Mr. Bova went on to testify that the modeling exercise showed that the minimum travel time for water to reach the Well's well screen from the source water contributing area is 260 years. Id., at 4.

Petitioners countered that the Interim Decision required consideration of the safe yield of the entire Aquifer, not just the safe yield for the Well. Petitioners argued that the SCWA presented evidence only as to the Well's safe yield, not the safe yield for the Aquifer as a whole. Tr. at 283-87. According to Petitioners, the SCWA does not know the safe yield for the Aquifer, and Petitioners went on to assert that "[t]o discuss safe yield, the water budget for the system must be known and defined. This has not been provided in any testimony provided at this hearing. Instead, the SCWA offered a partial analysis that is seriously flawed." Petitioners' Post-Hearing Memorandum of Law, at 31.

Contrary to Petitioners' assertions, the SCWA's professional hydrogeologist concluded, based upon a reasonable degree of scientific certainty, that the proposal would not exceed the Aquifer's safe yield. Tr. at 342-48; Colabufo Prefiled Direct, at 20. Petitioners did not effectively rebut this testimony.

Petitioners went on to contend that there were "numerous irregularities and malfunctions that made the pump test completely unusable for the purpose it was intended." Petitioners' Post-Hearing Memorandum of Law, at 23. Petitioners noted that the proposed Well was not used for the pump test

undertaken as part of the application. Instead, proposed Well No. 3 was used as an observation well, while a well at the Veterans Administration ("VA") Hospital was actually pumped. Tr. at 210. According to Petitioners, "all the pump test data, such as it is, is specific and relevant to the VA Hospital well #1, not to the proposed SCWA well at Middleville Road." Petitioners' Post-Hearing Memorandum of Law, at 23.

Petitioners cited to the testimony of William Seevers, a professional hydrologist who testified on Petitioners' behalf. At the hearing, Mr. Seevers stated that he had been involved in "hundreds" of pump tests over the course of his career. Tr. at 709-710. Mr. Seevers testified that "[t]he key problems with the test were it's [sic] short duration, low pumping rate and the failure to maintain a constant pumping rate." Seevers Prefiled Direct, at 3. According to the witness, measuring drawdown effects in proposed Well No. 3, rather than using it for the pumping well, "does not really provide an understanding of the potential impacts that would be created by full-scale pumping at proposed Well #3." Id. at 4.

Mr. Seevers went on to testify that "[t]he failure to run a pump test at the actual location of the proposed well is particularly significant due to the unusual thinness of the Raritan Clay Middleville Well #3 [sic]." Id. This testimony fails to take into account the study undertaken by Leggette, Brashears & Graham ("LBG") at the SCWA's direction. The initial application materials had indicated that the layer was only 20 feet thick. Exh. 4, Appendix A (Lloyd Aquifer Pumping Test Veterans Administration Hospital Well Field Northport, New York), at 14. A subsequent LBG investigation revealed that the Raritan formation at the site is approximately 100 feet thick, with approximately 80 feet of that formation composed of clay. Exh. 47; Colabufo Prefiled at 20-23; Colabufo Prefiled Rebuttal at 58.

Petitioners raised a number of other arguments with respect to the pumping test, but in some cases, those assertions were not supported by citations to the record, or attempted to draw conclusions that were not supported by the evidence. In other cases, Petitioners did not offer any response to the detailed rebuttal testimony provided by the SCWA with respect to the test. Colabufo Prefiled Rebuttal, at 54-65. In prefiled testimony, and at the hearing, the SCWA's witnesses explained that the VA Hospital well # 1 was chosen because the water pumped during the test could be safely disposed of by pumping it into sewage treatment lagoons near VA Hospital well # 1. Colabufo Prefiled Rebuttal, at 56. Mr. Colabufo testified that "[i]f the roles of the wells were reversed and [Middleville] Well No. 3 was used as

the pumping well and the VA Hospital well was used as the piezometer well, the results of the pumping test would not have resulted in any different conclusions." Id. Petitioners did not rebut this testimony. Moreover, the SCWA's witness testified credibly that a pump test is intended to test the aquifer formation, not the well being pumped. Tr. at 377. Mr. Colabufo stated that "[y]ou are pumping the well to gain information about the aquifer in the surrounding area." Id.

Similarly, Petitioners' contention that VA Hospital well #1 should not have been used for the test because it was suspected of having a casing leak was refuted by the SCWA. Petitioners cited to a letter from the Department to the SCWA questioning the pump test results because of this potential leak, but failed to refute the response provided by the SCWA. Exh. 5. In that response, the SCWA advised the Department that prior to the test, the well was video logged, and the entire length of the casing was inspected. Exh. 5A. No visible holes or cracks were observed. Id. The SCWA went on to note that analysis of the aquifer test indicated that the possibility of altered results due to a casing leak was unlikely, because transmissivity values calculated from the test were consistent with published data for the Aquifer on the north shore of Long Island. Id. Petitioners' witness, Mr. Seevers, acknowledged that transmissivity values were reasonable "and what I would have expected to see." Seevers Prefiled Direct, at 4.

The SCWA provided credible testimony and documentary evidence in response to Petitioners' contention that the duration and pumping rate of the test were inappropriate. As the SCWA's witnesses explained, the fact that the well was pumped at 130 gpm rather than 300 gpm was irrelevant, and the test "was sufficient to evaluate the aquifer parameters for transmissivity and storativity in the Middleville Road vicinity, and that was the purpose of the pumping test." Colabufo Prefiled Rebuttal, at 57. The witness went on to explain that

[t]he constant rate of approximately 130 gpm was maintained for over 99.7 percent of the testing period. This period of sustained pumping was sufficient to observe drawdown in the Middleville Road well field which is located approximately 3,000 feet away. The measured aquifer responses were used to calculate aquifer parameters for transmissivity and storativity which were similar to published characteristics within the northern portion of the Lloyd aquifer.

Id. Petitioners did not rebut this testimony at the hearing. Similarly, Petitioners attempted to establish through cross-examination at the hearing that the wells used for the pump test generated unreliable data, but the SCWA's witness credibly testified otherwise. Tr. at 228, 239. Petitioners did not offer probative evidence in this regard, and the SCWA's testimony is therefore more persuasive.

