

HOLYOKE WATER-POWER CO. *v.*  
CONNECTICUT RIVER CO.

*Circuit Court, D. Connecticut.*

April 23, 1884.

IMPROVEMENT                      OF                      NAVIGABLE  
STREAMS—CONSEQUENTIAL      DAMAGE—LAND  
OUTSIDE THE STATE—LEGISLATIVE POWER.

Remote and consequential damage, such as the diminution of water-power, accruing to land from improvements to the navigation of the water-ways of a state authorized by the legislature thereof, do not amount to a “taking” within the meaning of the constitution, and the legislature is empowered to authorize such improvements without reference to such consequential damage to land within the state; but the legislature has no power to cause such damage to the owners of land in other states.

In Equity.

*N. A. Leonard and Alvan P. Hyde, for plaintiff.*

*Henry C. Robinson, Charles E. Perkins, Charles H. Briscoe, and Arthur F. Eggleston, for defendant.*

SHIPMAN, J. The Connecticut River Company was incorporated in the year 1824, by the general assembly of the state of Connecticut, “for the purpose of improving the boat navigation of Connecticut river,” a navigable stream, and was empowered, among other things, to remove obstructions from the channels and bars of said river from and above the bridge at Hartford to Springfield; to lock the falls at Enfield on said river; to make channels to aid them; to construct a canal on either bank of said river near said falls, and to construct a dam or dams for the purpose of entering and leaving the locks, “provided the extension and form thereof shall be such as shall not prevent the convenient passage of boats and lumber down the river, nor obstruct the passage of fish;” to demand and receive specified tolls from every boat passing up said river or through the locks; and to purchase, hold, lease, or alien mill seats or manufactories upon or near

Enfield falls. The locks and canals were to be, and were, constructed under the direction of a board of commissioners, who were named in the charter, and who were authorized to direct further improvements to be made, if, after the completion of the works, such improvements should become necessary. Under this charter the defendant, before 1829, built a dam from the west bank into the river at Enfield falls, and also built a canal upon the west side of the river, about five and one-half miles long, with the necessary locks and other works. In 1829 the water of the river was turned into the canal, and since then boats engaged in the navigation of the river have continuously passed through the canal, and so have avoided the difficulties incident to the passage of Enfield falls. The defendant has also continuously leased the use of the water and water-power in said canal to the occupants of mills upon its banks. Upon the defendant's application to the board of commissioners to examine, approve, and allow certain proposed dams in the river, the commissioners, on September 3, 1849, found and authorized as follows:

“That the depth of the water at and above the northern termination of said canal is not sufficient for the safe and easy passage of boats into and out of said canal at low stages of water, and that it is expedient and necessary that the depth of water should be increased. We do also find that the dam and works proposed or in the process of erection in said river, and extending westwardly from the east bank of the same, are well adapted to effect that object of increasing the depth of the water, and that the same will not impede the passage of fish up said river, or the passage or floating of boats, timber, or other property down the same. We do therefore authorize, approve of, and allow the erection and completion of the dam and other works in said river, whether proposed or

now in progress, as the same are hereinafter specified and described, viz.: The dam extending westerly from the east bank of said river four hundred and sixty-one (461) feet, and at such height as shall at the lowest stage of water, when the water is at the height of the top of said dam, raise the water in said canal to the height of five (5) feet and (9) inches on the miter sill of the upper guard gate. Also to sink a crib at the western end of said last-mentioned dam, and continue and keep the same thereof twenty-eight feet in breadth westerly from said west end, and at such height from the bottom of said river as will leave the water two feet in depth at its lowest stage, leaving the opening in the river from the western end of said dam to the eastern end of the old or former dam not less than one hundred (100) feet, and from the western side of said crib not less than seventy (70) feet to the eastern end of said old dam. Also to make a sunken dam across the said opening of seventy (70) feet from the westerly side of said crib to the eastern end of said old dam, by the sinking of cribs or other materials on the bottom of said river, and to make and construct said sunken dam such height that the water shall not, at its lowest stages, ever be less than four (4) feet in depth upon and above the top or highest part of said sunken dam."

