

STATE OF VERMONT
Water Resources Board

Appeal of Harold Masterson,
Chester Ketcham and
George Devoid re:
Proposed Encroachments
into Lake Dunmore, VT

29.V.S.A. §406
Findings of Fact,
Conclusions of Law and
Order

INTRODUCTION

Following public hearings on March 23, 1987 and April 6, 1987 at Middlebury, Vermont the hearing referee issued Preliminary Findings of Fact on April 15, 1987. All parties to this proceeding received copies of the preliminary findings and were given an opportunity to respond in writing. The Agency of Environmental Conservation and the appellants filed proposed findings of fact.

On the basis of its record in this matter, the Water Resources Board makes the followings findings of fact and conclusions of law.

FINDINGS OF FACT AND CONCLUSIONS OF LAW

1. The Water Resources Board adopts in their entirety the preliminary findings of fact issued by the hearing referee on April 15, 1987.
2. The natural surroundings in the general vicinity of the proposed encroachments have been substantially altered by existing residential development and encroachments. The visual impact, of the proposed encroachments are not distinguishable from the cumulative visual impact of the existing encroachments and development in their immediate vicinity. Accordingly, the Board concludes that the appellant's proposed encroachments are consistent with the, natural surroundings.
3. In its decision, the Department of Water Resources concluded that the proposed encroachments adversely affected fish habitat for two reasons (preliminary finding #28).

The first reason for, denial was the Department's conclusion that the extent of the encroachments beyond the mean water level meant that "important fish habitat has been lost due to wall and deck construction." In evaluating impacts on fish habitat the Department relied heavily on the written comments of the District Fisheries Biologist. The District Fisheries Biologist made no evaluation of the importance of the fish habitat at the site of the proposed encroachments. His written comments (appellant's exhibit #8 and Preliminary

Findings #24) were based not on any site specific evaluation but rather reflect a "generic position" opposing all, or virtually-all, encroachments irrespective of their actual impact on fish habitat.

The District Fisheries Biologist testified that the proposed encroachments could in fact have a beneficial impact on fish habitat by reducing shoreline erosion and thereby eliminating turbid water conditions.

1. The second reason given by the Department Water Resources for its determination of an adverse impact on fish habitat was:

"The cumulative impact of similar shoreline construction could substantially reduce the habitat necessary to sustain the sources of indigenous fish species."

As the Board has concluded previously (In re: LaFleur v. Department of Water Resources, 1984), 29 V.S.A. §405(b) requires, the assessment of the impact of any proposed encroachment in conjunction with all other existing encroachments. The consideration of the potential cumulative effects of the possible future encroachments is neither contemplated nor authorized by existing law.

- The proposed encroachments may have a beneficial impact on fish habitat by reducing shoreline erosion; therefore the Board concludes that the proposed encroachments will not adversely affect fish habitat.
- To the extent that they are not incorporated in the foregoing, all requested findings of fact proposed by the parties, are hereby denied.
- The encroachments proposed by the appellants will not adversely affect the public good within the meaning of 29 V.S.A. §405(b).

ORDER

On the basis of the above findings of fact and conclusions of law, the Water Resources Board under the provisions of 29 V.S.A. 8406 and 9408 hereby reverses the decision of the Department of Water Resources denying Management of Lakes and Ponds applications #85-81 (Harold Masterson), #85-86 (George Devold) and #85-87 (Chester Ketcham) for the construction of encroachments into Lake Dunmore in the Town of Leicester. These en-

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croachments are hereby approved subject to the requirement that they be constructed in compliance with the application submitted to the Department of Water Resources (Appellant's Exhibits #1,4 and 5).

Done this 2nd day of July, 1987 at Berlin, Vermont.

Vermont Water Resources Board


Catharine B. Rachlin, Chairman

Board members approving
this decision:

Catharine B. Rachlin
William D. Countryman
William Boyd Davies
Thomas Adler

Board members not
participating

David M. Wilson

State of Vermont
Water Resources Board

Harold Masterson
Chester Ketcham and
George Devold
Proposed Encroachment
Lake Dunmore, Vermont

29 V.S.A. 5406
Preliminary Findings of
F a c t

INTRODUCTION

In separate decisions each dated January 7, 1987 the Department of Water Resources and Environmental Engineering denied the applications of Harold Masterson (#85-81), Chester Ketcham (#85-87), and George Devold (#85-86) for permits authorizing the construction of encroachments into Lake Dunmore in the Town of Leicester.

