The State of New Hampshire
DEPARTMENT OF ENVIRONMENTAL SERVICES

Thomas S. Burack, Commissioner

Town of Exeter, NH
10 Front Street
Exeter, NH

In re: Exeter River, Colcord Pond Dams
Exeter, NH
Dam # 082.01 & 082.03

RE-ISSUANCE OF
NOTICE OF DECISION ON
DETERMINATION OF LAKE LEVEL
September 29, 2008

Re-Issuance of Decision

This Notice of Decision was originally issued on August 20, 2008 by the Department of Environmental Services (DES). The 30-day period to file an appeal of the Decision to New Hampshire Water Council ("Water Council") expired on September 19, 2008 (see the New Hampshire Code of Administrative Rules CHAPTER Env-WC 200 - Procedural Rules of the Water Council).

Because legitimate concerns have been raised that the distribution and advertisement of the original Notice of Decision did not provide an adequate opportunity for interested parties to appeal the Decision, DES is re-issuing the Decision at this time for the purpose of reopening the 30-day appeal period.

The 30-day period to file an appeal of this Re-Issuance of Decision to the Water Council expires on October 29, 2008.

Summary of Decision

On October 13, 2004, the Department of Environmental Services received a petition that requested an investigation into the operation of the Exeter River Dam and Colcord Pond dams. After investigation and review, DES finds that the normal water levels maintained by the Exeter River Dam[1] are consistent with the historic management of the dam and will not be subject to change as a result of this Notice of Decision on Determination of Lake Level.

[1] The Exeter River Dam is known locally as Great Dam. DES Dam Bureau files refer to the dam as Exeter River Dam, and it is referred to as such throughout this Decision. There are several references to Great Dam in Town documents and those prepared for the Town by others.

In the matter of Colcord Pond, DES has no jurisdiction in investigating claims or arbitrating disputes as this waterbody does not meet the definition of a public water in the context of RSA 482:79[2] Investigation of Levels of Inland Public Waters. The application of the powers allowed by RSA 482:79 is reserved for those inland waterbodies at which public trust interests exist. No further reference to the specific management practices of Colcord Pond exists in this Notice of Decision on Determination of Lake Level except as reiterated in the **Decision** section of this document.

DES finds that upstream flooding in the Exeter River, particularly during more extreme events, is a result of channel controls at and above the Great Bridge, which is located several hundred feet upstream from the Exeter River Dam. Though the dam appears stable and free of major structural defects, DES had previously determined that modifications to the dam would be necessary in order for it meet New Hampshire Dam Safety requirements.[3] However, it is not expected that modifications made to the Exeter River Dam to address dam safety concerns will result in an enhancement of the Town's ability to control upstream flooding during significant precipitation events.

DES does not find that the Town's operation of the dam has resulted in worse flooding to upstream properties than would otherwise have occurred. DES recommends that operations practices follow the general procedures outlined in a document entitled "Town of Exeter Operation & Maintenance Procedure, Great Dam #82.01", provided as an attachment to the Town's written testimony submitted June 24, 2005.

The issues of water use rights and flowage rights related to the Exeter River Dam were investigated on behalf of the Town of Exeter by others.[4] While it is clear those deeded rights exist, DES declares no finding relative to those actual rights. Rather, based on the conclusions of the hydraulic analyses commissioned by the Town, in particular the conclusion that the Great Bridge is the overriding channel control in the Exeter River during high water events, DES does not find that water use and/or the application of flowage rights associated with the Exeter River Dam have changed in any material way.

Background

The entire 103 square miles of the Exeter River watershed drains to the Exeter River Dam. Dudley, Great and Scammon Brooks, as well as the Little River, are some of the tributaries that feed the Exeter River. In 1981, the then owner of the dam, Milliken & Company, gifted several parcels of real estate and the rights therewith to the Town of Exeter, including the Exeter River Dam. The management of the Exeter River Dam has been the responsibility of the Town of Exeter since that time. The Exeter River Dam is a run of the river dam designed and constructed to provide water resources for such things as hydro power and domestic use, including municipal water supply. It is not a flood control dam. It was not designed or constructed to store water runoff from significant rainfall or snow melt events.

