

VERMONT ENVIRONMENTAL BOARD
10 V.S.A. §§ 6001-6092

Re: Unifirst Corporation and
Williamstown School District
#5R0072-2-EB (Altered)

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER (ALTERED)

This decision pertains to the appeal of Land Use Permit #5R0072-2 with respect to 10 V.S.A. § 6086(a)(1), (1)(B), (1)(E), (4), (9)(K), and (10) (local plan). As explained below, the Environmental Board orders the issuance of an amended permit pursuant to 10 V.S.A. §§ 6001-6092 ("Act 250").

I. BACKGROUND


On November 12, 1997, the District #5 Environmental Commission ("Commission") issued Land Use Permit #5R0072-2 ("Permit") to Unifirst Corporation ("Unifirst") and the Williamstown School District ("School District") (collectively, the "Permittees"). The Permit authorizes a modified collection system for groundwater contaminated with tetrachloroethylene, a filtration facility located on the grounds of the Williamstown Elementary School, and a discharge into an unnamed ephemeral tributary of Rouleau Brook ("Project").

Prior to the issuance of the Act 250 Permit, on September 26, 1997, the Agency of Natural Resources ("ANR"), Department of Environmental Conservation ("DEC") issued a discharge permit to Unifirst ("DEC Permit #3-1435"). DEC Permit #3-1435 authorizes the Project's discharge of treated groundwater from the new filtration facility into the unnamed ephemeral tributary of Rouleau Brook. Then on October 24, 1997, the Appellants appealed DEC's issuance of DEC Permit #3-1435 to the Vermont Water Resources Board ("WRB Appeal").

The Project requires an Act 250 permit since it constitutes (i) development for both a commercial and industrial purpose pursuant to 10 V.S.A. § 6001(3) and Environmental Board Rule ("EBR") 2(A)(2) and 2(L); and (ii) a substantial change to Land Use Permits #5R0072 and #5R0153 pursuant to EBR 2(G) and 34(A) and (B). Re: Unifirst Corporation, Declaratory Ruling #348, Findings of Fact, Conclusions of Law, and Order (Jan. 30, 1998).

On December 10, 1997, Joyce Day and Alvin Day ("Appellants"), appealed from the Permit.

On January 20, 1998, Marcy Harding, Chair of the Board, convened a prehearing conference and, on February 4, 1998, issued a Prehearing Conference Report and Order ("Prehearing Order").



During February and March, 1998, the parties filed prefiled testimony and exhibits, evidentiary objections, and proposed findings of fact, conclusions of law, and order.

On March 10, 1998, the Board convened a joint hearing with the Vermont Water Resources Board with the following parties participating:

Unifirst Corporation by Martin Miller, Esq.
Joyce and Alvin Day by Stephen Reynes, Esq.
Agency of Natural Resources by Andy Raubvogel, Esq.

At the hearing's conclusion, the Board recessed this proceeding pending receipt of the parties' supplemental proposed findings of fact, conclusions of law, and order, deliberation, the issuance of a decision by the Vermont Water Resources Board in Re: Unifirst Corporation, Docket No. WQ-97-07 (Appeal of DEC Permit #3-1435), and the issuance of this decision.

On May 7, 1998, the Water Resources Board issued Re: Unifirst Corporation, Docket No. WQ-97-07 (Appeal of DEC Permit #3-1435), Findings of Fact, Conclusions of Law, and Order (May 7, 1998) ("WRB Decision"). In response to a motion to alter, on June 29, 1998, the Water Resources Board issued Re: Unifirst Corporation, Docket No. WQ-97-07 (Appeal of DEC Permit #3-1435), Memorandum of Decision (June 29, 1998) ("WRB Altered Decision").

On July 29, 1998, the Appellants appealed from the Water Resources Board's May 7 and June 29, 1998 decisions to the Orange Superior Court.

On September 8, 1998, the Environmental Board convened a deliberation in this appeal.

In a September 16, 1998 Memorandum of Decision, the Board ordered that it would postpone issuance of its decision in this appeal pending the issuance of a final decision which adjudicates the Appellants' appeal to the Orange Superior Court from the Water Resources Boards' May 7 and June 29, 1998 decisions.

On September 25, 1998, Unifirst filed a Motion to Alter the Board's September 16, 1998 Decision ("Motion").

On October 1, 1998, the Appellants filed a reply to the Motion.

On October 28, 1998, the Environmental Board deliberated regarding the Motion.

In an October 29, 1998 Memorandum of Decision, the Board denied Unifirst's Motion.

On December 15, 1999, the Orange Superior Court heard oral argument of the appeal of the Water Resources Board's decision and issued its Opinion and Order affirming the Water Resources Board's decision on February 23, 2000.

On March 24, 2000, Appellants appealed the Opinion and Order issued by the Orange Superior Court to the Vermont Supreme Court.

On May 23, 2000, the Appellants filed a letter with the Environmental Board advising the Board that Appellants and Unifirst reached a settlement and that Appellants were withdrawing their appeal to the Vermont Supreme Court. Appellants and Unifirst jointly request that an Act 250 Permit be issued upholding DEC Permit #3-1435 as modified by the Water Resources Board.

On March 29 and June 1, 2000 the Board deliberated regarding this appeal. On June 1, 2000, the Board declared the record complete and adjourned the hearing.

On June 1, 2000, the Board issued Amended Land Use Permit #5R0072-2-EB and Findings of Fact, Conclusions of Law, and Order.

