

Lake Erie Committee
Holiday Inn
Grand Island, New York
March 31, 2004

Executive Summary

Participants: Chair Rick Hoopes (PFBC), Bill Culligan (NYDEC), Roger Knight (ODNR), Mike Morencie (OMNR), Kurt Newman (MDNR).

Highlights: Percid and smelt year classes were strong in 2003. Likewise, emerald shiners and white perch numbers were up in 2003. Round goby populations are still increasing in eastern Lake Erie and in fish diets. Smelt predominated in fish diets in the east, while clupeids were a declining component of fish diets in the rest of the lake. Young of the year growth was generally good in 2003.

1. Sea Lamprey Targets (attachment)

Gavin provided a handout and explanation of proposed lamprey population and targets (attached). Targets will be used to allocate the level of control (treatments). Proposed LEC target will be 3,000 +/- 1,000 sea lampreys. All LEC members concurred with this approach.

2. Yellow Perch TAC

The LEC agreed to go with Spawner Recruitment (SR) Fishing Rate of $SR F_{0.1}$ on an interim basis for management units as follows:

MU-1	3.890 million pounds yellow perch,
MU-2	4.437 million pounds, and
MU-3	2.494 million pounds.

Including MU-4 (at 0.206), these numbers total 11.027 million pounds for the lakewide TAC.

3. Walleye TAC

The LEC agreed to a 30% reduction. The TAC will be 2.38 million walleye.

4. Letter to USFWS re Allegheny NFH (attachment)

The LEC wrote Mike Moriarty (USFWS) expressing concern re lack of funding for the Allegheny NFH. See attachment.

5. Task Group Charges (attachment)

STC Chair Roger Kenyon (PFBC) handed out the Standing Technical Committee (STC) and task group charges for LEC input:

Standing Technical Committee: Add a charge #5 "Write the implementation portion of the walleye management plan and complete the yellow perch management plan". In addition, the LEC charged the STC with seeking GLFC

support for an independent review of agency harvest strategies, rationales, implementation, and assessments in Lake Erie.

Forage Task Group: Add charge #5. “Reassess bioenergetics model status and data needs”.

Habitat Task Group: Marg Dochoda (GLFC) suggested that the habitat task group meet with counterparts from other lakes to facilitate generation of project proposals related to environmental objectives.

Yellow Perch Task Group: At its June meeting, the LEC will address the charge to redefine boundaries within MU-4.

Roger Kenyon will make the suggested changes to charges and membership, and redistribute to the LEC.

6. Coordinated Percid Management Strategy Final Report 2001-2003

Attendees at the LEC meeting were invited to sign up for a copy of the final report on the Coordinated Percid Management Strategy, 2001-2003, which will be available shortly.

7. Task Group Terms of Reference (attachment)

Kevin Kayle (ODNR) provided the LEC with updated terms of reference for LEC task groups. Kevin will make the LEC’s suggested changes and forward to the GLFC for posting on the LEC’s web page.

8. LEC Announcements (attachment)

The LEC approved a statement subsequently delivered at the LEC’s plenary meeting.

Targets for Sea Lamprey Populations in Lake Erie

Proposed LEC Statement:

The LEC with input from its Cold Water Task Group, supports the Great Lakes Fishery Commission's (GLFC's) proposed target of 3,000 +/- 1,000 sea lampreys as a tolerable population that will aid the LEC in attaining its Fish Community Objectives (FCOs) for Lake Erie.