In the year 1855 the defendant made another application to the board of commissioners "to approve, authorize, and allow certain alterations on and additions to" its works and dams, which had been constructed or were in process. The commissioners decided as follows:

"\* \* \* We do therefore decide that it is inexpedient to modify or vary said order of 1849, but we adopt and confirm the same so far as it specifies and fixes the depth of water at five feet nine inches on the miter sill of the guard lock at low water. We believe it is better for all parties that, so far as the action of the commissioners is concerned, it should be held as a

settled point that the water at low stages should be and continue to be at this specified depth, and that all the erections and obstructions of the company should have reference to that depth. We do therefore approve the erection of the eastern dam, the making of the cribs and sunken dam in the opening between the dams, but decide that certain of those cribs which are above the general level be taken down and reduced to such level as soon as the weather and the stage of water will allow, and in the mean time they are to remain as they now are. As it respects the navigation, down Enfield falls, it is very inconsiderable and dangerous at the best, and at extreme low water is scarcely attempted or practicable, and we think the weight of evidence produced before us shows that the recent erections have not increased the danger or the difficulty. The eastern dam we think somewhat higher than necessary to secure the specified depth of water at low stages, and incline to the opinion it might properly be lowered a few inches; but as some persons, who were understood to have been remonstrants, suggested it might be injurious to them, as they were interested in property above the falls, we make no order on that subject.”

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The dams remained in the condition in which they were authorized to be by these two orders of the commissioners until 1881. The defendant fully availed itself of the permission to sink cribs in the opening between the dams, and when they were repaired, as hereinafter mentioned, in the summer of 1881, there was in the gap “a pile of stone which had been built right round on a circle from one wing to another,” about two feet below the surface of the water at the opening. At this time about 4,000 cubic feet of water per second were flowing at Holyoke.

In 1881 the defendant’s charter was amended by the general assembly of Connecticut as follows:

“Whereas, the dams of the Connecticut River Company, at Enfield falls, have become inadequate by reason of natural changes in the channel of the Connecticut river, and by reason of the uneven and greatly diminished flow of water therein, making said river for a distance of several miles below said dams unnavigable; and,

“Whereas, to improve the navigation upon said river, both above and below said dams, and to preserve and maintain the water-power of said company, it is necessary that the water in the canal of said company, and in said river above said canal, shall be of greater depth than the dams of said company, at their present heights, will allow; therefore,

“Resolved, by this assembly: Section 1. That the Connecticut River Company are hereby empowered and authorized to unite their said dams at Enfield falls, aforesaid, so as to continue and extend the same across the Connecticut river, and to raise said dam and dams to such a height that the crest or crests thereof shall not exceed the height of seven feet above the miter sill of the upper guard gate, or lock, at the upper entrance to said canal, as said miter sill now is; but the dam at the extreme west end may be fifteen inches higher than its present height, sloping on a regular incline for three hundred feet: provided, that said company shall construct and maintain at the said dam or dams, and as a part thereof, subject to the approval of the fish commissioners of this state, suitable and proper fish-ways to admit the free passage of fish up and down said river, over and above said dams, and to be kept open at such seasons as shall be necessary for the passage of fish; said fish-ways at all times to be under the direction and approval of said commissioners, or of such other authority as this state shall appoint with reference thereto.”

The second section related to the assessment and payment of damages which should accrue to the

property of any person by reason of the exercise of the powers conferred by the amendment.