On June 30, 2000, Unifirst and ANR filed a Joint Motion to Alter the Amended Land Use Permit #5R0072-2-EB and Findings of Fact, Conclusions of Law, and Order. The Joint Motion to Alter requests the following three changes to the Board's Amended Permit and Decision:

- 1) Establish a numerical discharge limit of 1 $\mu\text{g/l}$ (micrograms per liter), rather than the qualitative and potentially changeable limit of "non-detectable range,"
- 2) Alter the construction completion deadline from November 1, 2000, to November 1, 2001, and
- 3) Clarify that the requirements specified in the DEC's Discharge Permit shall determine the conditions for monitoring, operating, and maintaining the new groundwater treatment system.

On July 17, 2000, the Appellants filed a letter requesting an extension to Wednesday, July 19, 2000 at 12:00 noon to file their Reply to the Joint Motion to Alter. The Appellants never filed in reply to the Joint Motion to Alter.

On July 19, 2000, the Board deliberated on the Joint Motion to Alter.

This matter is now ready for decision. To the extent any proposed findings of fact and conclusions of law are included below, they are granted; otherwise, they have been considered and are denied. See Secretary, Agency of Natural Resources v. Upper Valley Regional Landfill Corporation, Docket No. 96-369, slip op. at 13 (1998); Petition of Village of Hardwick Electric Department, 143 Vt. 437, 445 (1983).

II. ISSUES

As stated in the Prehearing Order, the issues are as follows:

1. Whether, pursuant to 10 V.S.A. § 6086(a)(1), the Project will result in undue water pollution. In making this determination, the Board shall at least consider: the elevation of land above sea level; and in relation to the flood plains, the nature of soils and subsoils and their ability to adequately support waste disposal; the slope of the land and its effect on effluents; the availability of streams for disposal of effluents; and the applicable health and environmental conservation department regulations.
2. Whether, pursuant to 10 V.S.A. § 6086(a)(1)(B), the Project, in addition to all other applicable criteria, will meet any applicable health and environmental conservation department regulations regarding the disposal of wastes, and will not involve the injection of waste materials or any harmful or toxic substances into ground water or wells.
3. Whether, pursuant to 10 V.S.A. § 6086(a)(1)(E), the Project, in addition to all other applicable criteria, is the development of lands on or adjacent to the banks of a stream, and, if so, will it, whenever feasible, maintain the natural condition of the stream, and not endanger the health, safety, or welfare of the public or of adjoining landowners.
4. Whether, pursuant to 10 V.S.A. § 6086(a)(4), the Project will cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result.

5. Whether, pursuant to 10 V.S.A. § 6086(a)(9)(K), the Project, in addition to all other applicable criteria, will unnecessarily or unreasonably endanger the public or quasi-public investment in the Williamstown Elementary School, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the Williamstown Elementary School.

6. Whether, pursuant to 10 V.S.A. § 6086(a)(10), the Project is in conformance with the 1993 Williamstown Town Plan.

III. FINDINGS OF FACT

1. The Project consists of a modified collection system for groundwater contaminated with tetrachloroethylene, a filtration facility located on the grounds of the Williamstown Elementary School, and a discharge into an unnamed ephemeral tributary of Rouleau Brook.
2. The Project will be located on a tract or tracts of land greater than ten acres in size owned or controlled by Unifirst.
3. Unifirst formerly operated a dry cleaning and washing facility located in Williamstown, Vermont near the site of the proposed discharge under the terms of Land Use Permit #5R0153 issued on October 6, 1972.
4. In 1983 it became apparent that several private residences in the vicinity of Unifirst's facility had contamination present in their bedrock drinking water supply wells. Residential drinking water supplies that were affected were replaced with hookups to the municipal water supply system. Investigations by the State of Vermont as to the source of the contamination continued through 1984.
5. Unifirst's facility was determined to be a cause of the contamination and it ceased dry cleaning operations in 1984.
6. Between 1984 and 1986, Unifirst constructed two groundwater collection and pumping systems and a groundwater treatment system. One of the collection systems is located primarily on Unifirst property and the second is uphill and to the north of (behind) the Elementary School, parallel to Construction Hill Road.

7. Unifirst installed a groundwater treatment facility within the boiler room of the Unifirst plant building and began continuous operation on January 1, 1986. The facility was designed to discharge treated groundwater to the municipal sewer collection system.
8. In January, 1986, Unifirst entered into a consent decree (Orange Superior Court, Docket No. S53-840eC) with the State of Vermont and the Town of Williamstown to address contamination arising from operations of its Williamstown facility. The consent decree set out the process by which remedial action would continue for the next ten years.
9. In 1990, Unifirst constructed a third groundwater collection drain, known as the "Duff Drain," which is located at the foot of the hill between 2 residences and the Unifirst property to the East. The flow from this third drain is also directed into the pump station which, under the existing system, pumps to the groundwater treatment system.
10. In 1996, the original Williamstown Elementary School drain became fouled by root growth. This drain line was rebuilt in its entirety and enlarged from a 4- inch diameter pipe to an 8-inch diameter pipe. The improvements to the efficiency of this drain system further increased the amount of water that is being collected, treated and discharged to the Williamstown municipal sewage treatment plant.
11. The Orange Superior Court entered a second consent decree effective March 24, 1997 with a thirty year duration. Among other things, this consent decree directed Unifirst to seek a surface water discharge and any necessary permits for the discharge of the treated groundwater. The Project is an attempt to comply with that directive.
12. The Town of Williamstown has issued a prohibition of continuing discharge from the Unifirst treatment system to the municipal treatment plant effective December 31, 1998.
13. The Project is comprised of four main components. These consist of:
 - i. Drains - a groundwater collection system comprised of three large drains wherein contaminated groundwater underlying the Unifirst and Williamstown Elementary School, as well as the area between two nearby

residences and the eastern portion of the Unifirst property, will be collected;