Estimating Targets:

- **FCO Direction** – The FCOs among the lakes generally call for sea lamprey to be suppressed to levels at which they affect insignificant mortality on lake trout and other fish. The Lake Erie Committee (LEC) did not set a specific objective for sea lamprey in its FCOs. Sea lamprey are mentioned as an invasive species of concern. In their lake trout management guidelines, the LEC has called for A1 wounding of less than 5%.
- **Fish Damage Status** – New summaries of comparable values for marking rates on lake trout have been compiled for all lakes. Raw data were assembled so that the stage (A1-3) and fish size (>21”) could be compared among the lakes. Fall assessment observations (Lakes Ontario, Erie, and Michigan) were combined with spring assessments (Lakes Huron and Superior). Lake trout were used as an indicator of effects on fish communities because they are the preferred prey and are the native top-predator in cold-water portions of the lakes. The mortality caused by sea lampreys can be estimated from a relationship between marking rates and the probability of surviving an attack. This relationship suggests that marking rates of less than 5 marks per 100 fish would result in a tolerable annual rate of mortality of less than 5%.
- **Sea Lamprey Status** – Estimates of the number of spawning-phase sea lampreys were used as measures of abundance in each lake. We assumed low mortality during the period sea lampreys feed in the lake and used the spawning-phase abundance as an indicator of parasitic-phase abundance. Annual estimates of lake-wide abundance of spawning-phase sea lampreys and confidence intervals were extrapolated from a regression model that relates the run size in individual streams to the discharge and larval abundance (or treatment history) in all streams in which the animals spawn (Mullett et al, 2003).
- **Estimating Sea Lamprey Targets** – Generally, we estimated targets by selecting a period when observed marking rates were near or less than 5 marks per 100 fish. This target rate was observed during spawning years 1991-1995 when the average rate was 4.4 marks per 100 fish. The target mean sea lamprey abundance and confidence interval were estimated for this period.

Sea Lamprey Abundance Targets:

	Targets	95% CI	Years	Observed Marks/100 Fish
Superior	35,000	18,000	1994-1998	5.2
Michigan	58,000	13,000	1988-1992	4.7
Huron	74,000	20,000	1989-1993	NA

Erie	3,000	1,000	1991-1995	4.4
Ontario	43,000	15,000	1991-1995	8.2

Using and Refining Targets:

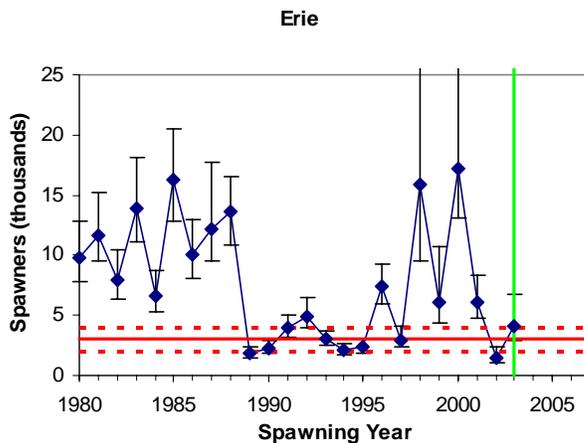
These targets will provide the basis for the lake committees to provide input to the GLFC on the following questions:

- *How successful has sea lamprey control been relative to the Fish Community Objectives on your lake?*
- *Will the proposed control program proposed for next year (e.g. 2004) move us toward those FCO targets?*

Consistent with its Vision, the GLFC will use the status of sea lampreys relative to these targets to guide its decisions on allocation of control. These targets will be refined with improvements in our understanding of the dynamics of the damage caused by sea lampreys, our estimates of the abundance of sea lampreys, and of the effectiveness and costs of control.