On January 17, 1987, Harold Masterson, Chester Ketcham and George Devold (appellants) each filed an appeal with the Vermont Water Resources Board. These appeals were consolidated and a public hearing was conducted at Middlebury, Vermont on March 23, 1987 and April 6, 1986 by a hearing referee appointed by the Vermont Water Resources Board.

Appearances at this hearing were entered by the following parties:

- (a) Harold Masterson
- (b) Chester S. Ketcham
- (c) George Devold
- (d) Agency of Environmental Conservation
- (e) Robert Emilo
- (f) Maxwell Otis

During the course of the hearing the following documents were entered into the record:.,

Appellants Exhibit #1: The application for a permit under the provisions of 29 V.S.A., Chapter 11 submitted by Chester Ketcham to the Department of Water Resources consisting of: an application form, attachment A, one page of diagrams describing the proposed, encroachment and five color photographs of the project site.

Appellants Exhibit #2: A photograph showing the Ketcham property and the shoreline prior to construction of the proposed encroachment.

Appellants Exhibit #3: Three color photographs showing the Masterson property and environs before and during construction of the proposed bulkhead and deck.

Appellants Exhibit #4: The application for a permit under the provisions of 29 V.S.A., Chapter 11 submitted by Harold Masterson to the Department of Water Resources consisting of: an application form, Attachment A, and Attachment B.

Appellants Exhibit #5: The application for a permit under the provisions of 29 V.S.A., Chapter 11 submitted by George Devoid to the Department of Water Resources consisting of: an application form, Attachment A, two pages of diagrams describing the proposed encroachment and six color photographs showing the Devoid property and environs and the proposed bulkhead and deck as constructed.

Appellants Exhibit #6: An undated diagram of Harold Masterson's proposed encroachment.

Appellant & Exhibit #7: Four color photographs showing the Masterson property and environs and the proposed bulkhead and deck as constructed.

Appellants Exhibit #8: Three letters, each dated May 23, 1986, addressed to Donald J. Manning, Department of Water Resources from David R. Callum, District Fisheries Biologist regarding the Masterson, Ketcham and Devoid applications for a permit under the provisions of 29 V.S.A., Chapter 11.

Appellants Exhibit #9: A document entitled "Investigation and Determination of Public Good Concerning Application #85-79 of Maxwell and Marion Otis" dated January 7, 1987 signed by David, Clough, Department, of Water Resources.

Appellants Exhibit #10: An affidavit by Glenn Andres dated March 20, 1987 with 12 color photographs of the Masterson, Ketcham, and Devoid properties.

Appellants Exhibit #12: An affidavit by Peter M&key dated May 27, 1986.

Agency Exhibit #1: A diagram prepared by Paul J. Cummings, Department of Water Resources dated June 19, 1986 showing the Ketcham bulkhead, deck and docks as constructed.

Agency Exhibit #2: A diagram prepared by the Agency of Environmental Conservation showing the Chester Ketcham, Harold Masterson, Maxwell-Otis and George Devoid bulkheads, decks and locks as constructed.

Agency Exhibit #3: A diagram prepared, by Paul J. Cummings, Department of Water Resources dated June 19, 1986 showing the Masterson bulkhead, deck and docks as constructed.

Agency Exhibit #4: A diagram prepared by Paul J. Cummings dated June 19, 1986 showing the Devoid bulkhead, deck and docks as constructed,

Agency Exhibit #5: Three color photographs showing the Devoid property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #6: Two color photographs, showing the Devoid property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #7: Three color photographs showing the Masterson property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #8: Three color photographs showing the Masterson Property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #9: Three color photographs showing the Ketcham property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #10: Three color photographs showing the, Ketcham property and environs and the proposed bulkhead and deck as constructed.

Agency Exhibit #11: Two color photographs..showing the Maxwell and Marion Otis property and environs and the proposed bulkhead and deck as constructed.,

Agency Exhibit #12: A record of water, levels, on Lake Dunmore recorded by the Department of Water Resources between August ~1,972 and November 1986.

During the course of this proceeding the following document was ruled inadmissible-by the hearing referee:

Appellant's Exhibit for identification #11: An affidavit by
I. Peter Wimmer dated April 2, 1987.