- ii. Subsurface Pipes - extension and/or improvement of existing drainage pipes from the collection drains to the carbon filtration system at a site substantially down gradient from the drains to allow the use of gravity to force inflow through the filters;
 - iii. A Filtration System - construction and ongoing maintenance of a filtration system building which will contain two fully redundant treatment trains that will receive inflow by gravity feed from the drainage pipes. Each of the treatment trains will house two carbon adsorption filters within cylindrical canisters. The filters will measure approximately nine feet in height and six feet in diameter; and
 - iv. An Outfall Pipe - an outfall pipe which will discharge the treated wastewater to a location identified as S/N 001 and which is the upstream most point of the Affected Reach discussed below.
14. As part of the Project, the existing pump station enclosure and power poles located in the play areas on the grounds of the Williamstown Elementary School will be removed.
 15. The filtration facility which will house the filtration system will be built into a hillside. The base elevation of the filtration facility building is 906 feet and the top of the slope is at 918 feet. The point of outfall for the discharge of treated effluent will be at the discharge apron next to the stream at 898 feet. The filtration facility is not located in a flood plain. There will be vegetative cover between the treatment facility and the stream, and an outflow structure so that at the point of discharge the treated effluent will flow over a stone apron before entering the stream.
 16. The design capacity of the proposed filtration system will be 200 gallons per minute.
 17. The proposed treatment system will be a significant improvement over the existing system in several respects. Among the benefits of the proposed system are the following:

- a. the system relies on gravity to direct inflow to the filtration system without the need to employ pump stations to create "head" or elevation gain;
 - b. the drains and pipes are significantly improved to ensure more comprehensive collection of contaminated groundwater;
 - c. the filtration system employs larger, more efficient silt collecting "prefilters;"
 - d. the filtration system is fully redundant in that it has two independent treatment trains either of which can be brought online at any time offering the same level of treatment;
 - e. the filtration system is to a large extent a self-balancing system; and
 - f. because the filtration system has a tendency to self-balance, during periods of high inflow to the system the collection drains effectively back up with groundwater as the capacity of the pipes, filters, and discharge per day allowance of 288,000 gallons is approached. Even when the collected groundwater backs up several feet or more, there would be no added health risk.
18. Each treatment train in the system houses two filters in sequence. There is a primary filter and an identical backup filter. Continuous monitoring shall enable Unifirst to detect the breakthrough of contaminants through the primary filter, and after such detection the inflow is diverted to the other treatment train. Even in the case where breakthrough of contaminants through the primary filter is either not immediately detected, or is detected but not immediately acknowledged by Unifirst's engineers or operators, the backup filter shall ensure that no detectable levels of tetrachloroethylene will be discharged into the environment throughout the entire period of the Project's operation.
19. Provided that both backup filters are routinely checked for their ability to remove contaminants, the proposed operation of the filtration system is sufficiently reliable to ensure that no untreated effluent will be discharged into the environment throughout the entire period of the Project's operation.

20. Replacement of spent filters must occur expeditiously after the first detectable contaminants have penetrated the spent filter. At most times, all four filters will be functional and housed within the system.
21. The filters consist of granulated activated carbon. The treatment of tetrachloroethylene contaminated groundwater by granulated activated carbon is the best available technology.
22. Each carbon filter will last between 6 months and approximately 24 months. Sampling will be performed on a weekly basis, and the laboratory that will be testing the samples will provide the results of the analyses of the samples within two weeks. The activated carbon filtration system removes contaminants from the water by adsorption onto the activated carbon.
23. Filtration of the contaminated groundwater through Unifirst's proposed treatment system will achieve levels of tetrachloroethylene in the effluent that are in the non-detectable range. For design, operational and enforcement purposes, the Board quantitatively defines "non-detectable range" to be less than or equal to 1 $\mu\text{g/l}$.¹ The discharged effluent will consist of filtered and treated groundwater which meets the Vermont Water Quality Standards ("VWQS") for drinking water, although the effluent will not be a source for drinking water.
24. The receiving site is the specific location of the discharge from the Project ("Receiving Site"). The Receiving Site is an ephemeral stream - also known as an intermittent stream. The Receiving Site for the discharge is a stone apron on the west bank of the stream, approximately 40 feet from the filtration facility.
25. The stream is an unnamed tributary of Rouleau Brook in Williamstown, Vermont. Rouleau Brook and its tributaries are classified by the Water Resources Board as Class B waters.
26. The unnamed stream will, at various times, flow at a rate which is less than 1.5 cubic feet per second. The stream is available to receive the discharge of treated effluent.

¹

Within the Joint Motion to Alter, Unifirst and ANR request this discharge limit for tetrachloroethylene of 1 $\mu\text{g/l}$.

