#### **OFFICE OF ADJUDICATIONS**

IN THE MATTER OF : ORDER NO. WC-5199

TOWN OF BROOKFIELD : OCTOBER 9, 2002

#### PROPOSED FINAL DECISION

I

#### **SUMMARY**

Acting under the provisions of General Statutes §§22a-6, 22a-424, and 22a-428, the Commissioner of Environmental Protection issued Community Pollution Problem Order No. WC-5199 to the Town of Brookfield. The order was issued because three condominium complexes located in Brookfield -- Whisconier Village Condominium Association, Cedarbrook Owners, Inc., and Stony Hill Village Associates -- had failing subsurface septic systems that were polluting the waters of the state and for which they had no discharge permit.

Based on the Commissioner's consideration of numerous factors, he determined that the best solution to the problem was the issuance of a community pollution problem order to Brookfield. Brookfield appealed this order and hearings were held intermittently between October, 1997 and April, 2001. After a full review of the entire record, I find a preponderance of the substantial evidence indicates that: a community pollution problem exists in Brookfield; the Commissioner properly issued the order; the order is the most prudent solution to solving Brookfield's pollution problem; and its requirements are reasonable and fully supported by the record.

1

I am, therefore, recommending that the final decision-maker *affirm* the order in its entirety with one minor modification.

II

 $\boldsymbol{A}$ 

## FINDINGS OF FACT

- 1. On July 26, 1996, the Commissioner of Environmental Protection (Commissioner), acting under General Statutes §§22a-6, 22a-424 and 22a-428, issued Order No. WC-5199 (the order) to the Town of Brookfield (the respondent), in which he found:
  - (a) The respondent municipality<sup>1</sup> owns and operates a sanitary sewerage system, and discharges treated sanitary sewage to the City of Danbury's sewerage system under the terms and conditions of Danbury's NPDES Permit No. CT0100145.
  - (b) Within the municipality there exist three condominium developments (Stony Hill Village Condominium Association [Stony Hill], Cedarbrook Owners, Inc., [Cedarbrook] and Whisconier Village Condominium Association [Whisconier] collectively the condominiums), which own and operate subsurface sewage treatment and disposal systems.
  - (c) Domestic sewage is discharged to the subsurface sewage treatment and disposal systems at each of the three condominium development sites.

2

<sup>&</sup>lt;sup>1</sup> General Statutes §22a-423 defines a municipality as "any metropolitan district, town, consolidated town and city, consolidated town and borough, city, borough, village, fire and sewer district, sewer district, and each municipal organization having authority to levy and collect taxes or make charges for its authorized function".

- (d) The subsurface sewage treatment and disposal system at each of the three condominium sites has failed, allowing partially treated sewage to discharge onto the surface of the ground.
- (e) At least one of the condominium developments has been refused financing for the construction of a subsurface sewage treatment and disposal system repair.
- (f) By virtue of the above, a community pollution problem (CPP)<sup>2</sup> exists or pollution by the municipality can reasonably be anticipated in the future.

By virtue of these above findings the Commissioner, under the above-cited statutory authority, ordered the respondent to investigate and remediate the CPP in accordance with a time schedule contained in the order. (Ex. DEP-1, Order No. WC-5199, is attached as Attachment No. 1.)

- 2. The respondent appealed this order on August 22, 1996 and requested a hearing, which was held intermittently between October 27, 1997 and April 27, 2001<sup>3</sup>. (Ex. DEP-2.)
- 3. Cedarbrook and Stony Hill requested and were granted intervenor status in this proceeding. (Ex. DEP-11)
- 4. Three criteria must be met before the DEP will issue a permit for a septic system greater than 5000 gallons per day:
  - System size: it must be demonstrated that there is sufficient suitable land area to install the size leaching system mandated by the long-term acceptance rate, which is the rate at which septic tank effluent can penetrate a mature biological crust growth at

<sup>3</sup> A portion of the original hearing was reheard and new hearing transcripts prepared due to technical problems with the original audiotapes. The matter was also continued for negotiations and for Brookfield to seek legislative relief.

3

<sup>&</sup>lt;sup>2</sup> General Statutes §22a-423 defines a CPP as "the existence of pollution which, in the sole discretion of the Commissioner, can best be abated by the action of a municipality".

<sup>3</sup> A portion of the original hearing was reheard and new hearing transcripts prepared due to technical problems with

the soil/stone interface and the public health code. The system size is dependent on soil characteristics as well as effluent strength.

