Lake Champlain Cooperative Policy Committee Meeting
February 18th, 2004

Welcome

Current Chairman Gerry Barnhart called the meeting to order. Introductions were made and an attendance sheet was passed around. The following members were in attendance:

Policy Committee	Fisheries Technical Committee	Others
Gerry Barnhart		Rick Bennett
Wayne LaRoche	Bill Schoch	John Gobeille
Marvin Moriarty	Brian Chipman	Paul Pajak
	Lance Durfey	
	Wayne Bouffard	
	Craig Martin	
Fisheries Management Committee	David C. Nettles	
	Bernie Pientka	
	Chet MacKenzie	
Eric Palmer	Mark Malchoff	
Doug Stang	Madeleine Lyttle	
Dave Tilton	Donna Parrish	
	Stephen Jackson	
	Bradley Young	
	Nicholas Staats	
	Shawn Good	

Salmonid Status

Bill Schoch reported that we are still seeing a wounding rate of 90 wounds per 100 salmonids and that current lamprey control efforts are dismal at best in their effectiveness. See **Handout #1** for summary.

Forage Assessment (Smelt)

Nick Staats reported that wide fluctuations in population and age structure have been seen across 13 years of data. The loss of older age classes is notable. Year class strength is now being predicted by YOY abundance surveys. Bernie Pientka and researchers at UVM are beginning to use hydro-acoustics for smelt surveys. Meetings are planned to look at effectiveness of and strategies for smelt assessment.

2003 lampricide treatment summary

Bill Schoch reported that the granular bayluscide treatment on the Ausable delta was successful. The Boquet River and Beaver Brook each received TFM treatments. TFM - label registration was time consuming because EPA rules had changed. Brian Chipman reported that

SOP revisions for treatment protocols are being reviewed by cooperative. Bill Schoch pointed out that the new SOP requires full pesticide training for anyone involved in application.

2004 Lampricide Treatment Schedule

Bill Schoch reported that New York will treat the Great Chazy River (21 miles) and Mount Hope Brook with TFM. The Saranac Delta had more ammocoetes than expected, so it and the Boquet Delta will each be receiving granular bayluscide treatments.

Brian Chipman reported that Vermont plans to treat the Winooski River this fall. Road blocks such as the status of the State-listed American Brook Lamprey (ABL) and water quality and health issues prevented its treatment last year. We are trying to alleviate the concerns over anticipated ABL mortalities by expanding their range through more surveys. Last year USFWS staff located the occurrence of American brook lamprey in the mainstem of the Missisquoi River, above Swanton Dam and in Hungerford Brook, a tributary of the Missisquoi River near Swanton, VT. The Vermont Endangered Species and Aquatic Nuisance Control permits are both in review. Toxicity tests are being done by Environment Canada in Burlington, Ontario to determine if newer batches of TFM, purchased by the Great Lakes Fishery Commission, may be "cleaner" (contain fewer dioxin residues from the manufacturing process). Dye plume studies are being finalized to develop water advisories (see **Handout #2** for summary).

CONSENSUS - Lake Champlain Cooperative Policy Committee endorsed the treatment plans stated for 2004. The Fisheries Technical Committee was charged with establishing a technical team to develop an operational strategy involving all three agencies for the 2004 treatments.

Barriers

Dave Tilton reported that a variable-crest weir is being planned for Morpion Stream in Quebec. This is a tributary to the Pike River (flows in Missisquoi Bay) and is a substantial producer of ammocoetes. Quebec will not allow the use of TFM, but supports the weir. Completion of this project depends on GLFC money.

Bill Schoch reported that the existing Great Chazy Dam, 7 ½ miles upstream from the mouth, is allowing passage through fissures in the dam or bedrock. Lampreys have passed the dam and spawned above it. This river now requires 21 miles of treatment. Federal money may be designated for contracting the Army Corps of Engineers to fix the fissure problem.

Dave Tilton explained that the Army Corps of Engineers plans to meet their requirements for the public decision-making process through review and approval of projects by the Lake Champlain Basin Program Steering Committee.

