

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 2

The application and requested variances were denied by the DEM Variance Board and the Applicant requested an adjudicatory hearing.

Thomas S. Hogan, Esq., represented the Applicant and Sandra J. Calvert, Esq., represented the Division of Groundwater and Individual Sewage Disposal System ("Division").

A timely appeal and request for hearing and the requisite list of abutters within 200 feet were filed by the Applicant.

A prehearing conference was held at One Capitol Hill, Providence, RI 02908 on February 20, 1992, and the Prehearing Conference Record was prepared by this Hearing Officer.

The adjudicatory hearings were held before the Hearing Officer on April 6, 7, 8, 9, 16 and 23, 1992. The Post-Hearing Briefs were filed on or about September 11, 1992.

The Applicant has the burden of proof to demonstrate through clear and convincing evidence that: (1) a literal enforcement of the regulations will result in unnecessary hardship to the Applicant; (2) the system will function as proposed in the application; and (3) and that granting of the ISDS permit or variances will not be contrary to the public interest, public health and the environment by introducing clear and convincing evidence that demonstrates:

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 3

1. The disposal system to be installed will be located, operated and maintained so as to prevent the contamination of any drinking water supply or tributary thereto;
2. The waste from such system will not pollute any body of water;
3. The waste from such system will not interfere with the public use and enjoyment of any recreational resource;
4. The waste from such system will not create a public or private nuisance;
5. The waste from such system will not be a danger to the public health.

The following stipulations of fact were agreed upon by the parties pursuant to the Prehearing Conference Record:

1. The Applicant filed his variance application on March 26, 1991.
2. Variance Application No. 9107-26 was denied by the Division in its letter dated December 21, 1991.
3. The Applicant has paid all necessary fees and filed all necessary documents to confer jurisdiction on the AAD in this matter.
4. The Applicant made a timely request for hearing in a letter dated January 16, 1992.

The parties agreed upon the admission of the following documents as full exhibits:

- JT. 1. ISDS Application Form bearing the number of 8707-143 dated July 17, 1987 with attached copy of the approved site plan entitled, "Plan of Proposed Sewage Disposal System, Moccasin Trail, Cranston, Rhode Island," latest revision date July 7, 1987 (2 pp.).

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 4

- JT. 2. ISDS Application Form bearing the number 8707-143 dated January 27, 1988 with attached copy of the approved site plan entitled, "Plan of Proposed Sewage Disposal System, Moccasin Trail, Cranston, Rhode Island," latest revision date January 11, 1988 (2 pp.).
- JT. 3. ISDS Application Form for renewal of application number 8707-143 dated December 28, 1989 with attached copy of the approved site plan entitled, "Plan of Proposed Sewage Disposal System, Moccasin Trail, Cranston, Rhode Island," latest revision dated January 11, 1988 (2 pp.).
- JT. 4. Letter dated March 6, 1991 to Richard Mancini from Brian C. Tefft, Freshwater Wetlands Division with attached permit (5 pp.).
- JT. 5. Copy of the recorded deed restriction dated March 17, 1991 (1 p.).
- JT. 6. ISDS Application Form dated March 26, 1991 (1 p.).
- JT. 7. Affidavit of Percolation Test by Richard T. Bzdyra, received by the ISDS Section on March 26, 1991 (1 p.).
- JT. 8. Site Plan entitled, "Plan of Proposed Sewage Disposal System, Lot 257, Moccasin Trail, Cranston, Rhode Island, prepared for Richard Mancini," revision dated March 11, 1991 (2 pp.).
- JT. 9. Sewage Application Review Sheet dated May 21, 1991 prepared by Brian Sullivan (2 pp.).
- JT. 10. ISDS Section Inspection Report dated July 10, 1991 prepared by Brian Sullivan (1 p.).
- JT. 11. Request for Variance Form dated October 3, 1991 (2 pp.).
- JT. 12. Letter dated December 20, 1991 to Richard Mancini from Russell Chateaufneuf denying the application (3 pp.).

- JT. 13. Cover letter with attached request for hearing dated January 16, 1992 from Thomas S. Hogan, Esq. (4 pp.).
- JT. 14. List of abutters (2 pp.).
- JT. 15. Locus Map (1 p.)
- JT. 16. Notice of Administrative Hearing and Prehearing Conference dated January 17, 1992 (5 pp.).
- JT. 17. Resume of Dr. Eid Alkhatib (5 pp.).
- JT. 18. Resume of Mohamed Freij, P.E. (2 pp.).
- JT. 19. Copy of deed to the real estate owned by Richard Mancini (1 p.).
- JT. 20. Resume of Richard T. Bzdyra.
- JT. 21. Resume of Syl Pauley, Jr.