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[2] See http://www.gencourt.state.nh.us/rsa/html/L/482/482-79.htm.
[3] See http://www.gencourt.state.nh.us/rules/env-wr.html, specifically Env-Wr 303.11.
[4] Flowage rights were researched in 1981 by the then Town Attorney Henry Shute, see Flowage Rights under **Findings** in this document. The water use rights were researched by the law firm of Pierce Atwood; see Water Use Rights under **Findings** in this document.

The Exeter River Dam has a long history and has played a significant role in the culture and development of the local area. It has existed, in one form or another, since at least 1828 and possibly before then. Some of the benefits derived from the impoundment created by the current structure include support of recreation, local business, wildlife and aquatic species, fire protection, water supply (both domestic consumption and other purposes) and enhancement of property values. However, these and other interests may also be adversely affected by the presence of the impoundment and/or due to its management. It is of note that the 2008 assessment of state surface waters lists the impoundment as impaired for aquatic life due to low levels of dissolved oxygen. This condition is at least in part due to the presence of the dam.

On October 13, 2004 DES received a petition that requested an investigation into the operation of the Exeter River Dam and Colcord Pond dams "to determine the actual flowage rights of said Town of Exeter and to establish the historic levels of said dams and to order any reconstruction of, or operating procedures for, said dams to protect the property rights of the citizens and property owners so damaged." The petition claims that property owners abutting the impoundment have incurred damage due to the impoundment of waters by the Exeter River Dam. Further, it claims that alterations made and current management practices at both dams have contributed to the damages. RSA 482:79, Investigation of Levels of Inland Waters, states in part that,

> *"the department may...upon complaint of not less than 10 owners of property on any inland public water in the state, make a preliminary investigation of conditions affecting the use and enjoyment of any such public water whenever it shall be of the opinion that such investigation would be in the public interest...If, as a result of such further investigation after public hearing, the department shall be of the opinion that such management and control is lawful, but that changes in the manner of the exercise of the right of management and control would be of benefit to others, without undue injury to the owner of the outlet, it shall direct such changes as in its opinion would be of benefit to the public and private interests concerned."*

In early 2005 the Town of Exeter commissioned a study related to certain aspects of the Exeter River. The Town contracted the engineering consulting team of Wright-Pierce and Woodlot Alternatives (now StanTech) to provide a hydraulic analysis and study of the Exeter and Little Rivers, including the influence of the dam on upstream flooding. The final study was released in March 2007. The conclusions and recommendations of this study are referred to in this Decision.[5]

Investigation

As part of its investigation, DES reviewed the current dam files, including dam inspection reports and other DES program files, scheduled and presided over a hearing relative to this study (held on May 25, 2005) and received testimony, conducted site visits and a survey of the Exeter River,[6] researched modifications to the dam over time as documented in DES files and historic

[5] For this and other publications related to the Exeter River, see http://town.exeter.nh.us/NewPublications.cfm.
[6] DES staff performed photo survey of the Exeter River on August 26, 2005. The results of the survey are part of

documents provided by the Town of Exeter and others, and conducted a comprehensive review of the Exeter River Study provided by Wright-Pierce, including detailed question and answer sessions with the study's primary authors.

Summary of Public Testimony

A public hearing was held on May 25, 2005 at the Main Street Elementary School in Exeter, NH. Brian Griset, Carol Waleryszak, Cheri Patterson, Don Clement, Paul Kimball, Russell Dean and other persons testified or spoke at the hearing. The hearing officer, Steve Doyon of DES, indicated that the record for the hearing would remain open until June 24, 2005 to receive additional testimony and evidence. Additional written testimony was submitted by a few individuals and reflected issues discussed at the hearing. Testimony received at the public hearing and during the public comment period is summarized below.

