

Attachment 1

3C

~~4B/11~~ No downstream dams

Upstream dams

GMP	Gorge #18	Private	Winooski 8
GMP	Essex #19	Private	N. Montpelier
GMP	Bolton Falls	GMP	Marshfield
GMP	Waterbury		
GMP	Middlesex		
WEC	Wrightsville		
Private	Ladds Mill		
Private	Northfield		
Private	Moretown		

3F Exact location of dam

N 44.488700 W73.187303

Attachment 2

Brian T. Fitzgerald, Streamflow Protection Coordinator
VT Dept of Environmental Conservation
1 National Life Drive, Main 2
Montpelier, VT 05602

Nicholas Staats
Fisheries Biologist
US Fish and Wildlife Service
Dept of Fish and Wildlife
111 West St.
Essex Jct VT 05452



Vermont Department of Environmental Conservation

Watershed Management Division
1 National Life Drive, Main 2
Montpelier, VT 05620-3522
www.watershedmanagement.vt.gov

Agency of Natural Resources

[phone] 802.490.6153

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July 29, 2013

John Warshow
Winooski One Partnership
26 State Street
Montpelier, VT 05602

RE: Chace Mill Hydroelectric Project – FERC No. 2756
Flow Waiver for Icing Conditions

Dear Mr. Warshow:

You have requested written authorization from the Agency of Natural Resources regarding suspension of bypass flows at the Chace Mill Project during icing conditions.

The water quality certification issued for this project on May 5, 1987 contains a condition requiring that a 168 cfs, the estimated 7Q10 for the project location, be spilled continuously over the dam so that downstream dissolved oxygen conditions are not degraded.

Article 404 of the FERC license for the project, issued on November 3, 1988, addresses this issue. The license article requires spillage of 168 cfs, but provides for modification of this requirement for emergencies and for short periods upon agreement with the Agency of Natural Resources and U.S. Fish and Wildlife Service.

During the second winter the project was operated, a severe build-up of ice accumulated up on the dam crest due to cold temperatures freezing the bypass flow. Winooski One was granted an authorization to temporarily suspend spillage. Additional authorizations were granted in subsequent years during the winter months but were not well documented.

The Agency of Natural Resources hereby provides its consent for temporary suspensions of flows over the dam during periods when significant ice build-up on the dam crest is occurring. A record of the periods when flow is suspended shall be maintained in the station's operating records, and those records shall be available to the Agency upon request. This waiver shall remain in effect until rescinded in writing by the Agency.

Please contact me if you have questions.

A handwritten signature in black ink, appearing to read "B. Fitzgerald".

Brian T. Fitzgerald
Streamflow Protection Coordinator

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

WATER QUALITY DIVISION

103 South Main Street

Building 10 North

Waterbury, VT 05671-0408

FAX 802-241-3287

TEL 802-241-3770

July 1, 2004

Fred Ayer, Executive Director
Low Impact Hydropower Institute
34 Providence Street
Portland, Maine 04103

Re: Winooski One Hydroelectric Project
Water Quality Certification (P.L. 92-500 Sec. 401)

Dear Fred:

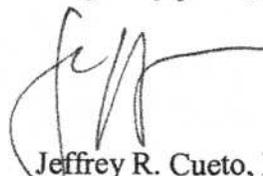
I have overseen this project for the Vermont ANR Water Quality Division since 1985 when the application for certification was received. I have worked with Winooski One on the permitting, design, construction and operation of Winooski One insofar as it relates to the issues within our agency's jurisdiction over the past 19 years.

Winooski One Partnership has always exhibited the type of qualities we like to see with hydro operations. They have consistently complied with their certification and have worked closely and cooperatively with our department.

To the best of my knowledge, Winooski One has been and is currently in compliance with the water quality certification dated May 5, 1987.

Feel free to contact me if you have any questions.

