

**State of Vermont
Water Resources Board**

**RE: Petition of the Town of Thetford
Great Falls, Ompompanoosuc River
Docket No. ORW-95-01**

Authority 10 V.S.A. §1424a

Findings of Fact, Conclusions of Law and Order

I. Summary of Proceedings

The Town of Thetford ("Town") filed a petition with the Water Resources Board ("Board") on August 2, 1995 to designate a portion of the Ompompanoosuc River as an Outstanding Resource Water ("ORW").

On August 21, 1995, the Board determined that the Town's petition was complete and filed in accordance with the provisions of 10 V.S.A. §1424a and Board Rule of Procedure 17.

On August 23, 1995, the Board issued a notice of petition and prehearing conference. On August 26, 1995 such notice was published in the *Valley News*, a newspaper generally circulating in the area in which the waters and the involved river reach ("Affected Reach") that are the subject of the Town's petition are located.

On September 27, 1995, the Board's designee, William A. Bartlett, conducted the prehearing conference at the Thetford Town Hall, Thetford, Vermont. The Board's Chair, William Boyd Davies subsequently issued the Board's Prehearing Conference Report, Order and Notice of Hearing, dated October 24, 1995. In the Order, the Board granted party status to the Friends of the Ompompanoosuc ("Friends") pursuant to Rule 22(B) Permissive Intervention. In addition, the following public entities were identified as parties as of right pursuant to 10 V.S.A. §1424a (c) (1): the Town of Thetford Select Board, the Town of Thetford Planning Commission, the Lake Sunapee and Upper Valley Regional Planning Commission and the Vermont Agency of Natural Resources ("ANR").

On November 9, 1995, Board Chair Davies and Member Gail Osherenko, acting as referees, conducted a hearing at the Thetford Town Hall pursuant to Board Rule of Procedure 4 and 10 V.S.A. §905(1)(c). Immediately following the hearing, the referees conducted a site visit of the Affected Reach.

No party has opposed designation of the Affected Reach as an ORW. All testimony presented to the hearing referees has been in favor of an ORW designation. On January 18, 1996, Board members Davies and Osherenko distributed their Preliminary Referee Findings to the parties for their review pursuant to Board Rule of Procedure 4.C. The

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deadline for receipt of the parties' exceptions to the Preliminary Findings or requests for additional findings was February 5, 1996. The Board received timely comments from the ANR and the Friends. To the extent any proposed findings of fact, exceptions or requests for findings are included below they are granted; otherwise they are denied.

The full Board determined that Finding 58 should be eliminated from the Preliminary Findings because the information contained therein is deemed outdated. Neither this change nor any other changes made in response to the parties' comments, however, amounts to a substantial change. Thus, with the Findings of Fact complete, this matter is now ready for a decision.

II. Findings of Fact

A. Waters for which ORW Designation is Sought

1. The waters that are the subject of this proceeding consist of that portion of the Ompompanoosuc River flowing from the mainstem in the Town of Thetford, Vermont between its confluence with a tributary draining both Gillette Swamp and Mud Pond (also known as Forsyth Pond) and its confluence with the West Branch, 3.8 miles downstream. These waters will hereinafter be referred to as the "Affected Reach."

B. The Ompompanoosuc River

2. The Ompompanoosuc is a medium-sized river which flows from north to south through the towns of Thetford and Norwich, draining a watershed with an area of 136 square miles.

3. Approximately one mile downstream from the southern end of the Affected Reach (at the confluence of the Ompompanoosuc and the West Branch) the river flows through the Union Village Flood Control Project. At times, the water is held there in a reservoir, though throughout much of the year the water passes as freely as it comes in.

4. Approximately four miles downstream from the Union Village Dam the Ompompanoosuc flows into the Connecticut River.

C. Description of Affected Reach

5. The Affected Reach begins at the confluence of the brook draining Mud Pond and Gillette Swamp and proceeds in a southerly direction 3.8 miles downstream. This point is marked on Appendix A with the letter A.

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6. As the river approaches the Sayre Bridge (described further in Finding 36), it flattens out and forms a slow moving pool behind what remains of a three-foot high, breached dam. The dam lies at the crest of a waterfall known alternatively as Great Falls or Thetford Center Falls ("Falls") and inhibits the free flow of the river downstream. On the east bank, an old water wheel and stone foundations are still visible.