In July, 1881, the defendant began to fill the gap between the dams, and after the building of a coffer-dam 404 feet long, above and in front of the opening, built, below the dams and across the gap between the wings, and connecting with the old dams, a piece of new dam, 285 feet long, and, after it had settled 2 inches, 10.80 inches above the average crest of the old dam. The gap between the wings was 100 feet. The respective surveyors differ about two inches in the height of the new dam before it had settled. I adopt the measurement of the defendant's surveyor. In the new piece of dam there is an opening 14 inches deep, and from 40 feet to 42 feet in width, for the passage of fish and lumber over the dam. The elevation of 74 the old dam above the miter sill was five feet nine and one quarter inches. On August 19, 1882, the surface of the water in the river was six feet and four inches above the miter sill. The average elevation of the new work, not including the fish-way, is 40.31 feet above the datum plane, or imaginary horizontal plane which was established by the engineers on both sides, and which is explained in the record. The remainder of the dam, or the old dam still remaining, is about 1,288 feet long, and on an average height of 39.41 feet above the datum plane. Three hundred and thirty-two feet in length of the coffer-dam were about six feet in height above the water, and the remainder of the dam was about two feet in height above the water. It was taken away late in the fall of 1881.

The Holyoke Water-power Company was incorporated in January, 1859, by the legislature of Massachusetts, for the purpose of upholding and maintaining the dam across the Connecticut river, theretofore constructed by the Hadley Falls Company, and one or more locks and canals in connection with the said dam, and of creating and maintaining a water-

power to be used for like purposes. The Hadley Falls Company was incorporated for similar purposes, by the legislature of Massachusetts, in 1848, and in 1859 the plaintiff purchased its dam, canals, water privileges, and land. The plaintiff thus became, and is, the owner of an extensive and valuable water-power upon the Connecticut river, at Holyoke, in Massachusetts, 16 miles above the defendant's dam, and has expended large sums of money in the development and improvement of its property. It leases the water-power to mill-owners, and from such leases derives a large portion of its income. Its fall is about 60 feet.

The bill was brought in September, 1881, and after the gap had been filled by the new piece of dam which has been described, but before the work was entirely completed, alleging that the solid dam, and the raising the dam across the width of the river as authorized by the legislature of Connecticut, will set back the water upon the plaintiff's works, will overflow its land, impede the operation of the mills there situate, diminish the effective head of its fall, and commit irreparable injury to its property, and praying that the defendant may be ordered to remove the obstruction between the wing dams, and be enjoined against raising the dam. The answer of the defendant admits that the gap was filled by the new dam substantially as has been stated, but denies that any damage has been done to the rights or property of the plaintiff, and alleges that it has no present intention of raising the rest of the dam, but claims that under said amendment of 1881 it has the right to raise the whole of the dam to the height authorized thereby, and asserts that it proposes to make such erection if it should become necessary.

The water of the river is diverted by the plaintiff at Holyoke into three canals, which are substantially parallel to the river, and are called the first, second, and third level canals. "They are so arranged 75 that

the water flows from the gates at the dam into the first level; from the first level, a small portion into the river and the balance into the second-level canal; from the second level, part into the third level and a part into the river; and from the third level into the river. The third-level canal is furthest from the dam, and nearest to and parallel with the bank of the river, where the river bends to the westward, below the city of Holyoke." The plaintiff owns about 440 acres of land, "390 acres being building lots and about 50 acres being mill-sites. Twenty acres of these mill-sites are on the third-level canal. The Holyoke Water-power Company now owns the river front, from the dam to the foot of the fall, about 9,600 feet in length, and thence about 5,500 feet further, on the west bank of the river. This last-described bank of the river is the one across which the tail-races of the mills on the third-level canal are constructed."

The plaintiff furnished elaborate and careful computations of its hydraulic engineer, which were based upon the comparison of an extensive system of observations taken by his employes after the construction of the coffer-dam, with observations and *data* before such construction, for the purpose of showing that the effect of the present obstruction at Enfield falls was to raise the water of the river at the point next adjacent to the tail-races of the mills upon the third-level canal, but not to show that any water has been set back upon the plaintiff's land, or into the tail-races, or upon the works of any of the mills as now constructed. The plaintiff's engineer, Mr. Herschel, was corroborated, to a certain extent, by the opinions of Gen. Ellis, the engineer in charge of the surveys which had been taken since 1870, and of the works which had been constructed by the United States government for the purpose of improving the navigation of the Connecticut. Two other hydraulic engineers, Messrs. Worthen and Greene, criticised the



accuracy of the *data* upon which the computations were based, and Mr. Greene denied that the property of the plaintiff is or will be injured by the presentor proposed dam of the defendant whenever the river is at the stage which he estimates to be its ordinary stage.