- Site hydraulics: the site must have sufficient hydraulic capacity to transmit the effluent for an adequate distance without surfacing or breakout. This must be demonstrated by a detailed seepage analysis utilizing permeability values, field boundary conditions, site gradients and appropriate two or three dimensional flow analysis. (The DEP considers this to be the most important factor in determining permit issuance.)
- Pollutant renovation: analysis must show the absorption, dilution or die off of normal
  pollutants in the soil system. These pollutants include bacteria, viruses, phosphorus
  and nitrogen. The details of this analysis will vary with different flows and different
  sites and is specific to each project.

(Ex. DEP-8; test. R. May, 11/17/97, pp. 116-17.)

- 5. Septic system failures are of two kinds: (1) the soils are insufficient to renovate the pollution, which causes groundwater pollution; and (2) insufficient hydraulic capacity, which causes surface breakouts of partially treated sewage. Either of the two above types of septic failures would cause pollution to the waters of the state. (Test. W. Hogan, 11/6/97, p. 139; test. J. Perry, 3/9/00, pp. 12, 13.)
- 6. The DEP and the respondent have stipulated that the septic systems of Cedarbrook, Stony Hill and Whisconier failed to meet one or all of the above criteria, which has caused their subsurface disposal systems to fail. (Joint Ex. 1, signed by staff and the respondent, ex. DEP-8; test. J. Perry, 3/9/00, p. 5.)

- 7. Other record evidence corroborating the above finding that the above three septic systems have failed is contained in studies and plans. (Exs. DEP-14 [study 19 photographs], 23 [study], 24 [monitor reports] and 25 [photographs].)
- 8. DEP staff William Hogan, a civil engineer and supervisor in the municipal facility section, has been previously involved in approximately fifty to sixty community pollution abatement orders and in general, over half of the 900 cases where there has been a municipal pollution problems. He considered the three failed septic systems to be a typical mainstream candidate for a CPP order. (Ex. DEP-4; test. W. Hogan, 11/6/97, part II, pp. 46-48, 66.)
- 9. Mr. Hogan applied the following relevant factors in determining that a CPP order should be issued to the respondent. In applying these factors, DEP did not deviate from its established practices when it issued the order to Brookfield.
  - The area and the number of units involved and a large number of dwelling units (The failure of a single home's septic system could lead to the Commissioner issuing a CPP order to a Town to resolve the problem.
  - The ability to implement a solution and whether individually, a municipality could finance a solution at a lower cost.
  - Whether the solution involves condemnation of land, which can only be done by a municipality.
  - The potential for future failures.
  - Construction of the project off-site of the condominiums. (This is best done by a municipality entering into construction contracts because they have staff to monitor actual construction and legal staff to review construction contracts and the ability to

- effectively maintain the treatment system. A municipality is best suited to undertake these activities.)
- The ability to enter into inter-municipal agreements. (This would be typically in cases where a sanitary sewer flow in one community flows into an adjoining municipality for some type of treatment.)
- The proximity of the condominium sites to sewers. If sewers are nearby, this factor (alternative) becomes more valuable. When sanitary sewers are near the condominiums, the cost to lay a sewer line may make this alternative less viable.
- The sole ability of municipalities to get loans and grants from the Clean Water Fund to finance remediation of a community pollution problem.
- Whether a great number of pollution problems exist in an area instead of only one caused by a particular property or person.

(Test. W. Hogan, 11/6/97, part II, pp. 56-66, 4/27/01, p. 12.)

- 10. In addition to the above factors enumerated by Mr. Hogan, Robert Smith, Bureau Chief of the DEP Bureau of Water Management and a civil engineer, proffered the following factors that the DEP considers in determining that a CPP order should be issued: (1) technical feasibility; (2) long-term reliability; and (3) the most cost effective solution. (Test. R. Smith, 11/17/97, pp. 81-83.)
- There was no evidence in the record to indicate any single factor alone in Findings of Fact No. 10 or 11 above, are the sole determinate factor in the Commissioner issuing a CPP order to the respondent. However, there are sewers within a reasonable distance to all three condominiums and there is a combination of low-interest loans and direct grants to a municipality which are available. (Test. W. Hogan, 11/6/97, part II, pp. 61, 65-66.)