7. The water spills over the foundation of the old dam and continues its descent down the 40 to 50 foot waterfall which is characterized as a single cascade, though it is interrupted at various points and at low water appears to be a series of cascades.

8. The cascade itself lies in a wooded ravine where hemlock, white pine, oak and mixed hardwood species form a canopy over the west bank of the Affected Reach. The roots of the large trees hold the soil together on the steep banks of the river, minimizing erosion of soil from the banks. At the bottom of the falls, the water slows down and passes through a field in which blackberries, honeysuckle, apple and hardwood seedlings dominate the vegetative cover.

9. As the Affected Reach continues downstream it passes through the climax hemlock forest. In this section of the Affected Reach there is a deep hole known as Big Hole, or Rodney Palmer's Hole, with rocks surrounding it.

10. Beyond the Big Hole, the river begins to parallel a U.S. Army Corps of Engineers' ("Corps") recreational road, which provides a number of access points to the river.

11. Sandy Beach lies on the east bank of the Affected Reach after the river takes a dramatic westward bend. It is accessible by a footpath from the recreational road and it offers a sandy substrate and beach for recreational use.

12. The river meanders to flow south as it passes through a dense hemlock and hardwood forest. The Affected Reach flows past mill foundations from the 19th century and then under a snowmobile bridge constructed in 1977 which is a part of the Vermont Association of Snow Travelers, Inc. ("VAST") system of snowmobile corridor trails.

13. The river then parallels a portion of the Corps' "Mystery Trail," a ¾ mile long, self-guided educational hiking trail. It next passes near the remnants of the Shoddy Mill, an 1865 woolen mill and water wheel.

14. From the Shoddy Mill, the river moves through another favored recreational location known as the Ledges. The swift current in this section is channeled through a gorge which is approximately 10 feet wide, with the water depths reaching 7 feet. The Ledges are reputed to be the deepest point in the Ompompanoosuc. There are two

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cascades in this section which drop 10 feet and several others which drop between 4 and 6 feet.

15. At the outflow of the Ledges, the river turns westward at a right angle and gradually finds its way back to a southerly course which it maintains for the final half-mile of the Affected Reach.

16. The terminus of the Affected Reach is just upstream of where the West Branch joins the Ompompanoosuc. Here, the Corps maintains a Forest Management Demonstration Trail, described further in Finding 24.

17. The Affected Reach flows through land owned solely by the United States Government. This land is managed by the New England Division of the Corps in conjunction with its management of the flood control project consisting of Union Village Dam.

18. The river corridor of the Affected Reach is largely undeveloped and in its natural state. Furthermore, it is managed pursuant to a Corps management policy which ensures that it will remain in this condition to facilitate the operation of its flood control function, and to foster both wildlife management and recreational opportunities.

19. The entirety of the Affected Reach is classified as a Class B water under the Vermont Water Quality Standards and managed as a cold water fishery.

20. A map of the Affected Reach is included in these findings as Appendix A.

Some of the findings below are applicable to more than one of the considerations listed. In such cases, those findings are not repeated.

D. Recreational Values

21. The undeveloped forested corridor of the Affected Reach offers seclusion and exists in a natural condition. As such, this segment of river is highly esteemed by river users for a wide variety of recreational pursuits.

22. The Affected Reach is used by anglers, whitewater canoeists and kayakers, artists, photographers, swimmers, bird-watchers, naturalists, river walkers (locally known as "Pompey stompers") and others. The Ompompanoosuc is frequented for recreational purposes by a significant number of children, teenagers, adults and senior citizens.

23. The corridor through which the Affected Reach flows also provides recreational

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opportunities enhanced by the river's proximity including the following: hiking, bicycle touring, picnicking, hunting, wildlife observation, and interpretive trail walks for both exercise and education.

24. Within close proximity to the Affected Reach, the Corps maintains a recreational road providing access to the Affected Reach, parking areas, recreational fields, several foot bridges and a "Forest Management Demonstration Trail" which depicts the various successional stages of a northern hardwood/hemlock forest.

25. A walking path proceeds along the west bank of the Affected Reach, beginning at the Sayre covered bridge, descending the length of the Falls and beyond. Its well worn character demonstrates the heavy recreational use the Affected Reach receives.

26. Nearly all recreational opportunities pertaining to the Affected Reach are facilitated by the path (Finding 25) and the recreational road (Finding 24).

