

STATE OF VERMONT  
WATER RESOURCES BOARD

IN RE: \* APPEALS I AND II TO VERMONT  
SHERBURNB FIRE DISTRICT \* WATER RESOURCES BOARD  
NO. 1 \*

ORDER CONCERNING FIRE DISTRICT MOTION TO STRIKE

In its letter of **June 18, 1982**, the Sherburne Fire District No. 1 moved to **strike Part IV**, Section C of the Department of **Water Resources'** post-hearing memorandum of law, and to strike any citation of, or reference to, a decision of the United States District Court **for the** District of Vermont, dated April 1, 1981, in the case of Sherburne Fire District No. 1 vs. Brendon Whittaker, et al, file number 80-309.

The **stated grounds** for the motion to strike were that the Department improperly was attempting to use **some aspects** of the decision by **the United States District Court for** collateral estoppel purposes in this appeal.

In a **June 22, 1982** letter to William A. Bartlett, **Executive Secretary of the** Water Resources Board, counsel for the Department denies that Sherburne Fire District No. 1 vs. Whittaker, et al was cited for any collateral **estoppel** or **res judicata** purpose.

With this clarification by counsel for the Department, -it appears that there are no **further grounds** for the **Fire District's motion** to strike, and that motion is hereby DENIED.

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August 11, 1982

Date

Duncan Brown

Duncan Brown, Chairman

August 11, 1982

Date

Deborah Sisco

Deborah Sisco, Member of the  
Water Resources Board

August 11, 1982

Date

Roderic Maynes

Roderic Maynes, Member of the  
Water Resources Board

STATE OF VERMONT  
WATER RESOURCES BOARD

IN RE: \*  
SHERBURNE FIRE DISTRICT \* OPINION OF WATER  
NO. 1 \* RESOURCES BOARD

In this appeal the Sherburne Fire District No. 1 ("Fire District") seeks to shorten the time it must wait before receiving Federal and State grants-in-aid to construct a sewage treatment plant. It has appealed the decision of the Department of Water Resources and Environmental Engineering, ("the Department") not to award it certain priority points under Categories III(A) and III(B) of the **Municipal** Water Pollution Control Project Priority System ("Project Priority System") which determines the order in which **Vermont municipalities will** receive these grants-in-aid. The decision of the Department is affirmed, as explained below.

I. -HISTORY AND BACKGROUND OF THE DEPARTMENT'S DECISION

The Federal Water **Pollution** Control Act Amendments of 1972, Public Law 92-500, establish a system of construction grants-in-aid for municipal sewage treatment plants. The United **States Environ-**  
**mental Protection** Agency is authorized to **make** agreements with various states for **administering** these grants. Pursuant to 40 CFR \$35.915 and 10 V.S.A. Chapter 55, Subchapter 3, the Department Of **Water Resources** and Environmental Engineering of **the Vermont** Agency of Environmental Conservation has responsibility for administering the construction funds program.

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The Department's responsibility for the construction grant program is part of a larger state obligation to develop a **long-range plan** for eliminating water pollution. This plan is known as the **"Continuing Planning Process" ("CPP")**. 10 V.S.A. §1258; 40 CFR §35.912. The first version of the CPP was adopted by the Department in 1973; the second version was completed in 1978.

Act 90 of the 1981 Vermont Legislature directed the Department to review the existing CPP, with **particular emphasis** on the system by which construction grants were awarded. The Department's effort to comply with Act 90 produced the **"State of Vermont Continuing Water Quality Management Planning Process -- July, 1981."** The Department prepared this document according to various public participation and promulgation requirements of 40 CFR Part 25, and Sections 303 and 208 of the Clean Water Act, PL 95-217. The Department also took steps to adopt this document as a rule pursuant to the Vermont Administrative Procedures Act, 3 V.S.A. Chapter 25. 10 V.S.A. §1258.

The CPP has eight separate sections, dealing with different aspects of Vermont's strategy for water pollution control. The final section notes **the existence** of the State Project Priority System "which is used to rank various municipal pollution control projects for grant eligibility." CPP at 6. This section notes that the mechanics of the Project Priority System are described in Attachment D to the CPP, and that any changes in the Project Priority System will be **treated as** amendments to the CPP and promulgated as rules according to State and Federal procedure. Id.

In **addition** to Attachment D (the **Project Priority System**), the CPP includes three other attachments. Attachment A is an executive order of Governor Richard Snelling which satisfies various obligations placed upon the State by Section 208 of Public Law **95-217**. It is apparently included to show the State's manner of complying with various Federal requirements related to **the** Continuing Planning Process.

Attachment B is the Vermont Water **Quality** Standards, which are rules of the Water Resources Board, adopted March 7, 1978. These are included' as one of the elements of the State's Water *Quality* Management Plan, which must be described in the CPP.

The third attachment is entitled "Vermont List of **Water** Quality and **Effluent** Limitations Segments -- August, 1981." **This** list apparently complies with PL 92-500 §303(b) (2), which requires:

"(2) Each state shall submit to the Administrator from time to time. . .for his approval the waters identified **and** the loads established under. .. this subsection. The Administrator shall either approve or disapprove **such identification and** load not later than thirty days after the date of submission. If **the** Administrator approves such identification and load, such state shall incorporate them into its current plan **under** subsection (e) of this section. .."

This statute also requires that the State submit revisions of the water segment **designation** list to the EPB for its approval.

Neither the August, 1981 List of Water Quality and Effluent Limitations Segments (Attachment **C**), nor the **Project** Priority System (Attachment **D**) nor the CPP itself suggests that the segment list in Attachment C has any significance in the interpretation and application of the **Project Priority** System.

Late in the summer of 1981 the Secretary of the Agency of Environmental Conservation began the formal process of adopting the CPP as a rule. See 3 V.S.A. §§836-845. The proposed rule was filed with the Secretary of State's office on August 7, 1981. Following publication of the rule in various newspapers, a public hearing on the rule was held September 25, 1981. On October 29, 1981, the Secretary of the Agency of Environmental Conservation filed the final proposed rule. On November 25, 1981, the Secretary of the Agency of Environmental Conservation formally adopted the CPP as a rule. It took effect on December 10, 1981. 3 V.S.A. §845(d).

As the CPP moved through the formal hearing process toward adoption, the Fire District learned that the Department did not plan to award it certain points under Category III(A) of the Project Priority System.

The Fire District's manager, David Lewis, wrote to Secretary Whittaker of the Agency of Environmental Conservation on November 12, 1981, requesting an explanation of the proposed decision not to award III(A) points. In response the Department of Water Resources did a more detailed review of pollutants in the relevant segment of the Ottauquechee River (known as segment 10-1) than they had undertaken earlier in the 1981 CPP adoption process. This review confirmed the Department's conclusion that, the Fire District's proposed plant would not qualify for Category III(A) points because the segment of the Ottauquechee below the proposed plant was not a "water quality limited segment," for purposes

of Category III(A). This conclusion and part of the Department's supporting analysis **were sent** to the Fire District **in a** December 10, 1981 letter from Secretary Whittaker.

Following the Secretary's December 10 letter, the manager **of the Fire District** wrote **to the** Commissioner of the Department of Water Resources and Environmental Engineering; requesting that the proposed Fire District plant also receive points under Category III(B) **of the** Project Priority System.

On December 18, 1981 **the Fire District** appealed to the Water Resources Board, challenging the Secretary's failure to award **Category III(A)** or III(B) points to the Fire District, and challenging Secretary Whittaker's conclusion, announced in the December 10 letter, that the segment of the Ottauquechee below the **proposed plant** was not "a water quality limited segment."

Title 40 CFR §35.915(e) requires that the final priority list produced by applying the Priority Point System to eligible municipal projects must be reviewed by the EPA Regional Administrator before any funds may be disbursed. On January 19, 1982 **Secretary** Whittaker forwarded the final priority list to the EPA regional Administrator for review and **approval**.

On February 3, 1982 the Fire District again appealed the Department's failure to award it **Category III(A)** or III(B) Points.