The Little Ausable dam construction project is still under development. Money is supposed to come from New York Bond Act funds, but because of staffing problems in the New York DEC, those funds now need to be transferred to Curt Orvis (USFWS) to allow the project to resume.

CONSENSUS: Lake Champlain Cooperative Policy Committee endorsed dam repair on the Great Chazy and continued pursuit of dam construction on the Little Ausable. The Policy Committee tasked Dave Tilton with drafting a letter to be sent by the Policy Committee to the Lake Champlain Basin Program's Steering Committee expressing the high priority the

Cooperative places on obtaining the Corps of Engineers support for barriers, starting with the Great Chazy repairs.

Sea Lamprey Control Alternatives Workgroup

Craig Martin reported on the development and organization of this newly formed group under the Federal Advisory Committee Act (See **Handout #3** for details). The workgroup will hold approximately 2 meetings per year. Gerry Barnhart recommended involving the GLFC in the workgroup.

Funding for Lamprey Control

Dave Tilton reported that all our Great Lakes Fishery Commission funds, which come through annual appropriations adds, spearheaded by Senator Leahy through the U.S. Department of State, will be depleted in 2004 and we will even have a $130,000 deficit, which will be covered by New York DEC. Senator Leahy's office has had some discussion with GLFC staff about the prospects for including the Lake Champlain Cooperative under the GLFC charter to allow base funding, rather than annual "adds" to base-level appropriations, to be used for Lake Champlain lamprey control. GLFC staff have indicated the GLFC authorizing legislation precludes using their base funding for Lake Champlain. Senator Leahy intends to continue to seek annual adds to support lamprey control in Lake Champlain. Gerry Barnhart doubts Lake Champlain can be included in the charter, but expects long-term cooperation and support from the GLFC. Research support is more likely, even without an annual add, than program cost support.

Marvin Moriarty asked whether the new State Wildlife Grants could be a source of funding for sea lamprey control. Doug Stang said sea lamprey control has not been considered a potential use for those funds in New York.

Craig Martin asked the group to consider the implications of our dependence on Senator Leahy. At some point, we need to secure another source of funding, independent from the benefits we are currently reaping through the actions and stature of Senator Leahy. Gerry Barnhart said that we (GLFC and Lake Champlain Cooperative) are making plans to support future, structured funding.

Marvin Moriarty expressed support for continuing to seek structured funding through the State Department because the USFWS budget is far too tentative and variable to be able to guarantee structured funding. We also need to inform the public of the seriousness of the problem to help us gain popular support.

Gerry Barnhart and Dave Tilton agreed that the press is important. The local press is sympathetic to our efforts and will continue to receive regular briefings. We will also continue to hold public meetings.

Paul Pajak emphasized that our best option to guarantee continued funding is to demonstrate the importance of sea lamprey control and our potential for success. Show economic cost/benefits.

Eric Palmer stated that the Vermont Department of Fish and Wildlife supports continued sea lamprey control efforts, but cannot afford to pay for them out of the state budget. Doug Stang said that Lake Champlain is a high priority for New York, but not as high as lakes Erie and Ontario. New York has more funds than Vermont to afford to continue control, but won't continue to carry the burden of lamprey control alone - treating only the western side of Lake

Champlain is not an effective program.

Dave Tilton recommended that the cooperative convene a "Lamprey Summit" after the successful treatment of the Winooski this fall to assess the state of sea lamprey control and directions for the future. Marvin Moriarty agreed that the summit would be beneficial.

Gerry Barnhart summarized the alternative funding discussion saying that for now, we will have to continue to pursue add-ons. After expected successes from 2004 and 2005, then we can more ably pursue more structured funding.

