STATE OF VERMONT

Water Resources Board

David Chaves
Excavation of Gravel
West River, Jamaica, Vermont
10 V.S.A. §1024
Findings of Fact, Conclusions of Law and Order

Introduction

On September 10, 1982, the Department of Water Resources denied the application of David Chaves to excavate an unspecified quantity of gravel from the West River, in the Town of Jamaica, Vermont. This action was taken under the provisions of 10 V.S.A., Chapter 41, Subchapter 2 (Alteration of Streams).

On September 23, 1982, this denial was appealed to the Water Resources Board under the provisions of 10 V.S.A., §1024(a) by Isadore Quagliaroli, a riparian property owner. On November 5, 1982, William A. Bartlett, Executive Secretary of the Vermont Water Resources Board conducted a public hearing on this appeal as a referee on behalf of the Board. Mr. Bartlett issued preliminary findings of fact regarding this matter on November 15, 1982.

An opportunity was provided for the receipt of additional comments from the parties in this proceeding in response to the preliminary findings of fact. Within the comment period which ended on December 3, 1982, the following documents were filed with the Water Resources Board and are incorporated in the record of this proceeding:

1. A memorandum addressed to Jeffrey Squires from Kenneth Cox, District Fisheries Biologist dated November 29, 1982.
3. A letter addressed to the Vermont Water Resources Board signed by Helen Wilkins enclosing numerous color photographs of the site of the proposed construction.

Findings of Fact

1. Preliminary Finding of Fact No. 6 is amended to read as follows: Winter flooding of these properties occurs when chunks of surface ice accumulate in the main channel of the West River on the north side of the island. These ice jams impound water diverting substantial flows through the secondary channel and eventually onto the applicant's property. Erosion of the southerly bank of the secondary channel as result of such conditions has required the relocation of an adjacent town road. Such flooding does not occur annually, but has occurred at least three times in the past twenty five years.

2. Preliminary Finding of Fact No. 7 is amended to read as follows: The proposed excavation would change the physical characteristics of the West River stream bed by making the main channel wider and therefore shallower.
The shallower water may result in the accumulation of so-called "anchor ice," that is ice forming on the rocks in the bottom of the stream bed. The formation of such anchor ice, by creating a vertical constrictions, could increase the frequency with which ice jams form as result of surface ice being unable to flow through the shallower channel. Such circumstances would increase the flood hazard to the residential structure located immediately downstream of the proposed excavation site on the north bank of the West River, as well as, the property occupied by the Barden Trailer Park, and the property of I, F. Quaglaroli on the south bank of the West River.

3. Preliminary Finding of Fact No. 9 is amended to read as follows: The property occupied by the Wilkin's Trailer Park and the property of I. F. Qualiaroli are located in the flood plain of the West River. The property occupied by the Barden Trailer Park may also be located in the flood plain of the West River.

4. Preliminary Finding of Fact No. 10 is amended to read as follows: By agreement of all Parties and the Board so finds, the site of the proposed excavation does not consist of rare or unique terrestrial wildlife habitat nor will the proposed excavation have any significant impact on such wildlife.

5. Preliminary Finding of Fact No. 12 is amended to read as follows: The depth of the West River adjacent to the proposed excavation site not only promotes cooler water temperatures but also provides habitat diversity and stability important to a viable fishery including trout and Atlantic Salmon. At present, water depths and velocities are variable throughout this area. The river bottom composition of boulders, cobble and gravel provide niche diversity. As a whole, these physical characteristics constitute habitat desirable for the reproduction and survival of Atlantic Salmon, trout and other fishes as well as their food base.

6. Preliminary Finding of Fact No. 13 is amended to read as follows: The proposed excavation would create a river bottom of greater uniformity. By widening the channel, river flow would be spread over a greater surface area reducing depth which during summer low flows would favor solar heating.

7. Preliminary Finding of Fact No. 14 is amended to read as follows: The proposed excavation would result in downstream turbidity both as a direct result of excavation itself and on a continuing, although periodic, basis until the excavated area became stabilized by the establishment of a vegetative cover over a period of time. Such turbidity could have a significantly greater adverse impact on the stream environment than do the water releases from the Bald Mountain Dam when increased turbidity levels coincide with higher flows creating a flushing effect which tends to prevent fine materials from settling out and depositing on spawning gravels; and habitat substrates.

8. The Board adopts preliminary findings of fact 1-5, 8 and 11 issued pursuant to this case by its hearing referee on November 15, 1982.
Conclusions of Law

- The proposed excavation may adversely affect the public safety by increasing flood hazards.
- The proposed excavation will significantly damage fish life.
- The proposed excavation will not significantly damage wildlife.
- The proposed excavation may significantly damage the rights of riparian property owners.

Order

On the basis of the above findings of fact, and conclusions of law the Vermont Water Resources Board thereby affirms the September 10, 1982 decision of the Vermont Department of Water Resources to deny the application of David Davies for a permit to excavate an unspecified quantity of gravel in the Town of Jamaica, Vermont.

Done this 28th day of December 1982 at Montpelier, Vermont.