## II. JURISDICTION

The following challenges **to the** Board's jurisdiction to hear the Fire District's December 19 and February 3 **appeals** have been raised by motions to dismiss:

1. Title 10 V.S.A. §1629 requires appeals to the Board within thirty days of an "act or **decision**" of the Department. The real decision appealed from is the Department's designation of segment 10-1 as EL-1, rather than WQ-1, a designation which occurred more than thirty **days** before the **first Fire** District appeal was filed;

2. The Department's decision to designate segment **10-1** EL-1 instead of **WQ-1** is not the sort of agency action decision which may be reviewed by this Board or a court;

3. If the Department's designation is reviewable, the statutory authority for **appeal** is 10 V.S.A. §1269, not §1629, under which the Fire District has brought this appeal;

4. This appeal is, in substance, a challenge to an administrative rule (the **CPP**), which can only be brought by a declaratory judgment in the **Washington Superior** Court, pursuant to 3 V.S.A. §807.

The **primary** issue raised by these motions to dismiss -- and by the **appeals** generally -- is 'the relationship between **the river** segment designation list (Attachment C to **the CPP**) and Category III of the **Project Priority** System (Attachment D to the **CPP**). Under Categories **III(A)** and **III(B)** of the Priority, System, proposed sewage treatment plants receive points **if they** eliminate substandard discharges to river segments which meet certain criteria. Category **III(A)** criteria require that the river segment be:

1. "Designated as a water quality **limited** segment pursuant to Section 303(d) (1)(A) of the **Clean Water Act**;"

2. "Where- such designation is based upon the sensitivity of the, receiving water to dissolved oxygen consuming pollutants."

The relevant Category III(B) criteria require that the river be:

1. **"A water** quality limited segment as defined by Section 303(d) **(1) (A)** of the Clean Water Act ; "
- 2 . "Where current discharges to those waters are determined by the Department to cause present violations of **dissolved oxygen** water quality standards at **7Q10** flow."

The Department **presented evidence** and argument to show that when the Project Priority System was drafted, the term "water quality limited segment" in both categories was intended to refer to **stream** segments designated WQ-1 in the segment list in **Attachment C** of the CPP. As a result of this interpretation, the **Department** argues that the Fire District is really appealing the designation in the segmentlist, not the final decision on Category III(A) and III(B) points.

The current version of the segment list is Attachment C to the CPP. The CPP as a whole was filed with the Secretary of State as an adopted rule on November 25, 1981 and took effect December 10, 1981. If these were the dates on which the "act or decision" of designating segment **10-1** occurred, the Fire District's December **18** appeal would be on time. 10 V.S.A. §1629. The Department argues, however, that its final act in adopting this list occurred when the CPP was filed as a "final proposed rule" with the Secretary of State on **Ocoober** 27, 1981. 3 V.S.A. §841.

This argument is unconvincing. If the **Department uses** the stages of the Administrative Procedures Act rule adoption process as its benchmarks for when it has taken final action, then the November 25, 1981 filing of the adopted rule was the last act or, decision by the Department before the CPP took effect on December 10, 1981. Anytime before November 25 the Department could have decided not to adopt the rule at all or to revise it before **adoption**. 3 V.S.A. §843.

In fact, through November and early December of 1981, the Fire District was asking for just this **sort** of revision. If the Fire District's arguments had convinced the Department **anytime before the** November 25 adoption of the CPP; the proposed rule could have been withdrawn and reviewed. **Until** formal adoption, the Secretary and Department **were not** committed to any final act or decision which would trigger the thirty-day appeal period of 10 V.S.A. §16'29.

The second and third motions for dismissal also rely on the **argument** that the real appealable act in this case was not the denial of Category III(A) and III(B), points, but was instead the Department's failure to designate segment 10-1 a WQ-1 segment.. The second **motion to** dismiss claims that this designation is the type of legislative, executive, or discretionary act which is left exclusively to the **Department**, and which cannot be reviewed by an appellate board or court. The third motion to dismiss points out that stream segment designations are done by the **Department pursuant to Chapter 47, Section 1258** of Title 10, not the construction grants-in-aid powers of the Department in Title 10,

Chapter 55, Subchapter 3. Since the Fire District based its appeal on the Board's authority to review the Department's decisions in grants-in-aid cases, the Board has no authority to review a departmental decision which was made in a different program under different statutory authority.

The Board rejects both arguments because it believes that this case is properly brought as a construction grants-in-aid appeal pursuant to 10 V.S.A. §1629. The arguments ignore the winding trail of policy choices, scientific assumptions, and legislative interpretation which must be followed to get from the language of Categories III(A) and III(B) to the Department's conclusion that these categories only apply to WQ-1 stream segments.

Nothing in the CPP itself or in the segment list or Priority Point System which are Attachments C and D to the CPP define the relationship between these two attachments. The CPP states that the Agency of Environmental Conservation has the duty, under Section 208 of PL 92-500, to "prepare a list of water segment designations." CPP §2(7) at Page 2. It also states that this obligation has been carried out by creating a State Water Quality Management Plan pursuant to 40 CFR Part 35, Subpart G. Id. One element of this plan is described as "the comprehensive designation and status of all waters as effluent or water quality limited segments (Attachment C)." CPP Section 4(4). The CPP also mentions that the State Water Pollution Control Strategy which must be submitted to the EPA for review and approval annually will include "a ranking of water quality and effluent limited segments as to seriousness of existing and potential water pollution problems."

CPP **Section 6**. The CPP and the segment list say nothing about how that list **may be** used in interpreting and applying Category III of the **Project** Priority System.

**Nor** does Category III itself give special significance to the segment list. That category appears to create a new and unique set of **criteria** for classifying stream segments and does not incorporate or refer to the **segment list**.

If one relied on the language of the CPP and its attachments **alone**, no amount of statutory construction could lead to the Department's conclusion that Category, III only **refers to** WQ-1 stream **segments**. That interpretation of Category III was not definitively made until the Department **published its** final Fiscal Year 1982 **Pollution Control** Project Priority System List in January, 1982 and forwarded it to the EPA Regional Administrator for review and approval. 40 CFR §35.915(e). Until that action was **taken**, the Department might **have revised its** interpretation of **the** criteria set **out in** Category III. **Because** the segment list had no definitive relationship to **the** Priority Point System until the final points awards **in January** of 1982, it is not accurate to say that the Fire District **is appealing** its segment designation. Rather, it is appealing the Department's final interpretation of the meaning of Category III and the application of that interpretation to the circumstances of the Fire District's proposed treatment plant.

Certainly the Fire, District knew before January of 1982 that, it was not slated to receive Category III points. Its December 18; 1981 appeal challenged a **draft of** the Fiscal Year 1982 State Project Priority List which did not award Category III points, and

also **challenged** the conclusion in Secretary **Whittaker's** December 10, 1981 letter that segment **10-1** "is not a water quality limited segment for dissolved oxygen" for purposes of awarding Category III points. This does not, however, mean that the Department's eventual interpretation of Category III was clear at that point or had been finally **made** for purposes of appeal. The Department claims **that** the relationship between the segment list and the equivalent of Category III in an earlier **CPP draft** should have been clear to Fire District Manager David Lewis and Consulting Engineer Jack Cochran at a September 25, 1981 hearing on the proposed **Priority Points System**. However, the record also shows that, at the time of that hearing, the Department had "mistakenly" told the Fire District that it would receive points under **the** earlier version of what eventually became Category **III(A)**.

David Lewis' **November 12** letter reflects the **Fire District's** unawareness that the **Department** saw WQ-1 designation as a **prerequisite** to receiving Category III points. Secretary Whittaker's December 10 **reply**, which was the Department's only written explanation of its **decision**, does not mention that only those water quality limited segments designated "**WQ-1**" would receive Category III points.

The Department's unexpressed interpretation of Category III was not translated into a final decision on priority points awards until mid-January of 1982. It was at that point, and **not before**, that the **agency** **definitively** interpreted and applied Category III. This application and the final denial of Category III points are the "act or decision" which the Fire District has appealed to this

Board by authority of 10 V.S.A. §1629.

This analysis disposes of the second and third motions to dismiss. The second motion claims that the river segment designations on a segment list are agency action which cannot be reviewed by this Board or a Court. Since the Board concludes that designations on the segment list itself are not being appealed, this argument need not be considered further.

The third motion to dismiss claims that the appeal is really a challenge to the Secretary's decision to make a river segment designation pursuant to 10 V.S.A. §1258, not a decision made in administering the grants-in-aid program. This motion has the same defect as the second. The Department's obligation to designate stream segments is part of its general duty to create an area-wide management plan pursuant to Section 208 of PL 95-217. CPP §§2(7), 4(4). The criteria for the two types of "water quality limited segments" entitled to points in Category III were developed exclusively for use in administering the grants-in-aid program, and do not use the same criteria for stream designation as the segment list. Deciding whether a stream segment is eligible for Category III points involves different standards and different purposes than deciding whether or not that segment should be labeled WQ-1 on the segment list.