27. From its confluence with Rouleau Brook upstream to the point of the discharge ("the Affected Reach"), the tributary has variable stream bed characteristics and, depending primarily on the time of year, it is either a losing stream (i.e. it loses surface water to groundwater) or a gaining stream (i.e. groundwater contributes to the instream flow).
28. The Affected Reach is approximately 110 feet in length.
29. Children occasionally play in or around both Rouleau Brook and the Affected Reach. There will be no risk to children from tetrachloroethylene in the discharged effluent. The filtered and treated effluent will add clean water to the flow in the stream that will effectively dilute any tetrachloroethylene that may be present in the surface water.
30. The stream is typical of many streams found in Vermont. Its flow is comprised of surface water runoff from an approximately 61 acre watershed.
31. During the drier months of the year, there is a reduction in surface water runoff from the surrounding watershed. In addition, much of the water which does enter the stream during these dry periods is "lost" before the surface water flow from the tributary reaches Rouleau Brook. Such loss to groundwater occurs through the highly porous gravelly deposits which are present in certain segments of the Affected Reach.
32. In such losing periods the stream bed sometimes appears to be completely dry, as is typical of an ephemeral or intermittent stream.
33. Despite periods when there is little or no streamflow in the Affected Reach, the tributary's shape is easily identifiable at all times of the year with clearly-defined banks and other obvious indicators of a streambed.
34. When the Project is operating it will contribute a flow of treated effluent to the Affected Reach on an annualized average of 33,000 gallons per day - approximately 23 gallons per minute - with the maximum allowable daily volume not to exceed 288,000 gallons.
35. During the driest months of the year, typically from mid-July through September, when there is a reduction of surface water runoff and limited, if any, seepage of

groundwater into the Affected Reach, the effluent from the discharge will constitute a significant percentage of the total streamflow in the Affected Reach.

36. During other periods of the year, a source of the streamflow in the Affected Reach is the untreated groundwater.
37. As noted in Finding 31, there may be a loss of some portion of the treated groundwater through the highly porous streambed found in several locations of the Affected Reach.
38. Even without dilution, the treated groundwater would filter back into the groundwater at a level that complies with the water quality standards and which is significantly less contaminated than the existing concentrations of tetrachloroethylene in the receiving substandard groundwater.
39. Effluent treated to $8\mu\text{g/l}$ of tetrachloroethylene would not pose any additional risk to human health or to aquatic biota beyond that which presently occurs due to the effects of previous groundwater contamination.
40. Once the Project goes into operation, discharged effluent will contain levels of tetrachloroethylene of less than or equal to $1\mu\text{g/l}$, and will consistently be well below the applicable VWQS criterion, and also below the groundwater standard for Class III groundwaters ($0.7\mu\text{g/l}$). The discharge will pose no risk to humans or the environment.
41. The effluent will flow from the outfall, through the Affected Reach, downstream approximately 110 feet into Rouleau Brook. From there, the waters will flow downstream to the confluence with the Stevens Branch and then to the Winooski River.
42. Unifirst shall use erosion control practices so that the stream will not be harmed by silt and debris during the Project's construction and operation. The practices include the placement of silt fence and hay bale dams; placement of clean fill and topsoil over the filtration facility discharge pipe; and seeding and mulching of the disturbed areas to establish vegetative ground cover after construction. The stone apron at the point of discharge will prevent the stream from being damaged or altered by erosion. These erosion practices will also preserve the natural capacity of the land to hold water.

43. The Project will not result in any reduction in the capacity of the land to hold water such that no dangerous or unhealthy condition will be created. The Project preserves the riparian corridor for the unnamed stream including the maintenance of stream side vegetation. To the extent that the Project has an adverse effect on class III wetlands, the total area of impact is less than 0.2 acres, and any filling of wetland areas will not violate the VWQS.
44. The discharge of effluent during the winter time will not create any reduction in the capacity of the land to hold water, nor will any dangerous or unhealthy condition be created. Even during the winter, the discharge of effluent will be at approximately 44 degrees Fahrenheit. The continuous flow from the filtration system will maintain saturation at the margins of the stream and flow in the stream bed such that there will be no erosion attributable to the creation of ice at the point of discharge.
45. The Williamstown Municipal Plan, adopted in 1993, is applicable to the Project. In part, this plan provides as follows:

II. OBJECTIVES AND PRINCIPALS [sic]

The purpose of this Plan is to guide the development of the town in the best interests of all its residents.

* * *

7. To protect environmentally sensitive, unique areas, and natural resources. Disposal of hazardous wastes as identified and listed in the U.S. Resource Conservation and Recovery Act of 1976, Section 3001, shall be prohibited in Williamstown.

IV. CONCLUSIONS OF LAW

A. Burden of Proof

The term "burden of proof" refers to two separate burdens: the burden of going forward and producing evidence, and the burden of persuasion. See 10 V.S.A. § 6088; In re Denio, 158 Vt. 230, 236 (1992); Re: Pratt's Propane, #3R0486-EB, Findings of Fact, Conclusions of Law, and Order at 4-5 (Jan. 27, 1987). 10 V.S.A. § 6088 operates in conjunction with the requirement that before a permit can be issued, the Board (or district

commissions) make the affirmative findings required under the 10 criteria. See 10 V.S.A. § 6086(a). The Permittees have the burden of proof with respect to all of the criteria on appeal.

B. Concurrent Jurisdiction, Res Judicata, and Collateral Estoppel

i. concurrent jurisdiction

In addition to an Act 250 permit, the Project requires a discharge permit pursuant to 10 V.S.A. §§ 1259 and 1263 of Vermont's Water Pollution Control Act.

On September 26, 1997, DEC issued DEC Permit #3-1435 authorizing the Project's discharge of treated groundwater from the new filtration facility into the unnamed ephemeral tributary of Rouleau Brook.

On October 24, 1997, the Appellants appealed DEC's issuance of DEC Permit #3-1435 to the Water Resources Board (again the "WRB Appeal"). The WRB Appeal preceded the Appellants' appeal of the Permit.

