

# **IAGLR FIVE-YEAR PLAN 2005-2010**

May, 2005

## Preface

The International Association for Great Lakes Research is at a crucial point in IAGLR's history. The association has just completed several major initiatives that have propelled IAGLR to a higher level of scientific publishing, promoted our members' expertise, and built the association's credibility as a source of scientific information and policy guidance. The association has also made a major investment in services to the membership and Great Lakes community through the development of the IAGLR web site. This website is now a major item in our budget and may be considered a third major product offered to members, after the Journal and the annual conference. The following is a summary of the major developments since the last Five-Year Plan.

1. The conversion of the Journal's archives to electronic form was a major leap for the organization. And we have continued to move forward. We offer the entire Journal, including every new issue, electronically. The Journal is indexed and searchable through the web site. Members with electronic subscriptions can retrieve articles directly from the index. Nonmembers can retrieve abstracts. The Journal is now featured by all the major abstract services including ISI (Web of Science) and ChemFinder (CAS). As a result of these services the Journal is easily searchable by researchers worldwide, including those who may have never heard of IAGLR nor ever visited the web site. Our journal can now be compared to our peer publications with respect to number of publications, number of citations, impact factors, and citation half-life. A survey of these factors shows that the Journal is well regarded by the scientific community.

2. IAGLR's web site, [www.iaglr.org](http://www.iaglr.org), is now fully functional and rich with information and utility. The newly refurbished web site includes information for the public including press releases about the current journal, free access to the current journal, a calendar of Great Lakes activities, a job announcement board, a research news section, the expert's directory, IAGLR board and committee membership, special reports and fact sheets, abstract submission and registration for our annual conference, a "policyweb" page for our ongoing science-policy initiative, and links to related organizations. The web site also allows us to better serve our membership. In addition to the benefits associated with the Journal, members now have access to a "membersweb" page to renew their membership, vote for board members, and access the member directory and update their own entry. The website also publishes information on IAGLR awards and direct information regarding application deadlines and procedures. The IAGLR board is also better served through a password protected site.

3. Conference preparations have been streamlined and improved. Over a 5-year period IAGLR made significant investment in web services to support the conference and efforts will continue to improve these online resources as needed. Conference attendees can submit and edit abstracts electronically, reserve housing, and submit payment through a secure web site. Conference session chairs can manage their sessions and conference organizers can get real time statistics on attendance by event and monitor other aspects of conference administration. The development of the web site has greatly improved the public face of IAGLR presented to the public and the services provided to our members. The IAGLR website is now an integral component of the conference.

While the Association has made great strides in the past five years, there is still much to accomplish to advance the Association's leadership role in Great Lakes research, education, and outreach, ensure financial sustainability, improve the quality of the Journal, and enhance benefits to our membership. The Five-Year Plan contains the following goals for the next five years:

**Goals:**

1. Advance Research and Education on Large Lakes of the World and their Watersheds.
2. Increase Scientific Outreach to inform Public Policy and Decision-Making.
3. Ensure the Integrity and Longevity of the Association by focusing on Service to the Membership and Public while maintaining our Financial Sustainability.
4. Continue to Improve the Quality and Scientific Prestige of the Journal of Great Lakes Research by increasing Manuscript Submissions.
5. Expand the Annual Conference on Great Lakes Research to include a venue for Research Planning, Networking, and Professional Development.

**Specific Objectives:**

The recommendations of the Five-Year Plan Committee are detailed as specific objectives. These objectives are organized under five focus areas: the Journal; association governance; outreach; financial sustainability; and the annual conference.

The rationale in the choice of objectives for this Five-Year Plan is detailed in a series of appendices. Appendix I describes previous Five-Year Plans and details how IAGLR has responded to the specific objectives of the previous plans. Appendix II proposes a new paradigm for IAGLR operations and justifies the recommendation for an Executive Director. Appendix III addresses the needs of the Journal and justifies the recommendation on changes to the funding mechanism for the Journal. Appendix IV discusses the mandate for science and policy outreach and justifies the major priorities for improved outreach, including a recommendation for an Executive Director. Appendix V describes the contents of a Business Plan that should guide IAGLR in addressing the financial implications of some of the recommendations. Appendix VI provides background information about other scientific associations that are comparable to IAGLR. Finally, Appendix VII includes an analysis of the financial state of the organization and presents six scenarios of expenses and income to support items proposed by this Five-Year Plan.

**Table 1. Specific Objectives.**

<b>Issues concerning the Journal</b>
- Increase the number of papers submitted and published in JGLR
- Remove B&W page charges for regular articles in JGLR
- Continue to recognize the service of Reviewers and Associate Editors to JGLR
- Increase financial support to the Editor of JGLR
- Develop and implement online manuscript submission and review
- Promote and provide editorial support for publication of special topics collections
<b>Issues of Governance</b>
- Conduct a scientific survey of the membership needs
- Install a paid Executive Director as an additional staff member of the Association
- Regularly evaluate all paid personal, providing clear and constructive feedback
- Develop guidelines for recognizing and rewarding excellence in staff members serving the association
- Report progress on the Five-Year Plan to the membership as a matter of business and incorporate feedback regarding points of concern
- Improve administrative support for major committee chairs and officers
- Improve oversight and planning of the website by assigning direct responsibility
<b>Issues concerning Outreach</b>
- Hire a professional with experience in scientific outreach to communicate the importance of Great Lakes research to policy makers, regulators, and the public
- Release information to the media about journal articles in an organized, consistent, and professional manner
- Provide free access to the electronic journal to appropriate media representatives on a case-by-case basis
- Seek funding to support new outreach initiatives via grants and an active endowment campaign
- Develop a strategy for assessing the impact of IAGLR science-policy initiatives