The final challenge to the Board's jurisdiction claims that this appeal should more properly have been brought as a challenge to the "validity or applicability of a rule" pursuant to 3 V.S.A. §807. Such challenges must be brought as declaratory judgment actions in the Washington Superior Court.

This case involves a challenge to a **specific** "act or decision" of the Department of Water Resources and Environmental Engineering. It is true **that** in this appeal, as in many, one of the issues is whether certain legislation (Categories III(A) and III(B) **of the Project Priority System**) **was** interpreted and applied properly. This does not make the case appropriate for a Section **807** declaratory judgment. That form of action is most appropriate where the text, or threatened application, of a rule raises questions which must be resolved before a party can plan future conduct. In this case there is no longer any question, about the Department's interpretation **of the** rule, and a final decision applying the rule has been made. Under these circumstances 10 V.S.A. §1629 is the appropriate appeal route.

### III. SCOPE AND STANDARD OF REVIEW

Title 10, Chapter 55 does not specify the Board's role in **reviewing the Department's decisions** in grants-in-aid cases. In giving the Board authority to "affirm, reverse, or modify" **the** decision, 10 V.S.A. §1629 does not say whether the review is de novo, or, if not, what standard **of review** should be used.

As **in many** states, Vermont has no uniform procedure for review of agency decisions. The Fire District argues that **review here** should be de novo; the other parties argue for a more limited scope of review, as would be appropriate in an **appellate court**.

De novo review implies **that the** appellate body decides a question as if no decision has been **made earlier**. The reviewing board, or court can substitute its, judgment for the agency is in

deciding questions of basic fact, application of law to fact, and interpretation of law. See American Jurisprudence (2 Ed.), Administrative Law §§539-552. In its broadest sense, de novo review gives the appellate body all of the agency's original power to make the decision; that power is only limited by statutory and constitutional restrictions on **delegating executive** and legislative powers to the appellate body. American Jurisprudence (2 Ed.), Administrative Law §701. Obviously the broad scope of de novo review is most appropriate **when the** appellate **body** has general legislative or executive authority to control the policies and **decisions of** the original decision maker: American Jurisprudence (2 Ed.) Administrative Law §546. The Vermont Environmental Board, which hears de novo appeals from the Act 250 permit decisions of the **District Commissions**, is a good example; the Board is the highest executive and rule-making authority in the administration of Act 250 (10 V.S.A. Chapter 151).

There are many **examples** in Vermont Administrative Law where de novo review is explicitly given to an appellate body. That authority is conspicuously absent from 10 V.S.A. §1629. Because de novo review power is not explicitly given to the Board, and because the administrative relationship **of the** Board and the Department in grants-in-aid cases makes this form of review inappropriate for certain issues, the Board concludes that it does not generally have de novo review authority in §1629 cases.

The potential variety and complexity of §1629 appeals is overwhelming. Some may turn principally on basic disputes of **fact**;

others, as here, will turn principally on the interpretation of Department rules. Because §1629 **appeals** may come **in such** different forms, and because they have come to the Board infrequently in the past, it is not appropriate to make a general statement about the standard of review to be applied. **This** standard is likely to vary, depending on the nature of the case. Choosing and applying the proper **standard** in this appeal requires an examination of the **decisions** the Board is being asked to review.

#### IV.. THE DENIAL OF CATEGORY III(A) POINTS

The Fire District's appeal in Category III(A) ultimately **turns** on the proper interpretation of that rule. Category III(A) reads:

A project which eliminates a substandard discharge to a segment of water designated as a water quality limited segment pursuant to **Section 303(d) (1) (A)** of the Clean Water Act, and where **such designation** is based upon the sensitivity of the receiving water **to dissolved** oxygen-consuming pollutants, shall receive three priority points.

The Department's and the Fire District's interpretations of III(A) differ in two **crucial ways**. First, the Fire District argues that the Water Resources Board's 1977 reclassification order for part of **segment 10-1** leaves the river, for at least part of the year, Class B waters and an Upland Stream. **Both** of these classifications prohibit the discharge of any domestic wastes regardless of the degree of treatment. (Vermont **Water** Quality Standards, Rules 10-12.) Since Section 303(a)(1) (A) essentially states that a river segment is "water quality. limited" if **secondary** treatment will not protect its classification, all **Class B** waters and Upland

Streams are "water quality limited" where domestic Wastes **are** concerned because even treated discharges of domestic wastes are prohibited by these classifications.

Second, the Fire District argues that segment 10-1 satisfies **III(A)'s final criterion** -- that the designation is based upon the sensitivity of the receiving waters to dissolved oxygen-consuming pollutants -- because the Water Resources' Board's 1977 reclassification order itself establishes this "sensitivity," specifying the maximum amount of dissolved oxygen-consuming pollutants which the **Fire District** may discharge.

The Department's response to these arguments is simply that they are based on a misinterpretation of Category III(A) criteria; according to the Department, Category III is only designed to apply to water segments designated WQ-1 on the current segment list -- that is, **segments which would** violate minimum dissolved oxygen standards if proposed discharges received only secondary treatment.

The Department **recognizes** the existence of a second type of water quality limited segment but does not consider it to be eligible for Category III points. This **type includes** Class A and B waters and Upland Streams. See Vermont Water Quality Standards, Rules 10-12. The Department reads these so-called WQ-2 segments out of Category III for two reasons. First, such streams cannot receive discharges of domestic wastes, no matter how well treated. By the Department's interpretation, only river segments which are permitted by the Vermont Water Quality Standards to receive treated domestic wastes are **eligible for** Category III points.

Second, the Department claims that WQ-2 segments are clearly excluded by the wording of Category III(A) which allows points **only to** water quality limited segments "where such designation is based upon the sensitivity of the receiving water to dissolved 'oxygen-consuming pollutants." Unfortunately, this phrase is far too vague to accomplish **the purpose** the Department claims for it.

If **Category III(A)** were read in isolation, without the Department's **interpretation** and explanation of purposes, the Fire District's argument that it was entitled to Category III(A) points would **be** persuasive. Nonetheless, the Department's interpretation must be upheld.

In reviewing this appeal issue,-- the proper interpretation of Category III(A) -- it is irrelevant whether the standard of review is de novo or more limited. Whatever general standard of review **applies on** appeal, **when an** agency's interpretation of its own rules is involved, **that interpretation** can seldom be overturned. This standard is variously expressed as **upholding the** agency reading **unless** it is "demonstrably irrational," K.C. Davis, Administrative Law Treatise (2 ed.) §29.00-6 at 556-558 (1982 Supp.), or giving it "great weight." Id. §29.00-7. This deference to an agency's interpretation of its own regulations is endorsed by the Vermont Supreme Court. In re Brooks, 130 Vt. 83, 85-86 (1971).

The Water Resources Board will not reject the Department's interpretation of Category III(A) unless it produces irrational results in applying the Project Priority System, or unless **it can** be shown that this interpretation has been inconsistently applied.

There is no evidence that the interpretation has been inconsistently applied, and Mr. **Brierley's** almost theological analysis of the purposes and mechanics of the Project Priority System shows that Category III of **the** system **would** not achieve its purposes if the **Fire District's** interpretation were accepted.

In the Department's view, Category III **points** should only be awarded to stream segments which do not meet the applicable water quality standards, or which would not meet these standards' if a proposed municipal plant provided only secondary treatment. The Fire District's proposal -- also to award Category III points to stream segments which are protected by state policy against discharge of domestic **wastes** -- would blur the intended focus of Category III.

The Fire District's final argument for receiving Category III(A) points is that the water quality of segment 10-1 is **marginal, and that** secondary treatment of **the** Fire District's proposed discharges would not protect the **river's** minimum dissolved oxygen requirements. Therefore, segment 10-1 should be designated a water quality limited segment on the **basis** of its sensitivity to dissolved oxygen consuming pollutants.

The bulk of **the evidence** in this appeal addressed the question whether secondary treatment of the Fire District's proposed discharges would prevent violations of the minimum dissolved oxygen standards' in segment 10-1. On the surface, the issue seems **to** be one of applying 'the most accurate scientific method and deciding what effect a given **level** of pollutants will have on the river.

However, the Board has concluded that the issue here, as before, is how to choose between competing interpretations of the meaning of Category III(A).