After the Appellants filed their appeal of the Permit, the parties, pursuant to EBR 15, requested that the Board convene a joint hearing with the Water Resources Board relative to the appeal of the Permit and DEC Permit #3-1435. In granting the request for the joint hearing, the Chair's Prehearing Order specifically provided that the Board would defer issuance of a decision in this matter pending the Water Resources Board's issuance of a decision in the appeal of DEC Permit #3-1435. The parties were advised that, as a result, this decision would be issued in excess of sixty days from the date of the joint hearing. No party objected to the Prehearing Order.

The Board's decision to defer issuing a decision pending the outcome of the WRB Appeal is consistent with the general principle that "as between two tribunals with concurrent subject matter jurisdiction, the one which first acquires such jurisdiction should exercise it, and the second in point of time should defer to the first." City of South Burlington v. Vermont Electric Power Company, Inc., 133 Vt. 438, 433 (1975). The only exception to this general rule is where "a second court can afford remedies not available in the first." In re Petition of Pfenning, 136 Vt. 92, 94 (1978).

The issue before the Water Resources Board is whether the Project complies with 10 V.S.A. §§ 1259 and 1263, and the VWQS, such that it should be issued a discharge permit. This issue is the same as whether the Project complies with applicable health and

environmental conservation department regulations under Criteria 1 and 1(B). Therefore, the Board's jurisdiction is concurrent with the Water Resources Board's jurisdiction with respect to the issue of compliance with applicable health and environmental conservation department regulations.

The WRB Appeal preceded the Appellants' appeal to this Board. This Board cannot afford a remedy not available before the Water Resources Board with respect to the issue of the Project's compliance with 10 V.S.A. §§ 1259 and 1263, and the VWQS. Accordingly, consistent with the Prehearing Order, the Board has deferred issuing its decision pending the outcome of the WRB Appeal.

On May 7, 1998, the Water Resources Board issued its WRB Decision.

On June 29, 1998, in response to a timely motion to alter, the Water Resources Board issued its WRB Altered Decision.

Pursuant to the WRB Decision, the WRB Altered Decision, and the Orange Superior Court's Opinion and Order², DEC Permit #3-1435 has been affirmed, subject to certain modifications. Accordingly, the Board concludes that the doctrines of res judicata and collateral estoppel apply with respect to the Project's compliance with applicable health and environmental conservation department regulations under Criteria 1 and 1(B) based on the issuance of the WRB Decision, the WRB Altered Decision, the Orange Superior Court's Opinion and Order and Modified DEC Permit #3-1435.³

ii. res judicata and collateral estoppel

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On March 24, 2000, Appellants appealed the Opinion and Order issued by the Orange Superior Court to the Vermont Supreme Court. On May 23, 2000, Appellants filed a letter with the Environmental Board advising the Board that Appellants and Unifirst reached a settlement and that Appellants were withdrawing their appeal to the Vermont Supreme Court. Accordingly, upon the Vermont Supreme Court's dismissal of the appeal, the DEC Permit #3-1435 as modified by the WRB Altered Decision is final.

³ In specifically addressing administrative agencies, the Vermont Supreme Court has ruled that "[r]es judicata applies to final determinations by an administrative agency acting in a judicial capacity." Zingher v. Department of Aging and Disabilities, 163 Vt. 566, 571 (1995), citing to Delozier v. State, 160 Vt. 426, 429 (1993).

The Vermont Supreme Court has explained the doctrines of res judicata and collateral estoppel as follows:

The principle of res judicata, or claim preclusion, "bars litigation of claims or causes of action which were or might properly have been litigated in a previous action." State v. Dann, 8 Vt. L.W. 209, 210 (1997) (quoting Cold Springs Farm Dev., Inc. v. Ball, 163 Vt. 466, 472, 661 A.2d 89, 93 (1995)). The related doctrine of collateral estoppel, or issue preclusion, "prevents a party from relitigating an issue that has necessarily been decided in a previous action." Cold Springs Farm, 163 Vt. at 468, 661 A.2d at 91. The core inquiry in either case is whether there was a "full and fair opportunity to litigate" the matter in the earlier action. Id. at 469, 661 A.2d at 91.

Agway, Inc. v. Gray, Docket No. 95-651, slip op. at 3 (Nov. 21, 1997).

The application of both doctrines links a full and fair opportunity to litigate to what facts were or could have been presented.

a. res judicata elements

Res judicata "will bar a subsequent action only if the court issued a final judgment in the previous action, and the parties, subject matter and causes of action are identical or substantially identical." Dann, 8 Vt. L.W. at 210 (quoting Berisha v. Hardy, 144 Vt. 136, 138 (1984)). For the purposes of claim preclusion, two causes of action are the same if they can be supported by the same evidence. Hill v. Grandey, 132 Vt. 460, 463 (1974). The elements of res judicata are met.

First, Orange Superior Court's Opinion and Order, the WRB Altered Decision, the WRB Decision, and Modified DEC Permit #3-1435 are final. Second, the parties before the Water Resources Board and the parties in this appeal are the same. Finally, the issue of the Project's compliance with 10 V.S.A. §§ 1259 and 1263, and the VWQS, is the same as the Project's compliance with applicable health and environmental conservation department regulations under Criteria 1 and 1(B) such that to this extent the subject matter and the causes of action before the two boards are identical. This overlap was the basis for the parties' request for a joint hearing under EBR 15. As a result, the parties have filed the same evidence in this proceeding as that which was filed in the WRB Appeal. This includes both prefiled testimony and exhibits, and cross-examination.