CONSENSUS: Dave Tilton, Doug Stang, and Eric Palmer were charged with organizing a team of outreach specialists to plan for a "Lake Champlain Lamprey Summit," or similar public forum. This group will be charged with the three duties of:

1. Communicating the Cooperative's professionalism and successes
2. Soliciting ideas to develop more permanent funding sources
3. Generating political and public support

LUNCH BREAK

Memorandum of Understanding between Cooperative and Great Lakes Fish Commission

Dave Tilton passed out a draft copy of the Memorandum of Understanding (MOU) between the Lake Champlain Cooperative and Great Lakes Fish Commission (See **Handout #4**). A meeting was held in November in Burlington with representatives from VTDFW, NYSDEC, USFWS, and GLFC. The goal was to design a memorandum of understanding between GLFC and Lake Champlain Cooperative. The Draft MOU lists 9 specific articles proposed at the meeting.

CONSENSUS: Lake Champlain Cooperative Policy Committee supports the MOU and its 9 articles as written. The Cooperative supports its signing at the June GLFC meeting. Dave Tilton, Doug Stang and Eric Palmer were charged with ensuring legal clearance from their respective agencies.

USFWS role in permitting

Craig Martin passed out **Handout #5** which discussed whether the USFWS should become more involved in state permit applications for lamprey treatments. The handout recommended two Policy Decisions:

1. Approve significantly greater responsibility for the Lake Champlain USFWS Office, in partnership with the states of New York and Vermont, in all phases of the State and Federal lampricide treatments on Lake Champlain.
2. Approve a joint sea lamprey control permitting process through the Cooperative.
    a. FWS serves as a first-level of review during the permitting process; OR
    b. Enter a permitting process that names the Cooperative as the permittee.

Gerry Barnhart was hesitant about Cooperative being named as permittee because we have no infrastructure to handle challenges.

Rick Bennett suggested that having the USFWS as the named permittee would free Vermont (LaRoche and Palmer) from *ex parte* rules and would allow them to support the permit as advocates.

Eric Palmer explained that VT statutes on inter-(or intra-)departmental (or agency) advocacy are vague, making them difficult to interpret or follow.

Chet MacKenzie, Eric Palmer, Shawn Good, and Wayne LaRoche all liked the notion of freeing their department (VTDFW) from the problems encountered by having them applying to their own State for permits.

Gerry Barnhart had no objection to USFWS being named as permittee.

Marvin Moriarty said that USFWS would need to discuss the legal and budgetary implications before it can be done.

CONSENSUS – The USFWS will examine the issues around being assigned the role of permittee and report back through the Policy Committee for further consideration.

Closing Comments on Sea Lamprey Control

Doug Stang reported that New York has a staff shortage for treatment, especially on the Great Chazy.

Madeleine Lyttle asked if state reciprocity is in effect for certified pesticide applicators. Doug Stang and Bill Schoch both said yes, New York accepts Vermont certification with a $75 fee.

Gerry Barnhart concluded that a short-term solution for staffing exists (temporary sharing application personnel), but new structures need to be formed. Gerry Barnhart recommended that control efforts be increased - exercise in adaptive management.

CONSENSUS: Dave Tilton, Doug Stang, and Eric Palmer were tasked with coordinating a ½ day Policy committee meeting to strategize about how to address declining staffing.

Alewives in Lake St. Catherine

Shawn Good and Craig Martin passed out **Handout #6** which details the history, impacts, past control, and potential action plans for alewives in Lake St. Catherine. Two Policy Decisions were proposed by Craig Martin:

1. 2004 - commission a feasibility report from experts
2. 2005 - if found feasible, USFWS will pursue permitting for full reclamation

Shawn Good reported that the state of Vermont currently proposes to take no reclamation action.

Craig Martin emphasized that if we don't rotenone Lake St. Catherine now, we will likely have alewives in Lake Champlain soon.

Shawn Good, Eric Palmer, and Wayne LaRoche (VTDFW) supported USFWS taking the lead in pursuing reclamation if an in-depth feasibility assessment suggests it is technically feasible.