The Town of Exeter, through Town Manager Russell Dean, submitted written testimony on the date of the hearing (May 25, 2005) stating, in summary, that the Town has operated the Exeter River Dam since its acquisition using the judgment of the staff and a plan originally promulgated in 1998 and revised in 2005, which was made available to the assembly. The testimony further noted that there may not be a perfect solution to address the various competing interests, which includes concerns about flooding and that the Town's water supply is provided for by the presence of the Exeter River Dam. The Town's follow-up written testimony is summarized below.

Written and oral testimony received from Brian Griset, Carol Waleryszak, State Representatives Marshall Lee Quandt and Matthew T. Quandt, John Tyler, and James Ekstrom focused on concerns about upstream flooding and the Town's operation of the dam during significant storm events. Cheri Patterson, a marine biologist with the New Hampshire Fish & Game Department provided written testimony in the form of an Inter-Department Communication to Paul Piszczek of the DES Watershed Management Bureau in response to a request by DES and the Town to help develop a protocol for spillway operation during high spring water events while the adjacent fishway is in operation.

The Town's follow-up written testimony, received June 24 2005, addressed several issues which are summarized in the following bulleted items. The Town contends that it has and is doing everything it can within reason to operate and maintain the Great (Exeter River) Dam, and that meeting the goals of balancing the various stakeholder interests is a complicated process. The Town noted several of the stakeholders and their interests, including Town withdrawal of water from the impoundment as a pre-treatment source for its municipal water supply, the Exeter Mill Apartments withdrawal of water from the impoundment for fire protection, cooling and irrigation, the New Hampshire Fish & Game Department for fish passage, citizens for boating, fishing and swimming, local campgrounds for recreation, Phillips Exeter Academy for irrigation, nature for sustenance of vital wetlands areas, and homeowners who prize the view of living along the river. In providing further detail in support of Town's contentions, the testimony also included the following:

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the file for this investigation and Decision.

- *The Town has operated the Great (Exeter River) Dam consistent with the terms of the 1981 deed.*
- *The Town has maintained the historical operating levels.*
- *The Town has made no decision to change the level of the impoundment.*
- *There have been several severe flooding events in the last 20 years in Exeter, to the extent the Town has been able to mitigate these events, it has done so.*
- *There is no evidence that documented flooding is specifically related to Town action, especially when considering by virtue of the testimony on May 25, 2005 it was pointed out that flooding was not a major issue from 1999 to 2003.*
- *The Town has in place an operating procedure that is the best available given the current (as of June 24, 2005) knowledge of the river and the Town's lack of ability to control flows.*
- *The Town has not received any complaints from local businesses regarding loss of business and/or revenues due to flooding except for Exeter Elms (campground).*
- *The Town asserts that the historic elevation of the weir on top of the dam has not changed since the original construction of the present dam. The only change to the weir has been from a breakable wooden material (flashboards) to a permanent concrete material. Both materials provide for the same river elevation under normal (non-flooding) conditions. The Town believes this normal river elevation has over the years established wetlands in various areas along portions of the river. The Town is concerned that lowering the elevation of the weir could result in a negative impact to existing wetland areas, which may be in violation of wetland protection regulations and/or laws.*
- *The Town has commissioned a hydrologic study designed to measure impacts on the watershed and river behavior in order to ascertain whether there are linkages between gate operations at various dams along the river and flooding. To date these linkages have not yet been established.*
- *The Town is addressing the other issues brought to the May 25, 2005 hearing as part of the ongoing cooperative efforts between the Town of Exeter and the State of New Hampshire. This effort was set in motion in the Fall of 2004.*
- *The Town has formed a Local River Committee with various stakeholders along the Exeter River corridor. A comprehensive study is currently underway in concert with the State of New Hampshire. The scope of the study has been attached to this document (the Town's testimony).*

In addition to testimony received during the public comment period, DES has received additional information in from the Town and others related to dam operations and the study of the Exeter River, including:

- *Letter from Henry Shute, Exeter Town Counsel to Evelyn Zarnowski, Chairman, Exeter Board of Selectmen, dated September 17, 1981*
- *Deed from Milliken & Company to New Hampshire Fish & Game, 1968*
- *Minutes, Exeter River Study Committee*
- *Agenda and minutes from Exeter Board of Selectmen meeting, June 19,1991*
- *Letter from Cheri Patterson, NHFG Marine Biologist to Paul Piszczek, DES Watershed Management Bureau, re: Exeter Fish Ladder Operations, February 25, 2005*
- *Town of Exeter Operating & Maintenance Procedure, Great Dam #82.01*
- *Written Statement of the Town of Exeter submitted to DES as part of the May 25, 2005*

lake level investigation hearing
- *Exeter River Study Online, 2005-2007, courtesy of the Rockingham Planning Commission*
- *Scope of Work, Wright-Pierce, 2005 for Town of Exeter River Study*
- *Memo from Victoria Del Greco to Town Manager Russ Dean, June 21, 2005, re: Water Supply*
- *Exeter Board of Selectmen meeting minutes, August 16, 2004*

Findings

The DES findings regarding the major issues raised in the Petition and during the public comment period are summarized below.

Exeter River Dam

The current configuration of the Exeter River Dam is not so different from the structure that existed at the site in 1967 as to preclude reasonable control of impoundment levels consistent with the normal historic water level. Research indicates that sometime between 1967 and 1971, the then-owner, Milliken & Company, performed work on the Exeter River Dam that included the replacement of the one foot high wooden flashboards with a section of concrete of the same height.[7] In that same time period, the New Hampshire Fish & Game Department negotiated an agreement with Milliken & Company to construct a fish ladder at the Exeter River Dam. The addition of the ladder resulted in the loss of approximately eight feet of the original spillway (111 feet long), or approximately 7% of the length. This change, coupled with the replacement of failing wooden flashboards with a non-failing concrete section, resulted in a configuration that is slightly less efficient (lower discharge capacity) and less dynamic (loss of ability to provide a minimal 1-foot self-adjustment under high flows). The existing penstock, which was originally used to provide some power and process water to the mill, was discontinued as a point of discharge around the time that the mill was converted to condominiums (the mid-1970's). The inside of the penstock was blocked off and the inlet was restricted by a wooden wall. There is water available in the upper end of the penstock for use in the cooling and fire suppression systems in the condominium complex. However, whatever impact these modifications may have had on historic discharge rates at the dam, the changes were introduced several years prior to the Town accepting ownership of the dam.

An analysis of how the Exeter River Dam acts to impound or pass water before and after the above referenced modifications occurred was conducted as part of the study done by Wright-Pierce. Under low to moderate flow conditions, like those typically experienced between the months of July and November, the water levels impounded behind the Exeter River Dam are not significantly affected. Neither the eight foot reduction in spillway length nor the replacement of flashboards cause levels experienced at these time to vary noticeably. Under very low flow conditions, the "leaky" nature of a wooden flashboard system as opposed to a water-tight concrete section could have contributed to slightly lower impoundment levels. As was noted in several places in the Exeter River Study conducted by Wright-Pierce, under high flow conditions the limiting channel controls are the Great Bridge and the upstream geography of the channel,

[7] Research conducted included a review of DES dam files (Exeter River Dam - #082.01) and documents provided by the Town of Exeter and others.

and thus the historic modifications to the dam were not found to contribute in a significant way to upstream flooding.

The operation of the 4.5 foot high by 5 foot wide low-level gate in the above comparisons is immaterial, assuming that the gate was operated in the same manner when the Exeter River Dam existed under either configuration. If that is true, then although the impoundment elevations and dam discharges may vary, the differences in those values remains consistent. The importance of site monitoring and gate operation can play a significant role in controlling impoundment levels under certain lower flow conditions. It is estimated that the gate, when in a fully opened position, can pass between 300 and 370 cubic feet per second, when the level of the impoundment is between the current spillway crest and the top of the dam, respectively. As such, when inflows are equal to or less than full gate capacity complete control of impoundment levels is theoretically attainable. When inflows exceed the gate capacity then impoundment levels must necessarily rise in order to provide additional discharge at the dam, as no further operability exists at the dam.