[Signatures]

Duncan F. Brown, Chairman
Deborah J. Sisco, Member
William Boyd Davies, Member
Catharine B. Rachlin, Member
Introduction

On September 10, 1982, the Department of Water Resources denied the application of David Chaves to excavate an unspecified quantity of gravel in the West River, in the Town of Jamaica, Vermont. This action was taken under the provisions of 10 V.S.A., Chapter 41, Subchapter 2 "Alteration of Streams." On September 23, 1982, this action was appealed under the provisions of 10 V.S.A. §1024(a) by I. F. Quagliaroli, a riparian property owner. On November 5, 1982, William A. Bartlett, Executive Secretary of the Vermont Water Resources Board conducted a public hearing on this appeal as a referee on behalf of the Vermont Water Resources Board. The appearances at this hearing were entered by the following parties:

a) Isadore Quagliaroli
b) Fred Wilkins
c) David Chaves
d) Kenneth Woods
e) Agency of Environmental Conservation

During the course of this proceeding the following documents were entered into the record:

Exhibit 1: An application form entitled "Application for Permission to Alter a Natural Stream" signed by David Chaves.

Exhibit 2: A letter dated September 10, 1982 addressed to David Chaves from Jeffrey P. Squires, Department of Water Resources.


Preliminary Findings of Fact

1. David Chaves on behalf of Fred Wilkins and Mr. I. F. Quagliaroli (hereinafter "the applicants") applied to the Vermont Department of Water Resources to excavate a quantity of rocks and gravelly material from the stream bed of the West River in the Town of Jamaica, Vermont.

2. The site of the proposed excavation is immediately downstream of the point where Route 30 crosses the West River via French Bridge. The area to be excavated is a naturally occurring rock and gravel deposit which is described in the application as an island. The "island" in question is defined on the north side by the main channel of the West River and on the southerly side by a secondary channel of the West River which passes only during periods of high runoff or flooding. This secondary channel was apparently created as a result of the 1927 flood.
3. The island constricts the width of the West River in that location by approximately one third. A very similar horizontal constriction in the West River occurs a short distance upstream from French Bridge opposite the so-called Bardon Trailer Park.

4. The applicants proposed to excavate approximately 5,000 cubic yards of material from the northerly side of the island thereby increasing the width of the main channel of the West River at that location. The excavated material would be used to fill the secondary channel and on adjacent lands owned by Fred Wilkins and I. F. Quagliaroli. The island itself is owned by Fred Wilkins. Excavation activities would take between one and two weeks and would involve the use of a bulldozer and perhaps a bucket loader.

5. The purpose of the proposed excavation is to alleviate recurring flooding on property owned by Quagliaroli, Wilkins, and the Bardon Trailer Park by both widening the main channel of the West River and by filling in the secondary channel.

6. Frequent winter time flooding of these properties occurs when chunks of surface ice accumulates in the main channel on the West River on the north side of the island which has the effect of the impounding a quality of water which in turn results in diverting substantial flows through the secondary channel and eventually onto the applicant's property. Erosion of the southerly bank of the secondary channel as a result of such conditions has required the periodic relocation of an adjacent town road.

7. The proposed excavation would change the physical characteristics of the West River by making its main channel wider and therefore shallower. The shallower water may result in greater accumulations of so-called anchor ice, that is ice forming on rocks in the bottom of the stream bed. The formation of such ice would create a vertical constriction which could in turn result in the formation of ice jams as a result of surface ice being unable to flow through the shallower channel.

8. The filling or blockage of the secondary channel would mean that the main channel would have to pass an increased volume during periods of peak runoff thereby increasing the flood hazard for one residence located immediately downstream of the propose excavation site on the north bank of the West River. The owner of this property did not receive notice of either the initial application or the appeal proceeding.

9. The property occupied by the Bardon Trailer Park, the Wilkins Trailer Park and the property of I. F. Quagliaroli are located in the flood plain of the West River.

10. By agreement of all parties and the referee so finds that the site of the proposed excavation does not consist of rare or unique wildlife habitat nor will the proposed excavation have any significant impact on wildlife.

11. The site of the proposed excavation provides habitat for game fish such as brown trout and small mouth bass as well as nongame fish and aquatic organisms which are important to the food chain. Additionally, the West River generally, including the portion adjacent to the site of the proposed excavation, provides habitat suitable for Atlantic Salmon smolts. The Atlantic Salmon fishery is currently being reestablished in the Connecticut River Basin.
12. Because the West River immediately adjacent to the site of the proposed excavation is somewhat deeper, it is cooler. The habitat diversity which such conditions create is important for both trout and salmon.

13. The proposed excavation would eliminate the cool water habitat which is important particularly during periods of low flow.

14. The proposed excavation would result in downstream turbidity both as a direct result of the excavation itself and on continuing, although periodic, basis until the excavated area became stabilized by a vegetation cover over a period of time. However, the turbidity associated with the proposed construction will be substantially less than that created by the twice annual release of water from the upstream Ball Mountain Dam.

The above preliminary findings of fact are issued in accordance with 10 V.S.A., §905(c)(3) by the referee appointed by the Vermont Water Resources Board. All parties in interest to this proceeding have the opportunity to file exceptions to these findings, to request additional findings or request that a further hearing be held by the Water Resources Board. In order to be considered by the Water Resources Board any such exceptions or requests must be received at this office on or before December 3, 1982. All correspondence regarding this matter should be addressed to the Vermont Water Resources Board, State Office Building, Montpelier, Vermont 05602 (telephone 802-828-2871).

Done this 15th day of November, 1982, at Montpelier, Vermont.

[Signature]
William A. Bartlett
Hearing Referee