Two facts are conceded by all the witnesses to be true. The first is that at low water, which is generally stated to be a flow of 4,000 cubic feet per second at Holyoke, the Connecticut river between Holyoke and the defendant's dam, as it existed before the gap was filled, was nearly a still pond. Mr. Herschel says that "a slope of only four inches sufficed to convey 4,000 cubic feet per second from Holyoke to the Enfield dam." Therefore any material additional obstruction placed upon the Enfield dam of 1849 or 1855 would be perceptible in the river at Holyoke at the time of very low or low water. The second conceded fact is that the defendant's dam as it was, or as it is now constructed, is so low that as the volume of water increases in the river and flows over the dam, there is a point where the present dam would cause no injury at Holyoke. The 76 amount of the rise of the water which is ordinarily caused by the present dam, the fact of injury, the length of time during which any injury would be perceptible, and the point at which any injury would cease, are controverted questions.

The most reliable testimony upon the amount of the rise in the river resulting from the increased obstruction at Enfield falls is derived from the records of the river heights at the Springfield toll-bridge, which were kept by the keeper of the bridge from March, 1881, to December, 1881. From these records it is shown that when 4,000 cubic feet of water per second were passing Holyoke, the water at Springfield was, after the construction of the coffer-dam, 96–100 of a foot higher than it was before July, 1881. It is to be observed that these figures state the effect between July and December, and that during the

greater portion of this time the coffer-dam was a part of the obstruction. The other results are given in the following table:

Cubic feet per second at Holyoke. Increase

7,000,	0.28
10,000,	0.25
13,000,	0.24
16,000,	0.22
19,000,	0.19
22,000,	0.13

At 4,000 feet the effect at Holyoke would be the same as at Springfield. From and after the flow of 7,000 cubic feet, the effect at Holyoke would be about half that felt at Springfield. The observations which were taken at Holyoke and near Enfield Falls, under the direction of the plaintiff, show a greater effect than that which is here stated, but the Springfield observations I regard as more reliable. In order to determine whether any damage will be caused by the present dam, the length of time during which a rise at Holyoke will continue is important. Mr. Herschel, collecting the scattered days of the year, in the order of their dryness, into months, and arranging, the months in like order, estimates that during the driest month the flow of the river at Holyoke is 4,072 cubic feet per second, and is during the second month 4,886 cubic feet, and is during the third month 6,515 cubic feet, and is during the fourth month 8,225 cubic feet, and is about 47,000 cubic feet per second during the wettest month. Gen. Ellis, who had been very familiar with the river between Enfield dam and Holyoke, from having superintended the government surveys, was of the opinion that if the gap was filled up, so that the crest of the solid dam should average 39.1 feet above the datum plane, which would be 3.72 inches below the average crest of the old part of the present structure, the river would be raised a foot during about one month; and in his report recommended that the

opening should be thus closed by the government. Assuming that the gap was filled up by a structure 18 inches above the main level 77 of the old dam, and 280 feet long, he testified that this obstruction “would certainly raise the water at Holyoke in the lower stages of the river. The reasons are that the obstruction contracts the water-way at Enfield, and thereby raises the water flowing over the rest of the dam. This sets the water back at Holyoke, at the lower stages of the river, almost exactly the amount of the rise at Enfield. \* \* \* Exactly what part of the year this effect would take place, I am not able to state of my own knowledge. As the river rose from the state of low water, the effect would diminish.” In his affidavit, made September 13, 1881, to be used upon the motion for a preliminary injunction, he said: “There would probably be, from the best *data* in my possession, and my general knowledge of the river, an average of about thirty days in each year when the water would be one foot lower with the gap as it existed eight years ago, than with the gap filled up as at present.” It is evident that Gen. Ellis was intentionally vague as to the increase of flow which would overcome the effect of the obstruction. From the testimony in the case no certain and indisputable conclusion can be reached, either as to the length of time in each year in which the influence of the present dam will be known at Holyoke, or as to the amount of the flow of water at which the influence of the dam will cease to be felt; but my opinion is that, with a flow of 7,000 cubic feet per second, the effect will be unknown, and that such effect will be perceived at Holyoke between 30 and 90 days during the driest part of the year.