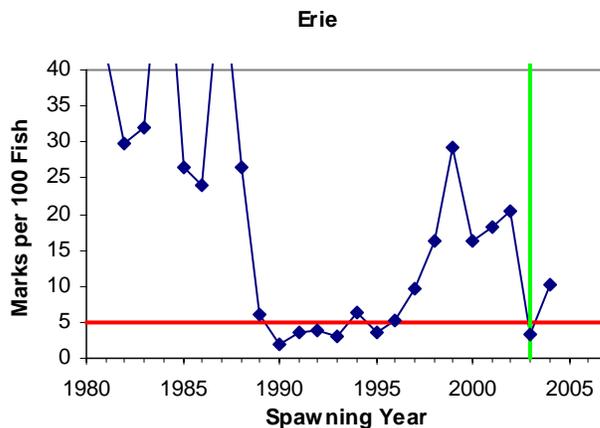
PANEL 1 - LAKE ERIE

a. Sea Lamprey Status: spawning-phase numbers



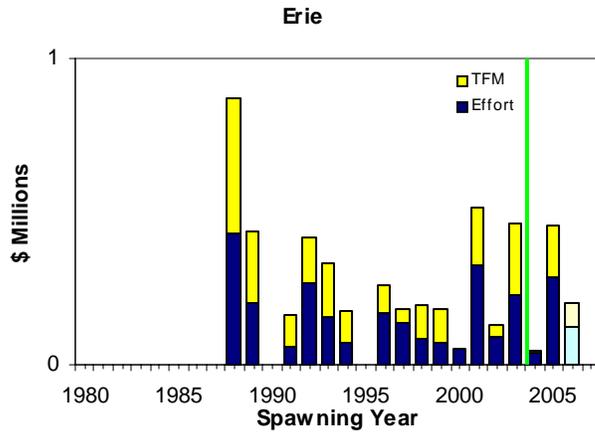
- Treatment started in 1986
- Decline in response to treatments to levels below target
- Trend upward from 1995, because treatments on a few big rivers were deferred during late 1990s.
- Large treatment effort during 1999 in response to increase and thorough assessment – decline in abundance back to target levels during 2001-2003 spawning years.

b. Fish Damage Status: marks per 100 lake trout



- Wounding below 5 marks per 100 for most years following start of lampricide treatments until mid-1990s
- Same pattern of increase as sea lampreys from 1995 to 2000.
- Marking rates did not follow same pattern of decline in last 3 years, but returned to target level during 2002.

c. Lampricide Control Actions: treatment costs



- Initial full round of treatments during 1986 and 1987. Followed by repeat during early 1990s.
- Decreased effort during late 1990s.
- Treatment effort at higher levels during 1999 – 2003 – contributing to the observed decline in sea lamprey and marking.
- 2004 treatments – Cattaraugus – and potentially Big Otter (not graphed)



Great Lakes Fishery Commission

ESTABLISHED BY CONVENTION BETWEEN CANADA AND THE UNITED STATES TO IMPROVE AND PERPETUATE FISHERY RESOURCES

Attachment to item 4

LAKE ERIE COMMITTEE

March 18, 2004

Marvin Moriarty
Regional Director, USFWS Region 5
300 Westgate Center Drive
Hadley, MA 01035-9589

Dear Mr. Moriarty:

Lake Trout restoration is a significant component of the coldwater fishery program of the Lake Erie Committee. The Lake Erie Committee is an operating arm of the Great Lakes Fishery Commission and functions within the framework of the Joint Strategic Plan for Management of Great Lakes Fisheries. We believe that it is imperative that the USFWS continue in its partnership with the Great Lakes jurisdictions commitment to lake trout restoration.

Lake trout are a native species to Lake Erie and all of the Great Lakes. Lake trout represent a component of a fully functional Great Lake ecosystem. Lake trout have been stocked in Lake Erie since the 1970s as part of a federal/state program to restore lake trout populations in all the Great Lakes. The Allegheny National Fish Hatchery (ANFH), located in Warren, PA, has raised and stocked the majority of the lake trout for Lake Erie since 1976. We have heard that staff vacancies and budget cuts at the Allegheny National Fish Hatchery (ANFH) will result in reduced yearling lake trout production. This would be a major set back to the Great Lakes' native lake trout restoration and recovery of a more fully structured ecosystem.

The Lake Erie Committee considers the lake trout production for Lake Erie and the other Great Lakes including the development of new brood stocks as the highest priority for our interjurisdictional partnership with the USFWS. Individual jurisdictions have committed substantially of our limited resources in stocking lake trout, monitoring the populations, evaluating the contribution of stocked fish to the population as well as evaluating survival and growth. We feel you are abandoning a high priority restoration project without due consideration of the interests of the other partners.