The **Department's** final interpretation of Category III(A) -- that a proposed project will receive points if, after secondary treatment, the proposed discharge would cause a violation of the stream's **oxygen** requirements -- must be consistently applied to all eligible **projects**. One of this category's major defects is that it does not specify or refer to the scientific method for deciding what effect a proposed plant will have. No doubt this appeal would have been shortened, **or eliminated**, if the rule set out the Department's approach.

In the end the Fire **District** and the Department both decided that a particular mathematical model was the appropriate method for computing the proposed plant's effect. The Fire **District** and the Department could not agree on what values **to** assign to three variables in the model. Two of these are constituents of the treatment plant effluent -- the concentration of a group of oxygen-consuming **pollutants** known as Total Kjeldahl Nitrogen ("**TKN**"), and the concentration of Dissolved Oxygen ("**DO**"). The third variable to which the parties assigned different values was river flow. All agreed that a statistical concept known as **7Q10** flow should be used: but there was no agreement on how to derive a particular value for this low flow **concept**. '(7410 flow is defined as the lowest mean stream flow for seven consecutive days which has a 10% chance of **occurring in** any given year. This statistical low

flow **concept is** commonly used in **water** pollution control planning 'as the worst **low flow** situation that a treatment plant must be designed to meet.)

Where, as for segment **10-1**, no long-term empirical flow data has been gathered, the **7Q10** figure is derived from data gathered elsewhere in the drainage basin of the stream in question, or from other basins with similar characteristics, There is no universally **accepted scientific** method for deciding which drainage basins will **most** closely approximate the flows one could expect to find in segment 10-1. **The** Fire District, the Department, and the Town of Bennington each presented different approaches to making stream flow estimates. The Department and the Fire District could find no direct support in the scientific literature **for their** methods of estimating **long-term** stream flow by comparison with other drainage basins. The **Town of Bennington's** expert relied principally on his own previous work, which had been done mostly in **the** State of New **Hampshire and could not be applied with confidence** to segment 10-1 and the other Vermont drainage basins to which it was compared.

There was a similar disparity in the method the parties used for estimating TKN **and DO** concentrations in the effluent of the proposed treatment plant. The Fire District assumed a plant running precisely **at the pollution limits** permitted by state and **federal** law (i.e., secondary treatment, as defined in 40 CFR §133.102), **and** proposed values for these variables which were consistent with this theoretical operation. The Department derived its values from the actual performance of treatment plants operating within the EPA.

secondary treatment standards. These **actual** operation figures were derived principally from studies of Vermont plants.

**Whatever** feeling the Board may have about the relative merits of these methods, it believes **that the** Department's choice of method in deriving these three variables **must be** reviewed as an interpretation of **its own rule**, Category III(A). For the Project Priority System to yield coherent results, a **consistent** scientific method must be used for **modeling the** effects of proposed treatment plants on Vermont streams. This means that the same (or, at least a consistent) mathematical model must **be used**, from case to case, and **the same**, or consistent, methods must be used to derive values for the three variables for which the Project Priority System does not point to a specific value -- stream **flow and** treatment plant effluent TKN and DO. Using different methods case by case would be the equivalent of redefining Category III(A)'s **crucial** concepts -- "water quality limited segment" and "**sensitivity** to dissolved oxygen consuming pollutants."

The **Board** is required to uphold the Department's **method** for deriving **values for each Category III(A)** variable unless the Fire District can show the Department's method has been inconsistently applied or produces arbitrary results.

The **Fire District has** produced no evidence that the Department's methods **have** been inconsistently applied in awarding points under the Priority System. Nor has the Fire District shown that the Department's derivation of values for these three variables, either **in** its rudimentary stages in the **fall of** 1981, or in its current,

more elaborate form, produces arbitrary results. While the Board may question the Department's choice of methods, particularly in setting treatment plant effluent TKN and DO levels, it does not feel that they would produce inconsistent or arbitrary results.

For the reasons given above, the Board affirms the **Department's** denial of Category III(A) points to the **Fire District**.

V. THE DENIAL OF CATEGORY III(B) POINTS

The relevant section of Category III(B) reads:

- (B) "A project **which will eliminate a substandard** discharge to a waterquality limited segment as defined by Section 303(d) (1) (A) of the Clean Water Act, and where current discharges **to those** waters are determined by the Department to cause present violations of dissolved oxygen water quality standards at 7Q10 flow... shall receive an additional four priority points.

The Fire **District** presented uncontradicted evidence that the proposed Fire District plant would eliminate some existing sources of pollution of **Mendon Brook** in the **Pico** area, and that **Mendon Brook** is a Class A stream under the Vermont Water Quality Standards;

Class A standards prohibit any discharge of domestic wastes, **regardless** of the degree of treatment. Vermont Water Quality **Standards**, Rules 5, 6.

Focusing on the **elements** of Category III(B), the Fire District argues that the existing pollution is, by definition, "substandard," because domestic waste discharges are prohibited from Class A waters. Further, **Mendon Brook** is a "water quality limited segment as defined by Section 303(d) (1) (A)" because even secondary treatment of these domestic discharges would **not meet** the absolute ban of the applicable Class A water quality standard. Third, the existing pollution by

domestic wastes **causes** present violations of dissolved oxygen water quality standards at 7Q10 flow because the minimum dissolved oxygen standard for Class A waters is "as naturally occurs," a definition which presumably **excludes** human sewage. Vermont Water Quality Standards Rule 6.

The Department's response is **simply** that it interprets **the wording** of **III(B)** **differently**. The Department says that III(B) was designed, if not clearly written, to award points only if 'the water quality limited segment in question would be receiving the discharge from the proposed treatment plant.

This interpretation is consistent with the Department's intent to award Category III points only to projects which are located on stream segments with demonstrably poor water quality. The Department points **out that** if Category III(B) points were awarded to every project which eliminated "scattered" discharges to Class A or Class B streams, Category III would no **longer give** added priority to main stem rivers whose water quality standards would **be** violated if proposed discharges only received secondary treatment. The Fire District's interpretation of that section would defeat the rule's purpose and produce **incoherent** results.

Unless the Fire District can show the Department's interpretation of Category **III(B)** has not been consistently applied, or produces **arbitrary results**, the Department's view must be upheld. **There** is no evidence of inconsistent **application**, and it is clear that, of the two proposed interpretations, the Department's is the more consistent with the purposes of the Project Priority System and with the other elements of that rule.

Therefore, the Department's denial of Category III(B) points to the Fire Distriet **must** be upheld.

STATE OF VERMONT  
WATER RESOURCES BOARD

IN RE:  
SHERBURNE FIRE DISTRICT  
NO. 1

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APPEALS I AND II TO VERMONT  
WATER RESOURCES BOARD

/FINDINGS OF FACT AND CONCLUSIONS OF LAW  
OF THE VERMONT WATER RESOURCES BOARD

1. Public Law 92-500, the Federal Water Pollution Control Act Amendments of 1972, establishes a program of Federal grants-in-aid for constructing municipal sewage treatment plants.

2. Pursuant to 40 CFR §35.915 and 10 V.S.A. Chapter 55, Subchapter 3 (together with state regulations authorized by Subchapter 3), the United States Environmental Protection Agency and the Department of Water Resources and Environmental Engineering ("the Department") of the Vermont Agency of Environmental Conservation have arranged to coordinate Federal and Vermont municipal sewage treatment plant grants-in-aid, and to have the grant program administered by the Department. 'Seventy-five percent of the treatment plant construction funds are contributed by the Federal government;' fifteen percent are contributed by the State; and ten percent are contributed by the municipality itself. 40 CFR Part 35.

3. The Department's administration of the grants-in-aid program is structured by regulations which are promulgated pursuant to 10 V.S.A. Chapter 55, Subchapter 3. These regulations are part

Of a **larger** set of regulations which the **Vermont** Agency of Environmental Conservation has adopted to describe and administer its **long-range** water pollution control strategy. This **plan** is known as the "Continuing Planning Process" ("**CPP**"). '10 V.S.A. §1258; 40 CFR §35.912. The Vermont Agency of Environmental Conservation has adopted versions **of the** CPP in 1973, 1978 and 1981.

4. Construction **grants** are awarded annually according to a priority rating system which is adopted as part of the CPP and known as the Project Priority System.

5. Act90 of the 1981 session of the Vermont Legislature directed the **Department** to revise the existing, 1978 version of **the Project Priority** System.