In addition, Petitioners asserted that the SCWA's modeling was flawed, because it used only nine data points. According to Petitioners, nine data points is "an inordinately small sample," and that as a result, there is "too little data to have confidence that the modeling results are credible." Petitioners' Post-Hearing Memorandum of Law, at 33-34. Nevertheless, Petitioners' citations to the record do not support these assertions. At the hearing, the SCWA's witness was cross-examined concerning the number of data points used for the modeling exercise. The witness testified that the use of nine data points did not make the analysis any less reliable, and that "if the data correlate well, there's no reason to believe your analysis is wrong. . . . It's the quality of the data, not the quantity of data that is the driving force here." Tr. at 413-14. Petitioners also referred to page 3-4 of the Suffolk County Groundwater Model, Final Report (October 2003), but there is no indication on that page or in that document that the use of nine data points would render modeling results unreliable. Exh. 7-L.

Moreover, the SCWA provided documentary evidence with respect to this question, which Petitioners did not rebut. The SCWA cited to a statement by Henry Bokuniewicz, director of Stony Brook University's Long Island Research Institute, in an introduction to "The Lloyd Aquifer, 2006: A special session on the Lloyd Aquifer presented at the Thirteenth Annual Conference on the Geology of Long Island and Metropolitan New York" (April 22, 2006). Dr. Bokuniewicz stated that

[w]hile many more monitoring wells are now available, especially in the Lloyd of northern Nassau County, there are few (9) in Suffolk. Yet, those that are available, like that at the Northport VA Hospital (S-00048) and one at BNL (S-6431) show excellent agreement with the calculated model results.

Exh. 48, at 2. Mr. Colabufo testified that the SCWA used the Northport VA Hospital well referenced in Exhibit 48 to perform the pump test for this application. Tr. at 351; Colabufo Prefiled Rebuttal, at 62.

Petitioners' remaining arguments with respect to modeling in their Post-Hearing Memorandum of Law are devoid of any citations to the record. Accordingly, Petitioners' contentions with respect to the SCWA's use of a particle tracking technology modeling software, and the SCWA's pumping effect modeling's predictions as to saltwater intrusion lack an evidentiary basis, and cannot be afforded any weight.

As the SCWA pointed out, no modeling experts testified on behalf of Petitioners, or on behalf of Department Staff. In addition, the SCWA's evidence concerning water budgets was unrebutted. Petitioners did not perform any modeling, and no party offered any evidence analyzing the SCWA's modeling, or any evidence that the pumping would not be within the Aquifer's safe yield. Given this lack of rebuttal testimony, the SCWA demonstrated that the Aquifer's safe yield would not be compromised by pumping from proposed Well No. 3.

#### Risk of Contamination

According to the SCWA, pumping the Well will not cause contamination in the Aquifer from saltwater intrusion or the introduction of other constituents. The SCWA contended that while Ms. Meyland offered testimony concerning potential contamination via migration through the Raritan Clay, she provided no basis for that testimony. Steven Colabufo, the SCWA's witness, opined that pumping simultaneously from the Magothy and the Lloyd Aquifer at the site would prevent any contaminants in the Magothy from reaching the Lloyd. Colabufo Prefiled Direct, at 7-10. Mr. Colabufo testified further concerning the groundwater modeling performed by the SCWA, which analyzed the potential impacts of the Well, and the cumulative effect of up to six new Lloyd wells in Suffolk County. Id., at 10.

According to Mr. Colabufo,

there is little or no chance of contamination entering the Lloyd aquifer from the overlying Magothy aquifer at the Middleville Road site because of the 80 feet of clay at the Middleville Road site and the lower potentiometric pressure in the Magothy aquifer as compared with the Lloyd aquifer when Middleville Road Well No. 1 is pumped simultaneously with proposed Well No. 3. This is confirmed by the modeling that shows

that water from proposed Well No. 3 is recharged at a location that is approximately five miles away from the Middleville Road site with a travel time from the top of the water table to the well head of approximately 260 years. . . . The numerous modeling scenarios performed by the SCWA show that there will be little or no change in potentiometric surface altitudes in the Lloyd aquifer as a result of pumping proposed Middleville Road Well No. 3 or as a result of the cumulative impact of pumping as many as six new 300 gpm Lloyd wells in the vicinity of the Middleville Road site.

Id., at 11. The witness concluded, based upon a reasonable degree of scientific certainty, that there was little or no likelihood of saltwater intrusion or contamination entering the Lloyd Aquifer from the Magothy at the Middleville Road site. Id.

Petitioners contended that the Aquifer is highly sensitive to pumpage, and that such pumpage "increases the likelihood that the water quality of the Lloyd will be degraded by contaminants that migrate down from the Magothy. Migration is increased through the action of pumping wells where the Raritan Clay confining unit is thin, missing or where wells allow leakage through the clay." Petitioners' Post-Hearing Memorandum of Law, at 35. In support of their position, Petitioners referred to the prefiled testimony of Michael Alarcon, which, according to Petitioners, "demonstrates instances where the Lloyd aquifer has been affected by pollutants that were induced [sic] into it under the influence of pumping activities." Id.

Petitioners emphasized that inland use of the Aquifer "poses the risk of harm to coastal communities by destabilizing the position of the saltwater-freshwater front - leading to saltwater intrusion." Petitioners' Post-Hearing Reply Memorandum of Law, at 8. According to Petitioners, the SCWA's application is in fact an attempt "to amend a statute because [the SCWA] disagrees with the public policy decisions regarding where the Lloyd moratorium should apply." Id.

Petitioners' testimony as to the potential for contamination is based upon an erroneous assumption as to the thickness of the Raritan Clay layer at the Middleville Road Well Field. Ms. Meyland asserted that contamination could migrate through the clay layer, but her testimony assumed that the Raritan Clay was only twenty feet thick, as suggested in the pump test report

prepared by Leggette, Brashears & Graham ("LBG"). Exh. 4, Appendix A. A subsequent LBG investigation revealed that the Raritan Clay formation at the site is approximately 100 feet thick. Exh. 47; Colabufo Prefiled at 20-23.