We would appreciate hearing of your expectations to continue to participate in this important lake trout restoration program with adequate funding and staffing for lake trout production and brood stock maintenance at Allegheny National Fish Hatchery in Warren, Pennsylvania.

Thank you for your attention to this important issue.

Sincerely,

Rickalon Hoopes
Chair, Lake Erie Committee

cc: LEC Members
Doug Austen
Chris Goddard
Steve Williams, Director USFWS
Representative John Peterson

2004-05 Charges

Standing Technical Committee

1. Prepare agenda for 2004 and 2005 Lake Erie Committee meetings. Organize State of the Lake reports for publication.
2. Represent Lake Erie Committee STC on the Council of Lake Committee's sub-committee of "Technical Committee Chairs".
3. Complete reporting on delineation of water areas for Management Units.
4. Coordinate an independent review of agency fish harvest assessment surveys
5. Oversee the scoping and preparation of a CPMS-type, companion document treating the management of Lake Erie yellow perch.

Membership:

Chair, R. Kenyon (PFBC); D. Einhouse (NYDEC); J. Tyson (ODNR); R. Haas (MDNR); B. Locke (OMNR)

2004-05 Charges

Walleye Task Group

1. Maintain and update centralized time data base for population modeling; including tagging, fishing harvest and effort by grid, growth, maturity, and abundance indices. Additionally, note the continuing effort to establish Biological Reference Points by examining walleye SSB, S/R or Spawner –Recruit relationships for use with ADMB.
2. Assist Lake Erie Committee in the final development of the Walleye Management Plan by 2005 and an RAH strategy for 2005.
3. Assemble data for development of a spatially-explicit database describing the Lake Erie walleye resource, for evidence of stock discreteness and contribution to lake-wide fisheries.
4. Develop alternate eastern basin and migratory catch-at-age analyses for walleye in cooperation with studies underway by P. Sullivan, E. Rutherford and B. Shuter.
5. Continue the pursuit of walleye management aided by the development of a Decision Analysis/risk assessment tool.

Membership:

Co-chairs: B. Wright (OMNR), C. Vandergoot (ODNR)

M. Belore, A. Cook, T. Johnson, P. Ryan (all OMNR); M. Thomas (MDNR); R. Kenyon (PFBC); K. Kayle, D. Isermann, M. Turner (all ODNR); D. Einhouse (NYDEC)

2004-05 Charges

Yellow Perch Task Group

1. Maintain centralized time series of datasets of data required for population models including:
 - a) fishery harvest, effort, age composition and biological parameters
 - b) survey indices of juvenile and adult abundance, size at age and biological parameters
2. Support a sustainable harvest policy by:
 - a) examining exploitation strategies
 - b) recommending a range of allowable harvest for 2005 for each management unit
 - c) supporting decision/risk analysis strategies for yellow perch management
3. Continue lake-wide genetic research on Lake Erie yellow perch stocks through cooperation with Great Lakes Environmental Laboratory at Cleveland State University
4. Examining the issues of eastern basin (MU4) sub-populations and explore re-defining boundaries within MU4 to manage as separate stocks.

Membership:

Co-chairs: D. Einhouse (NYDEC), A. Cook (OMNR)

M. Belore, B. Locke, P. Ryan, B. Sutherland, E. Wright (all OMNR); R. Kenyon (PFBC); T. Hartman, K. Kayle, C. Knight (all ODNR); M. Thomas (MDNR).

2004-05 Charges

Forage Task Group

1. Continue to describe the status of forage fish species and invertebrates in 2004/2005 for each basin of Lake Erie.
2. Continue the development of an experimental design to facilitate for fish stock assessment and standardized interagency reporting.
3. In eastern Lake Erie continue acoustic assessment of the pelagic forage fish community incorporating new methods in survey design and analysis as necessary to refine this program. Fisheries acoustic surveys may also be explored in other regions of Lake Erie to address un-met needs for assessment of pelagic forage fish.
4. Continue the interagency lower-trophic food web monitoring program that produces annual indices of trophic conditions which can be included with the annual description of forage status.
5. Reassess the bioenergetics model's status and its data needs.