6. The Department's revision of the Project Priority System was part of a general overhaul of **the** CPP which was accomplished late in 1981 by promulgation of a rule of the **Agency** of Environmental Conservation, pursuant to 10 V.S.A. §1258, 3 V.S.A. Chapter 25, and 40 CFR Part 25.

7. Pursuant to 3.V.S.A. §§836-845, the revised CPP was adopted as a 'rule according to the following procedure:

- a. **August 7, 1981** -- filed with the Office of the Vermont Secretary of State;
- b. September 25, 1981 -- public hearing held;
- c. October.29, 1981 -- final proposed rule filed with the office of the Vermont Secretary of State;
- d. November 18, 1981 -- proposed rule **approved by** Legislative committee on administrative rule;
- e. November 25, 1981 -- CPP formally adopted as a rule of the Agency of **Environmental** Conservation;
- f. December 10, 1981 -- CPP formally takes affect;

- g. January 19, 1982 -- CPP forwarded to EPA Regional Administer for required review;
- h. February 1, 1982 -- formal approval by CPP by EPA Regional Administrator received.

8. **The** current Project **Priority** System includes six separate categories under which municipalities seeking construction grants may receive points. The municipalities with the highest point totals receive construction grants earliest.

9. In 1978 the **Sherburne Fire** District No. 1 was founded. **The Fire** District includes most of the commercially developed sections of the **Killington/Pico** area. The principal reason for the founding of the Fire District was to continue local efforts to construct a new sewage treatment plant. A similar effort by the Town of Sherburne ended shortly before the Fire District was founded when **the voters** of the Town refused to approve a bond issue which was **necessary to** finance the proposed plant.

10. The Fire District's proposed treatment plant has a maximum design capacity of, 600,000 gallons per day. The plant design calls for discharge of **treated** effluent up to this level between November 1 and May 31. The discharge point will be the upstream end of a segment of the Ottauquechee which is designated "10-1" in **Attachment C** of the CPP. During the summer months of June 1 - October 31, **the plant will** treat a **maximum** of 200,000 gallons per day by land application. Off-stream treatment is required in the summer months by the Water **Resources** Board's June 22, 1977 reclassification **order** for a segment of the **Ottau-** quechee **beginning at** the proposed plant discharge point. This

order prohibits any discharges to the Ottauquechee during the summer months. The Fire District chose a summer **design limit** of **200,000** gallons per day because available off-stream disposal fields **have** limited capacity, **and because** the **Killington/Pico** area is less populated during the summer.

11. In addition to the treatment plant itself, the Fire District plan includes sewage collection lines for **areas** on both the east and west sides of the Killington pass. On the eastern side the collection system will eliminate pollution from inadequate septic systems to small Upland Streams which are tributaries of the Ottauquechee. On the western side similar pollution of Upland Streams, including **Mendon Brook**, will be eliminated. **Mendon Brook** feeds the City of **Rutland** reservoir, **and** is classified by the Water Resources **Board** as a Class A water.

12. During the CPP adoption process in the Fall of 1981 draft Fiscal Year 1982 lists of the number of points each town would receive under the new **Project Priority** System were published. On these lists the Fire District Project received only **ten points**, a ranking which would prevent **the Fire** District from receiving a **construction** grant until **1985** at the earliest.

The draft Fiscal Year 1982 Project Priority List did not award points to the Fire District under Category III(A) (**3** points) and Category III(B) (**4** points). Had the Fire District been awarded the seven points available under Category ,111, **it would** have tied with the towns of Williston, Essex, and Essex Junction for the highest point total of 'the Project Priority List. Tiebreaking provisions

in Category **VI** of the Project Priority System would have made the Fire District the first municipality eligible to receive Fiscal Year 1982 construction funds.

13. On November 12, 1981 the Fire District wrote to Agency of Environmental Conservation Secretary Brendon Whittaker, requesting a written explanation of the Department's proposed decision not to award Category III(A) points to the Fire District.

14. On December 10, 1981 Secretary Whittaker responded to the November 12, 1981 **letter**, reaffirming **the** Department's position on Category III(A), and enclosing the Department's rationale.

15. On or about December 14, 1981 the Fire District notified the Department that it also believed that it was entitled to Category III(B) **points**.

16. On December 18, 1981 the Fire District appealed the Department's proposed decision on Category III(A) **and** Category III (B) points for Fiscal Year 1982.

17. On February 4, **1982** the Fire District appealed the Department's final decision on Category III(A) and Category III (B) points for Fiscal Year 1982.

18. **The** Board concludes that the Fire District appeals of December 18 and February 4 are properly brought before the Water Resources Board pursuant to 10 V.S.A. 51629.

19. The Board concludes that **the "final** act or decision" of the Secretary to be reviewed is the final publication of the Fiscal Year 1982 **Priority** Point Computation List which was forwarded to the EPA Regional Administrator for his review **and** approval on or about January 18, 1982. Until this point the Secretary's decision on

points awards had not been finally made.

20. Category III of the Project Priority System reads:

"A. A project which eliminates a substandard discharge to a **segment of water** designated as a water **quality** limited segment pursuant to Section, 303(d) (1)(A) of the Clean Water Act, and where such designation is based upon the sensitivity of **the** receiving water to dissolved oxygen consuming pollutants, shall receive three priority points.

B. A project **which will eliminate a sub-standard** discharge to a water quality limited segment as defined by Section 303(d) (1)(A) of **the** Clean Water Act, and where current discharges to those waters are determined by the Department to cause present violations of **dissolved** oxygen water quality standards at 7Q10 flow, or where the Department has **determined** that phosphorous removal is required to preserve water quality, shall receive an additional four. **priority points.**"

The Ottauquechee River at the point of **proposed** discharge from the Fire District treatment plant is classified, as Class B waters between June 1 and October 31 of each year. From November 1 through May 31 a "seasonal mixing zone" extending for two miles below the Fire District's point of proposed discharge is classified Class C.

21. Rule 6(B) of the Vermont Water Quality Standards **provides:**

"The State's intrastate streams, rivers, creeks and brooks are designated as Water Management **Types I or II** with the exception of those waters or portions thereof lying west of **Vermont Route 22A south of Vergennes** and those streams lying within Grand Isle County which are designed as Water Management Type III streams."

22. Rule 6(A)(1) of the Vermont Water Quality Standards provides that the dissolved oxygen content of Water Management Type I waters:

"Shall be not less than 7 mg/l at and near spawning areas and not less than 6 mg/l in non-spawning areas. The normal seasonal, daily and diurnal variations above these dissolved oxygen limits shall be maintained."

Rule 6(a) (2) of the Vermont Water Quality Standards provides that the dissolved oxygen content of water management type II waters:

"Shall be not less than 6 mg/l and the normal seasonal, daily and diurnal variations above this dissolved oxygen limit shall be maintained."

23. The Department has concluded that under Rule 6(B) of the Vermont Water Quality Standards, segment 10-1 of the Ottauquechee River is properly designed as Water Management Type I. All parties apparently agree with this conclusion and no evidence or argument was presented on the management type issue.

24. The Department has concluded that under Rule 6(A) of the Vermont Water Quality Standards, the dissolved oxygen level for segment 10-1 of the Ottauquechee River must be maintained at not less than 7 mg/l in the summer and 10.8 mg/l in the winter. All parties apparently agree with this conclusion.

26. In light of the lack of evidence or dispute among the parties concerning the proper Management Type designation of segment 10-1 of the Ottauquechee, the Board concludes that the Vermont Water Quality Standards require a minimum dissolved oxygen level in segment 10-1 of the Ottauquechee River of 7 mg/l in summer and 10.8 mg/l in the winter.

27. In awarding points under the Project Priority System, the Department **has** adopted a very narrow interpretation of Categories **III(A)** and **III(B)**- . When no municipal treatment plant exists, as **in** the Fire District's case, the Department first assumes that a treatment plant **of the** proposed output is 'discharging into the **affected** stream, and then determines whether secondary treatment **of this effluent** will lead to violations of the minimum **dissolved** oxygen requirements of the river. If so, the project is awarded **three** points:

28. Category **III(A)** **incorporates** the definition of "secondary treatment" specified by Federal law. Project Priority System Category **III(A)**; 33 U.S.C. §1313(d)(1) (A); 33 U.S.C. §1311(b) (1) (B). The definition of "secondary treatment" for purposes of Federal law in Category **III(A)** is contained in 40 **CFR** 5133.102.