The following documents were admitted as full exhibits of the Applicant:

- Appl. 1. SD 15.02 of ISDS Regulations effective in December, 1980.
- Appl. 2. SD 15.02 of ISDS Regulations effective January 2, 1990.
- Appl. 3. SD 3.05 of ISDS Regulations effective in December, 1980.
- Appl. 4. SD 3.05 of ISDS Regulations effective January 2, 1990.
- Appl. 5. Diagram by Bzdyra with original grade, proposed grade and water table elevation.
- Appl. 6. Restrictions recorded 11/20/87 fill easement.
- Appl. 7. Undated wetlands letter to Richard P. Mancini from Brian Tefft, Freshwater Wetlands Section re: significant alteration (1st).

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 6

- Appl. 8. Letter dated July 10, 1990 to Richard Mancini from Brian Tefft, Freshwater Wetlands Section re: 2nd significant alteration.
- Appl. 9. Resume of Joseph Accetta.
- Appl. 10. Diagram for hypothetical question--Mr Bzdyra.
- Appl. 11. Interoffice memo from Edward Szymanski to engineering and technical staff dated July 12, 1991.
- Appl. 12. Memo prepared by Mr. Freij for presentation to Variance Board.
- Appl. 13. Diagram--profile of site from street to stream by Mr. Bzdyra.

The following documents were admitted as full exhibits by the Division:

- Div. 1. Diagram (drawn by Division counsel) used in Mr. Pauley's cross examination dated April 8, 1992.
- Div. 2. Diagram drawn by Mr. Pauley during cross examination dated April 8, 1992.
- Div. 3. Diagram--cross section of northern end of system--drawn by Dr. Alkhatib.
- Div. 4. Diagram--cross section across Mancini's proposed leaching field by Dr. Alkhatib dated April 23, 1992.

It was stipulated in the Prehearing Conference Record that the issues to be considered at the hearing are the following:

1. Whether substantial rights of the Applicant have been prejudiced by the Department's denial?
2. Whether a literal enforcement of the provisions will result in unnecessary hardship to the Applicant?
3. Whether the proposed ISDS is contrary to public interest and public health?

4. Whether the proposed ISDS will be located, operated and maintained so as to prevent the contamination of any drinking water supply or tributary thereto?
5. Whether the waste from the proposed ISDS will pollute any body of water?
6. Whether the waste from the proposed ISDS will interfere with the public use and enjoyment of any recreational resource?
7. Whether the waste from the proposed ISDS will create a public or private nuisance?
8. Whether the waste from the proposed ISDS will be a danger to public health?
9. Whether the proposed ISDS will have any adverse effect on any body of water so as to impair water quality, ability to support plant or animal life or other designated use?

Richard Mancini, Applicant, was the first witness to testify on behalf of Applicant. He is currently the sole owner of the subject property, which is designated as Lot 257 on Cranston Tax Assessor's Plat 25. It is a 13,859 square foot lot, which fronts on Moccasin Trail in Cranston, Rhode Island. Directly to the rear of said lot is land owned by the City of Cranston on which a stream is located. Mr. Mancini stated that the front portion of the subject property contains a considerable amount of fill, which was placed there prior to Applicant's purchase of said lot.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 8

Mr. Mancini's first application (to construct a single-family home and an ISDS on said parcel) was approved by the Division on August 5, 1987, but no construction was undertaken by Applicant.

A second application for an ISDS on the subject property was approved on January 29, 1988. This differed from the prior permit in that this new plan called for a larger house, and the location of the ISDS was changed to 10 feet from the adjacent property line, rather than 25 feet as shown on the prior plan. Neither the house nor the septic system were constructed following this second approval.

A third application for an ISDS permit for the subject property was approved on January 7, 1990. The plans for this third approval were similar to those in the second permit. Applicant thereafter changed his plans from a three to a two bedroom home in order to obtain the approval of the Division of Freshwater Wetlands.

Mr. Mancini testified that the only reasonable and practical use for the subject lot is for a single-family home, and he owns no other adjacent land which could be combined with said lot.

It was elicited in cross examination of Mr. Mancini that although he did not bring any fill to the area, during 1970 he did push onto the property the fill that was dumped by others on

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 9

or near his property. He acknowledged that he filed the instant application No. 9107-26 before permit issued January 7, 1990 had expired.

Richard T. Bzdyra, a professional land surveyor registered with the State of Rhode Island was the next witness called by Applicant. The groundwater tests for the subject lot were conducted under his supervision in January, 1987; and he was responsible for the site plan and application for the ISDS that were submitted based on the results of said tests. The plans show that a 1040 square foot home was proposed on said premises, and the size of the septic tank was based on three bedrooms.

The septic system proposed on the plan that was approved on August 8, 1987 was located 25 feet from the westerly boundary line and 32 feet from the rear property line. The plans for same show that one groundwater table test pit and two percolation test pits were installed. The groundwater test pit that was installed at that time was located at the southerly edge of the property along the property line of Moccasin Trail; however, Mr. Bzdyra stated that he conducted a groundwater test to the rear of the subject property which is not shown on this plan. This witness testified that this application was approved despite the fact that two soil exploration holes were not dug and the one hole dug did not assess the soil and groundwater

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 10

table conditions on both the uphill and downhill sides of the proposed system (both of which are required by SD 15.02(b)(3) of the ISDS Regulations).