- 12. Based upon years of experience in reviewing subsurface sewage problems, staff had serious concerns about the technical feasibility to solve the sewage problem site. (Test. R. Smith, 11/17/97, p. 74.)
- 13. Since each condominium is only required by its order to evaluate its septic failures, a comprehensive evaluation by the respondent of all the septic failures would lead to the best solution to the problem through the issuance of a CPP order. (Test. R. Smith, 11/17/97, pp. 75-78, 99.)
- 14. The DEP does not intend to seek enforcement of the orders issued to the condominiums independent of the actions of Brookfield because staff does not know what the various alternative solutions are, and therefore, staff would not be inclined to force the condominiums to go forward independently. (Test. R. Smith, 11/17/97, pp. 74-75.)

В

# OVERVIEW OF THE THREE CONDOMINIUMS AND THEIR SEPTIC SYSTEMS

## A. Cedarbrook Owners, Inc.

- 1. Cedarbrook is located at 60 Whisconier Road in Brookfield (the site) and consists of thirty-two condominium units, which were constructed between 1969 and 1970. The complex generates an average daily flow of approximately 5400 gallons of sewage. (Ex. DEP-14; test. J. Perry, 11/6/97, Part I, p. 46.)
- 2. Cedarbrook is one-quarter mile from Whisconier and about two miles from Stony Brook. (Ex. DEP-7; test. J. Perry, 3/9/00, pp. 7-8.)

- 3. In 1994, staff received complaints from residents regarding septic odors and standing water. DEP staff Jennifer Perry, a licensed sanitary engineer, conducted an on-site investigation and confirmed a septic breakout next to the most southerly septic field. Based on this inspection, she concluded that the system was failing. (Ex. DEP-3; test. J. Perry, 3/9/00, pp. 13-14)
- 4. The Commissioner subsequently issued Order No. 5150 to Cedarbrook on October 27, 1994, in which he found:
  - (a) Cedarbrook is an association which owns and operates several subsurface sewage treatment and disposal systems at the site.
  - (b) Domestic sewage is discharged to subsurface sewage treatment and disposal systems.
  - (c) At least one subsurface sewage treatment and disposal system at the site has failed.
  - (d) The respondent did not obtain a permit from the commissioner under §22a-430 of the General Statutes for the discharge to the waters of the state described above.
  - (e) By virtue of the above, the respondent has polluted the waters of the state, or is maintaining a facility or condition which can reasonably be expected to cause pollution and has violated §22a-430 of the General Statutes; the system treating the discharge no longer ensures or adequately protects against pollution to the waters of the state.

The order further required in part that Cedarbrook investigate the cause of pollution, submit plans and specifications and then remediate the pollution. (Ex. DEP-10, Order No. WC-5150, is attached as Attachment No. 2)

- 5. On February 15, 1995, Cedarbrook, which had appealed the order, entered into a consent order with the DEP. This order required Cedarbrook, inter alia, to investigate the failing septic system, to evaluate potential remedial actions through the performance of a scope of study, and to implement the selected remedial action. (Exs. DEP-11, 12; test. J. Perry, 3/9/00, pp. 9, 21.)
- 6. Cedarbrook commissioned a study of the systems that resulted in a report entitled "Cedarbrook Condominium Sanitary System Study," dated April 26, 1995, prepared by Carroccio-Covill & Associates, Inc. (CCA), who identified the system's failures and recommended a course of remediation that, in 1995, was estimated to cost \$625,000. The study's conclusion was that the system did not have the capacity to treat the discharge due to poor soils and lack of sufficient hydraulic capacity. (Ex. DEP-14; test. J. Perry, 3/9/00, p. 9.)
- 7. In November of 1996, DEP approved CCA's recommended report. Currently, Cedarbrook has neither obtained contract plans and specifications, nor implemented the recommendations of the CCA report. (Ex. DEP-16; test. J. Perry, 10/27/97, pp. 42-45, 7/27/00, pp. 34, 36.)

## B. Whisconier Village Condominium Association

1. Whisconier is located on Connecticut Route 25 in Brookfield, and consists of forty-one two-bedroom units constructed in around 1970. These units generated approximately 7300 gallons of sewage daily, treated equally by two on-site sewage treatment systems. (Exs. DEP-18, 20.)