PRELIMINARY FINDINGS OF FACT

1. In February of 1984 Harold Masterson built a retaining wall or bulkhead on shoreline property on the Lake Dunmore. Mr. Masterson owned the property in question at the time of this construction but has since sold it to Fred Couse.

The bulkhead was built to protect the shoreline from erosion which over a period of years had washed away soil to the extent that several trees had died and a cement stairway had been undermined. The bulkhead was constructed of 6 inch by 6 inch timbers backfilled with stone. A portion of the bulkhead is covered by wood decking which is cantilevered to overhand the Lake. (Appellants exhibits 3, 4, 6, and 7).

2. **Chester Ketcham, Maxwell and Marion Otis and George Devold own shoreline property' on Lake Dunmore adjacent to the property on which Harold Masterson constructed his bulkhead in February of 1984.**
3. **In February and/or March of 1985 bulkheads were constructed on behalf of Ketcham, Otis and Devold using construction materials and methods identical to those used by Harold Masterson (Agency exhibits 5-11). These bulkheads were also constructed in order to protect the shoreline from further erosion and to prevent existing trees from dying as a result of previous erosion (Appellants exhibits 2 and 3).**
4. **Prior to construction of the bulkheads, wave action on windy days created turbid water conditions adjacent to the shoreline. The owner of the shoreline property immediately north of Ketcham, has placed one or more logs along the shoreline in an effort to protect against shoreline erosion.**
5. **The water level on Lake Dunmore is controlled by a dam. During the summer, including the period between June 1st and September 15th, the water level is maintained at 53 inches as measured on the gage at the dam and fluctuates only one or two inches.**
During the winter months, including February and March, the water level is maintained at 29 inches on the gage or 24 inches lower than during the summer. The summer and winter water levels generally correspond to the "high" and "low" water levels referred to on the diagram portions of Appellants exhibits 1, 4 and 5.
6. **Title 29 V.S.A., Chapter 11 requires, with some exceptions (29 V.S.A. §403(b)), a permit for encroachments which occur beyond the shoreline as delineated by the mean water level which is determined on the basis of rules adopted by the Water Resources Board.**
7. **On November 14, 1972 the Water Resources Board adopted five rules for determining the mean water level for purposes of establishing jurisdiction under 29 V.S.A., Chapter 11. Rule 2 applies to Lake Dunmore.**

Rule 2. For those lakes and ponds that have an artificial structure which controls the flow of water at the outlet, the elevation of the spillway plus the mean depth of flowage over the spillway as measured during the period June 1 to September 15 or that level which has been customarily maintained during the said period if such level is other than the spillway elevation plus the aforesaid flowage;

8. In accordance with rule 2 and on the basis of a 14 year record of water levels compiled by the Department Water Resources (Agency exhibit 12), the mean water level of the Lake Dunmore for purposes of establishing jurisdiction under 29 V.S.A., Chapter, 11 is 52 inches on gage at the dam.
9. Although above the actual water level at the time of their construction during February and/or March; the Masterson, Ketcham, Otis' and Devoid bulkheads, some of the associated backfill material, portions of the decking and the attached docks all encroach beyond the mean water level of Lake Dunmore as determined by Rule 2 of the Water Resources Board. (Appellants exhibits 1; 4 and 5 and Agency exhibits 1, 3, 4 and 12).
10. The Otis' and each of the appellants have placed two wooden docks, mounted on piles or floats adjacent to their respective bulkheads and decking. The two docks associated with each property are both approximately 20 feet long, have a combined surface area of less than 500 square feet and are not used for commercial purposes.
1. On June 8 or 9, 1986 Paul Cummings an investigator for the Department of Water Resources became aware of the Masterson, Ketcham, Otis and Devoid bulkheads and decking. On June 19, 1986 Mr. Cummings and Donald Manning, a registered professional engineer employed by the Department of Water Resources, visited the Masterson, Ketcham, Otis' and Devoid properties to determine the extent to which the bulkheads, backfill material and decking encroached beyond the mean water level of Lake Dunmore. At the time of this visit, the construction of the bulkheads and decking was complete and the water level was 51 inches at the gage or one inch below the mean water level of 52 inches. Mr. Cummings and Mr. Manning made sketches of the construction, took photographs, made measurements including water depths of the Masterson, Ketcham, Otis' and Devoid bulkheads and decking and estimated the location of the shoreline prior to construction. The exact location of the shoreline at mean water level could not readily be determined because the backfill material and the decking largely obscured the original shoreline.
2. On the basis of notes and measurements taken on June 19, 1986, Mr. Cummings prepared individual site plan drawings (Agency exhibits 1, 3; and 4). On the basis of these individual site plan drawings a composite site plan drawing showing all four properties and the encroachments was, subsequently prepared (Agency exhibit 2). None of these drawings are to scale. On the basis of these drawings the Department of Water Resources, estimated the extent of maximum encroachment by the bulkheads as: Harold Masterson six feet, Chester Ketcham, twelve feet, Maxwell Otis four feet and George Devoid ten feet. These estimates; reflect