DES finds that the Town of Exeter's operation of the Exeter River Dam has not been unreasonable, and is typical of operations conducted at similar dams in similar watersheds.

Flowage Rights

Research of flowage rights was conducted in 1981 by Henry Shute, the Town's attorney at the time, in the context of rendering a legal opinion on the Town's liability in association with the acceptance as a gift of the Exeter River Dam. The following is an excerpt from Henry Shute's letter to the then Chairperson of the Board of Selectmen (Evelyn H. Zarnoski):

> *Flowage rights on Exeter River, Little River, and elsewhere. First and foremost, there is absolutely no way of assuring ourselves that flowage rights have been obtained for every parcel on both sides of the Exeter and Little Rivers. However, of the 47 or 48 deeds of such flowage rights which I discovered, most, if not all, contained the provision that the dam at Great Bridge, or Great Falls, would not be raised above the level then existing. The majority of the flowage deeds were executed and delivered in the late 1830s to the mid-1840s, and by agreement of February 12, 1828 (Book 253, Page 142) Exeter Manufacturing Company had agreed with Exeter Mill & Water Power Company to construct "within nine months from the date hereof a good and sufficient new and permanent dam at or near the place where the present upper dam now is and which shall raise the water in said river to the same elevation and height as it is raised by the present dam..."*

DES has not identified any evidence documenting that the dam is currently operated at a higher elevation than when the Town accepted ownership, or that flowage rights have been violated. It appears that the normal water level maintained by the existing Exeter River Dam is consistent with the water level that has been maintained at that location for at least the last one hundred years.

Water Use Rights

There are water rights held by the Town of Exeter and a privately held entity, known as the Exeter Mill Apartments, associated with the dam and backwater. In 2004, the Town retained the law firm of Pierce-Atwood to prepare a report on the Town's public water rights. In June 2004, Pierce Atwood issued its report.[8] It is not necessary for the purpose of this determination to detail the issue of water rights other than to provide a brief discussion of the applicability of those rights with respect to the Exeter River Dam. For a comprehensive discussion of the issue of water rights, refer to the Pierce Atwood report.

The Town of Exeter has rights, granted coincident with the acquisition of the Exeter River Dam in 1981, to draw from the reservoir created by the dam. The water is withdrawn and directed to a water treatment facility and serves as part of the Town's public water supply. The Exeter Mill Apartments have established deeded rights to withdraw water for the purpose of providing fire protection in the complex, and according the Pierce-Atwood report may also use water for cooling and irrigation. Phillips-Exeter Academy also draws water from the impoundment for irrigation purposes, and has a common law right to reasonable use as a riparian owner.

For the purpose of making a decision on future water levels, discussion of the exact limits of rights associated with flowage is less important than assuring that future management of the impoundment is within the range established by historical documents and the passage of time. As indicated above, the pre-1967 Exeter River Dam configuration included 12-inch high wooden boards across the top of the spillway. These boards, which are typically supported by vertical iron pins spaced horizontally along their length, are designed to fail when the stress induced by rising water levels causes the yield strength of the pins to be exceeded. At that time, the pins bend and the boards are pressed flat resulting in a large flow area in the spillway and additional discharge from the dam. Sometime after 1967 these wooden boards were removed and replaced with a 12-inch high solid (non-failing) section of concrete that was formed along the top of the spillway.

Though the configuration of the dam has been modified, the crest height of the spillway remains essentially the same as it has been since the late 1800s. A review of numerous deeds from this time period between abutting property owners and the Exeter Mill & Water Power Company finds that most make reference to flowage rights in the following manner:

> *"...the right to flow our premises...to the same extent which they now are or may be flowed in consequence of their dams on said Exeter River being maintained as they now are."*

This language, together with the evidence that the structure that has existed at this location for more than the last century has maintained the normal water level at or near the current level impounded by the Exeter River Dam, leads DES to conclude that the current control provided by the Exeter River Dam is within the rights that exist for the site.