Accordingly, based on the doctrine of res judicata, the Board concludes that the Project complies with applicable health and environmental conservation department regulations under Criteria 1 and 1(B).

b. collateral estoppel elements

Collateral estoppel is a doctrine which is intended to eliminate repetitive litigation, and give repose to litigants. Applying collateral estoppel prevents a party from relitigating those issues necessarily and essentially determined in a prior action. Berisha v. Hardy, 144 Vt. 136, 138 (1984). Although collateral estoppel does not apply to administrative proceedings as an inflexible rule of law, the principles of collateral estoppel generally apply in Act 250 proceedings. See In re Application of Carrier, 155 Vt. 152, 157 (1990). Before precluding relitigation of an issue, a court must examine the first action and the treatment the issue received in it. State v. Pollander, Docket No. 96-387, slip op. at 3 (Dec. 5, 1997). The Court explained in Pollander:

This Court looks to the five elements set forth in Trepanier v. Getting Organized, Inc., 155 Vt. 259, 265, 583 A.2d 583, 587 (1990), and finds preclusion when: (1) preclusion is asserted against one who was a party or in privity with a party in the earlier action; (2) the issue was resolved by a final judgment on the merits; (3) the issue is the same as the one raised in the later action; (4) there was a full and fair opportunity to litigate the issue in the earlier action; and (5) applying preclusion in the later action is fair.

Id.

The five Trepanier factors are satisfied in this proceeding. Elements (1) - (4) are satisfied for the reasons set forth under the res judicata discussion. As to the final element, fairness, the Board concludes that it is fair to apply collateral estoppel because the Appellants requested that this appeal be heard jointly with the Water Resources Board under EBR 15, and the decision of the Water Resources Board is that of a quasi-judicial authority acting in its appellate capacity after a de novo hearing with regard to whether a discharge permit should be issued under 10 V.S.A. §§ 1259 and 1263. See 10 V.S.A. § 1269.

Accordingly, based on the doctrine of collateral estoppel, the Board concludes that the Project complies with applicable health and environmental conservation department regulations under Criteria 1 and 1(B).

iii. Hawk Mountain

The Board has applied res judicata and collateral estoppel to conclude that the Project complies with applicable health and environmental conservation department regulations under Criteria 1 and 1(B). The Board notes that this is consistent with the function it serves under In re Hawk Mountain, 149 Vt. 179 (1988).

The Court stated in Hawk Mountain:

[T]he Environmental Board did not exceed its authority by requiring appellants to obtain a water discharge permit pursuant to 10 V.S.A. § 1263, although the [DEC] had waived this requirement. Act 250 sets up concurrent jurisdiction between the various state environmental agencies and the Environmental Board. See 10 V.S.A. § 6082. However, the legislative scheme indicates that the legislature intended to confer upon the Board powers of a supervisory body in environmental matters.

Id. at 185.

Under Hawk Mountain, the Board has and will continue to exercise its supervisory authority over the decisions made by ANR. The Board has and will continue to do so as part of the system of rebuttable presumptions established under 10 V.S.A. § 6086(d) and EBR 17 and 19. This is consistent with Hawk Mountain's description of ANR as an environmental agency. In contrast, in this instance, the Water Resources Board is acting as a quasi-judicial authority with respect to the adjudication of a de novo appeal from ANR's issuance of DEC Permit #3-1435. Therefore, since the elements of res judicata and collateral estoppel are satisfied, the Board is bound by the Water Resources Board's decision to affirm, with modifications, DEC Permit #3-1435 with respect to the Project's compliance with applicable health and environmental conservation department regulations under Criteria 1 and 1(B).

C. Remaining issues under Criteria 1 and 1(B)

i. Criterion 1

Under Criterion 1, water pollution, the Board must determine whether the Project will result in undue water pollution.

In making this determination, the Board shall at least consider: the elevation of land above sea level; and in relation to the flood plains, the nature of soils and subsoils and their ability to adequately support waste disposal; the slope of the land and its effect on effluents; the availability of streams for disposal of effluents; and the applicable health and environmental conservation department regulations.

Id.

There is no clear definition of what constitutes "undue water pollution." Re: Upper Valley Regional Landfill, #3R0609-EB, Findings of Fact, Conclusions of Law, and Order at 32 (Nov. 12, 1991).

A review of decisions addressing the term "undue water pollution" in the context of Act 250 indicates that it has been interpreted in the context of the specific facts of each case under consideration; the decisions are more instructive about what is not undue rather than what is.

Id at 33.

The Board is not limited to an analysis of the Criterion 1 subcriteria when determining whether or not a project complies with Criterion 1. Hawk Mountain, 149 Vt. at 184.

The filtration facility will be built into a hillside. The base elevation of the filtration facility building is 906 feet and the top of the slope is at 918 feet. The point of outfall for the discharge of treated effluent will be at the discharge apron next to the stream at 898 feet. The filtration facility is not located in a flood plain. The Receiving Site for the discharge is a stone apron on the west bank of the stream, approximately 40

feet from the filtration facility. The stream is available to receive the discharge of treated effluent. As discussed above, the Project complies with applicable health and environmental conservation department regulations.

As a result of the Project, the discharged effluent will have a tetrachloroethylene level of less than or equal to $1\mu\text{g/l}$. The discharged effluent will consist of filtered and treated groundwater which meets VWQS for drinking water, although the effluent will not be a source for drinking water. While there is a foot path in the vicinity of the Receiving Site, there will be no risk to children from tetrachloroethylene in the discharged effluent. Ultimately, the filtered and treated effluent will add clean water to the flow in the unnamed stream that will effectively dilute any tetrachloroethylene that may be present in the surface water.