the distances between the maximum point of encroachment and what is identified as the "old shoreline" (Agency exhibits 2 and 4) or the "top of the old shoreline" (Agency exhibits 2 and 3). The Department of Water Resources acknowledges a potential error between one and two feet in their estimate of the maximum extent of encroachment.

13. In October of 1985 Maxwell and Marion Otis, and the appellants filed applications with the Department of Water Resources seeking approval of their respective encroachments under the provisions of 29 V.S.A., Chapter 11. (Appellants exhibits 1, 4 and 5).
14. The review of such applications is coordinated on behalf of the Department of Water Resources by Donald Manning. Mr. Manning, in addition to providing written notice to abutting property-owners and the selectmen of the town in which the proposed encroachment is located, routinely provides such notice to, among others, the District Fisheries Biologist. Mr. Manning subsequently reviews the applications and all comments received in response to the written notice and prepares a draft decision. The draft decision and the Department's file on each application are then forwarded to David Clough of the Department of Water Resources for his review and final action on behalf of the Department.
15. Upon receipt, the appellants applications and that of Maxwell and Marion Otis were annotated "after the fact" by Mr. Manning and were subsequently reviewed in the manner described in preliminary finding #14 above. The District Fisheries Biologist for Lake Dunmore, David Callum, commented on all four applications in separate letters each dated May 23, 1986.
16. On January 7, 1987, the Department of Water Resources approved the application and, Maxwell Otis (Appellants exhibit 9) and in three separate but identical decisions denied the appellant's applications on the basis of their adverse impact on fish habitat and their inconsistency with the natural surroundings. On all other criteria related to a determination of public good, the Department concluded that the appellant's encroachments would not adversely affect the public good. In each case Mr. Manning's draft decision was endorsed by Mr. Clough with only minor changes and was issued as the Department's final decision on January 7, 1987.
17. The Department of Water Resources received no comments regarding the consistency of the appellants proposed encroachments with the natural surroundings. Mr. Manning's recommendation for an adverse finding on this criterion, which was accepted as the Department's position in its final

decision, was based on the following rationale: (a) the encroachments proposed by the appellants replaced a shoreline which was naturally irregular and undulating in shape with a **shoreline of** straight lines and (b) the **encroachments were more extensive** than necessary to protect against shoreline erosion. For these **reasons the** encroachments proposed, **by the appellants were deemed to be visually intrusive.**

18. **The area surrounding the encroachments** proposed by the 'Otis' and the appellants is characterized by high density summer camp/residential development. The lay of the land is relatively flat, and the most conspicuous vegetation is relatively mature, deciduous trees. These larger trees create a shaded canopy over and surrounding the housing built in the area and establish the dominant natural visual character of the lakeshore.

The other predominant vegetation is grass which runs from the water's edge to the houses and surrounds them. This grass represents an alteration of the natural setting. On the shoreline of virtually every property there is some man-made structure including docks or boathouses and bulkheads. The materials used in constructing the appellants bulkheads and decking and that of the Otis' are either wood or some form of rock. Their forms are low and horizontal. Their colors are neutral and natural, all of them either, being stained a dark brown or left in their natural gray or brown state. (Appellants exhibit 10).