Doug Stang suggested that we cannot guarantee alewives won't become established in Lake Champlain, regardless of whether or not we reclaim Lake St. Catherine. Perhaps the large expense of reclamation would not be well spent

Madeleine Lyttle reported that the USFWS has started discussion with a western reclamation expert**,** Charles Thompson, who may be commissioned for a project evaluation.

Mark Malchoff urged the consideration of the economic as well as the biologic effects of alewives in Champlain.

CONSENSUS – The Policy Committee endorsed further investigation by the USFWS into feasibility of reclamation of Lake St. Catherine.

Walleye Management

Dave Tilton proposed the involvement of the USFWS in walleye management decisions in the basin, and suggested that USFWS involvement would depend upon three criteria:

1. Biology - Walleye freely move back and forth across State jurisdictions.
2. Partnership - Each of the 3 members of the Cooperative must desire the participation of the other 2 members
3. Management - All 3 members would have a say in how walleye are managed in the Lake Champlain basin

Participants generally agreed that cooperation among the agencies was useful, where staff and funding allowed, but that other pressing priorities and ongoing State leadership in walleye management would preclude any new role for the USFWS

CONSENSUS – Cooperation among NYSDEC, VTDFW, and USFWS will continue, but USFWS will not enter a formal management role at this point.

Cormorant Management

John Gobeille reported that cormorants present an increasing problem. On Four Brothers and Young Island, populations have substantially increased. This increase in the cormorant populations has resulted in reduction in fish populations and the spread of Newcastle disease (carried by cormorants). Methods have been employed to decrease cormorants - egg oiling. Gull numbers are also increasing and when combined with the cormorants act to displace native birds such as herons.

John Gobeille reported that representatives of the USFWS, NYDEC and VTFWD met and supported coordination on cormorant management under the auspices of the Cooperative.

CONSENSUS: Lake Champlain Cooperative Policy Committee supports continued efforts to reduce and manage cormorant populations. Eric Derleth, John Gobeille, and Ken Kogut will be charged with forming a subcommittee of the Cooperative to address cormorant management.

Strategic Fisheries Plan

Craig Martin passed out **Handout #7,** which provides background and reports of progress. Two policy decisions were recommended:

1. Finalize a strategic plan outline and identification of species/subject leads for January 2005 Policy Committee approval
2. Finalize a strategic plan document for January 2006 Policy Committee approval

CONSENSUS – Lake Champlain Cooperative Policy Committee agrees that both recommendations be approved

Fisheries Technical Committee Annual Report

Lance Durfey explained that the Annual Report will list justifications, actions, and progress. The report will follow the standard format that was used for the 2002 annual report. The Fisheries Technical Committee should submit its 2003 accomplishments to Lance Durfey by the end of the month.

Doug Stang reminded us to keep the treatment schedule up-to-date in the report.

Fisheries Institute

Mark Malchoff described training sessions to be held by the Great Lakes Fisheries Leadership Institute - Lake Champlain Section. Mark Malchoff will lead a training session for charter captains and local fisherman interested in the science and policy behind fisheries management. The sessions will be on March 5 and 6.

Nomination for the next Chairman of the Lake Champlain Cooperative Policy Committee

Gerry Barnhart nominated Marvin Moriarty.
Marvin Moriarty accepted nomination.

CONSENSUS: Lake Champlain Cooperative Policy Committee unanimously supports Marvin Moriarty being next Chairman.

ADJOURN

Minutes recorded by Bradley Young (USFWS)

HANDOUT #1

Wounding rates on Lake Champlain lake trout and salmon

Species	Number of lamprey wounds per 100 fish				
	Objective	Pre-control	Eight-year control	2002	2003
Lake trout[a]	25	55	38	72	90
Landlocked salmon[b]	15	51	22	62	86

[a] Lake trout in the 533-633 mm (21.0-24.9 inches) length interval.
For lake trout, pre-control included 1982 - 92, while eight-year control includes 1993 - 97.
[b] Salmon in the 432-533 mm (17.0-21.0 inches) length interval.
For salmon, pre-control included 1985 - 92, while eight-year control includes 1993 - 98.