27. The river contains a number of sites that are frequently used by the public for swimming and public recreation. Three of these sites, Sandy Beach, The Ledges and Big Hole (or Rodney Palmer's Hole) are popular swimming holes which are described in the report, "The River Swimming Holes of Vermont." This report was prepared in March, 1992 on behalf of the Agency of Natural Resources. These swimming holes are easily accessible to the public via the path noted in Finding 25 and the recreational road noted in Finding 24.

28. The sites noted in Finding 27, as well as some other swimming holes, are near picnic areas maintained by the Corps. These areas include tables, barbeque grills and portable toilets.

29. The Corps also maintains a "Mystery Trail" within the corridor of the Affected Reach. The Corps' illustrated pamphlet and trail map demonstrate both the educational and recreational purposes for which the trail is maintained.

30. The Affected Reach provides a variety of angling opportunities. Though the segment proposed for designation is not an exceptional fishery, certain qualities of the Affected Reach such as its seclusion, scenic beauty, quality and diversity of instream fish cover, diversity of vegetative cover, and its setting within an historic district enhance the value and ambiance of the fishing experience.

31. Ease of access also facilitates fishing in the Affected Reach. This is particularly true for children, who often gain exposure to the sport of fishing in small brook trout streams like the Affected Reach of the Ompompanoosuc (see Finding 57).

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32. A unique recreational pursuit for which the Affected Reach is particularly suited is "Pompey stomping." This activity involves swimming and wading in the river and is practiced by individuals of all ages. It is particularly favored by the Girl Scouts who attend nearby "Camp Farnsworth."

33. The segment of the Affected Reach upstream of the Falls is the concluding portion of a popular spring canoeing and kayak run. The four miles above the Falls are a well-known stretch of Class II-III whitewater. Some portion of this Class II-III water extends into the Affected Reach. This recreational opportunity is particularly unique as there are few whitewater runs in the state.

34. During the winter months, the corridor containing the Affected Reach is utilized for such recreational pursuits as snowshoeing, cross country skiing, and snowmobiling. The VAST snowmobile trail corridor system crosses the river within the Affected Reach by means of a bridge constructed in 1977.

E. Cultural Values

35. A portion of the Affected Reach is within the Thetford Center Historic District ("District"). The District has been nominated for inclusion on the National Register of Historic Places, though the outcome of the nomination is still pending. The District contains 53 historic buildings, 16 historic archeological sites and 6 historic structures, which include dams.

36. The District also contains a covered bridge, located where Tucker Hill Road crosses over the Ompompanoosuc River 0.2 miles southwest of Thetford Center. The Sayre Bridge, (also referred to as the Sayer Bridge or the Sayers Bridge) was constructed some time after 1839 and is one of three remaining covered bridges in the United States of the modified Haupt Truss design. This bridge is listed independently on the National Register of Historic Places.

37. Besides the Sayre Bridge, the Affected Reach contains a number of nineteenth century mill sites, a wheel pit, the remains of several blacksmith shops, the foundation of a dam which is visible at the crest of the Falls, and other important remnants of Vermont's industrial history.

38. These sites appear on 19th century historic maps. In addition, according to the state archeologist, on average, only 65% of all historic sites were recorded on maps. Thus, there is a high probability that other valuable sites which are not identified on maps are located along the banks of the Ompompanoosuc within the Affected Reach.

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39. As a general rule, Native people used floodplains and terraces adjacent to river valley slopes, stream confluences and springs for villages and settlements. These features would have concentrated prehistoric use of these landscape features by Native people and would, therefore, have a high potential for containing historic and prehistoric archeological sites.

40. The Affected Reach contains floodplains and terraces adjacent to the river valley slopes. Based on the environmental predictive model used by the Vermont Division for Historic Preservation, the Affected Reach and its corridor have the potential for containing extensive and important prehistoric sites that span 10,000 years of Vermont's prehistory.

41. The Vermont Advisory Council on Historic Preservation has supported the use of the Division for Historic Preservation's environmental predictive model to identify areas of high archeological sensitivity.

42. An annual river festival, the "Romp on the Pomp," demonstrates the importance of this river from a community cultural standpoint. This event, which celebrates the resource and the community's involvement with it, is sponsored by the Friends of the Ompompanoosuc. It is held at the top of the Falls just below the Sayre bridge and is attended each year by a crowd of between 150 and 300 river visitors.