In addition, at the hearing Mr. Colabufo testified that during the pump test, there were no observable impacts in the Magothy wells pumped. Tr. at 382. According to the witness, this is significant, because it demonstrates that the Magothy and the Lloyd aquifer at this location are not hydraulically connected, and therefore any contamination in the Magothy would not reach the Aquifer. Tr. at 382-83. This evidence was un rebutted, and thus is accorded significant weight.

Michael Alarcon's testimony concerning the effect of pollutants introduced through pumping was not specific to the Middleville Road wellfield location, and consequently is less persuasive. Similarly, Petitioners' testimony concerning holes in the Raritan Clay is speculative, because, as Petitioners acknowledge, "there is presently no way to know if similar holes in the Raritan Clay are present in Suffolk County which could allow unrestricted and degraded Magothy water into the Lloyd." Petitioners' Post-Hearing Memorandum of Law, at 25. Moreover, as the SCWA noted, Petitioners failed to address or rebut the SCWA's modeling, and in fact offered no modeling or expert testimony in that regard. On this record, the SCWA has carried its burden to demonstrate that the proposed Well will not contaminate the Lloyd either through saltwater intrusion or constituent migration from the Magothy.

#### Alternatives

The SCWA asserted that it had taken into account appropriate alternatives and the associated costs, including alternatives to blending. Mr. Miller testified that the SCWA considered the possibility of locating an additional well at an existing well field in the Northport Intermediate Pressure Zone, which "provides public water service to all of the communities between the Middleville Road site and the Long Island Sound to the north." Miller Prefiled Direct, at 6-7. According to Mr. Miller,

this area of Suffolk County has extensive nitrate contamination . . . Most of the well fields in this zone already have some levels of nitrate contamination and do not have the area to support an additional well. The addition of another well would also create

additional drawdown at the site and possibly pull additional nitrate contamination from the surrounding area into the site. That would leave the SCWA with even fewer well fields that meet the nitrate standard in the Northport Intermediate Pressure Zone.

Id., at 1-2. Mr. Miller testified that "to qualify as a potential SCWA well field a parcel must be several acres in area to allow for the construction of well, chemical treatment buildings and associated infrastructure. The SCWA has been unable to locate any such property in the Northport Intermediate Pressure Zone." Id., at 2.

Mr. Miller went on to testify that the SCWA also considered alternative well locations outside the Northport Intermediate Pressure Zone, but stated that those adjacent zones

also have nitrate contamination and capacity concerns. Each of the well fields in the adjacent pressure zones are dedicated to those pressure zones which means that the full capacity of those well fields are needed for the present and future supply in those zones. In fact, the SCWA is looking for new sites within the adjacent zones to meet the future needs of the adjacent zones.

Id. According to Mr. Miller, the closest property that the SCWA would consider for the purpose of importing water is 22 miles away, in the Middle Island/Yaphank area at East Bartlett Road and West Yaphank Road. Id., at 3.

The witness stated that it would cost between \$13 and \$17 million in capital costs to run water mains into the Northport Intermediate Zone, rather than use water from the proposed Well. Id., at 1-3. According to Mr. Miller, the cost of installing a 16-inch diameter water main would be approximately \$591,000 per mile based upon current contract prices. Id., at 3. A 24-inch diameter water main would cost approximately \$792,000 to install. Id. The witness went on to state that

[i]n addition, there would be the costs of developing a new well field, which is approximately \$1 million for a single well and \$400,000 for each additional well at the site. Booster stations may be necessary along the route to provide the proper

pressure. There would also be additional operation and maintenance costs, primarily electrical energy, to boost the water with booster stations the 22 miles.

Id., at 3-4.

The SCWA's witness testified that a nitrate removal system would cost approximately \$2.59 per thousand gallons in order to treat for nitrates at the Middleville Road Well Field, as an alternative to blending. Miller Prefiled Direct, at 4; Exh. 53. Currently, the SCWA bills its customers \$1.42 per thousand gallons. Miller Prefiled Rebuttal, at 15. Mr. Miller testified further that the costs of nitrate removal are comparable to the expenses associated with desalination. Miller Prefiled Direct, at 5. In addition, the witness noted that nitrate removal creates a waste stream that must be trucked to Bergen Point on the south shore of Long Island. Tr. at 157-58.

The SCWA challenged Petitioners' evidence with respect to alternatives, pointing out that Ms. Meyland, who testified on Petitioners' behalf in this regard, is not a professional engineer or a certified public water supply operator. Tr. at 691-92. The SCWA emphasized that she had never prepared a public water supply application, that she has no experience actually installing public supply wells, water supply mains and appurtenances or public water supply storage facilities, and has never planned, designed, constructed, operated or maintained a public water supply system or a water treatment facility. Id.

The SCWA also provided prefiled rebuttal in response to Ms. Meyland's direct testimony. The SCWA's rebuttal was detailed and persuasive. In that rebuttal, the SCWA identified several errors in Petitioners' testimony, and noted further that the costs of treating for nitrate contamination at Middleville Road would be the same approximate costs that the City of Long Beach would incur if the City were obliged to desalinate its water or transport water from outside the City limits. Miller Prefiled Rebuttal, at 26-27. The witness referred to the testimony of Petitioners' witnesses, Robert Raab and Denise Ford, who indicated that desalination costs would be prohibitive, and that transporting water from other systems would amount to an "extreme hardship." Id.

In response, Petitioners contended that the SCWA's strong financial position should be considered in any evaluation of possible alternatives to the proposed Well. Petitioners argued that the \$13-\$17 million capital cost to install piping to bring

water to the Northport Intermediate Pressure Zone, and the additional maintenance and operation expenses, would have a negligible impact on the SCWA's customers. According to Petitioners, "even with this additional cost, SCWA fee structure will remain substantially below the fee structure for other water authorities on Long Island." Petitioners' Post-Hearing Memorandum of Law, at 44.