Treatments conducted during 2003

The Ausable River Delta (approximately 59 acres) was treated with granular Bayluscide, spread by boat.

The Boquet River and Beaver Brook were treated with TFM.

Mount Hope Brook was scheduled for 2003, but was delayed until 2004 due to high stream flows.

TFM label issues.

Treatments scheduled for 2004

The Great Chazy River, from Moores downstream (about 21 miles of river instead of the 7.5 miles that would be treated if the Waterworks Dam were acting as a barrier).

The Saranac River Delta and the Boquet River Delta.

Mount Hope Brook.

Winooski River.

Note that no treatments are scheduled for 2005.

HANDOUT #2

Winooski River TFM Treatment Update (2/18/04)

A. American brook lamprey (VT-threatened)
   - Toxicity tests completed by NYSDEC.
     - At 1.0xMLC TFM: 50% ABL mortality expected at 9 hours, but near 99% mortality after 12 hours exposure.
   - USFWS documented 2 additional ABL occurrences in 2003:
     - Missisquoi R. upstream of Swanton Dam
     - Hungerford Bk. (trib to Missisquoi above Swanton Dam).

B. Threatened and Endangered Species Permit application submitted January 2004.

C. Aquatic Nuisance Control Permit application on hold, primarily pending new information on human health risk from impurities in TFM formulations (tri-substituted dioxins).
   - "White paper" assessing loadings and human exposure to tri-substituted dioxins in Lake Champlain from TFM treatments, and associated health risk completed by Dr. Robert Gale, USGS-BRD Columbia Environmental Research Center (currently in peer review).
   - Governor Douglas formed a Vermont lampricide technical work group (staff from VTDFW, VTDEC, VTDOH and VT Agency of Agriculture) to address human health risk issues and collaborate on filling knowledge gaps.
     - Collaboration from GLFC, USGS and Environment Canada to perform MFO induction studies (and dioxin analyses if necessary) on several TFM formulations.
     - Testing scheduled for results in 60-90 days (mid-May?).
     - Results could lead to using a different batch than we have in Lake Champlain inventory (swap with GLFC possible).
     - Submit information for permit review; permit decision by mid-summer, for October 2004 treatment.

D. Still working with Dr. Jeff Laible (UVM) to complete dye plume modeling final report.
   - Results used to delineate Winooski R. water use advisory zone.

HANDOUT #3

Alternatives Workgroup

History

● Mission: The Alternatives Workgroup was formed by the Cooperative to bring together a diverse group of individuals from state and federal resource agencies, research institutions, non governmental organizations, special interest groups, and private citizens and task them with developing ideas regarding experimental projects of non-chemical sea lamprey control. The working group will develop research proposals for sea lamprey control alternatives and forward its recommendations to the Fisheries Technical Committee.

● The FWS chairs the Alternatives Workgroup and began chartering the Workgroup as an advisory committee under the Federal Advisory Committee Act (FACA).

Accomplishments

● Meeting the SEIS intent and "good-faith effort" of the Poultney River control strategy

● Helping to leverage grants for alternative control research

Lake Champlain Basin Program: $62,000
The Nature Conservancy: $46,000
Lake Champlain Sea Grant: $50,000
Lake Champlain Ecosystem Team: $10,000

● Dialog and work collaboratively with sea lamprey control proponents and opponents

● Decrease the likelihood of future litigation?

Specific Projects

● Cutting-edge research and partnerships:

Dr. Ellen Marsden (Eric Howe), UVM
Dr. Terri Donovan and Dr. Donna Parrish, VTCFWRU
Dr. Tim Tear, TNC
Dr. Rollie Lamberson, Humboldt State University

> Development of a basin-wide sea lamprey population viability model
> Micro-elemental analysis of sea lamprey statoliths for determining stream/delta of origin
> Quantify in/out-of-nest lamprey egg survival
> Sea lamprey telemetry study in the Poultney River to assess potential trapping sites
> Assess nest raking as a management tool to reduce egg production in a lamprey nest