Membership:

Co-chairs: Tim Johnson (OMNR), Chuck Murray (PFBC)

Mike Bur (USGS), Betsy Trometer (USFWS), D. Einhouse (NYDEC), Jim Markham (NYDEC), Bob Haas (MDNR), Lars Rudstam (Cornell), Phil Ryan (OMNR), Larry Witzel (OMNR), Jeff Tyson (ODNR), Ed Roseman (ODNR), John Deller (ODNR)

2004-05 Charges

Coldwater Task Group

1. Coordinate annual standardized lake trout assessment among all eastern agencies and report upon the status of lake trout rehabilitation.
2. Continue to assess the whitefish age structure, growth, diet, seasonal distribution and other population parameters.
3. Continue to assess the burbot age structure, growth, diet, seasonal distribution and other population parameters.
4. Continue to participate in the IMSL process on Lake Erie to outline and prescribe the needs of the Lake Erie sea lamprey management program.
5. Maintain an annual interagency electronic database of Lake Erie salmonid stocking and current projections for the STC, GLFC, and Lake Erie agency data depositories.
6. Report on the status of rainbow trout in Lake Erie, including stocking numbers, strains being stocked, academic and resource agency research interests and related population parameters, including growth, diet and exploitation.
7. Monitor current status of Lake Erie Herring. Review ecology and history of this species and assess potential for recovery.
8. Improve description of diet for coldwater top predators.

Membership:

Co-chairs: Jim Markham (NYDEC), Phil Ryan (OMNR)

Mike Bur (USGS), Martin Stapanian (USGS), John Heinrich (USFWS), Mike Fodale (USFWS), Betsy Trometer (USFWS), Andy Cook (OMNR), E. Wright (OMNR), Kevin Kayle (ODNR), Chuck Murray (PFBC), Paul Sullivan (DFO), John Fitzsimons (DFO), R. Haas (MDNR)

2004-05 Charges

Habitat Task Group

1. Document habitat related projects (e.g. critical information collection, habitat rehabilitation projects, habitat quantification etc.) being conducted or proposed by LEC partners in the Lake Erie basin.
2. Develop strategy to work with Lake Erie LaMP as vehicle [to resolve](#) issues etc. beyond mandates of fisheries agencies.
3. Develop strategy and support for Lake Erie GIS development and deployment.

Membership:

Chair: Phil Ryan (OMNR)

Bob Haas (MDNR); Jim Markham (NYDEC); Jeff Tyson (ODNR), Ed Roseman (ODNR); Elizabeth Wright (OMNR), T. MacDougal (OMNR); Scudder MacKey; Roger Kenyon (PFBC)

Announcements

LEC April 1, 2004

Annual Meeting

Coordinated Perch Management Strategy 2001-2003 final report is expected within the next few weeks. A sign-up sheet is on the back table for names & e-mail addresses of those who would like to receive a copy.

LEC Task Groups have reviewed and renewed the "Terms of Reference" that guide the cooperative functioning of the technical and scientific aspects of our work. These should be posted on the GLFC web-site by the end of the week.

LEC has set the Lake Erie 2004 yellow perch TAC at 11 million pounds. The basis for this decision is an F(0.1) policy that is based on a spawner recruit relationship. This is an interim method, and is an improvement over previous F 0.1 methods in that it takes into account the spawner recruit relationship for yellow perch and does not have the same reliance on parameters such as growth and knife edge recruitment. This is an interim policy that goes some measure towards addressing concerns expressed by the Myers & Bence review. In 2005, the Yellow Perch Task Group will be investigating this policy and others (including simulations) for future use within a yellow perch management plan schedule for implementation in 2005.