Petitioners pointed out that in the SCWA's 2005 Annual Report, the SCWA indicates that the fees charged its customers are 40 percent below the national average. Tr. at 51-52; Exh. 148. Petitioners noted that the SCWA's base rate of \$1.42 per thousand gallons is less than half of the rate imposed by Nassau County water suppliers, such as Great Neck and Long Beach. Tr. at 452, 60-61. According to Petitioners, assuming a \$13 to \$17 million cost of a pipeline,

even if you utilized an amortized life of the piping system of 20 years, then utilized a 4.5 percent interest rate, the annual amortized cost of this capital improvement would be approximately \$1 million. If this annual cost is spread among the 378,000 customers [of the SCWA], it would entail a cost of a little less than \$3 per customer a year.

Petitioners' Post-Hearing Memorandum of Law, at 44. Petitioners went on to assert that an average customer uses about 160,000 gallons of water per year, and that as a result "the \$3 cost of this pipeline would be recouped by increasing the fees charged by the SCWA by approximately 3¢ per thousand gallons." Id., at 44. Petitioners concluded that

the SCWA flatly admitted that if it added 3¢ per thousand gallons to the average customer to cover the cost of building this 22-mile pipeline, the fees charged to the SCWA [sic] would still be less than half of those charged by the City of Long Beach, and would still [sic] be substantially below the national average.

Id., at 44-45.

Petitioners noted further that the SCWA's witnesses acknowledged that the SCWA had not undertaken an analysis as to whether there would be any geographical impediments to installing

a pipeline or pumping water from the Middle Island/Yaphank area to the Northport Intermediate Pressure Zone, nor had the SCWA assessed the environmental impacts associated with this alternative. Tr. at 392-93, 418-19. Petitioners noted that Mr. Miller testified that the SCWA currently transports water over long distances, such as to Greenport. Tr. at 43.

With respect to the treatment alternative, Petitioners argued that the same analysis could be employed to obviate the SCWA's primary objection, which was the expense associated with nitrate removal to render the water suitable for consumption. Petitioners maintained that "amortizing this nitrate removal facility over its useful life would mean only an infinitesimal increase in the rates the SCWA would have to charge its customers." Petitioners' Post-Hearing Memorandum of Law, at 45-46. Petitioners went on to point out that "while the SCWA indicated that there is nowhere it could construct the nitrate-removal system, it also pled ignorance as to whether or not a site for this alternative was available." Id., at 46. In addition, Petitioners noted that the SCWA had not explored the possibility of acquiring land from the neighboring Veterans Administration ("VA") Hospital for the treatment facility, and did not know if other potential locations were available for acquisition. Id., at 21.

The SCWA countered that

Petitioners alternatively argue that the SCWA should not be granted a permit because the SCWA is a professionally run organization that is well financed. However, there is no evidence that the Legislature intended to have the professionalism of the public water supplier or its financial where-with-all be a factor in determining when a Lloyd permit should be granted. Indeed, the Legislature exempted some of the richest communities in the nation, i.e., the "Gold Coast" communities along the North Shore of Nassau County, from the Lloyd moratorium by having them included within the definition of "coastal communities."

SCWA's Post-Hearing Reply Brief, at 18-19 (footnote omitted). The SCWA went on to point out that Department Staff never requested any financial information from the SCWA as part of the application, nor was this one of the issues identified for adjudication.

The SCWA noted further that Petitioners were in error in asserting that the SCWA has a "cash reserve" of \$1.1 billion. That figure, according to the SCWA, represents the total amount spent by the SCWA on all of its water supply facilities since it was first created in 1951. Exh. 143. In fact, the SCWA has approximately \$3.6 million in cash. Id. With respect to acquiring land for a treatment facility, the SCWA's witness testified that the SCWA had not approached the VA Hospital because of the level of nitrates in the area. Tr. at 135, 147. The witness went on to state that the SCWA had done "everything" to look for other available property in the Northport Intermediate Pressure Zone, and went on to describe those efforts in detail. Tr. at 137-140.

The SCWA's witness testified that treating for nitrate contamination is not a preferred alternative because it is extremely expensive. Miller Prefiled Rebuttal, at 21. He noted that, out of the approximately fifty public water suppliers in Nassau County, only one nitrate treatment system was installed, and moreover, that system is not in use. Id., at 21-22. Mr. Miller pointed out that although Petitioners offered testimony concerning this system, no actual cost figures were provided. Id., at 30. According to Mr. Miller, the costs of treating nitrates "are not incremental; they are significant and extreme." Id., at 27. The witness reiterated that the costs are the approximately the same expenses the City of Long Beach would incur if it were obliged to desalinate its water or import water from outside the City limits, and emphasized that Petitioners' witnesses testified that those costs would be prohibitive, and amount to an "extreme hardship." Id.

The standard set forth in the statute requires that an applicant demonstrate "just cause and extreme hardship." This standard does not require that there be no other alternative to the proposal. In this case, Petitioners' evidence with respect to the blending alternative, as well as transporting water from neighboring systems was effectively rebutted by the SCWA. Treatment for nitrates would require construction of a treatment facility, which the SCWA's witnesses testified credibly could not be accommodated at the Middleville Road site. Transporting water from other areas would involve considerable expense, in addition to the difficulties of routing, operating and maintaining a pipeline.

Petitioners' calculations with respect to the increase in water rates associated with transporting water are based solely on the capital costs of the pipeline, and do not take into account the additional costs associated with that alternative.

Mr. Miller testified that with respect to debt service, an expenditure of \$13 to \$17 million at one time "would dramatically impact our ability, and might increase the amount of money to do these capital improvements, and would impact not only the 13 or 17 million, but the rest of our capital budget or capital funding." Tr. at 365-66. The witness detailed other costs,

such as drilling a well, constructing a control treatment building, bringing electric service into the property. There could also be additional operation and maintenance expenses such as the cost of pumping that water, providing the horsepower to pump the water a long distance, and with potential elevation changes that would require construction and operation of booster stations along the route.