The application for the ISDS that was approved on August 5, 1987 was based on a water table verified by the Division of three feet, four inches, and a percolation rate of ten minutes per inch. The system was designed on a two foot water table because the designer subtracted the fill at the location of the test hole which gave them a two foot water table. In order to meet the requirements of the Regulations that the bottom of the system must be three feet above the water table at its highest point during the wet season, it necessitated bringing in fill and raising the system.

Mr. Bzdyra "guesstimated" that the water table at the down gradient part of said lot was approximately one foot below original grade. This assumption was based on his observations that there was never any open water standing on the ground at rear of this property. He acknowledged that he never conducted any tests to determine the actual water table. It was this witness's opinion that no portion of the proposed ISDS would be within three feet of the water table.

It was explained by Mr. Bzdyra that the second application for an ISDS that was approved on January 29, 1988 differed essentially from the prior approval in that the system was moved

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 11

15 feet in a westerly direction to accommodate the larger home proposed. The Applicant obtained an easement from the abutting property owner to comply with the requirements of the Division. Mr. Bzdyra acknowledged that he failed to make two exploration holes as required by SD 15.02(b)(3) of the ISDS Regulations. He averred that he did not make two holes because it was the policy of the Division that only one was necessary to determine what the water table was.

On March 6, 1991 the Freshwater Wetlands Section of DEM issued its determination that the application under consideration at that time could be approved as an insignificant alteration of a Freshwater Wetlands (however, it was specifically noted that ISDS approval was required). Mr. Bzdyra testified that he redesigned the sewage disposal system based on a two-bedroom restriction in order to comply with the mandate of Wetlands, and that said restriction was recorded as required. Also, he stated that the system cannot be moved further than 15 feet away from Moccasin Trail without violating wetlands requirements.

A third application for an ISDS was approved on January 7, 1990 with only one soil exploration test hole despite SD Regulation 15.02(b)(3) of the new rules and regulations which required two such test holes.

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 12

The application which is subject of this hearing was filed on March 26, 1991, together with an "Affidavit of Percolation Test" by Mr. Bzdyra, and a site plan. The Division's response to said application contained two instructions, viz: (1) Please schedule additional test holes for fill at lower end of field; and (2) Variance Board approval required pertaining to the ISDS regulation SD 3.05(9).

Two test holes (on the down gradient side) were dug during the dry season, which revealed 40 inches of fill and water at six feet. The Division instructed Applicant to install the pipe and submit during the true wet season; however, Mr. Bzdyra felt it was futile to submit during the true wet season (because they would not get the minimum of two-foot water table during the true wet season).

The Request for a variance for a retaining wall at 15 feet was requested since they cannot meet the 25-foot perimeter requirement. The retaining wall to be installed at the front of the subject property would act as a barrier to maintain dirt and forcing the effluent to travel vertically below the wall. It was this witness's opinion that there would be no danger of the effluent escaping out from the retaining wall or onto the ground, and also that the water table is at least three feet below the proposed system.

012993

It was brought out during cross examination of Mr. Bzdyra that the request for a variance, concerning the additional test hole on the downside area, was filed prior to the wet season because he felt they would not get the required water table at that time, since the Division subtracts the amount of fill from the reading. The readings taken by him of both test holes on the down gradient side on March 1, 1992 (the wet season) was 32 inches; so that if the fill of 40 inches were removed, this would leave 8 inches of water at original grade. He acknowledged that when taking into account the fill on said property, this site does not meet the conditions of SD 15.02(b).

The plan under consideration calls for the removal of existing soil in a certain area to a depth of 5 1/2 to 6 feet, which would be replaced with bank run gravel to be brought in for the ISDS. This witness felt that the system could be installed during the dry season without running into the water table; however, he admitted that if the system were installed during the wet season, the bank run gravel would be in the water table. He later opined that if the fill is stripped out and it is replaced with bank run gravel, the bottom of the proposed septic system would be at least three feet above the water table.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 14

Scott B. Robideau, a wetlands consultant, was called next to testify for Applicant. He was qualified as an expert in the field of biology by stipulation of the parties. It was the opinion of this witness that the proposed ISDS meets all of the State standards for the setback requirements from Freshwater Wetlands and that assuming the system functioned properly, it would have a negligible impact on the plant or animal life in the area.

The next witness to appear for Applicant was Syl Pauley, Jr., a Registered Professional Civil Engineer in the State of Rhode Island. It was the opinion of this witness that the wall that was proposed (as part of the variance requested from the 25 foot perimeter requirement) would force any effluent reaching that point to go downward and that the effluents should not break out onto the surface of the ground.