Future Activities

● FACA charter in place by March 2004

● Alternative Workgroup nominations closes February 20, 2004

● Hold at least two meetings per year

● Sound science driving the Alternatives Process and project development through modeling and feasibility projects

● Continue meeting the Cooperative's "good-faith" SEIS commitment to explore alternatives

● Continue to pursue funding for alternatives control efforts

● Continue to work collaboratively with sea lamprey control proponents and opponents

HANDOUT #4

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MEMORANDUM OF UNDERSTANDING

BETWEEN THE

GREAT LAKES FISHERY COMMISSION
AND THE
LAKE CHAMPLAIN FISH AND WILDLIFE MANAGEMENT COOPERATIVE

FOR

COOPERATION AND COORDINATION

ON

SEA LAMPREY RESEARCH AND MANAGEMENT

The Lake Champlain Fish and Wildlife Management Cooperative (Cooperative) was organized in 1972 by unanimous consent of the directors of the fish and wildlife agencies of Vermont and New York and the northeast regional office of the U.S. Fish and Wildlife Service. It was formed to initiate, develop and provide direction for coordinated fish and wildlife programs, in recognition of the need for a unified approach to the protection and management of the fish and wildlife resources of interstate significance in Lake Champlain. Reducing the impact of sea lampreys on Lake Champlain fisheries is one of the principal functions of the Cooperative.

The U.S. Section of the Great Lakes Fishery Commission (Commission) is authorized by the Great Lakes Fishery Act of 1956 (P.L. 557, 84th Congress, approved June 4, 1956) to carry out the obligations of the United States under the Convention on Great Lakes Fisheries between the United States and Canada. Working cooperatively with the U.S. Fish and Wildlife Service and the States bordering the Great Lakes, the Commission is responsible for sea lamprey management in the Great Lakes. The Commission has an interest in maintaining public trust in the integrity of sea lamprey control as a management practice. Delivery of the Commission's effective sea lamprey management program depends on integration of the elements of science, improvement of assessment and control techniques, documentation of standard operating procedures, supported by an active training program based on these integrated elements.

The Cooperative and the Commission have collaborated on sea lamprey management and research in Lake Champlain since 1990, sharing expertise, funding, and human resources to the benefit of fisheries resources in the Great Lakes and Lake Champlain.

NOW THEREFORE, because it is in the public interest that the Cooperative and the Commission work together through mutual cooperation and coordination toward timely, efficient sharing of expertise and capability, this Memorandum of Understanding establishes a formal agreement to facilitate such cooperation and coordination.

Article 1. Funding Sea Lamprey Management and Research in Lake Champlain. The Commission shall maintain a separate account within its accounting system for United States government funds specifically allocated by the U.S. Congress for sea lamprey control in Lake Champlain. There shall be no

obligation on the Commission to support sea lamprey management or research in Lake Champlain beyond such management or research that can be entirely funded under the separate Lake Champlain account. When necessary and appropriate, the Cooperative may appropriate funds to the separate account.

Article 2. Lampricide Sale and Purchase for Sea Lamprey Management in Lake Champlain. Purchases of lampricides from the Commission will be approved by the Commission, subject to availability of sufficient inventory. Costs for such purchases may be covered from funds reserved in the separate account identified in Article 1., above. When purchase from the Commission is pursued, lampricides shall be sold to the Cooperative at the Commission's replacement cost, plus any actual costs associated with testing and shipment. To enable the Commission to adequately supply lampricides to meet the Cooperative's needs the Cooperative shall make annual projections of its 5-year lampricide needs, including intended source of purchase, and provide these projections to the Commission's Sea Lamprey Program Manager – Planning no later than September 30, each year.