Tr. at 366-67. Mr. Colabufo testified that there would be an environmental consequence as a result of transporting water from outside the Northport Intermediate Pressure Zone, specifically

withdrawal of groundwater of the aquifer system in one spot and recharge to a completely different area that's not in any way connected to the source of the area you are drawing from. So essentially you are taking water from one area and not returning it to the area . . . unlike our grid-like system where the water is recharged fairly locally from where it's taken.

Tr. at 367. Petitioners failed to respond to the SCWA's evidence with regard to the alternatives, or did not effectively challenge that evidence.

The application seeks a permit for a 300 gpm well for blending. The draft permit provides that this capacity cannot be exceeded. Exh. 30, at 1. On this record, transporting water from a minimum of 22 miles away, or constructing a nitrate treatment facility, are alternatives which are not warranted in light of the costs and other practical difficulties those options would entail, particularly when weighed against the amount of water to be withdrawn, and the need for the permit.

### Need for the Permit

Steven Colabufo, the SCWA's witness, calculated the need for water in the Northport Intermediate Pressure Zone using the methodology set forth in the American Water Works Association's Manual of Water Supply Practices M31 - Distribution Systems Requirements for Fire Protection (Third Edition). Colabufo Prefiled Rebuttal, at 6-10, 22; Exh. 58. The witness determined that there is a current shortfall of 1,191 gallons per minute ("gpm") in non-fire flow needs and 3,000 gpm in fire flow needs, for a total current shortfall of 4,191 gpm in the Northport Intermediate Pressure Zone. Id. at 9.

The SCWA also offered testimony concerning the differences between this application and the well permit sought by the Roosevelt Field Water District ("RFWD") in Matter of Town of Hempstead v. Flacke, 82 A.D.2d 183 (2<sup>nd</sup> Dept. 1981). Mr. Miller testified that the RFWD needed an additional supply of water for non-potable uses, primarily for air conditioning the Roosevelt Field shopping mall. Miller Prefiled Rebuttal at 42. In this case, the SCWA seeks to use water from the Aquifer "for potable purposes, primarily for additional residential supply." Id.

Mr. Miller testified further that the SCWA has a long-term need for the proposed Well, because

it is not anticipated that water recharged after moderate residential development occurred in the source water contributing area of the Middleville Road well field will reach the Middleville Road site until the next decade or so. Recharge water associated with moderate density residential development has an anticipated nitrate concentration of 7 mg/l which is below the drinking water standard for nitrate whereas the 10 mg/l concentration currently being experienced at the Middleville Road site is from the 1930's when agriculture predominated the land use in the recharge area of this well field. Thus, the SCWA will need proposed Well No. 3 for at least the next decade or so.

Id. at 42-43. Mr. Miller went on to state that while the RFWD's application would have entailed deepening a large capacity (1,300-1,400 gpm) Magothy well, the SCWA is seeking to install a new low capacity blending well to be used as a treatment method for nitrate contamination. According to Mr. Miller,

[t]his is important because, as indicated in the testimony of Steven Colabufo, pumping a Magothy well simultaneously with a low capacity 300 gpm Lloyd Well minimizes any chance of contamination reaching the Lloyd aquifer.

Id. at 43. The witness testified further that the costs of treating the synthetic organic contaminants ("SOCs") in the RFWD case were on the order of 10¢ per thousand gallons, as opposed to the \$2.59 per thousand gallon expense to treat nitrate contamination.

Mr. Miller went on to testify that the RFWD application involved a well in Nassau County, which relies heavily upon Lloyd Aquifer wells. The witness stated that

Nassau County was and still is withdrawing 88% of the recharge to the Lloyd aquifer in Nassau County so every additional withdrawal puts the County in danger of mining water from the Lloyd aquifer. The many Nassau County water suppliers and communities are all on the same side of the natural hydrogeologic divide in the Lloyd aquifer that exists on the Nassau-Suffolk county border so each time a new well is added to the Lloyd in Nassau County it has the potential to affect all the other communities in Nassau County.

Id. at 43-44. According to Mr. Miller, in Suffolk County no single supplier relies heavily upon Aquifer wells, and that if the SCWA's application were approved by the Department, "only 4% of the recharge to the Lloyd in Suffolk County would be withdrawn. . . . the Lloyd aquifer could never be utilized or relied upon for general water supply purposes in Suffolk County."

Id. at 44. The witness stated that the proposed Well

is over nine miles from the hydrogeologic divide and will have no impacts on any communities or public water suppliers in Nassau County whatsoever. As I indicated in my pre-filed direct testimony, the total recharge to the Lloyd aquifer in Western Suffolk County is equivalent to only 4.6 regular production wells. The SCWA currently has over 500 wells in the Glacial and Magothy

aquifers across Suffolk County. This means that the Lloyd aquifer could never be utilized or relied upon for general water supply purposes in Suffolk County. However, the Lloyd aquifer can serve a very important function in Suffolk County if small capacity wells can access the Lloyd and utilize the low nitrate water therein to blend with higher capacity wells in the Upper Glacial and Magothy aquifer that are at or near the nitrate standard.

Id.

In response, Petitioners argued that the SCWA failed to address the primary source of nitrate contamination at the Middleville Road site. Nevertheless, this issue was excluded from consideration as part of the adjudicatory hearing. Specifically, the Issues Ruling stated that

[t]he issue proposed by Petitioners with respect to the source of high nitrate levels will not be adjudicated. There is no dispute that these levels are the result of residential development, and it is therefore unclear from the Petitioners' offer of proof what the question for adjudication would be.

Issues Ruling, at 22, 2005 WL 3078503, \* 17.

Petitioners argued further that the SCWA has no plan in place to meet the long-term water supply needs of the Northport Intermediate Pressure Zone, noting that the SCWA acknowledged that even if the application were approved, there would still be a shortfall. Tr. at 65. The SCWA's witness testified that it would be irresponsible to wait until there was little pressure or no pressure during peak demand periods before applying to increase capacity. Tr. at 369. Mr. Miller testified as to the adverse consequences of such an approach, including contaminated backflow and concerns with respect to adequate capacity and pressure in the event of fire. Tr. at 369-70.