Hydraulic Analyses

The existing Exeter River Dam is presently in violation of DES rules that require all dams

[8] A copy of the report on water use rights prepared by law firm of Pierce Atwood is not included in the appendices of this document, but can be made available by the Town of Exeter.

so classified as a Low Hazard to pass the 50-year flood event with one foot of freeboard.[9] DES did not conduct a comprehensive hydraulic analysis on the Exeter River as part of this investigation. However, the Town of Exeter hired an engineering consultant (Wright-Pierce of Portsmouth, NH)[10] to conduct a study that included a hydraulic analysis of the Exeter River watershed and the impact of the Exeter River Dam. This study was commissioned on behalf of the Town by the Exeter River Study Committee. The Committee had identified that the most important issues to be addressed on the Exeter River were to identify what changes could be made at the dam to mitigate the adverse affects of upstream flooding and to satisfy DES requirements for discharge capacity at the Exeter River Dam.

In its study entitled "Exeter River Study, Phase I Final Report" (dated March 2007), the Wright-Pierce engineering team conducted analyses to identify the contribution of the dam, including historic modifications, to upstream flooding. Among the findings was that the Exeter River Dam, in its present or modified condition, has little ability to mitigate upstream flooding. The results of the various modifications to the dam over the last 150+ years have diminished the dam's ability to pass flows associated with the 50-year storm, but had a minimal impact in increasing flood water elevations upstream of the dam. However, the study did reveal that the Great Bridge, which is situated several hundred feet upstream of the dam, and the geography of the natural river channel upstream of the dam have a significant effect on upstream flooding as compared to the Exeter River Dam. The executive summary of this comprehensive study highlights repeatedly that the Exeter River Dam has a minimal impact on upstream flooding.

DES does not have any basis to dispute the conclusions made in the Wright-Pierce report, and specifically agrees with the finding that under high flow conditions the Exeter River Dam does not significantly contribute to upstream flooding. The primary channel control under high flow conditions is the Great Bridge. In addition, the existing channel geography of the Exeter River upstream of Great Bridge also contributes to upstream flooding under high flow conditions.

In addition to the consulting reports on the Exeter River impoundment, the Department has been working on a number of watershed-wide initiatives. The first of these was the Exeter River Watershed Vulnerability Analysis. This project, conducted by DES and Geosyntec Corporation, was used to forecast the vulnerability of subwatersheds that drain to the Exeter River so that watershed planning efforts can be focused on the highest risk areas. A follow-up project is now underway which will conduct a geomorphic assessment of the watershed in two phases. The first phase will use GIS and other tools to identify erosional and flood risk areas. The second phase will conduct on-the-ground assessments in the four priority subwatersheds identified in the vulnerability analysis. The results of both of these studies should help the Town and other watershed communities to prioritize both flood mitigation and aquatic restoration activities to improve the condition of the Exeter River.

Further, the 2008 surface water assessment ("the 305(b) report") identifies the Exeter River Dam impoundment as failing to meet the dissolved oxygen standard for aquatic life. This

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[9] See http://www.gencourt.state.nh.us/rules/env-wr.html, specifically Env-Wr 303.11.

[10] The Town of Exeter, under the recommendation of the Exeter River Study Commission, contracted with the consulting team of Wright-Pierce and Woodlot Alternatives (now StanTech) to provide a hydraulic analysis and study of the Exeter and Little Rivers, including the influence of the dam on upstream flooding. The final study was released in March 2007, see http://town.exeter.nh.us/NewPublications.cfm.

condition is likely due at least in part to the presence of the Exeter River Dam and the resulting impounded condition. State and federal law required correction of this condition, which may involve such actions as modification of the dam, reductions in nutrient loadings from the upstream watershed, or aeration of the impounded waters. Corrective action is not expected for many years.

Decision

The Department of Environmental Services finds that the normal water levels maintained by the Exeter River Dam are consistent with historic management and will not be subject to change as a result of this proceeding.