It was Mr. Pauley's opinion that if this was not filled land, there would not be any water on the original ground in the vicinity of the test pit on the rear of the subject property. He stated that although the reading may have been read accurately, it is not a true reading of the water table, absent the fill. He maintained that this could not be a true water table because there was no water above the ground in the wetlands to the rear of said property. He estimated that there

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 15

was a one foot water table in said wetlands and that the water table at the base of the rear of the ISDS was approximately 5 and 3/4 feet.

Mr. Pauley opined that the proposed system, with the fill taken out, would operate as a normal system and function as intended by the Regulations. Also, that the proposed system would have no adverse effect on any drinking water supply or tributary thereto, or the nutrient levels in any body of water; it would not have any impact on the public use and enjoyment of any recreational resource; it would not cause any public or private nuisance; it would provide the protection required by the Rules and Regulations despite the absence of the second down gradient test pit; and it would have no effect on the public health.

During cross examination of Mr. Pauley, it was brought out that the original grade elevation of the Applicant's property in the general area of the system was about a foot and a half lower than the elevation toward the rear of said property where the wetlands are located and that the original test hole reveals fill of one foot, four inches.

Mr. Pauley acknowledged that the system was not designed in accordance with SD 15.02(a) which prohibits the installation of an ISDS in any area where the groundwater table is within 4 feet of the original ground. Also the proposed system did not meet

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 16

the additional requirements of SD 15.02(b), which allows approval in areas where the groundwater table is within 2 to 4 feet of the original ground surface.

It was further acknowledged by this witness that the Regulations do not allow approximations of water tables to be utilized for ISDS applications and that the request for a second down gradient test hole was certainly reasonable under the circumstances.

The next witness called by Applicant was Joseph W. Accetta, a Real Estate Broker and duly-certified Appraiser by the State of Rhode Island. He testified that he did an appraisal of the subject lot on March 30, 1992. Said lot contains 13,829 square feet of vacant land. It is located in a residential A-8 zone, which allows for a single-family dwelling on 8,000 square feet of land. It was the witness's opinion that the highest and best use of this site is for a single-family dwelling. That the fair market value of said lot at the time of his appraisal would be \$49,000.00 if it were useable for building a single-family home; however, if it were not so useable, the fair market value of said lot would be \$2,450.00.

The Division called Mohamed J. Freij, a Registered Professional Engineer by the State of Rhode Island, as its first witness. He is employed as a Principal Sanitary Engineer with

the ISDS Section of DEM; and as such, prepared the Variance application in the instant matter for action by the Variance Board.

It was stipulated by the parties that Mr. Freij is qualified to testify as an expert in the field of engineering. Mr. Freij testified that the installation of the retaining wall would not interfere with the proper functioning of the ISDS in this particular case because the retaining wall is up gradient from the system, and the sewage will be directed down gradient from the leaching field.

It was Mr. Freij's testimony that the dry season water table verification at the up gradient hole did not meet the requirements that a test hole of at least 12 feet deep be dug without encountering water. Therefore, Applicant was instructed to conduct a wet season water table reading, which was not performed. It was brought out by this witness that the Division does not accept approximate water table readings when approving applications.

Mr. Freij opined that the proposed ISDS would not function as proposed in that the sewage would seep through the added gravel fill and into the water table within minutes, without being treated properly. This would not afford the protection of the public health and environment that is mandated by the Regulations.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 18

Mr. Freij was cross examined extensively concerning the previous ISDS applications for the subject property that were filed by Applicant and also the procedures at the Variance Board. It was brought out that an interoffice memo was issued by the Assistant Director for Water Environmental Management dated July 12, 1991 which directed that the ISDS Regulations promulgated December 11, 1989 be strictly followed. This memo mandated that no individual decisions were to be made regarding any deviation from the Regulations. This witness stated that the approval of the previous applications was not inconsistent with the denial of the instant application since the Division later discovered there was 40 inches of fill down gradient from the system.

Dr. Eid Alkhatib, an Assistant Research Professor of the Department of Civil and Environmental Engineering, at the University of Rhode Island, was the next witness called by Division. He has a B.S. in Chemistry and Geology from Kuwait University, an M.S. in Civil Engineering (Environmental) from State University of New York at Buffalo, and a Ph.D. in Civil and Environmental Engineering (Environmental) from the University of Rhode Island. He is now a consultant for the ISDS Section of DEM, as well as having retained his consultant status with a number of organizations and authorities in Kuwait.

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 19

This witness is not a registered Professional Engineer or Land Surveyor in Rhode Island; however, he has an impressive academic and employment background. He has extensive professional experience in environmental engineering both in Rhode Island and Kuwait, and he has served in numerous positions of administrative responsibilities and has been in charge of various research activities concerning waste water treatment facilities and procedures. He has sponsored or presented many publications and reports dealing with waste water treatment and environmental health protection. He was qualified as an expert in the field of Environmental Engineering and Sanitation.