- 2. Between 1990 and 1991, DEP became aware of Whisconier's failing septic system. On March 21, 1999, staff observed a septic system failure evidenced by surface breakouts of sewage. (Ex. DEP-19; test. J. Perry, 3/9/00, p. 26, 8/9/00, pp. 30-31.)
- 3. A report by Richard Haas, an engineer hired by Whisconier, evaluated the conditions on-site and proposed possible repairs. It was his finding that breakouts had been occurring at both the northerly and southerly septic fields. (Ex. DEP-18; test. J. Perry, 3/9/00, pp. 28-29.)
- 4. In March of 1991, the DEP determined that the cause of the septic failure was that the existing septic system was located in close proximity to the existing high water table. (Test. J. Perry, 3/9/00, pp. 26-27.)
- 5. As a result of these findings, the Commissioner issued Order No. WC-5200 to Whisconier on August 1, 1996, in which he found the following.
  - (a) Whisconier Village Condominium Association (respondent) is an association which owns and operates two subsurface sewage treatment and disposal systems on Route 25 in Brookfield, Connecticut (the site).
  - (b) Domestic sewage is discharged from the condominiums to the subsurface sewage treatment and disposal systems at the site.
  - (c) The subsurface sewage treatment and disposal systems have failed, resulting in partially treated sewage being discharged to the surface of the ground.
  - (d) The respondent did not obtain a permit from the Commissioner under §22a-430 of the Connecticut General Statutes for the discharge to the waters of the state as described above.

- (e) By virtue of the above, the respondent has created or is maintaining a facility or condition which reasonably can be expected to create a source of pollution to the waters of the state and has violated §22a-430 of the Connecticut General Statutes, and has maintained a discharge to the waters of the state without obtaining a permit as required by §22a-430 of the Connecticut General Statutes.
- (f) The respondent has hired Richard Haas, P.E., to perform the required investigation of the on-site subsurface sewage treatment and disposal systems.
- (g) The respondent has performed the investigation of all on-site subsurface sewage treatment and disposal systems as required by the Commissioner.
- (h) On November 24, 1992, the Respondent submitted for the Commissioner's review and written approval a report which describes in detail the investigation performed; defines the existing and potential extent and degree of surface water and groundwater pollution which is on, is emanating from or has emanated from the site; evaluates the alternatives for remedial actions to abate such pollution; and proposes a preferred alternative remediation with supporting justification therefor.

(Ex. DEP-20, Order No. WC-5200, is attached as Attachment No. 3.)

6. The order further required in part that Whisconier retain a qualified consultant and submit plans and specifications, and to remediate the pollution. Whisconier submitted a remediation plan, which was not approved by staff because the repairs failed to address the insufficient distance separating the bottom of the leaching trenches and the seasonal water tables, and also because the nitrogen dilution problem was not solved. DEP staff determined that a cost of \$30,000 to \$50,000 to abate the problem was insufficient. Based on 1992-dollar values, the

DEP concluded that an approved solution to Whisconier's septic system failure would cost approximately \$300,000. (Test. J. Perry, 11/18/97, p. 20.)

7. The requirements of the order have not been fulfilled. Whisconier did not appeal the order and the order became final insofar as Whisconier's involvement in the proceeding of March 9, 2000. (Test. J. Perry, 11/18/97, p. 21.)

## C. Stony Hill Village Condominium Association

- 1. Stony Hill is located on Stony Hill Road in Brookfield, was built in three phases between the mid-1970s to the mid-1980s, and consists of 162 units with an average daily sewage flow of approximately 20,000 gallons. (Exs. DEP-23, 26; test. J. Perry, 11/6/97, Part II, p. 48; test. M. Bartos, 11/17/97, pp. 122-124; test. R. May, 11/17/97, p. 114.)
- 2. DEP issued Stony Hill a Phase I construction permit for 14,400 gallons per day, and subsequently issued a modified discharge permit for Phase II construction for 29,400 gallons per day. (Ex. DEP-23; test. M. Bartos, 11/17/97, p. 123.)
- 3. On nine occasions between April 21, 1993 through May 16, 1996, Stony Hill's discharge monitoring reports indicate a surface breakout of sewage. This is indicative of septic system failure. (Test. J. Perry, 3/9/00, pp. 6-35.)
- 4. In February of 1996, staff took samples from Stony Hill's groundwater, which indicated the presence of fecal bacteria. (Test. J. Perry, 10/27/97, pp. 4-18.)
- 5. On March 21, 1996, staff visited the site and observed effluent breakouts, together with a gray fungal mat. (Ex. DEP-23; test. J. Perry, 3/9/00, pp. 37-39.)