Article 3. Sea Lamprey Management Program Standard Operating Procedures. The Cooperative and the Commission agree that delivery of an effective sea lamprey management program depends upon integration of the elements of science, improvement of assessment and control techniques, documentation of standard operating procedures, supported by an active training program based on these integrated elements. In recognition of the fact that public trust in the integrity of sea lamprey control as a management practice depends upon the consistency of program delivery that only these integrated elements can provide, the Cooperative agrees to use the *Great Lakes Fishery Commissions Standard Operating Procedures For Chemical Control of Sea Lampreys*, SLC 92-001.3, June 2003, or the most recent update, for its lampricide application procedures for sea lamprey management in Lake Champlain.

Article 4. Technical Assistance for Sea Lamprey Management in Lake Champlain. The Commission may provide technical assistance and training in sea lamprey management activities to the Cooperative if sufficient funds are available in the separate account identified in Article 1., above, or if the Commission determines such technical assistance is appropriate based on the Commission's goals and objectives. The need for such technical assistance would be determined jointly by the Commission and the Cooperative.

Article 5. Sea Lamprey Research on Lake Champlain. Research on Lake Champlain that is related to the management of sea lamprey may be funded through the separate account identified in Article 1., above, if such research is approved by the Cooperative. Because sea lamprey research on Lake Champlain may provide significant benefits to fish and wildlife agencies wherever sea lamprey are managed, the Commission and the Cooperative may decide to collaboratively undertake research and may share responsibilities for funding such research when it has been recommended and approved for funding through the Commission's peer-reviewed Sea Lamprey Research Program. Research funded jointly by the Commission and the Cooperative will be approved by both organizations.

Article 6. Meetings. Representatives of the Commission and the Cooperative shall meet periodically at their convenience to review the status of their activities in the Lake Champlain Basin, to assess future work that may be conducted in the Basin, and to identify opportunities for cooperative and/or collaborative work. Following the conclusion of each meeting, a memorandum shall be prepared recording the matters discussed and agreements reached. The memorandum will be provided to each member of the Commission and to the Policy Committee of the Cooperative.

Article 7. Access to Funds. The Cooperative may access funds held in the account referenced in Article 1. by forwarding approved invoices for goods, services, research, property, and the like, to the Commission. Billing will be effected through correspondence between the Cooperative Chairperson, or designee, and the Commission, and will include an itemized list of work performed or expenditures. Payment will be made from the separate account identified in Article 1. The Commission will provide financial status reports to the Cooperative on request.

Article 8. Duration. This Memorandum of Understanding shall remain in effect until modified by mutual written agreement of the parties.

Article 9. Terminating Participation. Any signatory party may terminate its participation in this Memorandum of Understanding, in whole or in part, at any time.

Signed,

for the

LAKE CHAMPLAIN FISH AND WILDLIFE MANAGEMENT COOPERATIVE

_____

Chair of the Policy Committee Date

for the

GREAT LAKES FISHERY COMMISSION

_____

Great Lakes Fishery Commission Date

HANDOUT #5

FWS role in treatments, and permitting

Background

● New York and Vermont have led lampricide permitting and treatments

● FWS role has been to lead sea lamprey population assessment, alternative control technology, and adult trapping. FWS personnel, Dave Nettles, Nick Staats, and Madeleine Lyttle, have been involved in supportive roles for lampricides treatments in recent years.

Increased FWS role in lampricides permitting and treatments?

● **Legal liability:** The FWS is liable in lawsuits alleging violations of State or Federal law

● **Staffing shortfalls:** A fully functioning program requires that each member of the Cooperative have staff functional in every aspect of the program. This has become especially evident in recent years with recent staffing cutbacks and retirements in New York.

● **Need for Specialists:** The Great Lakes Program includes numerous field stations and offices with personnel dedicated entirely to specific aspects of the program, including lampricides control, biological control, lamprey sterilization, environmental risk management, adult and larval assessment, lamprey barriers, as well as chemists. Currently, no State or Federal staff are dedicated full-time to lampricides control and permitting in the Lake Champlain Basin.

● **Program complexity:** As the control program matures into a fully-functioning integrated pest-management program and as control technologies and techniques improve and diversify that the need for specialized skills and highly-trained personnel will grow.