Petitioners took issue with the SCWA's peak demand analysis, noting that the population data the SCWA employed were 1996 estimates from the Suffolk County Planning Department, and the SCWA had not attempted to verify the accuracy of the 1996 information. This assertion is not supported by the testimony, in which the SCWA's witnesses indicated that while the SCWA had

not independently verified the information provided by the Planning Department, the SCWA had amended and corrected that data, and analyzed per person water use and actual consumption. Tr. at 80-81, 83-84. Moreover, Table 2 of the engineer's report included with the application indicates only that population estimates are "extrapolated" from the Suffolk County Planning Department information. Exh. 4, at Table 2, at 5. The fact that the Well will not satisfy water demand long term is not a sufficient basis to deny the permit, which would allow the SCWA to restore an existing 1,400 gpm well to service by blending water from the proposed Well.

In addition, the SCWA's witness testified that "[t]he need in the Northport Intermediate Pressure Zone is not based solely upon some future projected population estimate. Projected population growth amounts to only a small fraction of the need" in this area. Colabufo Prefiled Rebuttal, at 7. Petitioners did not offer any testimony to indicate that the estimates were inaccurate, other than contending that those estimates were based on 1996 projections, nor did they offer any evidence to establish that the SCWA's analysis was flawed.

Noting that during peak demand days in the hottest part of the summer the SCWA was able to meet demand, Petitioners cited to Mr. Miller's testimony in which he acknowledged that the SCWA's concern was having sufficient water during these high demand periods. Tr. at 164. Petitioners pointed out that the SCWA is also able to maintain the required minimum pressure during emergencies, but the testimony Petitioners cited was clarified by the witness, who indicated that the application was part of the SCWA's plan to be able to support the needed fire flows in the event of an emergency, and that he did not know if there was sufficient water to meet a withdrawal demand of 3,000 gpm at present. Tr. at 428-29. As noted above, Mr. Miller testified as to the adverse consequences that might be anticipated if sufficient capacity and pressure were not maintained. Tr. at 369-370.

According to Petitioners, the SCWA's demand analysis was "highly subjective." Petitioners' Post-Hearing Memorandum of Law, at 30. Petitioners argued that the numbers used by the SCWA were inflated, as exemplified by the change in the SCWA's projection of fire flow protection needs from 1,500 gallons per minute in the original application to 3,000 gallons per minute in a revised calculation provided as part of the SCWA's rebuttal testimony. Exh. 3, Table 2, at 5; Exh. 81. This change was explained in the rebuttal testimony offered by Steven Colabufo, who indicated that the increase was the result of the Insurance

Services Office's evaluation of needed fire flows in 2004, subsequent to the original application. Colabufo Prefiled, at 8. Mr. Colabufo testified that the evaluation included three locations within the Northport Intermediate Pressure Zone, with needed fire flows ranging from 2,500 gpm to 3000 gpm, and

[t]hus, the NFF for the most stringent situation . . . is 3,000 gpm based upon the 2004 ISO evaluation. Since the original application was submitted, the total peak demand for the Northport Intermediate Pressure Zone also increased from the 6,428 gpm on 7/14/2000 (as indicated in the SCWA original application at page 5) to 6,841 gpm which occurred on 8/12/2005. Based upon these figures, the current need or design flow of the Northport Intermediate Pressure Zone is 9,841 gpm when calculated in accordance with AWWA Manual M31. This calculation does not take into consideration any population growth in the Northport Intermediate Pressure Zone.

Id. at 8-9. In light of this testimony, Petitioners' arguments concerning the revisions to the SCWA's future peak demand estimates must be rejected.

The SCWA argued that Petitioners' evidence concerning the need for the permit should not be accorded any weight. The SCWA reiterated that Ms. Meyland, who testified with respect to this sub-issue, is not qualified as an expert in the area of water supply need calculations, and is not a professional engineer or a certified public water supply operator. Tr. at 691. Ms. Meyland has never prepared a public water supply application and did not indicate that she relied upon any professional publications to support her prefiled testimony. The SCWA noted further that Ms. Meyland has no experience in installing public water supply systems, nor has she planned, designed, constructed, operated or maintained such systems. Tr. at 691-92.

On this record, the SCWA's evidence and testimony is sufficient to establish a need for the proposed Well. Petitioners did not offer any rebuttal evidence, and their direct testimony is afforded less weight than the direct testimony offered by the SCWA, because Petitioners failed to effectively challenge the SCWA's proof. In addition, the SCWA has shown that the proposed Well will not pose a risk to the Aquifer, that other alternatives were properly considered and rejected, and that the

Well's operation will not exceed the Aquifer's safe yield. Department Staff indicated that it supported an exemption to the moratorium and granting the permit because the SCWA satisfied the standard in Section 15-1528(4). The statutory moratorium was enacted to protect the Aquifer. Granting this application will not frustrate the purpose of the statute.

Moreover, it is undisputed that nitrate contamination at the Middleville Road well site must be addressed, because there are acute health risks associated with even short-term exposure to water above the drinking water standard for nitrates. The need for safe drinking water and the relatively small amount of water to be withdrawn must be weighed against the risk to the Aquifer. The record does not provide a basis to conclude that the Aquifer would be at risk if the permit were granted. While the expenses associated with other alternatives are not necessarily beyond the SCWA's resources, those costs would not be warranted in light of the showing by the SCWA. Accordingly, this hearing report recommends that the Commissioner find that the SCWA has demonstrated "just cause and extreme hardship," and grant the permit for Well No. 3.

#### **SCWA'S APPEAL OF RULING ALLOWING TESTIMONY**

Pursuant to 6 NYCRR Section 624.8(d)(1), in post-hearing briefing the SCWA appealed the ALJ's ruling allowing the testimony of Petitioners' witnesses, Michael Alarcon and Sarah Meyland. The discussion that follows summarizes the parties' arguments and provides a recommendation for the Commissioner's consideration. Because this hearing report is being issued as a recommended decision, the parties will be provided an opportunity to comment further concerning the disposition of the SCWA's appeal, which this hearing report concludes should be rejected.