Dr. Alkhatib testified that he reviewed the subject Application and other pertinent documents. He looked at the water table verification, soil description, percolation rate, size of the leaching area, and the number of bedrooms. He stated that he consulted certain documents to calculate what the unsaturated zone would be and to determine if the type of soil was good for removing contaminants from the wastewater. It was his conclusion that, according to the proposal under consideration, there is no unsaturated zone on the site; which means there would be no layer of dry soil, which is very crucial for removing many of the pollutants and contaminants present in the wastewater. Therefore, said wastewater will percolate from

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 20

the bottom of the leach field, go straight into the ground water, and travel directly into the wetlands and to the nearby stream without being sufficiently treated.

Dr. Alkhatib explained the procedures followed by him at his three site visits during March and April of 1992. He measured the water table elevations, took soil samples, and also water samples of Test Hole "B" and the stream. He assessed the fill at the site and performed a sieve analysis of the soil samples. He felt that because of the homogeneous nature of the fill in the area of the system, it is not an optimum soil for removing pollutants from the wastewater. However, this did not really concern him since Applicant intended to remove all the fills under the leaching field.

The nitrate levels of the water samples were determined by this witness by use of an autoanalyzer, an instrument for which the University of Rhode Island has E.P.A. certification. He concluded that the nitrate level in the ground water of 1.8 milligrams per litre did not appear significant since this water is used for drinking purposes. However, the nitrate level in the stream of 1.9 milligrams per litre is significantly above the .4 milligrams per litre set by Regulations of the State of Rhode Island. This will result in a problem of nitrate eutrophication during the summer, when the growth of algae and plants is generally accelerated.

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 21

It was brought out by Dr. Alkhatib that the ground water table, as measured in his last two site visits was 20 inches from the existing ground surface at Test Holes A and B. He explained how the system would be installed and that the proposed system would be excavated into the ground water. Also, the separation between the bottom of the trenches and the ground water level consists of gravel, which basically is not an unsaturated zone and is not optimum for the removal of contaminants. He opined, therefore, that the sewage from the proposed system will not be properly treated because there is no unsaturated zone of proper soil to remove the contaminants and to renovate the wastewater from the leaching field.

Dr. Alkhatib stated that, in his profession, they do not utilize approximate water tables since the real ground water table must be determined by measurements taken in the field. He disagreed with the testimony of Applicant's witnesses that the true water table elevation would be one foot below grade if the fill was taken out, because the ground water level is already established under the leaching field to the level that he had measured, and excavating the fill under the proposed system would not change that.

It was stated by this witness that the absence of water at the surface in the wetland did not surprise him despite his water table elevation measurements at Test Holes A and B during

012993

the wet season in 1992. He explained how the original ground surface of the areas in question is established by subtracting the amount of fill from the existing ground surface. This demonstrated that although the existing ground surface slopes fairly uniformly to the rear, the original ground surface sloped sharply downward from the front of said property to the area around Test Hole B and then sloped upward toward the rear. This indicates that there was a depression in the middle of the area under consideration, which is below the ground water table, and it is filled with water.

Dr. Alkhatib testified that he determined the nitrate loading to be expected from this site to the stream based on his calculations of the amount of effluent introduced into the system. The level of nitrate will be increased at the boundary of the wetland, to a level of 12.6 milligrams per litre of nitrogen, which is above the recommended nitrate concentration in ground water. The nitrogen concentrations in septic system effluents generally is in the range of 40 milligrams per litre. This nitrogen is converted to nitrate by bacterial action and will remain as nitrate and travel with the ground water until it reaches the stream. This inefficiently treated wastewater will cause nitrate eutrophication of the stream and also increase the chances of viruses and bacteria being transported to the stream.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 23

It was Dr. Alkhatib's expert opinion that the proposed ISDS will have an environmental impact on the nearby wetland and stream in that inefficiently treated waste water will be transferred from the system to these surrounding waters. This will adversely impact the use and enjoyment of these recreational resources, pose a danger to public health, and also create a public nuisance.

The parties stipulated during the course of the hearing that the location of the ISDS meets the 50 foot setback from the edge of the wetland and from the stream as required under the ISDS Regulations.

It was further stipulated by the parties that there is a public water supply available to the site and that there is no tributary on site or in the proximity thereto which supplies water to the drinking water supply. Consequently, the issue of whether the proposed ISDS will contaminate any drinking water supply or tributary thereto need not be considered at this hearing.

Applicant argues that if the variance from SD 15.02(b)(3) is granted, Applicant will have met all of the requirements for approval where the ground water table is within two to four feet of the original ground, and therefore the proposed ISDS will function properly.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 24

Applicant contends that it is untenable for the Division's experts to base an objection to the proposed ISDS on the use of gravel since the Regulations presently do not prohibit the use of bank run gravel. Also that it will not be necessary to strip through the water table in the installation of the proposed ISDS since the system will be installed in the dry season.

It is suggested by Applicant that the Division must have been satisfied that the system would function as proposed since it approved three previous applications which were substantially the same as the subject application.