Based on the findings of fact, the Project will not result in undue water pollution under Criterion 1.

ii. Criterion 1(B)

Under Criterion 1(B), the Board must determine whether the Project, in addition to all other applicable criteria, will meet any applicable health and environmental conservation department regulations regarding the disposal of wastes, and will not involve the injection of waste materials or any harmful or toxic substances into ground water or wells.

As discussed above, the Project complies with applicable health and environmental conservation department regulations regarding the disposal of wastes.

The findings of fact demonstrate that the Project will not result in the injection of waste materials or any harmful or toxic substances into groundwater or wells. First, for the reasons discussed under Criterion 1, the Project will not result in any undue water pollution. Second, the activated carbon filtration system removes contaminants from the water by adsorption onto the activated carbon such that the level of tetrachloroethylene in the treated effluent shall be less than or equal to $1\mu\text{g/l}$. Finally, the filtration system is redundant such that there will never be a discharge of tetrachloroethylene into the stream during the entire life of the Project's operation.

Based on the findings of fact, the Project complies with Criterion 1(B).

D. Criterion 1(E)

Under Criterion 1(E), the Board must determine whether the Project, in addition to all other applicable criteria, is the development of lands on or adjacent to the banks of a stream, and, if so, will it, whenever feasible, maintain the natural condition of the stream, and not endanger the health, safety, or welfare of the public or of adjoining landowners.

A "stream" is defined as "a current of water which is above an elevation of 1,500 feet above sea level or which flows at any time at a rate of less than 1.5 cubic feet per second." 10 V.S.A. § 6001(18). Based on the findings of fact, the stream that will receive the discharge of treated effluent satisfies the definition set forth at 10 V.S.A. § 6001(18).

The Project involves the development of lands on or adjacent to the banks of a stream. The Project's design includes vegetative cover between the treatment facility and the stream, and an outflow structure so that the water flows over a stone apron before entering the stream. As discussed in detail under Criterion 4, the Project will use erosion control measures which will maintain the stream's natural condition. In this regard, the Project will maintain the natural condition of the stream.

More significantly, however, the discharge of effluent will help to improve the stream's natural condition since the discharge has no detectable levels of tetrachloroethylene contamination. Unlike Re: Okemo Mountain, Inc., #2S0351-12A-EB, Findings of Fact, Conclusions of Law, and Order (Revised) (July 23, 1992), where a snowmaking water-withdrawal project would have resulted in degradation to a stream's natural condition, in this case the Project will help restore the stream's natural condition.

The discharged effluent that filters back into the groundwater will be at a tetrachloroethylene level that complies with the VWQS and which is significantly less contaminated than the existing substandard groundwater. Since during certain periods of the year a partial source of the streamflow in the Affected Reach is the underlying groundwater, the Project will help restore the stream's natural condition by being the receiving body for discharged effluent which may, upon discharge, once again become part of the groundwater which itself is a source of the streamflow in the Affected Reach.

Finally, for the same reasons discussed under Criteria 1 and 1(B), the Board concludes that the Project will not endanger the health, safety, or welfare of the public or of adjoining landowners.

Accordingly, the Board concludes that the Project complies with Criterion 1(E).

E. Criterion 4

Under Criterion 4, the Board must determine whether the Project will cause unreasonable soil erosion or reduction in the capacity of the land to hold water so that a dangerous or unhealthy condition may result.

The Project's construction and operation will make use of a number of erosion control practices to preserve the natural capacity of the land to hold water. The Project preserves the riparian corridor for the unnamed stream including the maintenance of stream side vegetation. To the extent that the Project has an adverse effect on class III wetlands, the total area of impact is less than 0.2 acres, and any filling of wetland areas will not violate the VWQS or require a conditional use determination under the Vermont Wetland Rules. See Sections 1 and 6 of the Vermont Wetlands Rules. Finally, even during the winter, the discharge of effluent will be at approximately 44 degrees Fahrenheit. The continuous flow from the filtration system will maintain saturation at the margins of the stream and flow in the stream bed such that there will be no erosion attributable to the creation of ice at the point of discharge.

Accordingly, the Board concludes that the Project will not result in any reduction in the capacity of the land to hold water such that no dangerous or unhealthy condition is or will be created.

F. Criterion 9(K)

Under Criterion 9(K), the Board must determine whether the Project, in addition to all other applicable criteria, will unnecessarily or unreasonably endanger the public or quasi-public investment in the Williamstown Elementary School, or materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the Williamstown Elementary School.

The Board conducts two separate inquiries under Criterion 9(K) with respect to governmental and public facilities. First, the Board examines whether a proposed project will unnecessarily or unreasonably endanger the public investment in such facilities. Second, the Board examines whether a proposed project will materially jeopardize or interfere with (a) the function, efficiency or safety of such facilities, or (b) the public's use or enjoyment of or access to such facilities. Re: Old Vermonter Wood Products and Richard Atwood, #5W1305-EB, Findings of Fact, Conclusions of Law, and Order at 24 (Aug. 19, 1999); Re: Swain Development Corp., #3W0445-2-EB, Findings of Fact, Conclusions of Law, and Order at 33 (Aug. 10, 1990).