29. **The** Federal definition of "secondary treatment" does not specify levels for **two critical** treatment plant effluent constituents -- the concentration of dissolved oxygen ("DO") in the effluent and **the concentration** of a group of oxygen-consuming pollutants referred to as Total Kjeldahl Nitrogen ("**TKN**").

30. **In** determining, for purposes of Category **III(A)**, whether a secondary treatment plant with the design capacity proposed by the Fire District' **would violate** the dissolved oxygen standards for the Ottauguechee, a computer model is used to simulate the river's response to a new, hypothetical effluent load. The Department and the **Fire District** are agreed that a **particular computer** model is the appropriate one to use. They do not agree on the proper values to assign to three variables in the model. Two of these are the

treatment plant effluent constituents not specified by EPA "secondary treatment" standards -- treatment plant effluent TXN, and treatment plant effluent DO. The third variable for which the parties do **not agree** is the rate of stream **flow** to be inserted, in the model. There is no dispute between the Department **and the Fire District that** a statistical low-flow concept, known as 7410 flow, should be used. They disagree on the proper method for estimating what **7Q10** is **for** the Ottauquechee River in segment 10-1.

31. The Department, in setting values for the hypothetical treatment **plant** effluent concentrations of DO and TXN, took averages from data gathered at treatment plants which were operating in **compliance** with secondary treatment limits. Most of the plants used in deriving this average were located in Vermont.

32. The Fire District derived values for treatment plant effluent DO and TKN by extrapolating from the other limits specified in **Federal secondary** treatment regulations, and assuming that the proposed plant would operate exactly at **those limits**.

33. No long **term** flow studies have been done of segment 10-1 of the Ottauquechee. In order to estimate a **7Q10** flow figure for this river segment, one must extrapolate from data **gathered in** other drainage areas. There is no generally accepted method for choosing which drainage areas to compare, or for deriving estimates **for** the Ottauquechee from the data from these other areas.

34. The Department's final decision not to award Category III(A) points to the Fire District in January, 1982 relied in part upon a 7Q10 estimate which was admittedly based on the "intuitive judgment" of David Clough, Chief of the Water Quality Division of the Vermont Agency of Environmental Conservation.. Mr. Clough chose to derive his 7Q10 figure exclusively from flow measurements, done at Kent Brook, a point higher in the Ottauquechee basin. Mr. Clough estimated 7Q10 flows at 3.5~ cubic feet per second in segment 10-1 of the Ottauquechee.

35. In preparation for this appeal, the Department created what it described as a more systematic approach to estimating 7Q10 flows. This method compared various characteristics of the Ottauquechee drainage basin with those of other, gauged streams (e.g., topography, climate, elevation, and vegetation). This approach supported Mr. Clough's original conclusion that the Kent Brook data was the proper basis for estimating 7Q10 flows in segment 10-1 of the Ottauquechee. At the hearing on this appeal, the Department proposed a slightly lower 7Q10 figure than had originally been used (3.04 cubic feet per second, as opposed to 3.5 cubic feet per second). This change does not reflect a departure from its reliance on the Kent Brook data, but is the result of a more accurate measurement of the watershed area upstream of the point of the proposed Fire District treatment plant discharge.

36. The Fire District proposed an approach to deriving the 7Q10 flow for segment 10-1 of the Ottauquechee which weighted the

data from comparable drainage basins according to the number of years that data had been gathered, and according to estimates by the United States Geological Survey about the accuracy of the measuring devices gathering this data. The Fire District estimated that the 7Q10 flow in segment 10-1 of the Ottawaquechee would be 1.8 cubic feet per second.

37. The Board concludes that the Department's method of deriving TKN and DO concentrations for the proposed Fire District treatment plant effluent was not irrational, and that it was not arbitrarily applied in this case.

38. The Board concludes that the Department's estimate of 7Q10 flow for segment 10-1 of the Ottawaquechee, as revised to reflect a more accurate measurement of the drainage area, is not arbitrary. Without question, Mr. Clough's original reliance on "intuitive judgment" in choosing data from other drainage areas presents a serious risk of arbitrary application and inconsistent results. However, the Department's more systematic method for estimating 7Q10 flows, created in the process of preparing for this appeal, concluded that Mr. Clough's choice of a comparable drainage basin was appropriate. No evidence was presented to the Board to suggest that the Department's method has been applied inconsistently.

39. The Board concludes that the Department's methods for deriving TKN and DO concentrations for secondary treatment plant effluent, and its method for estimating 7Q10 flows, are essentially interpretations and elaborations of the criteria in a departmental regulation, Category III(A) of the Project Priority System. The

Board is required to show deference to such an interpretation, and it therefore concludes that the departmental interpretation specified above must be upheld.

40. When the Department's figures for 7Q10 and treatment plant effluent TKN and DO are used, the application of the computer model to segment 10- of the Ottauquechee indicates that effluent from a secondary treatment plant operating at the maximum design capacity of the proposed Fire District plant would not, after receiving secondary treatment, depress dissolved oxygen levels in segment 10-1 below the 7mg/l (summertime) and 10.8 mg/l (winter-time) minimum dissolved oxygen requirements.

41. The Board concludes that because secondary treatment of the proposed Fire District wastes will not lead to violation of minimum dissolved oxygen requirements in the Ottauquechee, that segment is not "a water quality limited segment" as defined in Section 303(d)(1) (A) of the clean Water Act, and the Department's denial of the Category III(A) points must be upheld.

42. As interpreted by the Department, Category III(B) grants four priority points to proposed treatment plants which will be discharging into "water quality limited" segments of rivers where the concentration of dissolved oxygen at 7Q10 flow is already below the minimum required by the Vermont Water-Quality Standards. This interpretation rules out an award of III(B) points to the Fire District for eliminating current pollution of Mendon Brook by failed septic systems, since the proposed plant only discharges into the Ottauquechee.

43. The Department has denied Category III(B) points to the proposed Fire District treatment plant because mathematical modeling indicates that there is no current violation of minimum dissolved oxygen standards in segment 10-1 of the Ottauquechee at 7Q10 flow,, and there would not be if a secondary treatment plant, operating at the maximum design capacity of the Fire District's proposed plant, were discharging effluent to the Cttauquechee.'

44. No evidence has been presented to the Board to suggest inconsistent application of the Department's interpretation of Category, III(B).

45. The Board concludes that the Department's interpretation of its own regulation (Category III(B)) is not arbitrary, and does not produce arbitrary results, and must be upheld. Therefore, the denial of Category III(B) points must also be upheld.

To the extent they are not incorporated in the foregoing, all Findings of Fact and Conclusions of Law proposed by the parties are hereby DENIED.

August 11, 1982  
Date

Duncan Brown  
Duncan Brown, Chairman of the  
Water Resources Board

August 11, 1982  
Date

Deborah Sisco  
Deborah Sisco, Member of the  
Water Resources Board

August 11, 1982  
Date

Roderic Maynes  
Roderic Maynes, Member of the  
Water Resources Board

STATE OF VERMONT  
WATER RESOURCES BOARD

IN RE: \*  
SHERBURNE FIRE DISTRICT \* APPEALS I AND II TO VERMONT  
NO. 1 \* WATER RESOURCES BOARD

DISCUSSION

Consideration of this **appeal has** required over 50 hours of direct testimony before the Board and has clearly involved a great amount of additional time and expense for preparation by all parties.

If the following had been done, the Board believes this proceeding **might have been** substantially less complex and might **been**:

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in the Priority System. The lack of specific definitions for

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such key terms **leaves their** meaning open to interpretation and makes it difficult for the affected municipalities to understand what the Department intends;

2. The intent of the CPP and the Priority System had been clearly stated. It is apparent that the Department intended a very **specific** interpretation of the CPP and the Priority System. However, the language of these documents does not make clear; or frequently even imply, the intended interpretation. Information which is crucial to an understanding of how priority points will be awarded **is** presented in ambiguous terms **or in** some cases is omitted **altogether, viz:**

- a. The language of the **CPP does** not even suggest the intended relationship between the designation of water **quality** limited waters in the Segment List and eligibility for points -under Category III of the Priority System,
- b. The Priority System does not indicate that eligibility for Category III(A) **points is intended** to be **limited** to water quality limited segments designated as WQ-1;
- c. The language **in Category** III provides no indication that in considering water quality impacts **for purposes** of awarding points under **this** category, the Department intends to evaluate only anticipated discharges from proposed municipal treatment facilities rather than the existing individual or scattered discharges to be abated.

3. Specific procedures were established for making various decisions which ultimately affect the cost, design and priority ranking of municipal wastewater treatment facilities.