Very truly yours,



Jeffrey R. Cueto, P.E.
Chief, Hydrology Section

Jeffrey R. Cueto, P.E.
705 Murray Road
East Montpelier, VT 05651
December 21, 2012

To Whom It May Concern

My name is Jeffrey R. Cueto. I am a registered civil engineer in the state of Vermont and worked for the Vermont Agency of Natural Resources, Department of Environmental Conservation from 1973 through 2010. Beginning in 1981 as the State Hydrologist in the Water Quality Division, I was responsible for review and permitting of activities that alter streamflows, including ski resort snowmaking water withdrawals and hydropower facilities. Responsibilities included Vermont's hydropower licensing participation and the certification of hydropower projects under federal Clean Water Act Section 401. I was responsible for certification drafting and issuance of Winooski One's certification in 1987 and subsequent compliance monitoring. Vermont is a delegate state for administration of Section 401.

I found the Winooski One principals to be consistently cooperative with respect to this project and others they own in Vermont. The Winooski One facility had an excellent compliance record during my tenure.

As issued, the water quality certification requires a spillage of a minimum flow ("bypass flow") to protect water quality. During the second winter of operation there was a severe build up of ice on the dam crest below the rubber dam caused by cold temperatures freezing the bypass flow. Winooski One sought and received authorization to temporarily suspend spillage. As I recall, for several years thereafter, spillage flow waivers for the winter period were requested and granted in writing, beginning any time from early November and terminating in February or March depending on temperature and flow. I do not believe these requests and the agency's consent was documented after the first few years of operation.

Bypass flow waivers for inspections and repairs of the power station intake and fish passage facilities were also granted periodically, as well as flow waivers for the repair and/or replacement of the rubber dam.

The U.S. Fish and Wildlife Service and the Vermont Department of Fish and Wildlife also regularly sought and received temporary bypass flow waivers for Winooski One during seasonal spawning runs in order to concentrate flows for operation of the fish lift. The fisheries agencies have sought and been granted flow waivers for the application of lampricide, and Winooski One has been commended by the Governor of Vermont for their cooperation with this important on-going project.

For summer flow suspensions, the Department of Environmental Conservation originally required water quality sampling and filing of the data with the Department to assure that dissolved oxygen standards would continue to be met while flows were suspended. The



Lake Champlain Fish and Wildlife Resources Office
U.S. Fish and Wildlife Service
in cooperation with the
State of Vermont Agency of Natural Resources
Department of Fish and Wildlife
111 West Street
Essex Junction, Vermont 05452
(802) 878-1564 Fax (802) 879-5649

C-5



December 26, 2012

Mr. John Warshow
26 State Street
Montpelier, Vermont, 05602

Re: Winooski One Fish Passage Project

Dear Mr. Warshow

As a U.S. Fish and Wildlife Service fishery biologist, I have been the primary project leader of the Winooski One trap and truck fish passage program since the facility began operating in 1993. The fish lift is required to operate from March 15 to May 15 and from October 1 to November 15 targeting steelhead rainbow trout in the spring and landlocked Atlantic salmon in the fall. This fish passage facility is a key component of the Lake Champlain Fish and Wildlife Cooperative's salmonid restoration program as it allows salmon access to important spawning and nursery areas previously inaccessible for over a century. To the best of my knowledge, Winooski One has strived to operate in compliance with all their fish passage permit conditions. This letter does not address Winooski Ones performance as it relates to any of the other permit conditions.

The station operators have been enthusiastic about the program and fully cooperative with the Service in ensuring the lift operates in a manner that allows the system to "fish" most effectively. Winooski One has made several lift modifications requested by the Service and the State to improve the lifts efficiency. Some lift modifications have also been suggested by the operators as a result of their gained experience in running the facility. Furthermore, Winooski One employees have assisted biologists in processing lifted fish as well as assisting state and federal hatchery personnel with stocking juvenile fish at the facility.

I look forward to continuing our partnership in the future. If you have any questions, please contact me.

Sincerely,


Nicholas Staats
Fisheries Biologist
U.S. Fish and Wildlife Service

cc: Dave Tilton, USFWS

Fish & Wildlife Department
Essex District Natural Resources Office
111 West Street
Essex Jct, VT 05452
[www. VtFishandWildlife.com](http://www.VtFishandWildlife.com)

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Agency Of Natural Resources

January 2, 2013

John Warshow
Winooski One Partnership
26 State Street
Montpelier, VT 05602

Dear Mr. Warshow:

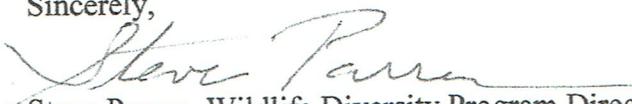
I am writing to support the Winooski One Partnership's Status of Compliance with your FERC order issued November 3, 1988.

