

STATE OF VERMONT

Water Resources Board

David Chaves  
Excavation of Gravel  
West River, Jamaica, Vermont

10 V.S.A.. 51024  
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 a 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:

- a) A memorandum addressed to Jeffrey Squires from Kenneth Cox, District Fisheries Biologist dated November 29, 1982.
- b) A memorandum addressed to William A. Bartlett, Executive Secretary of the Vermont Water Resources Board from Jeffrey Squires dated November 29, 1982.
- c) 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.
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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 constriction, 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. Quaglfaroli 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 stablized 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.

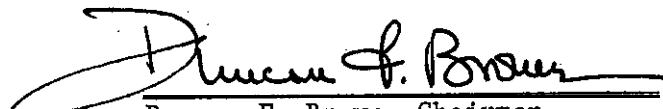
Conclusions of Law

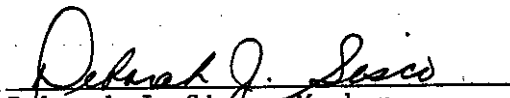
- The proposed excavation may adversely affect the public safety by increasing flood hazards.
- The proposed excavation will significantly damage fish life.
- The proposed excavation will not significantly damage wildlife.
- The proposed excavation may significantly damage the rights of riparian property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

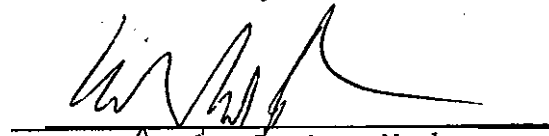
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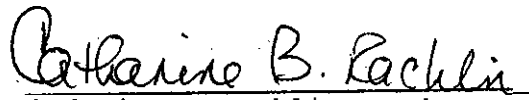
On the basis of the above findings of fact, and conclusions of law the Vermont Water Resources Board thereby affirms the September 10, 1982 decision of the Vermont Department of Water Resources to deny the application of David Hayes for a permit to excavate an unspecified quantity of gravel in the Town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

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

  
Duncan F. Brown, Chairman

  
Deborah J. Sisco, Member

  
William/Boyd Davies, Member

  
Catharine B. Rachlin, Member

STATE OF VERMONT

Water Resources Board

David Chaves  
Excavation of Gravel  
West River, Jamaica, Vermont

10 V.S.A., §1024  
Preliminary Findings of  
Fact

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.

Exhibit 3: A letter dated September 23, 1982 addressed to the Vermont Water Resources Board signed by I. F. Quagliaroli.

Exhibit 4: A letter dated October 21, 1982 addressed to the Vermont Water Resources Board signed by David Chaves.

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; flows only during periods of high runoff or flooding. This secondary channel was apparently created as a result of the 1927 flood.

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3. The island **constricts** the width of the West River in that location by approximately one third. A very **similiar** horizontal constriction in the West River occurs a short distance upstream from **French Bridge** opposite. theso-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 bucker 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 hank 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 **Alantic** Salmon smolts. The **Alantic** Salmon fishery is currently being reestablished in the Connecticut River Basin.
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12. Because the West River **immediately** adjacent to the site of the proposed excavation is some what 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 then 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** **correspon**se 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.



William A. Bartlett  
Hearing Referee

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