● **Court of public opinion:** As a leading partner in the Cooperative, the Service is held responsible in the "court of public opinion"

● **Permitting process:** Permits have been difficult to obtain and/or permits have been unnecessarily restrictive in Vermont.

Recommended Policy Decision:

● Approve significantly greater responsibility for the Lake Champlain Office, in partnership with the states of New York and Vermont, in all phases of State and Federal lampricides treatments on Lake Champlain.

● Approve a joint sea lamprey control permitting process through the Cooperative.

> FWS serves as a first-level of review during the permitting process; or,

> Permitting process that names the Cooperative as the permittee

HANDOUT #6

Lake St. Catherine alewives

History (Good 2003)

● Alewives were first discovered in Lake St. Catherine, Rutland County, Vermont in July 1997. This was the first recorded occurrence of alewives in Vermont waters. It is believed that their establishment occurred through a purposeful, illegal stocking, as opposed to an accidental bait-bucket release. Alewives are invasive to Vermont waters.

● Larval monitoring has demonstrated escapement from Lake St. Catherine; No adults have been found downstream from the Lake St. Catherine's outlet. Are alewife established in Lake Champlain?

Alewife Impacts on Great Lakes (Good 2003 and others)

● Alteration of the zooplankton community
● Competition for food with other planktivorous fish
● Egg and larval predation (yellow perch, lake trout, bass, walleye, others)
● Natural reproduction failures caused by diet induced thiamine deficiency: opportunities to develop natural reproducing populations of LT and LLS lost
● Decline/extinction of native species (rainbow smelt, coregonids, yellow perch, walleye others)
● Unstable forage base
● Large-scale die-offs littering shoreline
● $ impacts: die-off clean-ups, impacts to fishery resources, and unattainable restoration goals

What Has Been Done?

●VTFWD completed an Environmental Assessment: "Alternative Strategies for the Management of Non-Indigenous Alewives in Lake St. Catherine, Vermont (Good 2003)."

Alternatives Considered:

#1: E & O (i.e., education & outreach, baitfish law, continue to explore alternatives, etc.)
#2: Population Reduction
#3: Containment
#4: Reclamation

VTDFW Conclusion: At the present time, the only feasible alternative is #1.

Window of Opportunity for Reclamation?

Quote from Charlie Thompson (2004) lead biologist of Strawberry Reservoir (Utah), the largest lake reclamation ever in North America: "The treatment of 34,000 acre feet of water with powdered rotenone is not very intimidating……[However] The vegetation is a very serious problem."

● 2004 Sonar herbicide treatment issued to Lake St. Catherine Lake Association for control of invasive milfoil……This opens a narrow window of opportunity.

Recommended Policy Decision

● 2004: Consult with a large-lake reclamation expert to determine technical feasibility; determine whether LC infestation has occurred; conduct a cost-benefit analysis of reclamation; pursue funding for reclamation; initiate public outreach.

● 2005: If funding is secured and reclamation is found to be technically feasible (based on 2004 assessments), USFWS will pursue permitting for 2005 reclamation.

HANDOUT #7

Strategic Fisheries Plan Update

Background

● The Cooperative is currently working under its outdated 1977 strategic plan: "A Strategic Plan for the Development of Salmonid Fisheries in Lake Champlain."

● The following decisions were made at the last Policy Committee meeting, January 2003:

> The plan needs to be wider in scope including cool and warm-water species, nongame species, research, and monitoring.
> Rewrite the strategic plan by the end of 2005
> Devote a short agenda item at each meeting to discussing the components of a new strategic plan

Progress:

● An agenda item has been devoted to the strategic plan at each Fisheries Technical Committee
● A draft outline of the strategic plan was developed and reviewed by the Fisheries Technical Committee
● Continued development of the outline needed

Recommended Policy Decision(s):

● Finalized strategic plan outline and identification of species/subject leads for January 2005 Policy Committee approval?
● Finalized strategic plan document for January 2006 Policy Committee approval?