LEC has set the Lake Erie 2004 walleye TAC at 2.7 million walleye. This is consistent with the projected imbalanced age structure & low population level of age 2 and older walleye in the lake at this time. The LEC is optimistic and hopeful that the strength of the 2003 year-class will be sustained through survival and growth and contribute to a more robust age structure and improved walleye fishery in the future. The LEC wants to acknowledge the thoughtful participation of the commercial and recreational fisheries throughout the year and at last evening public session; we also express our thanks to Dale Burkett for his exemplary facilitation.

The LEC wishes to express their sincere appreciation to the Great Lakes Fishery Commission for the full range of their support during the last year. It was essential to have the institutional framework of the GLFC and the Strategic Great Lake Fisheries Management Plan within which we processed the challenges and complexities of walleye management issues during 2003.

**TERMS OF REFERENCE
FOR THE
STANDING TECHNICAL COMMITTEE (STC) OF
THE LAKE ERIE COMMITTEE (LEC)**

Adopted March, 1976
Revised March, 2004

TITLE: The Lake Erie Committee Standing Technical Committee (STC)

BACKGROUND: The Lake Erie's Standing Technical Committee was formed in 1976 as the Scientific Protocol Committee. In the early 1980s, the name was changed to the Standing Technical Committee, or STC, and new Terms of Reference were adopted. The main functions of the STC are to organize and to help facilitate work in the form of charges from the Lake Erie Committee (LEC) to the STC and individual Task Groups, and the STC organizes and presents an annual meeting of the Lake Erie Committee to discuss pertinent management and research issues. STC members will act as the senior scientific advisory group for the LEC and will take action to commission special studies, to critically review task group findings or methods, or to direct scientific studies on behalf of the LEC. The STC will provide a key leadership function for task groups and for the LEC on biological and scientific issues.

MEMBERSHIP:

Chairperson: The Chairperson of the STC will reside with, and rotate in synchrony with, the agency chairing the Lake Erie Committee, but these two Chairpersons will not normally be the same person.

Members: STC membership will consist of one representative from each fish management and research agency with legislated or mandated policy and implementation obligations for fish management on the Lake Erie, as follows:

- Michigan Department of Natural Resources (MDNR)
- New York Department of Environmental Conservation (NYDEC)
- Ontario Ministry of Natural Resources (OMNR)
- Ohio Department of Natural Resources (ODNR)
- Pennsylvania Fish & Boat Commission (PFBC)

Task Groups: The STC will organize Task Groups and ad-hoc Working Groups to address specific tasks which have been referred to it (as Charges) from the LEC. Such Task Groups and Working Groups may include qualified representatives from the above member agencies as well as members from:

- Canadian Department of Fisheries & Oceans (DFO)
- United States Fish & Wildlife Service (USFWS)
- United States Geological Survey - Biological Resources Division (BRD)

- The scientific and academic communities at large, as invited by and approved by the LEC.

See the individual task group Terms of Reference and the **Lake Erie Committee's Task Group Responsibilities and Membership** statement for specific details. Current Task Groups include: Walleye, Yellow Perch, Coldwater, Forage, and Habitat. Other task or work groups may be formed in response to specific LEC or STC needs (e.g. the Statistics and Modeling Work Group and the Sampling/Assessment Work Group) or to address new or emerging fisheries resources and management techniques.