9. Other than information submitted by the four applicants, the only comments which the Department received regarding the impact of the proposed encroachments on fish habitat were those filed on May 23, 1986 by David Callum the District Fisheries Biologist (Appellants, exhibit 8).
10. On May 27, 1986 -the appellants filed an affidavit with the Department of Water Resources from Peter Mackey the operator of a boatrental and fishing tackle business on Lake Dunmore regarding the impact of the proposed encroachments generally, including their impact on fish habitat (Appellants exhibit 12). The Mackey affidavit was not forwarded to the District Fisheries Biologist for his review and comment prior to the issuance of the Water Resources Department's decisions on January 7, 1987.
1. In terms of protecting fish habitat, the Department of Fish and Wildlife is primarily concerned with the cumulative impact of encroachments on the littoral zone. The littoral zone consists of that portion of a lake where sunlight reaches the bottom in sufficient quantity to allow for the growth of aquatic vegetation. Lake Dunmore has a surface

area of approximately 985 acres, 50% of which is in the littoral zone. In the vicinity of the proposed encroachments, the littoral zone extends to those portions of the Lake which are less than 15 or 20 feet deep,

22. In evaluating any proposed encroachment for its potential impact on fish habitat Mr. Callum considers the following factors: (a) whether there is any history of fish spawning in the area affected (b) the physical nature, of the shoreline and bottom and (c) the extent of shoreline erosion.
23. In the course of his evaluation of the encroachments proposed by the appellants and by the Otis'; Mr. Callum determined that there is no record, of fish spawning having occurred in the area affected. Because the encroachments were constructed prior to his review of the site, Mr. Callum was not able to evaluate the extent of shoreline erosion at the properties in question. However, he evaluated shoreline erosion in the vicinity of the proposed encroachments as being "minimal."
24. Mr. Callum's comments on each of the appellants applications (Appellant exhibit 8) and on the application of the Otis' (Appellant exhibit 9) were identical and reflect a "generic position" on encroachment generally and bulkheads (retaining walls) specifically:
- All new retaining walls should be built so not to encroach into the water of the lake. If a wall is to be replaced it should be reconstructed in the exact location as the old wall. ...
- ... The Fish & Wildlife Department requests that any construction into State Waters be denied because of the impact on the fisheries of the lake.
5. In terms of their impact on fishery habitat, there is no scientific basis for distinguishing between the encroachment proposed by the Otis' and those proposed by the appellants..
26. The Department of Water Resources reached the following conclusion regarding the Otis bulkhead's impact on, fish and wildlife habitat:

The District Fisheries Biologist reported the shoreline waters are the most productive of the water (sic) on the lake. This is the area you would also find sunfish, perch, and bass spawning. Also, all new retaining walls should be built so as not to encroach into the water of the lake. If a wall is to be replaced, it should be reconstructed in the exact location as the old wall and be of material free of

silt and material harmful to the fisheries of the lake. He also indicated the Fish and Wildlife Department does not oppose docks if built on posts or wheels and extend out over the water (no concrete or fill in the water).


Evidence obtained during the investigation indicates the wall and deck were constructed essentially in the same location, or no more than 4' lakeward at the point of maximum encroachment. No evidence was received to indicate wildlife habitat has been adversely affected. The effect on fish and wildlife habitat is considered to be minimal.

7. In its decision regarding the Otis application, the Department of Water Resources concluded that since the proposed bulkhead was replacing a previous bulkhead and was "constructed essentially in the same location or no more than 4' lakeward at the point of maximum encroachment," its impact on fish habitat is "minimal."
8. In its decision regarding the appellants applications, the Department of Water Resources concluded that each of the propose encroachment adversely affected fish habitat because:
 - (1) The extent of the encroachments beyond the mean water level meant that "important" fish habitat has been lost due the wall and deck construction."
 - (2) "The cumulative impact impact of similar shoreline construction could substantially reduce the habitat necessary to sustain the sources of indigenous fish species."

OPPORTUNITY FOR PARTIES TO FILE EXCEPTIONS OR REQUESTS

The above preliminary findings of fact are issued in accordance with 10 V.S.A. §905 by the referee appointed by the Vermont Water Resources Board. All parties in interest to this proceeding as identified above have the opportunity to file exceptions or requests in response to these findings. In order to be considered by the Water Resources Board any such exceptions or requests must be received at this office on or before May 6, 1987. All correspondence regarding this matter should be addressed to the Vermont Water Resources Board; State Office Building, Montpelier, Vermont 05602 (telephone 828-2871).

Done this, 15th day of April, 1987, at Montpelier, Vermont:



William A. Bartlett
Hearing Referee