Putting aside the testimony for the defendant, certain facts tend strongly to satisfy me that the effect of the present structure will not be protracted and will not be injurious. They are as follows:

(1) When the observations in regard to the rise of the water were taken, the coffer-dam, the dimensions of which have been given, was the effective obstruction in the river, in addition to that caused by the pre-existing dam.

(2) Gen. Ellis' indisposition to commit himself in regard to the point at which the effect will be unknown, when he was testifying for the plaintiff, and his admission that when he was testifying before the legislative committee which had the amendment of 1881 under consideration he might have said, in substance, that if the dam was raised 15 inches, the backwater would be overcome by a slight rise.

(3) His recommendation to the government to close the gap, when it was apparent that such a course would raise the water about one foot during 30 days in the year. He was undoubtedly making recommendations which he knew it would be perfectly safe for the government to act upon, and which were probably inside the limit which he thought that careful prudence would suggest.

The next point is as to the amount of damage which is caused by the present structure. The rise is simply a rise within the banks of the river. It overflows nothing; it occupies no land. As the Works of the existing mills are arranged, it is impossible for this obstruction to set back any water upon their wheel-pits or canals. The fall on the third-level canal, as computed by Mr. Herschel in the order of his arrangement of months, follows: Dryest, or first, 25.10 feet; 78 second, 24.80 feet; third, 24.20 feet; fourth, 23.65 feet; fifth, 23.10 feet; sixth, 22.35 feet; seventh, 21.65 feet; eighth, 20.85 feet; ninth, 20 feet; tenth, 18.85 feet.

The usual lease heretofore in use has been for a fall of 24 feet. It is, of course, practicable for the lessors and lessees of power at Holyoke to alter their indentures, and for the lessees to alter their structures so as to utilize every inch of fall that is attainable

during the driest portion of the summer, and it may be possible for the plaintiff so to arrange its contracts with the present lessees, or with the purchasers of unsold mill-powers, as to derive a pecuniary benefit from the slight additional amount of fall during this dry period; but the damage which will accrue to the plaintiff from the present Enfield dam seems to me to be theoretical and fanciful rather than actual. In the months of August and September it might have a nominal advantage if the gap had not been filled, but I cannot deem it reasonable that no change should be permitted in the structures for the benefit of navigation 16 miles distant from Holyoke, in order to furnish the Holyoke company with an advantage which consists far more in theory than in fact. During nine or ten months in the year this obstruction will not be known at Holyoke; during two or three months it can be perceived; but it practically does no damage to the owners of the water-power.

In regard to the raising of the dam above its present height to the point authorized by the amendment of 1881, I am of opinion that it would produce to the plaintiff a pecuniary injury for a period of six or seven months in the year by the diminution of its fall, but not by an overflow of its land or a taking of its property,—an injury which is called a consequential injury. *McKeen v. Delaware Division Canal Co.* 49 Pa. St. 424. The defendant admits in its answer that it claims the right to raise its dam to the point authorized by the amendment, and that it proposes to do so whenever necessary.