In evaluating proposed municipal wastewater treatment facilities the Department of Water **Resources** must make a **number of** preliminary decisions regarding both the **nature of** the anticipated discharges and **the characteristics** of the receiving waters. These

decisions ultimately have a significant bearing on the cost of these facilities and their priority ranking. Accordingly, the affected municipalities, as well as others, need to understand the basis on which they are made.

Such decisions require the interpretation of applicable state or federal law as well as technical data regarding water quality and thus inherently involve the exercise of a significant degree of discretion by the Department. Municipalities and others cannot evaluate these decisions without first knowing what information and assumptions are being used.

On the basis of this proceeding, it appears that there is no clearly defined procedure identifying the manner and sequence in which the following decisions are made:

- a. The Department's interpretation of the provisions of the Water Quality Standards, Classification Orders and related state and federal law applicable to the proposed facility and the receiving waters. This would routinely include an opinion as to the receiving water's classification, water management type, dissolved oxygen standard, and whether the Department believes them to be an "upland stream."
- b. Selection of values for the background water quality characteristics (D.O. and TKN levels, etc.) which will be used in evaluating the discharge of the proposed municipal wastewater treatment facility..
- c. The low flow (7Q10) of the receiving waters to be assumed for purposes of evaluating the proposed municipal wastewater treatment facility.
- d. The volume of the substandard discharge(s) being abated.

A procedure identifying these decisions would more clearly define and perhaps better integrate the process of designing municipal treatment facilities and their subsequent evaluation by the State for a variety of purposes including priority status. By more clearly

'defining the "rule-of-the-game," the exchange of information necessary to 'the decision-making **process** would be promoted resulting in-a more effective approach to water pollution abatement. **Further-** more, any difference of opinion regarding these determinations would **be clearly** identified in a timely manner . When necessary, **these differences could** be resolved in a well focused appeal **proceed-** ing.

As part of this **effort**, the Board would suggest that **the** Department consider whether for purposes of the Priority System, it **would** be more **appropriate** to assign treatment plant flow values on some basis other than the proposed **facility's** design capacity. Under the Facilities Planning **Process**, individual **municipalities** may elect to build facilities with a **design** capacity substantially greater than that necessary to abate the existing substandard discharges. Accordingly, the use of the design capacity values would seem to **bias** Category III(A) in favor of those communities which elect to build excess treatment capacity, and may be inconsistent with EPA Regulations (see 35.915 (a) (1)(4) **Federal** Register volume 33, number 108). Thus the current procedures **would seem** to create an incentive for **municipalities** to propose oversized facilities in **order to** become eligible for priority points under Category III.

4. The methods, 'to be utilized in making the scientific evaluations required by 'the Priority System were clearly identified. It is evident that there is more than one method which could be utilized to make the evaluations' required by Priority System., In this proceeding the Department, the Fire District and **all other** parties agreed to the use of essentially the same predictive model

and on **the values** for most of the **variables**. However, there is no reason to believe that this would necessarily be the case in future appeal proceedings. The potential areas of disagreement in such proceedings would be substantially: reduced if the Department were to incorporate the formula for this model into its rule. As part of that effort the Department might also define the manner **in which** the numerical **values used** in performing necessary **mathematical calculations are** to be rounded off **and** the internal conversions **used** in its computer system. Further we feel the Water Resources Department should clearly identify the point downstream **from the** discharge where it will begin monitoring the impact of the discharge on water quality.

#### Conclusion

The Board has no reason to believe as a result of this proceeding that **Vermont's allocation** of State and Federal funds for construction of municipal water pollution abatement projects is not proceeding in a reasonable manner. The policies and procedures followed by the **Water Resources** Department in making these allocations, once they are understood, appear reasonable and appropriate.

The documents which set forth these policies and procedures seem to us **to fall** short of **what is** necessary. They should set forth not only Vermont's **intent with respect** to abating pollution of its waters, but more specifically how **priorities** are established and the techniques that **will be used** to evaluate projects for purposes of assigning funding **priorities**. This can only **be** accomplished if every reasonable effort is made to express State policy in terms that can be

taken at face value and readily **understood** without extensive **interpre-**  
**tation.** Such an effort would, we believe, reduce the State's cost  
of administration and **reduce** the cost to affected municipalities  
by reducing their need for technical and legal **services.**

This proceeding takes place at a time when Federal funding for  
municipal water pollution control facilities, has been substantially  
reduced. Since in most cases Federal funds have accounted for 75%  
of the cost of-constructing such facilities, these reductions have  
a significant impact on Vermont's ability to respond to the needs of  
individual municipalities.

The demand for such **funds remains** high. The state and federal  
monies available in the current fiscal year are sufficient to fund  
less than one fourth of the 42 eligible **municipal** projects. With,  
**fewer** funds and the continuing need to **improve** the quality of our  
waters, we may **reasonably** anticipate that the **competition** between,  
municipalities for available funds will intensify in the future;  
This in turn-means that **these** municipalities will be increasingly  
vigilant in **questioning the basis** on which the Water Resources Depart-~  
ment allocates available funds,

**The lack of a clear** statement of **policy** and procedure in this  
area tends to promote **the filing** of appeals under 10 V.S.A., §1629.  
As this proceeding **graphically illustrates,** such appeals under  
current circumstances can be very expensive and time consuming. It  
would be unfortunate indeed if increasing amounts of those limited

public resources which are available for abating water pollution were instead consumed in adjudicating disagreements over how these monies should be allocated.

August 11. 1982  
Date

*Duncan Brown*

Duncan Brown, Chairnian of the  
Water Resources Board

Auaust 11. 1982  
Date

*Deborah J. Sisco*  
Deborah Sisco, Member of the  
Water Resources Board

Auaust 11. 1982  
Date

*Roderic Maynes*  
Roderic Maynes, Member of the  
Water Resources Board

# STATE OF VERMONT

## Water Resources Board

### Sherburne Fire District No. 1. Appeal of State Project Priority List

#### List of Exhibits

During the course of the Vermont Water Resources Board's consideration of **appeals #1 and #2** the following documents were received into **evidence**:

1. Sherburne Fire District (hereinafter SFD) Exhibit 1: An undated letter from **John Ponsetto** as **Commissioner** of the Department of Water Resources, addressed to "Gentlemen" **enclosing** copies of the proposed revisions to the Continuing Planning Process and the Municipal Pollution Control **Project** Priority System,
2. SFD Exhibit 2: A letter dated September 16, 1991 from Commissioner John Ponsetto addressed to "Gentlemen" enclosing a document entitled "Priority Ranking."
3. SFD Exhibit 5: A letter dated November 16, 1981 from Brendan J. **Whittaker** as Secretary of **the Agency** of Environmental Conservation addressed to David Lewis, District Manager for **the Sherburne Fire District No. 1.**
4. SFD Exhibit 6: A letter dated November 16, 1981 from Commissioner John Ponsetto to David Lewis.
5. SFD Exhibit 8: A letter dated December 10, 1981 from Secretary Brendan J. Whittaker addressed to David Lewis.
6. SFD Exhibit 10: A letter dated November 20, 1981 from Commissioner John Ponsettb enclosing a document entitled "Priority List Computation" dated November 6, 1981.
7. SFD Exhibit 11: A copy of the Vermont Water Resources Board's Findings of Fact and an Order dated June 22, 1977 regarding the reclassification of a portion of the Ottauquechee River.
- a . SFD Exhibit 13: A true copy of an adopted rule filed with the Secretary of State's Office by the Vermont Water Resources Board entitled "Regulations Governoring the-Water Classification and Control of Quality" (Water Quality Standards) effective March 7, 1978.
9. SFD Exhibit 14: A document entitled "Sanitary Survey Ottauquechee River 1975-76 Sherburne, Killington Area" prepared by the Department of Water Resources.