43. On a daily basis the Affected Reach of the Ompompanoosuc still exhibits a strong influence on the local culture, as discussed in Section D. (Recreational Values).

F. Scenic Values

44. The Affected Reach of the Ompompanoosuc contains elements of natural scenic beauty. These are the topography of the surrounding landscape, the complexity of vegetation in the river corridor, the complexity and variety of the watercourse itself, the aquatic flora, and the alternating woodlands and open fields which frame the views of the river.

45. The lack of substantial recent commercial and industrial development surrounding the Affected Reach has resulted in a compact village that retains its strong historic character.

46. The human constructed landscape, consisting of a variety of structures, demonstrates a continuity of architectural styles and no incongruous elements which detract from either the long-range vistas or foreground views.

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47. The Falls, in isolation, exhibit visual complexity. The water velocity, motion, depth, clarity, and auditory variety contribute to this complexity and enhance the scenic value of the Affected Reach.

48. The Falls are of a large size, are on a medium-sized stream near the center of a village, and command a view of open country. Only about thirteen falls in Vermont are approximately equal or greater in height.

49. In addition, the Falls are one of only three falls in Vermont associated with covered bridges, and among these, only the Falls at Thetford Center are of a large size and are unaffected by damming and nearby construction.

50. Although the Falls are the dominant feature of the Affected Reach, the remainder of the segment proposed for ORW designation consists of clear, free-flowing waters with occasional pools, riffles and quick moving rapids.

51. The combination of the naturalness of the Affected Reach with the historic village of Thetford Center and its covered bridge, contribute significantly to the scenic value of the segment of the Ompompanoosuc River proposed for designation as an ORW.

G. Natural Values

52. The natural values of the Affected Reach are composed of abiotic, or non-living, physiographic features, such as those discussed in the description of the Falls and the water itself (Findings 48-51), and the biotic features which pertain to the plant and animal species present in the river and the river corridor.

53. It is rare to have a series of large free-flowing cascades on a medium-sized river, near the center of a village, that are not dammed or otherwise altered by modern industrialization.

54. Extended natural segments, such as that which exists in the Affected Reach, are uncommon on medium-sized and larger rivers in Vermont.

55. The Affected Reach is characterized by the Water Resources Planner for the Water Quality Division of the Department of Environmental Conservation as a state significant natural area because of the undisturbed, free-flowing nature of the river habitat and its diverse plant and animal communities.

56. Several miles of stable, vegetated banks, natural river bottom, and adjacent wooded land corridor provide a series of natural meander, riffle-pool, and step-pool river

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habitats that is very unusual in and along medium to large rivers in Vermont.

57. The primary species of interest from an angling perspective are brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), and rainbow trout (*Salmo gairdneri*). The Vermont Fish and Wildlife Department (VF&W) stocks these fish at various times from spring to the end of July.

58. While fishing is a popular recreational pursuit in the Affected Reach, upstream sources of pollution impacting the Affected Reach may be limiting natural fish population viability in the Affected Reach. In addition, high water temperatures in the summer and siltation of available spawning sites due to a lack of streambank cover in the spawning area affect the fishery. A one-half mile stretch of the Affected Reach is burdened with heavy deposits of silt which have made natural spawning in this area difficult for existing salmon, trout and brook trout.

59. The Corps and Trout Unlimited plan to improve the one-half mile stretch referred to in Finding 58, by removing excess sediment, and narrowing the river channel to quicken the flow of water, thereby exposing spawning gravel.

60. The river and the river corridor provide good habitat for a variety of furbearers. These include muskrat, beaver, raccoon, mink and an occasional otter.

61. The river and its corridor also provide habitat for a wide variety of birds and waterfowl.

62. To identify the specific animals, fish and the various plants (both aquatic and terrestrial) which inhabit the Affected Reach, these findings incorporate by reference Appendix B, which is a revised list of "Plants and Animals found in the Natural Area in and around the Thetford Center Falls Segment of the Ompompanoosuc River" adapted from Exhibit E of the 1985 Great Falls FERC application.

63. The Vermont Nongame and Natural Heritage Program does not list any threatened or endangered species in or near the petitioned segment of the Ompompanoosuc River. Information in the petition pertaining to three plant species listed in 1981 is considered outdated by the Program.