The defendant insists that inasmuch as the state of Connecticut authorized the addition to the dam for the purpose of improving the navigation of Connecticut river within the limits of the state, any consequential injury not amounting to the taking of land, which is occasioned, in the exercise of ordinary care, by reason of such improvement to the land of a riparian

proprietor, is *damnum absque injuria*; and it may be considered as settled that where a state, by itself or by its agents, in the construction of works authorized or directed by the legislature of such state for the benefit of the navigation of a navigable river within its borders, causes, without malice, and in the exercise of ordinary care, a necessary consequential injury to land within its borders, no relief will be granted against such injury. The state and federal courts concur in the assertion of this principle. The supreme court of errors of Connecticut says, in regard to works erected for the improvement of the navigation of Connecticut river: "The public, being the owners of this river, have an unquestionable <sup>79</sup> right to improve the navigation of it, without any liability for remote and consequential damage to individuals." *Hollister v. Union Co.* 9 Conn. 436.

"Acts done in the proper exercise of governmental powers, and not directly encroaching upon private property, though their consequences may impair its use, are universally held not to be a taking within the meaning of the constitutional provision. They do not entitle the owner of such property to compensation from the state or its agents, or give him any right of action. This is supported by an immense weight of authority. \* \* \* We have examined the decisions of the courts of Illinois, and others to which we have been referred by the plaintiffs in error, but in none of them was it decided that a riparian owner on a navigable stream, or that an adjoiner on a public highway, can maintain a suit at common law against public agents to recover consequential damages resulting from obstructing a stream or highway in pursuance of legislative authority, unless that authority has been transcended, or unless there was a wanton injury inflicted, or carelessness, negligence, or want of skill in causing the obstruction." *Transp. Co. v. Chicago*, 99 U. S. 635.

In this case the injury will be caused to property beyond the limits of Connecticut, and the question arises whether the doctrine which has been asserted is applicable to this state of facts. This question has never, so far as I can ascertain, been decided by the courts of this country. The question has arisen whether, by virtue of the right of eminent domain, one state can take or subject to public use land in another state, and the decisions have naturally been against such a power. *Farnum v. Canal Corp.* 1 Sumn. 46; *Salisbury Mills v. Forsaith*, 57 N. H. 124; *Wooster v. Great Falls, etc., Co.* 39 Me. 246; *U. S. v. Ames*, 1 Wood. & M. 76. In two cases which have recently arisen in federal courts, and which involved the right of a state to regulate or to improve the navigation of a river wholly within its limits, the judges have carefully limited their decisions to the facts in the cases. *Escanaba Co. v. Chicago*, 107 U. S. 678; S. C. 2 Sup. Ct. Rep. 185; *Huse v. Glover*, 15 FED. REP. 296. Important suggestions which bear upon the question in this case are made by Judge Treat in *Rutz v. St. Louis*, 7 FED. REP. 438, and by Mr. Justice McLEAN in *Palmer v. Com'rs Cuyahoga Co.* 3 McLean, 226.

The rule which has been referred to is based upon the principle that the improvement of the navigation of navigable rivers within a state is part of the state's governmental duties, and that the work which is done towards such improvement is done in the discharge of the governmental powers of the state, and that the land of the riparian proprietor within the state is subject to the just exercise of this power; and that when the state undertakes to exercise its governmental power the public good is paramount to the consequential injury of land which is incidentally and necessarily affected by the improvement. The land is under the jurisdiction of the state, and the state derives the

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upon it by virtue of such jurisdiction. The owner of land abutting upon a navigable river owns it subject to the right of the state to improve the navigation of the river, because the land is within the governmental control of the state; but it seems to me that the state obtains by virtue of its governmental powers no control over or right to injure land without its jurisdiction. Jurisdiction confers the power and the right to inflict consequential injury, but when no jurisdiction exists the right ceases to exist. It is a recognized principle that the statutes of one state in regard to real estate cannot act extraterritorially. As Connecticut has no direct jurisdiction or control over real estate situate in another state; it cannot indirectly, by virtue of its attempted improvement of its own navigable waters, control or subject to injury foreign real estate. If this resolution is a bar to an action for any consequential injury to land or to rights connected with land in Massachusetts, Connecticut is acting extraterritorially.

Let there be a decree enjoining the defendant against any further raising of its present dam, and against constructing a new dam or dams to a greater height than the height occupied by the respective portions of the present structure.

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