Applicant asserts that the subject Application was denied because of a sudden "change" of policy mandating that the Regulations be strictly enforced thereafter without regard to whether a variance would or would not provide the same degree of environmental protection as if the Regulations were complied with strictly. This is clearly contradicted by a clear reading of the interoffice memo issued by the Division dated July 12, 1992. Said memo was obviously intended to prevent individual decisions being made regarding any deviation from the Regulations. This memo (which various members of the Division were required to sign) specified the procedures to be followed if a question arose as to interpretation of the Regulations "in order to ensure that all decisions are uniform."

Applicant's position that his proposed ISDS will function properly and not be a danger to the public health is based on speculation and conjecture. The mere fact that the ISDS setback requirements are met (or exceeded) does not establish that the effluent from the system as proposed will be sufficiently treated to remove all harmful bacteria and other pollutants or contaminants.

The Regulations prohibit the installation of an ISDS in any area where the groundwater table is within 4 feet of the original ground surface, however, approval may be granted in areas where the groundwater table is within 2 to 4 feet of the original ground surface under limited circumstances. The site suitability is of paramount concern in this matter. The Applicant has failed to introduce competent evidence that would demonstrate that the type of soil and the maximum groundwater table elevation establish the suitability of the site for disposal of sewage by leaching. The Division's evidence concerning the unsuitability of the site for an ISDS was persuasive and most credible. Gravel is highly permeable, and Applicant failed to introduce evidence of permeability, percolation rate and absorption capacity and other relevant data so that the suitability of the soil could be properly considered. The sewage from the proposed ISDS will be seeping quickly through the bank run gravel and into the water table

without treatment. It will travel directly via the ground water into the nearby wetlands and stream. The results of the tests of the water in the stream conducted by Dr. Alkhatib, which demonstrated the nitrate level thereof, were unrefuted. The resultant eutrophication of the stream caused by the improperly treated effluent, as well as the probable introduction of harmful contaminants, was clearly established by the competent evidence presented by the Division.

The comparative expertise of the experts testifying for the Division and Applicant has been brought into question by Applicant's Post-Hearing Memorandum. Applicant suggests that the testimony of Mr. Bzdyra should be more credible, since he has designed over one thousand ISDSs; whereas Mr. Freij has never professionally designed an ISDS for a client, and Dr. Alkhatib is neither a registered land surveyor nor a registered professional engineer.

There can be no doubt that all of the witnesses who testified as experts were duly qualified to render their expert opinions; however, I found the testimony of Dr. Alkhatib to be the most persuasive. Although he is not licensed in Rhode Island to design ISDSs for customers, he has had extensive experience in the operations of disposal systems in Kuwait (where such licensing is not required) as well as in Rhode Island. Prime considerations in determining whether a witness

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 27

is qualified includes evidence of the witness's education, training, employment, or prior experiences. State v. Villani, 491 A.2d 976 (R.I. 1985.) This witness is an assistant professor of civil and environmental engineering. He has impressive credentials and has extensive experience with waste water treatment systems that were "virtually identical" to the ISDS in question. Margadona v. Otis Elevator Co., 452 A.2d 232 (R.I. 1988).

The Applicant pointed out that the subject plan which was submitted for approval by the ISDS Division had been approved by the Wetlands Division as an insignificant alteration of a Freshwater Wetlands. However, the Wetlands Division included with its letter of approval a NOTICE stating that this action did not grant approval of an ISDS.

Division argues that denial of the application and request for variances was proper since Applicant has failed to prove that the proposed ISDS will afford the same protection of the public health and environment should the variances requested be granted.

It appears that Applicant's request for a variance from SD 15.02(b)(3) was at least partially based on the fact that "this I.S.D.S. is currently approved." While the denial of the instant application and request for variances after the approvals of prior applications is unfortunate, this does not

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 28

justify a deviation from the rules in the instant matter. The Division's denial of the subject application was rendered after it obtained full knowledge of the site conditions, which information had not been supplied by Applicant in the prior matters. Applicant's testimony as to the pertinent water table elevations was not based on proper scientific procedures and should not be accepted. Also, Applicant's evidence concerning the use of gravel as a satisfactory medium for the treatment of effluent under the existing conditions is speculative and unworthy of belief.

The Applicant has failed to meet his burden of proving that the system will function as proposed and that the issuance of a permit will not be contrary to the public interest, public health and the environment, it should not be necessary to consider the issue of unnecessary hardship. Assuming arguendo unnecessary hardship is at issue in the instant matter, Applicant's reliance on Annicelli v. Town of South Kingstown, 463 A.2d 133 (R.I. 1983) is misplaced. The ordinance under consideration in Annicelli made it futile to attempt to have the board of review grant a special exception or a variance; whereas in the instant matter, the Applicant has not sufficiently demonstrated any valid reason for excusing its compliance with the Regulations. The pertinent Regulations in the instant matter do not prohibit Applicant from constructing a single-

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 29

family dwelling on his property but only require compliance with the duly-established Regulations for the installation of an ISDS.