In the matter of Colcord Pond, DES has no jurisdiction in investigating claims or arbitrating disputes as this waterbody does not meet the definition of a public water in accordance with RSA 482:79[11] - Investigation of Levels of Inland Public Waters. The application of the powers allowed by RSA 482:79 is reserved for those dammed waterbodies at which public trust interests exist.

Comprehensive hydraulic analyses performed by an independent professional engineering firm concluded that upstream flooding in the Exeter River, particularly during more extreme events, is a result of channel controls at and above the Great Bridge, which is located several hundred feet upstream from the Exeter River Dam.[12] Though the dam appears stable and free of major structural defects, DES had previously determined that modifications to the dam are necessary in order for it meet New Hampshire Dam Safety requirements.[13] These modifications, once designed and constructed, will likely enhance the Town of Exeter's ability to operate the Exeter River Dam more efficiently and may help to address not only flooding concerns under certain lower level storm events but also issues associated with fish passage and water quality and quantity. However, it is not expected that modifications made to the Exeter River Dam to address dam safety concerns will result in an enhancement of the Town's ability to control upstream flooding during significant storm events.

Relative to operation of the Exeter River Dam, testimony received during the investigation period for this Decision suggests that the operation of the Exeter River Dam may have, at times, not been as conscientious as possible during the 3-5 years prior to the commencement of this investigation with regard to control of upstream water levels under more typical flow conditions. DES makes no finding relative to the past operation of the dam. DES finds that, because of the magnitude of the difference between the discharge capacity of the gate structure (300-370 cfs) and estimated flows at the dam under 50 year flood conditions (4,400 cfs), attempts at pre-emptive operation of the gate under higher level precipitation will have a minimal impact on upstream flooding. DES finds that diligent water level monitoring and management, insofar as the existing monitoring network and physical configuration of the Exeter River Dam will allow, would provide tangible benefits in lessening the severity, frequency and duration of certain lower intensity precipitation events. This may be accomplished on the part of

[11] See http://www.gencourt.state.nh.us/rsa/html/L/482/482-79.htm.
[12] The Exeter River Dam is known locally as Great Dam. There are several references to Great Dam in Town documents and those prepared for the Town by others.
[13] See http://www.gencourt.state.nh.us/rules/env-wr.html, specifically Env-Wr 303.11.

the Town of Exeter through a general adherence to the operations procedure entitled "Town of Exeter Operation & Maintenance Procedure, Great Dam #82.10", provided as an attachment to the Town's written testimony submitted June 24, 2005.

The issues of water use rights and flowage rights related to the Exeter River Dam were investigated on behalf of the Town of Exeter by others.[14] While it is clear those deeded rights exist, DES declares no finding relative to those actual rights. The initial construction of the dam[15] prompted the deeding of such rights. Rather, based on the conclusions of the hydraulic analyses commissioned by the Town, in particular the conclusion that the Great Bridge is the overriding channel control in the Exeter River during high water events, DES does not find that water use and/or flowage rights associated with the Exeter River Dam have changed in any material way.

As supported by the findings, the property rights of owners of upstream properties abutting the Exeter River have not been damaged by any action of the Town as dam owner/manager.

Appeals

This Decision may be appealed to the New Hampshire Water Council ("Water Council") by filing an appeal to the Water Council that meets the requirements specified in the Procedural Rules of the Water Council, Env-WC 200, within 30 days of the date of this Decision. Copies of the rules are available from the DES Public Information Center at (603) 271-2975 or at http://www/state.nh.us/desadmin.htm.

Date: Sept. 29, 2008

Michael J. Walls
Assistant Commissioner
Department of Environmental Services

[14] Flowage rights were researched in 1981 by the then Town Attorney Henry Shute, see Flowage Rights under **Findings** in this document. The water use rights were researched by Pierce-Atwood, see Water Use Rights under **Findings** in this document.
[15] The Exeter River Dam was originally constructed at some time around the year 1828.