Winooski One is, and always has been, in compliance with the FERC order that addressed stated-listed species at the Winooski One Hydroplant. The state-endangered plant Early Thimbleweed (*Anemone multifida*) was the focus. A threatened species Garber's Sedge (*Carex garberi*) had been collected in 1911 at the dam site, but it has not been observed more recently. Winooski One voluntarily sought approval under the proposed state endangered and threatened species law that was not yet in effect. The actual collection of Early Thimbleweed plants that were likely to be impacted by the tailrace of the Winooski One Hydroplant was authorized by a Vermont Endangered and Threatened Species Permit issued June 25, 1991.

Winooski One initiated an inventory of state-listed plant in a timely manner and their construction mitigation was successful. Yearly inventories of the plant species were initiated and no discernible effects from hydro operations were documented. The botanist who conducts these inventories believes climate change may be adversely affecting the Early Thimbleweed population. The inventory botanist also recommended that the frequency of inventory be reduced from annual to every 3 to 4 years. Our Vermont Fish and Wildlife Department botanist has indicated to me that he has consented to this change.

Winooski One has always paid their annual permit fee on time. I have been involved on behalf of my department since the early 1990s and believe Winooski One has been a model of compliance and cooperation. I would be happy to provide further information should it be desired.

Sincerely,



Steve Parren, Wildlife Diversity Program Director
Vermont Fish and Wildlife Department
Steve.parren@state.vt.us; 802-371-7142



Biologists say Lake Champlain salmon run was best ever

THE ASSOCIATED PRESS

MONTPELIER — The number of landlocked salmon that swam up the Winooski River from Lake Champlain this fall was the highest since a program began in 1993 to help the fish get around a series of power dams so they could reach their spawning grounds, officials said.

The 189 landlocked salmon that reached the Winooski One hydro dam this fall represented a 44 percent increase over the 130 fish total from 2010,

which was itself a record.

"This has been the best year we've had since the lift began operating in 1993," said Nick Staats, a U.S. Fish and Wildlife Service biologist who monitored the salmon run.

The average size of the fish was 21 inches with the largest being 28½ inches.

Officials credit the increase to a program that controls sea lamprey in Lake Champlain by killing young lamprey in the rivers and streams where they

hatch. Lamprey are external parasites that attach themselves to fish such as salmon and trout.

Landlocked Atlantic salmon are close relatives of the species that spawn in inland rivers and streams and then spend their adult lives in the Atlantic Ocean. They adapt to live their lives entirely in fresh water.

The upstream migration of salmon on the Winooski was blocked in the late 1700s when the first dam was built. It wasn't restored

until the Winooski One project began in 1993.

"This kind of increase two years in a row is a hopeful sign that the fishery is being restored," said John Warshow, owner of Winooski One Partnership that operates the hydro-electric station on the river where it separates Burlington from Winooski.

Until several years ago the fish were captured at the Winooski dam and then carried by truck upriver where they were released above two additional power

dams so they could spawn in the streams where they were released as fingerlings, about four inches long.

That practice was ended several years ago because of concerns the fish from the lake could spread a viral disease that affects fish in the Great Lakes basin, said John Hall, a spokesman for the Vermont Department of Fish and Wildlife.