The Rhode Island Supreme Court has considered the standard of proof to be applied by Zoning Boards of Review as to unnecessary hardship, and it has determined that the appropriate standard is dependant upon the nature of the relief sought. Our Supreme Court has distinguished between three types of relief which are commonly available in certain circumstances. They are a variance, a deviation and an exception. Gara Realty v. Zoning Bd. of Review, 523 A.2d 855 (R.I. 1987). The type of relief sought in Gara was determined to be more akin to a deviation than to a true variance because the petitioner sought relief from a setback requirement of a permitted use. Id.

In a case involving the request for a variance to construct a billboard, it was held that the burden was on petitioner to show by probative evidence that being restricted to the permitted uses within the zoning ordinance will deprive petitioner of all beneficial use of the property. OK Properties v. Zoning Bd. of Review, 601 A.2d 953 (R.I. 1992).

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 30

Requests for ISDS variances involving site suitability should be considered true variances and not deviations. In Re: Thomas S. Christensen, ISDS Case No. 8813-148 Final Decision dated March 8, 1991 and In Re: Walter Kukulka, AAD No. 91-002/ISA April 29, 1992.

The Applicant in the instant matter does not merely seek relief from a literal enforcement of the Regulations; he actually is attempting to avoid or circumvent the Regulations. It would contravene the policy provisions of the statutes and defeat the basic purpose of the Regulations to allow this.

The substantial rights of the Applicant have not been prejudiced by the Department's denial of the variances requested since the Applicant has failed to demonstrate that he has explored other locations, designs or viable alternatives for a suitable ISDS. Applicant must accept the responsibility for his noncompliance and the resultant denial of the variance requested.

The evidence introduced in this matter does not support Applicant's contention that the ISDS will function as proposed. Site suitability should not be left to speculation or conjecture. Indeed, a review of the evidence amply supports the Division's position that the system will not function properly as proposed.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 31

The Applicant has failed to sustain his burden of proving through clear and convincing evidence that the proposed ISDS will not be contrary to the public interest, public health and the environment, as required by the ISDS Regulations. He has failed to demonstrate by clear and convincing evidence that the waste from the proposed system (1) will not be a danger to public health, (2) will not pollute any body of water or wetlands, (3) will not interfere with the public use and enjoyment of any recreational resource, and (4) will not create a public or private nuisance.

FINDINGS OF FACT

After review of all documentary and testimonial evidence of record, I make the following findings of fact:

1. Applicant Richard Mancini is the owner of real property located at Moccasin Trail, Cranston, Rhode Island, identified as Lot 257 on Cranston Tax Assessor's Plat 25, which property is the subject of this application.

2. The subject Application No. 9107-26 was filed on March 26, 1991; and Applicant, by document dated October 3, 1991, filed a Request for Variances from the
012993

following regulations of the Division relating to location, design, construction and maintenance of individual sewage disposal systems ("ISDS");

SD 3.05 (9) Requiring a minimum distance of twenty-five (25) feet of perimeter area to the edge of any land at a level lower than the invert of the distribution line.

SD 15.02 (b)(3) In areas where the groundwater table is within 2 to 4 feet of the original ground surface, at least 2 soil exploration holes shall be dug over the area of the proposed disposal system. The soil exploration holes shall assess the soil and ground water table conditions on both the uphill and downhill sides of the proposed system.

3. On or about December 20, 1991, the Division notified Applicant that his application for variances had been denied.

4. Applicant filed a timely request for a hearing on January 16, 1992 and has taken all actions, paid all fees, and filed all documents required to confer jurisdiction over this matter upon the Administrative Adjudication Division of the Department of Environmental Management.

5. The prehearing conference was held on February 20, 1992 and the record thereof was prepared and submitted by this Hearing Officer. There were no requests to intervene.

6. The administrative adjudicatory hearing was held on April 6, 7, 8, 9, 16 and 23, 1992.

7. All hearings were conducted in accordance with the provisions of the "Administrative Procedures Act" (Chapter 42-35 of the Rhode Island General Laws), the Rules and Regulations Establishing Minimum Standards Relating to Location, Design, Construction and Maintenance of ISDS of the DEM, and the Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters.

8. The ISDS Regulations which became effective January 2, 1990 are the operative regulations in this matter.

9. The pertinent ISDS Regulations, viz: SD 3.05(9) and SD 15.02 (b)(3) that became effective January 2, 1990 were essentially the same as those that had been in effect in December, 1980.

10. There are no public sewers into which the Applicant can connect to dispose of waste from the proposed house.

11. There is a public water supply available to the subject site and there is no tributary on site, or in proximity thereto, which supplies water to the drinking water supply.

12. Applicant proposes to build a single-family home on the subject property, restricted to two bedrooms pursuant to the Restrictive Covenants filed by Applicant at the Cranston Recorder of Deeds.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 34

13. Applicant had filed prior applications for an ISDS for the subject site which had been approved by the Division, but neither the house nor the ISDS were constructed by Applicant.