10. SFD Exhibit 15: A letter dated July 18, 1979 from Lloyd **Novick, Commissioner** of the Department of Health addressed to William Brierley, Department of Water Resources.
11. SFD Exhibit 16: An letter addressed to "Gentlemen" from Commissioner John Ponsetto, enclosing a copy of the adopted Fiscal Year 1982 Pollution Control Project Priority List and Public Responsiveness **Summary**.
12. SFD Exhibit 17: A document entitled "Agency of Environmental Conservation Municipal Water Pollution Control Project Priority System."
13. SFD Exhibit 18: A document dated October 1, 1978 entitled "Water Pollution Control Construction Grant State Priority **System**."
14. SFD Exhibit 19: A letter dated December 21, 1981 from Commissioner John Ponsetto to David Lewis enclosing a memorandum written by David L. Clough dated November 30, 1981 as well as computations 'of the assimilative capacity of **the** Ottauquechee River.
15. SFD Exhibit 20: A map showing various natural and cultural features **of** the Town of Sherburne and environs.
16. SFD Exhibit 21: A **true** copy of an adopted **rule** filed by the Agency of **Environmental** Conservation with the Secretary of State entitled the "**Wasteload** Allocation Process,!" effective December 24, 1978.
17. SFD Exhibit 22: A one page document dated February 1, 1982 entitled "Model Used for DO **Sag** Computations."
18. SFD Exhibit 23: A true copy of an adopted rule filed by the Agency of Environmental Conservation **with the** Secretary of State entitled "**State of** Vermont Continuing Water Quality Management Planning' **Process**, July 1981," effective December, 10, 1981.
19. SFD Exhibit 24: Part 133 "Secondary Treatment Information" of Title 40 Code of Federal Regulations.
20. SFD Exhibit 25: A one page document dated February 1, 1982 entitled "Comparison of **State** Calculations on Assimilative Capacity for Ottauquechee Downstream of Roaring Brook."
21. SFD Exhibit 26: An untitled document identifying the variables used by the Sherburne Fire District in predicting the impact of a discharge on the waterqualityof the receiving waters including the computation of the dissolved oxygen sag **curve**.

22. SFD Exhibit 27: A untitled document identifying the various sources of flow data used by the Sherburne Fire District and the State of Vermont in evaluating the 7Q10 flow of the Ottauquechee River.
23. SFD Exhibit 28: A computation of **dissovled oxygen** levels in the Ottauquechee River performed by Cochrane Associates on behalf of the Sherburne **Fire District** using the predictive model identified as SFD Exhibit 22 with selected values for certain variables identified as Cochrane Computer Run 111.
24. SFD Exhibit 29: **Cochrane Associates Computer Run 206**
25. SFD Exhibit 30: Cochrane Associates Computer Runs 102, 103, 206, 107, 109, 110, 202, 203, 206, 208, 209, 210, 211 and
26. SFD Exhibit 31: Cochrane Associates Computer Run 105 "Advanced Treatment"
27. SFD Exhibit 32: Cochrane Associates Computer Run 112 "Advanced Treatment"
28. SFD Exhibit-33: Cochrane Associates Computer Run 113 "Advanced Treatment"
29. SFD Exhibit 34: An untitled document identifying the source for various secondary treatment plant effluent TKN values used by the Sherburne Fire District.
30. SFD Exhibit 35: A one page document prepared by the Department of Water Resources **entitled** "Summary of Vermont Secondary Sewage Treatment Plants, Annual Evaluation Data."
31. SFD Exhibit 36: A one page document **prepared by the Department of Water Resources** entitled "Summary of Wasteload Allocation Studies, Sewage Treatment Plant **Effluent Data-Summer Only.**"
32. SFD Exhibit 37: A one page document **entitled** "Water Resources TXN Study Summer - 1976"
33. SFD Exhibit 39: A two page document dated May 24, 1982 prepared by Cochrane Associates entitled "Dr. Dingman's values" (page 1) and "Using elevation to determine 7Q10." (page 2).
34. SFD Exhibit 40: A one page document entitled "Comparison of Various Methods -for Determining 7Q10."
35. SFD Exhibit 42: A **chart** illustrating the relationship between BOD and TKN values in wastewater treatment plants effluent.

36. Water Resources Department (hereinafter WRD) Exhibit 7:  
A chart entitled "Stream Modeling Process."
37. WRD Exhibit 8: A one page document entitled "Data Requirements for Modeling."
38. WRD Exhibit 9: A one page document entitled "Assimilation Ratios for Various Stream Categories."
39. WRD Exhibit 10: A one page document entitled "Modeling Scenarios."
40. WRD Exhibit 11: A one page untitled document graphically displaying the range of the values assigned to selected variables used in the stream modeling process.
41. WRD Exhibit 12: A map dated April 1980 prepared by the Corps of Engineers entitled "Ottawaquechee River Drainage Basin."
42. WRD Exhibit 13: A four page document indicating the results of a water quality survey conducted by the Department of Water Resources in the Sherburne Area on February 3, 1982."
43. WRD, Exhibit 15: A one page document entitled "Municipal Project Delays."
44. WRD Exhibit 21: A letter dated June 26, 1972 from Martin Johnson, **Commssioner** of the Department of Water Resources to Forest Forsyth, Sherburne Town Manager.
45. WRD Exhibit 24: A copy of section 35,915 "State Priority System and Project Priority List" of the Federal **Register**, volume 33, number 108 dated Wednesday, September 27, 1978.
46. WRD Exhibit 27: A letter dated February 1, 1982 from **Lester Sutton**, Regional Administrator of the Environmental Protection Agency to Commissioner John Ponsetto.
47. WRD Exhibit 32: A letter dated May 11, 1977 from Martin Johnson, Secretary of the **Agency of Environmental Conservation** to the Town of Sherburne Board of Selectmen.
48. WRD Exhibit 34: A copy of Public Act Number 90 of the 1981 session of the Vermont Legislature.
49. WRD Exhibit 38: Copies of data sheets from the United States Geological Service providing flow data from the Kent Brook gauge for the years 1964-1975.
50. WRD Exhibit 40: A one page document **identifying those** factors **considered by the** Water Resources Department as the basis of evaluating the comparability of selected **drainage** basins.

51. WRD Exhibit 41: A one page document entitled "Reliability of Gauges."
52. WRD Exhibit 42: 'Pages 8-14 of a document' published by United States Geological **Service** entitled "Water Resources Data 1974 - Explanation of Surface **Water** Records."
53. WRD Exhibit 43: A untitled document comparing the effect of **various 7410 flow figures** on the minimum dissolved oxygen levels anticipated in the Ottauquechee River.
54. WRD Exhibit 44: A computer run prepared by the Department of Water Resources **analyzing** dissolved oxygen levels in the Ottauquechee River under 'selected **conditions**.'
55. WRD Exhibit 45: A computer run prepared by the Department of Water Resources analyzing **dissolved oxygen** levels in the Ottauquechee River under selected conditions.
56. Town of Williston (hereinafter Williston) Exhibit 26: Computer runs prepared by Cochrane Associates identified as Computer runs 101 through 113 and 201 through **214**.
57. Williston Exhibit 27: A chart prepared by Edward Leonard of the Department of Water Resources depicting in a schematic fashion, the components of a typical RBC **waste-water** treatment facility.
58. Williston Exhibit 28: Table 8-A entitled "Wastewater Quality **Variations**" found on page **8-33R** of the 1977 facilities plan prepared by Cochrane Associates on behalf of the Town of Sherburne in conjunction with its proposed wastewater treatment facility.
59. Williston Exhibit 30: A letter dated June 30, **1980** from William R. Adams, **Regional Administrator** of the Environmental Protection Agency to **Brendan J. Whittaker**, Secretary, Agency of Environmental **Conservation**.
60. Town of Bennington (hereinafter Bennington) Exhibit 1: A resume' dated November 1981 for Stanley Lawrence **Dingman**.
61. Bennington Exhibit 2: A chart depicting the relationship between elevation above mean sea level and the ratio between the **Q95 flow** and the drainage area.
62. Bennington Exhibit 3: Pages 2, 7, 8-1, and 8-2 of a **document entitled "Guidelines for Determining Flood Flow Frequency"** prepared by the United States Water Resources Council as revised in June of 1977.

- 63i Water Resources Board (hereinafter WRB) Exhibit 1: A series of computer runs performed by Dr. Cochrane using the **predictive** model he employed on behalf of the Sherburne Fire District and further identified as computer runs 1-200, 1-250, 1-300, 1-350, 1-301, 1-302, 1-303, 1-304, 1-305 and 1-036 (Note: Computer run 1-302 as filed with the Board on May 27, 1982 incorrectly used a river flow (Q) of five instead of the intended value of three. This computer run was recalculated using the correct value for river flow of three and resubmitted to the Board as computer run 1-302X).
64. WRB Exhibit 2: A series of computer runs performed by the Department of Water Resources using its predictive model and further identified as computer runs 2-200, 2-250, 2-300, 2-350, 2-301, 2-302, 2-303, 2-304, 2-305, and 2-306.