According to the SCWA, the ALJ erred in permitting Mr. Alarcon to testify, because of his status as an employee of the Nassau County Department of Health. The SCWA pointed out that Mr. Alarcon did not appear on any of the witness lists Petitioners submitted as part of their offer of proof at the issues conference, and that it was not until after the Commissioner upheld the ALJ's denial of full party status to the County that Mr. Alarcon appeared on Petitioners' witness list.

The SCWA noted that Petitioners' witness list stated that "Mr. Alarcon is employed by the Nassau County Department of Health and he will be representing the interests and concerns of the Nassau County Department of Health." The SCWA maintained that

[n]ow that the County of Nassau was denied full party status, Michael Alarcon suddenly appears on the Petitioners' witness list purporting to represent the interests and concerns of the Nassau County Department of Health. Now, the Nassau County Department of Health is seeking to submit testimony on a number of topics that Nassau County never made any offer of proof on. Having lost its application for full party status, the County submitted its evidence through another Nassau County employee, Sarah Meyland.

SCWA's Post-Hearing Brief, at 42.

Prior to the hearing, the SCWA moved to strike or preclude Mr. Alarcon's testimony. In its post-hearing brief, the SCWA described the sequence of events surrounding the objections that it raised prior to the hearing, including statements by Ms. Meyland and Rachel Paster, Esq., a Deputy County Attorney, who denied that the County was involved in the preparation of Petitioners' case. In a letter dated July 21, 2006, Ms. Paster stated that the County had no knowledge of Ms. Meyland using County resources in connection with the hearing, and stated that any such use would be unauthorized.

The SCWA replied to Ms. Paster's letter, moving to strike Mr. Alarcon's testimony, and offering evidence that County employees were preparing discovery responses and prefiled testimony. Petitioners opposed that motion, stating that Mr. Alarcon's employment had no bearing on his testimony. That motion was denied in an August 3, 2006 memorandum.

The SCWA noted that approximately two weeks later, Deputy County Attorney Peter Clines indicated in a conference call among the parties and the ALJ that Mr. Alarcon had in fact participated in hearing preparation as part of his official duties. The ALJ directed the County to provide a letter concerning this matter. The County did so, and in that letter, the County stated that

the County wishes to clarify the record regarding certain representations previously made by Deputy County Attorney Rachel Paster to the effect that Michael Alarcon's involvement in this matter was in a purely private capacity. Notwithstanding those statements, it came to our attention on August 11, 2006, that subsequent to Your

Honor's ruling on party status, Mr. Alarcon had been directed by the Nassau County Department of Health (the "Department") to undertake an evaluation of issues relating to the Suffolk County Water Authority's Application and was requested by the Department to assist and provide information to Sarah Meyland for the upcoming hearing.

Exh. 151. The SCWA renewed its motion at the adjudicatory hearing on September 14, 2006, and the motion was again denied. During voir dire of Mr. Alarcon, the witness testified that he assisted in the preparation of prefiled testimony, and that he directed one of his staff members to prepare Exhibit 96, which was received into the record of the hearing. Tr. at 632, 664-65.

The SCWA argued that it had been prejudiced, because the adjudicatory process was unfairly structured, and its ability to obtain discovery was significantly obstructed, because the County of Nassau and Ms. Meyland each claimed that materials sought were not in their possession, or that they were not required to respond to the SCWA's discovery requests. These disputes were the subject of the ALJ's ruling on the SCWA's subpoena duces tecum. Matter of Suffolk County Water Authority, ALJ's Ruling on Motion to Quash Subpoena Duces Tecum, 2006 WL 2446539 (Aug. 17, 2006). The SCWA argued that it "still does not believe that it has received full disclosure as required by the hearing procedures due to the limitations in obtaining discovery material through a subpoena duces tecum." SCWA's Post-Hearing Brief, at 47.

In response to the SCWA's appeal, Petitioners asserted that the denial of the County's petition for full party status "is completely irrelevant as to whether or not testimony can be admitted by witnesses that are employed by Nassau County." Petitioners' Post-Hearing Reply, at 11. Petitioners pointed out that a party is free to call as a witness a person who is employed by a non-party, and that the SCWA had not objected to Petitioners' other witnesses who were not parties to the proceeding.

Petitioners took the position that there was no prejudice to the SCWA, noting that the SCWA was permitted to subpoena the County, "which subpoena was upheld and complied with." Id. In addition, Petitioners pointed out that the SCWA was provided with Mr. Alarcon's prefiled testimony well before the hearing began, and was therefore able to prepare to cross-examine the witness.

According to Petitioners,

there is no rule of law that would prohibit his testimony simply because his employer had been denied party status, nor any rule prohibiting Nassau County from assisting the petitioners in preparing their case. What Nassau County was precluded from doing was presenting its own case, and having its attorneys cross-examine SCWA witnesses.

Id. Noting that the SCWA had not cited to any authority for its position, Petitioners urged that the ruling allowing Mr. Alarcon's testimony be upheld.

Petitioners' arguments are persuasive. While the SCWA asserts that it was prejudiced by the ALJ's denial of the motion to strike because of the difficulties experienced in obtaining discovery from the County of Nassau, the County was directed to comply with the SCWA's subpoena, and identified and provided the evaluation Mr. Alarcon prepared, along with other material requested. Moreover, nothing in 6 NYCRR Part 624 precludes a party to a permit proceeding from calling a witness employed by an *amicus* party, assuming that the witness is in the possession of relevant information. The SCWA cross-examined Mr. Alarcon, and was provided with Exhibit 96, which was prepared at Mr. Alarcon's direction. Under the circumstances, the SCWA has not demonstrated grounds to reverse the ALJ's ruling.