- 6. Stony Hill's consultant, Carroccio-Covill and Associates, investigated this failure and determined that the cause was that the leaching galleries were close to or above the leaching galleries in some areas. (Ex. DEP-23; test. J. Perry, 3/9/00, pp. 35-36.)
- 7. Stony Hill's septic system failed to meet DEP's criteria for installation of said system because the system does not have the proper separating distance from the bottom of the leaching structures to the mounded seasonal high groundwater table. (Test. J. Perry, 3/9/00, pp. 38-39.)
- 8. The DEP will not renew Stony Hill's discharge permit because its septic system is failing. (Test. J. Perry, 3/9/00, p. 39.)
- 9. As a result of these findings, the Commissioner issued Order No. WC-5198 to Stony Hill on May 30, 1996 in which he found the following.
  - (a) Stony Hill Village Condominium Association (the respondent) is an association which owns and operates a subsurface sewage treatment and disposal system at Stony Hill Village Condominiums on Stony Hill Road in Brookfield, Connecticut (the site).
  - (b) Domestic sewage is discharged to the subsurface sewage treatment and disposal system at the site.
  - (c) The subsurface sewage treatment and disposal system is operated under an existing permit, UI0000007, issued by the Department of Environmental Protection.
  - (d) The subsurface sewage treatment and disposal system has failed, where partially treated sewage is discharged to the surface of the ground.

- (e) By virtue of the above, the respondent has polluted the waters of the state or has created or is maintaining a facility or condition which reasonably can be expected to create a source of pollution to the waters of the state, and the system treating the discharge no longer ensures or adequately protects against pollution to the waters of the state.
- (f) The respondent has hired the firm of Carroccio-Covill & Associates to perform the required investigation of the on-site subsurface sewage treatment and disposal system.

The order further required in part, based on a schedule, to obtain a qualified consultant and to submit plans and specifications to remediate the sewage problem. Stony Hill did not appeal this order. (Ex. DEP-26, Order No. WC-5198, is attached as Attachment No. 4.; test. J. Perry, 3/9/00, pp. 1-12.)

- 10. Pursuant to this order, in October of 1997, Stony Hill's consultant submitted a report, which DEP did not approve. The reason such report was disapproved was that it did not include costs of pretreatment should Stony Hill have to repair its on-site septic system. Based on 1997-dollar values, the estimated cost of repairs, although not all encompassing because of the incomplete report, was \$1.2 million. (Test. J. Perry, 11/6/97, Part I, pp. 49-50.)
- 11. Based upon its years of experience in reviewing sub-sewage problems, DEP staff had serious concerns about the technical feasibility of fixing the sewage problems on site. (Test. R. Smith, 11/17/97, p. 74.)
- 12. The DEP does not intend to seek enforcement of the orders issued to the condominiums independent of the actions of Brookfield because staff does not know what the various alternatives (solutions) are and therefore, staff was disinclined to force each of the

condominiums to go forward independently with its own solution. (Test. R. Smith, 11/17/97, pp. 74-75.)

#### Ш

#### **CONCLUSIONS OF LAW**

The substantial evidence in this record is uncontroverted; the septic systems of Whisconier, Cedarbrook and Stony Hill have failed and are discharging untreated sewage to the waters of the State without a permit, as well as polluting the waters of the State in violation of General Statutes §\$22a-427 and 22a-430. Based on the provisions of General Statutes §22a-428 and in light of factors that the DEP reviews and considers in determining that there is a CPP, I find that the Commissioner properly determined that a CPP exists in Brookfield and that the most prudent solution to abating the pollution caused by the three failed septic systems was his issuance of a CPP order to the respondent.

Under General Statutes §22a-428, "Any [CPP] order . . . shall include a time schedule for action by the municipality or municipalities, as the case may be, which may require, but is not limited to, the following steps to be taken by such municipality or municipalities: (a) Submission of an engineering report outlining the problem and recommended solution therefor for approval by the commissioner; (b) submission of contract plans and specifications for approval by the commissioner; (c) arrangement of financing; (d) acceptance of state and federal construction grants; (e) advertisement for construction bids; (f) start of construction; (g) placing in operation." The order contains these required essential elements and fully complies with this provision of General Statutes §22a-428, where applicable.

I further find in light of the above findings of fact, a CPP exists in Brookfield and that the requirements of Order No. WC-5199 are reasonable and fully supported by a preponderance of the substantial evidence in the record.

*IV* 

## FINAL CONCLUSION AND RECOMMENDATION

Based on the above findings and conclusion, I recommend that the final decision-maker *affirm* Order No. WC-5199, and direct staff to adjust all schedules or timeframes in the order commencing with the date of issuance of a final decision in this matter.

October 9, 2002	/s/ Lewis J. Miller
Date	