While it is true that the Project will be built on the grounds of the Williamstown Elementary School, the far more significant issue is the groundwater quality beneath the school and surrounding properties. It is the contaminated groundwater, and not the Project, which poses a risk to the Williamstown Elementary School. The Project's operation will result in an effluent discharge which contains tetrachloroethylene at a level of less than or equal to $1\mu\text{g/l}$. The Project will help eliminate the contaminated groundwater which surrounds the school. Clearly, the Project will not unnecessarily or unreasonably endanger the public investment in the Williamstown Elementary School. Rather, the Board concludes that the Project will serve to protect the public's investment in the school since the Project will improve the groundwater quality beneath the school.

For the same reasons, the Board concludes that the Project will not materially jeopardize or interfere with the function, efficiency, or safety of, or the public's use or enjoyment of or access to the Williamstown Elementary School. The Project will result in the removal of the existing pump station enclosure and power poles that are located in the play areas on the grounds of the Williamstown Elementary School.

More importantly, however, while children occasionally play in or around both Rouleau Brook and the Affected Reach, Unifirst has represented, and the Board has found, that there will be no risk to children from tetrachloroethylene in the discharge effluent. First, once the Project goes into operation, the discharged effluent will contain levels of tetrachloroethylene of less than or equal to $1\mu\text{g/l}$. Second, the discharged effluent, which is essentially clean water, will dilute any tetrachloroethylene that may be present in the stream's surface water. Therefore, based on Unifirst's representations, the Board has found that there will be no risk to humans or the environment.

Accordingly, based on the findings of fact, the Board concludes that the Project complies with Criterion 9(K). Nevertheless, the Board's affirmative finding under Criterion 9(K) fundamentally relies on Unifirst's representations that there will be no risk to children from tetrachloroethylene in the discharge effluent since the discharged effluent will contain levels of tetrachloroethylene of less than or equal to $1\mu\text{g/l}$. Therefore, the Board will require by permit condition that the Project's operation achieve this level of performance.

G. Criterion 10

Under Criterion 10, the Board must determine whether the Project is in conformance with the 1993 Williamstown Town Plan.

The Board's town plan analysis under Criterion 10 is conducted in accordance with In re Molgano, 163 Vt. 25 (1994). In Molgano, the Supreme Court held that zoning by-laws are germane to interpreting ambiguous provisions of a town plan. Molgano, 163 Vt. at 29-31. Molgano does not stand for the proposition that zoning by-laws control or override the specific policies of a town plan in an Act 250 proceeding. Thus, the Board first considers whether the town plan provisions at issue are specific policies or ambiguous. Id. If such provisions are specific policies, they are applied to the proposed project without any reference to the zoning by-laws. Id. However, if such provisions are ambiguous, the Board next examines the relevant zoning by-laws for provisions which help the Board construe the town plan provisions at issue and thereby resolve their ambiguity. Id. This does not mean a general review of the project for its compliance with the zoning by-laws, but rather an examination to see if there are provisions in the zoning by-laws which address the same subject matter addressed by the town plan provisions at issue. Id.

In order for a town plan provision to be deemed a specific policy, the applicable provision must: (a) pertain to the area or district in which the project is located; (b) intend to guide or proscribe conduct or land use within the area or district in which the project is located; and (c) be sufficiently clear to guide the conduct of an average person, using common sense and understanding. Re: The Mirkwood Group and Barry Randall, #1R0780-EB, Findings of Fact, Conclusions of Law, and Order at 29 (Aug. 19, 1996).

The 1993 Williamstown Municipal Plan is applicable to the Project. In part, the plan provides that the "[d]isposal of hazardous wastes as identified and listed in the U.S. Resource Conservation and Recovery Act of 1976, Section 3001, shall be prohibited in Williamstown." This provision is a specific provision which pertains to the entire town of Williamstown; it proscribes certain conduct within the town, including where the Project is located; and it is sufficiently clear to guide Unifirst's conduct as there is nothing ambiguous about the word "prohibited." However, since the treated effluent will contain tetrachloroethylene only in concentrations less than or equal to $1\mu\text{g/l}$, it will not constitute hazardous waste as described in the plan. Therefore, the Project complies with this specific provision of the 1993 Williamstown Municipal Plan.

Nevertheless, the Board's affirmative finding under Criterion 10, as was the case with Criterion 9(K), fundamentally relies on Unifirst's representations that the discharged effluent will contain levels of tetrachloroethylene of less than or equal to $1\mu\text{g/l}$. Therefore, the Board will require by permit condition that the Project's operation achieve this level of performance.

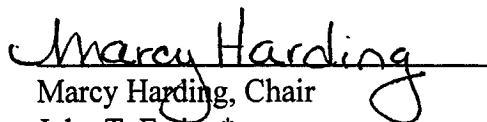
Accordingly, the Project is in conformance with the 1993 Williamstown Town Plan.

V. ORDER

1. The Project is hereby issued Amended Land Use Permit #5R0072-2-EB (Altered).
2. Jurisdiction is hereby returned to the District #5 Environmental Commission.

Dated at Montpelier, Vermont, this 20th day of July, 2000.

ENVIRONMENTAL BOARD



Marcy Harding, Chair

John T. Ewing*

Arthur Gibb*

Samuel Lloyd

William Martinez

Robert Opel

* Although members John T. Ewing and Arthur Gibb have retired from the Environmental Board, both members heard this appeal, and accordingly, both remain members of the Board for the purpose of deciding and concluding this appeal. *See 3 V.S.A. § 849.* Member Arthur Gibb did not participate in the July 19, 2000 deliberations, but he does concur in this decision.