The SCWA went on to contend that Sarah Meyland's testimony should have been excluded as well, because of her participation in the proceeding both as a witness and as Petitioners' attorney. According to the SCWA, this violated Disciplinary Rule 5-102(a)(22 NYCRR Section 1200.21(a)), which provides that

A lawyer shall not act, or accept employment that contemplates the lawyer's acting, as an advocate on issues of fact before any tribunal if the lawyer knows or it is obvious that the lawyer ought to be called as a witness on a significant issue on behalf of the client, except that the lawyer may act as an advocate and also testify:

- (1) If the testimony will relate solely to an uncontested issue;
- (2) If the testimony will relate solely to a matter of formality and there is no reason to

believe that substantial evidence will be offered in opposition to the testimony;

(3) If the testimony will relate solely to the nature and value of legal services rendered in the case by the lawyer of the lawyer's firm to the client;

(4) As to any matter, if disqualification as an advocate would work a substantial hardship on the client because of the distinctive value of the lawyer as counsel in the particular case.

According to the SCWA, Ms. Meyland's appearance as both counsel and a witness implicated the reasons behind the advocate witness rule, including an appearance that the lawyer is vouching for her own credibility, that her testimony "will put opposing counsel in a difficult position when he has to vigorously cross-examine his lawyer adversary and seek to impeach her credibility," and the implication that the testifying attorney may be distorting the truth due to bias in favor of her client. SCWA's Post-Hearing Brief, at 48. The SCWA first objected to Ms. Meyland's participation as both a witness and as counsel at the issues conference, and renewed its objections during the adjudicatory hearing.

The SCWA maintained that "when one individual assumes the role of both advocate and witness it blurs the line between argument and evidence and the ability to find facts is undermined." SCWA's Post-Hearing Brief, at 48-49 (citation omitted). Pointing out that it had consistently objected to Ms. Meyland's participation in both capacities, the SCWA noted that at the hearing, "Ms. Meyland conducted an extensive amount of cross-examination of the SCWA's witnesses, despite the fact that Petitioners were also represented by other capable counsel, Mr. Murray. At some points of her cross-examination, her questions of witnesses were tantamount to testimony." *Id.* (Adjudicatory Hearing Transcript citations omitted).

Petitioners countered that the attorney-witness rule is inapplicable when the witness is also a party to the proceeding. Petitioners went on to point out that

by its express terms, the [rule] only applies to an attorney representing a client, and its remedy is not to preclude testimony, but to disqualify an attorney.

Petitioners' Post-Hearing Reply, at 12. Petitioners maintained that the rule does not prevent a *pro se* plaintiff who is acting as an attorney from also testifying at trial. Moreover, Petitioners pointed out that the rule contains an exception "if disqualification as an advocate would work a substantial hardship on the client because of the distinctive value of the lawyer as counsel in the particular case." Disciplinary Rule 5-102(a)(1).

In S&S Hotel Ventures Ltd. Partnership v. 777 S.H. Corp., the Court of Appeals stated that

[t]he advocate-witness disqualification rules contained in the Code of Professional Responsibility provide guidance, not binding authority . . . [and courts must also] consider such factors as the party's valued right to choose its own counsel, and the fairness and effect in the particular factual setting of granting disqualification or continuing representation.

69 N.Y.2d 437, 440 (1987); see Stuart v. WMHT Educational Telecommunications, Inc., 195 A.D.2d 918, 919 (3<sup>rd</sup> Dept. 1993) (noting that trial court must balance "the substantive rights of litigants, on the one hand, against the ethics of the legal profession, on the other.") Here, the detriment to Petitioners if Ms. Meyland's representation and testimony were disallowed must be weighed against the ethical concerns expressed by the SCWA.

The fact that Ms. Meyland represented herself and other Petitioners, and also testified on her own and on Petitioners' behalf, goes to her credibility, not the admissibility of her testimony. As the Second Circuit observed in Ramey v. Dist. 141, Int'l. Ass'n. of Machinists and Aerospace Workers,

[i]f the fear of bias were sufficient on its own to prevent [plaintiffs' former counsel] from testifying, then a similar argument could be made that an accountant, doctor, or anyone else who ever had a relationship with a party should be forbidden to testify out of a concern for potential bias. That, of course, is not the rule. Rather, we permit the opposing party to cross-examine the witness and raise to the jury any challenges to the credibility of the witness.

378 F.3d 269, 283 (2d Cir. 2004) (citation omitted). Although the court in Ramey considered a situation where the attorney witness no longer represented the plaintiffs, the court's reasoning is applicable here. The SCWA was afforded a full and fair opportunity to cross-examine Ms. Meyland at the adjudicatory hearing.

Moreover, as the court noted, "the remedy where an attorney is called to testify may be to disqualify the attorney in his *representational* capacity, not necessarily his *testimonial* capacity." Id. (emphasis in original). Even if the SCWA had moved to disqualify Ms. Meyland, which it did not, on balance any ethical concerns are outweighed by the prejudice to Petitioners. Ms. Meyland had material knowledge of the facts at issue. Her testimony was properly received into the record, and the ALJ must determine the weight to be afforded that testimony. Under the circumstances, this hearing report recommends that the SCWA's appeal of the ruling permitting Ms. Meyland to offer testimony be rejected, and the ruling affirmed.

#### CONCLUSION

Pursuant to Section 624.13(a)(2)(ii) of 6 NYCRR, this hearing report is circulated to the parties as a recommended decision at the Commissioner's direction. Section 624.13(a)(3) provides that all parties have fourteen days after receipt of the recommended decision to submit comments to the Commissioner. In order to provide the parties with a reasonable opportunity to review this recommended decision, and in light of the size of the record, the deadline to provide comments is modified as follows: comments on the recommended decision are to be received by 4:00 p.m. on Friday, June 15, 2007. Responses to comments are authorized, and must be received by 4:00 p.m. on Friday, July 20, 2007.

Send one copy of any submission to Commissioner Alexander B. Grannis, c/o Louis A. Alexander, Assistant Commissioner for Hearings and Mediation Services, New York State Department of Environmental Conservation, 625 Broadway, 14<sup>th</sup> Floor, Albany, New York 12233-1010, and one copy of any submission to all parties on the Service List at the same time and in the same manner as transmittal is made to the Commissioner. The Commissioner will not accept submissions by electronic mail, or via telefacsimile. Send two copies of any submission to the ALJ, and one copy of any submission to James T. McClymonds, Chief Administrative Law Judge, Office of Hearings and Mediation Services, 625 Broadway, First Floor, Albany, New York 12233-1550.