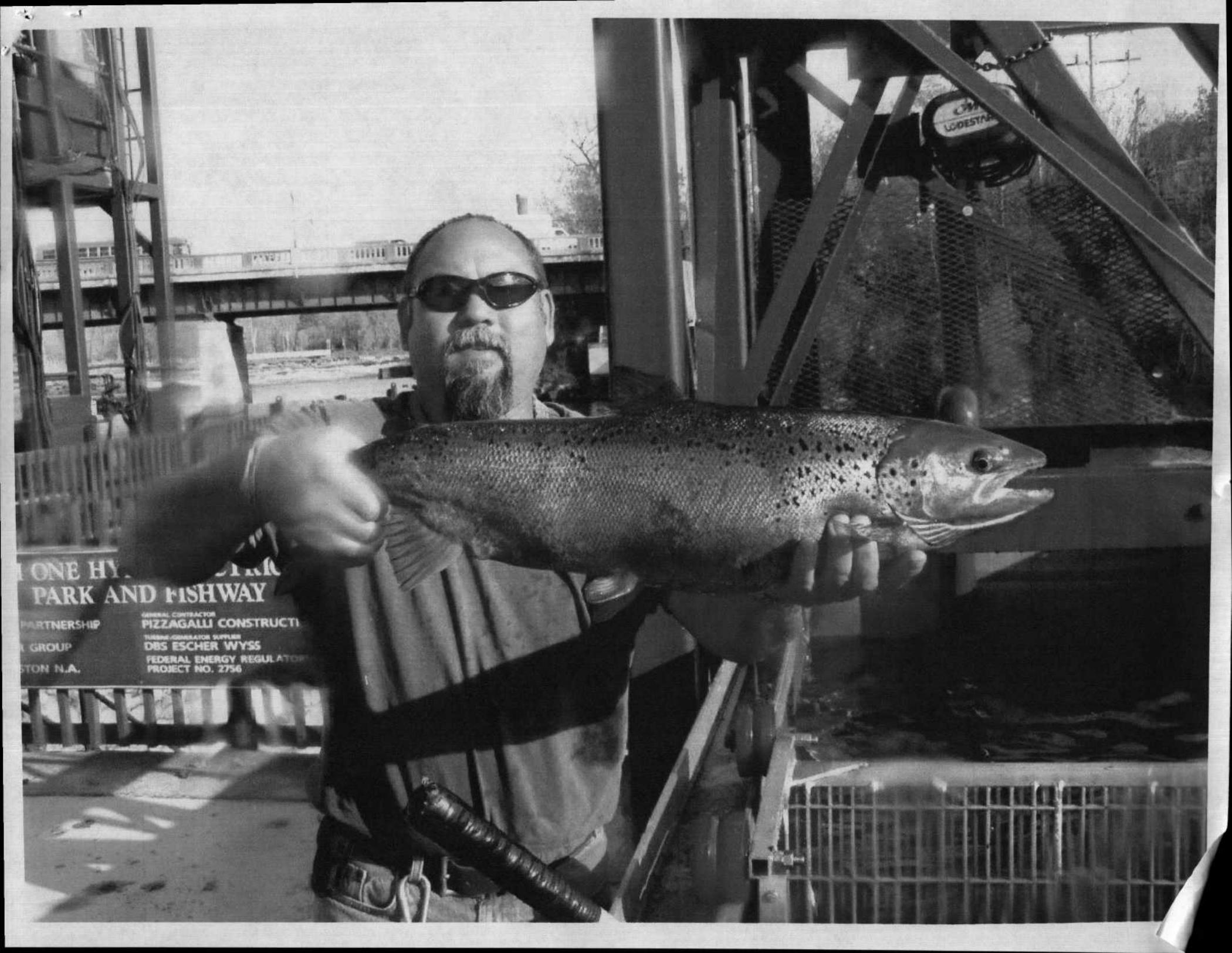
Now the fish are captured at the Winooski dam, measured and released there.

It's possible they spawn in the river below the dam, although conditions are not ideal, Hall said.

Young salmon are still stocked in tributaries above the dam, and when they grow up they swim down river to the lake.

The cost of the project is shared by Winooski One and Green Mountain Power, the owner of the next two dams upstream in South Burlington and Essex Junction.

The eight-week spawning season ended Nov. 10.



ONE HY
PARK AND FISHWAY

PARTNERSHIP
GROUP
STON N.A.

GENERAL CONTRACTOR
PIZZAGALLI CONSTRUCTI
TURBINE GENERATOR SUPPLIER
DBS ESCHER WYSS
FEDERAL ENERGY REGULATORY
PROJECT NO. 2756

LODESTAR