PURPOSE: To establish a group of fisheries management professionals representing agencies with active mandates for fishery management on Lake Erie. To examine resource management, biological and/or scientific fisheries issues referred to them by the LEC. To make recommendations regarding management and research direction to the LEC and member agencies. To conduct work assignments as requested by the LEC including:

1. Providing agencies represented on the LEC with technical information, management alternatives, and guidelines useful in making fishery management decisions; policy issues will not be assigned to the Lake Erie STC, Task Groups or Working Groups by the LEC.
2. Reviewing proposed work assignments (STC, Task Group, and Working Group Charges) with the LEC and agreeing on work to be conducted;
3. Completing assignments as agreed upon and reporting back to the LEC at its annual meeting;
4. Arranging for resource persons and independent reviewers to assist the LEC, Task Groups and Working Groups as required;
5. Recommending to the LEC the need for the formation of a Task Group or Working Group to address a specific issue outside of the scope of the STC, or the need to suspend/eliminate a Task Group or Working Group whose Charges have been met and are no longer required;
6. Coordinating activities with such Task Groups or Working Groups to ensure completion of assigned Charges;
7. Consulting with the LEC to propose, develop and/or recommend research projects pertinent to Lake Erie fisheries issues.

REPORTING: The Chair of the STC will report formally at the annual meeting of the LEC on the activities of the STC, its Task Groups and ad-hoc Working Groups. In addition, the Chair of the STC, individual Task Group Chairs, and ad-hoc Working Group Chairs will be asked to report on critical issues to the Chair and/or LEC membership at other times, including the annual Pre-LEC meeting, seasonal LEC and/or STC business meetings, and other times as necessary.

CONSENSUS APPROACH: STC issues are resolved by consensus of the members. If consensus cannot be achieved on an issue, then it will be referred to the LEC for

resolution. Additionally, the STC can provide resolution guidance for task groups if they reach an impasse.

FREQUENCY OF MEETINGS: The STC meets as deemed necessary by the STC members or the LEC, with the intent to meet at least annually. Additional meetings may be held with task group chairpersons to ensure that tasks are fulfilled satisfactorily or to address specific LEC issues.

SUPPORT: Salary and traveling expenses of the members of the STC will be the responsibility of the parent agencies, unless otherwise provided through an arrangement of the GLFC or other external funding sources.

**THE LAKE ERIE COMMITTEE'S (LEC)
TASK GROUP RESPONSIBILITIES AND MEMBERSHIP**

Adopted April, 1996
Revised March, 2004

1. The Lake Erie Committee (LEC) may create, charge, and appoint staff to committees, task groups and working groups (hereafter referred to as task groups) as it deems necessary and appropriate to perform scientific and technical functions and report thereon to the LEC.
2. The Standing Technical Committee (STC) tracks task group membership and direction, completion of charges, and quality of work for the LEC.
3. These task groups will be charged to work solely on technical matters; policy issues will not be assigned to such task groups.
4. Each LEC member may select and appoint appropriate personnel from his or her agency to any of the LEC task groups. These personnel should have expertise to address task group charges and participate in the fulfillment of task group activities such as summarizing and analyzing data, writing completion reports, and making presentations.
5. Each LEC member may nominate non-LEC-agency personnel with demonstrated scientific expertise. Consensus of the LEC is needed for acceptance as a task group member.
6. Non-LEC-agency personnel with a vested interest in technical task group responsibilities or management results will not be permitted as participants or observers; rationale for this position includes:
 - Task groups work only on technical matters, not on policy issues;
 - The presence of vested-interest stakeholders restricts the free flow and exchanges of ideas and concepts;
 - The restriction of ideas impedes the scientific and technical productivity of the task groups;
 - Task group focus, direction and working logistics could become unmanageable with the potentially large numbers of observers and stakeholders present; and
 - When formal minutes and reports are produced, they will be available to the general public.

7. While members of the LEC, STC, and task groups from neighboring agencies share common goals of stock assessment and resource sustainability, they recognize the right of agencies to manage their respective jurisdictions independently in order to meet these fishery objectives and attain quotas.
8. Agencies providing raw data for task group use retain the ownership; it may not be released outside the Task Group without agency approval. Summary data, analysis, results and recommendations produced by the task group will be released in a public report. Other data, programs and information produced by the task group are the intellectual property of the task group and will not be released outside the task group without prior consensus approval of the task group and the LEC. Data sets presented within or produced for task group reports should be considered preliminary and should not be used or cited by any other group until these data have been released by the contributing agency.