14. The subject Application and Request for Variances were submitted by applicant, which incorporated changes in the location of the house and ISDS, which changes had been approved by the Wetlands Division of DEM.

15. Applicant's request to reduce the 25 foot fill perimeter to 15 feet at the front of the lot in conjunction with the reinforced portland cement concrete retaining wall (as shown on the plans submitted) does not meet the minimum standards of the ISDS Regulations; however, strict application of the particular provisions of SD 3.05 (9) is not warranted under the special circumstances and specific conditions involved in this matter.

16. Applicant's request to be excused from the requirements of by SD 15.02 (b)(3) is not warranted since Applicant has failed to establish that the ground water table elevation and the soil conditions at the site are suitable for the installation of the ISDS as proposed.

17. The subject property presently slopes from the front to the rear, where a wetland and neighboring stream are located. The ground originally had a depressed area (or "bowl effect") toward the front of said property. Applicant's proposed ISDS is 012993

designed to strip the existing soil and fill in the area of the system and backfill with clean bankrun gravel. The bottom portion of this gravel will be into the ground water during the wet season so that the effluent will flow rapidly through the gravel into the ground water and travel directly with the ground water into the stream located to the rear of the subject property.

18. The bankrun gravel to be substituted for the existing soil and fill (which the Regulations ordinarily allow) is not suitable for an ISDS in this instance because the proposed system will not have an unsaturated zone of proper soils (which is required to remove contaminants or renovate the wastewater from the leaching field).

19. The improperly treated wastewater will cause a nitrate eutrophication problem in the nearby stream.

20. The resultant harmful effects on the nearby stream will interfere with the public use and enjoyment of this recreational resource.

21. The improperly treated waste from the proposed system will pollute the nearby stream.

22. The improperly treated waste from the proposed system will create a public nuisance.

23. The improperly treated waste from the proposed system will endanger the public health.

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 36

24. The proposed ISDS will not function properly and the grating of the permit and variances requested will be contrary to the public interest and public health.

CONCLUSIONS OF LAW

Based upon all of the documentary and testimonial evidence of record, I conclude as a matter of law:

1. All hearings were conducted in accordance with the Rhode Island General Laws, the Rules and Regulations of DEM for ISDS and the Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters.

2. Individual Sewage Disposal System Regulation SD 2.01 (a) requires the Applicant to obtain a permit to construct an Individual Sewage Disposal System.

3. Application No. 9107-26, including the ISDS design submitted therewith, does not conform to the requirements of R.I.G.L. § 42-17.1-1 et seq. and the Individual Sewage Disposal System Regulations which were in effect on January 2, 1990, namely SD 15.02 (b)(3).

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 37

4. The variance from Regulation SD 15.02 (b)(3) which the Applicant requests is contrary to the purposes and policies set forth in R.I.G.L. § 42-17.1-1 et seq. and the Administrative Findings and Policy of the Individual Sewage Disposal System Rules and Regulations.

5. Applicant's appeal of the denial of the variances does not comply with Regulation SD 21.02, particularly Section (8) of said Regulation in that the Applicant has not met his burden of introducing clear and convincing evidence that the waste from the proposed disposal system to be installed will not pollute any body of water; will not interfere with the public use and enjoyment of any recreational resource; will not create a public nuisance; and will not be a danger to the public health.

6. Applicant has failed to prove by clear and convincing evidence that the system will function as proposed in the application; that granting of the variances requested and issuance of the Permit will not be contrary to the public interest, public health and the environment; and that a literal enforcement of the Regulations will result in unnecessary hardship.

Therefore, it is hereby

012993

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 38

ORDERED

1. Application No. 9107-26 and the request for variances from ISDS Regulations submitted by Applicant be and they are hereby DENIED.

I hereby recommend the foregoing Decision and Order to the Director for issuance as a Final Order.

FEBRUARY 3, 1993
Date

Joseph F. Baffoni
Joseph F. Baffoni
Hearing Officer
Department of Environmental Management
Administrative Adjudication Division
One Capitol Hill, Third Floor
Providence, RI 02908
(401) 277-1357

Entered as a Final Agency Order this 5th day of

February, 1993.

3/5/93
Date

Louise Durfee
Louise Durfee
Director
Department of Environmental Management
9 Hayes Street
Providence, RI 02908

Richard Mancini
AAD No. 92-001/ISA
ISDS Variance Application No. 9107-26
Page 39

CERTIFICATION

I hereby certify that I caused a true copy of the within Decision and Order to be forwarded via regular mail, postage prepaid to Thomas S. Hogan, Esq., 214 Waterman Avenue, East Providence, RI 02914 and via interoffice mail to Sandra J. Calvert, Esq., Office of Legal Services, 9 Hayes Street, Providence, RI 02908 on this 5th day of February, 1993.

Richard Mancini