III. Conclusions of Law

The Water Resources Board is vested with the authority to designate particular waters of the state as outstanding resource waters. 10 V.S.A. §1424a (a). The Board must assess the waters which the petitioner seeks to have designated as ORW after both a public

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hearing on the matter and the Board's consideration of the relevant evidence.

The ORW statute sets forth fourteen specific guideposts for the Board to consider in reaching its conclusions.¹ In the final analysis however, designation of an ORW depends on whether the waters at issue "have exceptional natural, recreational, cultural or scenic values." Id. at §1424a(e).

The Board must weigh the relevant evidence with due consideration of the meaning of "exceptional." Webster's Dictionary defines exceptional in the following manner: **1:** forming an exception: RARE **2:** better than average: SUPERIOR. Thus, a water to be considered an outstanding resource pursuant to 10 V.S.A. §1424a should be analyzed in relation to other waters of the state. It is, therefore, not enough that the Affected Reach of the Ompompanoosuc demonstrate the baseline values in each of the four categories: recreational, cultural, scenic and natural. Rather, these values must be truly exceptional.

Recreational Values

The Affected Reach of the Ompompanoosuc River supports a wide variety of recreational opportunities. The diversity and quality of these recreational opportunities are rare when compared with most other river segments in Vermont. Moreover, the accessibility of the Affected Reach to recreationists of all ages provides a superior recreational resource that is enjoyed by children, young adults, adults and senior citizens. The Board concludes that the waters of the Affected Reach have exceptional recreational values.

Cultural Values

The Affected Reach of the Ompompanoosuc River contains important archeological remnants, unique historic sites and artifacts from the settlements of Vermont's Native peoples. Moreover, the Affected Reach is still central to the daily lives of many local residents. The current uses of the River, particularly the annual river festival, the "Romp on the Pomp," demonstrate the importance of the Affected Reach from a contemporary community standpoint. The Board concludes that the waters of the Affected Reach have exceptional cultural values.

¹

10 V.S.A. §1424a (d) states that "the board may consider, but shall not be limited to considering" fourteen specific guideposts. The Board's prior decisions have favored an analysis which sets forth the four general criteria listed in subsection (e): recreational, scenic, cultural and natural values. The fourteen guideposts, identified at subsection (d) are considered, but any findings applicable thereto have been subsumed under the more general headings which appear at sections II.D through II.G above.

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Scenic Values

The combination of many visually appealing elements in the Affected Reach creates unique scenic values appreciated by local residents and visitors throughout the year. Elements present in the Affected Reach, and in the viewsheds visible therefrom, have scenic value in and of themselves. The Falls, the Sayre covered bridge, the topographic features of the surrounding landscape, the multitude of historic structures within the compact village of Thetford Center, the continuity of architectural styles, the visual and auditory complexity of the watercourse itself and the diversity of its vegetative cover are but a few scenic elements. It is the combination of these elements, however, which distinguishes the Affected Reach as a rare scenic resource. The Board concludes that the Affected Reach has exceptional scenic values.

Natural Values

An extended natural river segment such as that which exists in the Affected Reach is uncommon on medium-sized rivers in Vermont. The Ompompanoosuc is a medium-sized river which, in the Affected Reach, consists of several miles of stable, vegetated banks, natural river bottoms, and an adjacent wooded land corridor. These features provide a series of natural meander, riffle-pool, and step-pool river habitats that are rare in and along medium-sized Vermont rivers. These habitats support a wide variety of fish, invertebrates and aquatic plants. Moreover, the Affected Reach and its river corridor provide habitat for diverse populations of furbearers, birds, and waterfowl. The Board concludes that the Affected Reach has exceptional natural values.

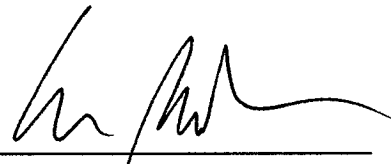
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IV. Order

That portion of the Ompompanoosuc River flowing from the mainstem in the Town of Thetford, Vermont between its confluence with a tributary draining both Gillette Swamp and Mud Pond (also known as Forsyth Pond) and its confluence with the West Branch, 3.8 miles downstream is exceptional for its recreational, cultural, scenic and natural values. Accordingly, these waters are designated as outstanding resource waters.

Dated at Montpelier, Vermont on this 6th day of March, 1996.

Vermont Water Resources Board
by its Chair



William Boyd Davies

Concurring:
Stephen Dycus
Ruth Einstein
Gail Osherenko
Jane Potvin