**Table 1., continued.**

<b>Issues concerning our Budget</b>
- Develop a detailed Business Plan
- Address/adjust the membership rate structure
- Address/adjust page charges to maintain journal sustainability and quality
- Adjust conference fees to reflect the benefits to members and the cost to the association
- Dedicate funds for special initiatives (international travel, student awards, proposal writing)
- Strategic plan to build the endowment funds
- Write new proposals to support special initiatives
<b>Issues concerning the Conference</b>
- Review and potentially revise the typical program for the conference
- Promote research planning meetings, workshops, and professional development events at the conference
- Increase sponsorship and exhibitor participation in the conference
- Increase student participation
- Improve the communications between conference organizers, the conference committee chair, and the board

## **APPENDIX I**

### **HISTORY OF THE IAGLR FIVE-YEAR PLANS**

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

The association has completed two Five-Year Plans. The primary objectives of these two plans are very similar and reflect the dedication of the association to quality and impact of our association on the scientific and policy communities involved in the Great Lakes.

#### **Five Year Plan #1 (1993-1998) Primary Objectives:**

1. Ensure the Integrity and Longevity of the Association
2. Continue to Improve the Quality and Scientific Prestige of the Journal of Great Lakes Research
3. Improve the Quality and Management of the Annual Conference on Great Lakes Research
4. Promote Research and Education on the Great Lakes and other large lakes of the world
5. Increase both Individual and Corporate/Institutional membership

#### **Five Year Plan #2 (1999-2004) Primary Objectives:**

1. Promote Research and Education on the Great Lakes and other large lakes of the world
2. Continue to Improve the Quality and Scientific Prestige of the Journal of Great Lakes Research
3. Improve the Quality and Management of the Annual Conference on Great Lakes Research
4. Ensure the integrity and the longevity of the Association will be achieved by focusing on membership retention and growth, and by assuring the Association's financial stability

#### **Five Year Plan #3 (2005-2010) Proposed Primary Objectives:**

1. Advance Research and Education on Large Lakes of the World and their Watersheds.
2. Increase scientific outreach to inform public policy and decision-making.
3. Ensure the Integrity and Longevity of the Association by focusing on service to the membership and public while maintaining our financial sustainability.
4. Continue to Improve the Quality and Scientific Prestige of the Journal of Great Lakes Research by increasing manuscript submissions.
5. Expand the Annual Conference on Great Lakes Research to include a venue for research planning, networking, and professional development.

***Comment on Nomenclature of the Five-Year Plans.*** *The name and inclusive years of the Five-Year Plans are ambiguous. For example, a hard-copy pamphlet describing Plan #2 has been widely distributed and is titled: Five Year Plan: 1999-2004. However, on the web site, the plan is titled: IAGLR Five-Year Plan 1998-2003 and was approved by the Board of Directors 11 February 1999. The current Five Year Plan Committee decided to name the current plan 2005-2010 to be consistent with the hard copies of the previous plans. There is a year of planning between each one. So, Plan #1 is from July 1993 to July 1998, there is a year of planning from July 1998 to July 1999. Plan #2 covers July 1999 to July 2004 followed by a year of planning. Plan #3 covers July 2005 to July 2010.*

## Evaluation of the IAGLR Five-Year Plan 1999-2004

The 1998-2003 Five-Year Plan was successful. IAGLR achieved nearly every goal set. This assessment does not simply refer to the primary objectives, which have been nearly consistent over the last two Five-Year Plans but refers to the specific itemized objectives. The 1998-2003 Five-Year Plan included thirty-three specific objectives. Detailed listing of these objectives and their outcomes is presented in Table 1.

**Table 1. Work plan and status of objectives defined in the second Five-Year Plan (1999-2004).**

<b>WORK PLAN FRAMEWORK, ACTIONS AND RESPONSIBILITIES</b>	<b>STATUS OF TASK.</b>
<b><i>1. Promote Research and Education on the Great Lakes and other large lakes of the world</i></b>	
<ul style="list-style-type: none"> <li>▪ assign a student board member to the Conference Committee-</li> </ul>	DONE. One of the student board members services on the conference committee.
<ul style="list-style-type: none"> <li>▪ have the Site Conference Committee add a local student to its committee-</li> </ul>	DONE. The SOP for the conference committee includes the addition of a student committee member.
<ul style="list-style-type: none"> <li>▪ expand the Conference and Site Conference Committee SOP to include specific directives for organizing student activities and communicating annual conference information to them-</li> </ul>	DONE. However, this has not been consistent. (This is the sort of thing that the Conference Chair and/or the Executive Director could help facilitate.)
<ul style="list-style-type: none"> <li>▪ explore feasibility and interest in organizing student chapters-</li> </ul>	A focused feasibility study was not done.
<ul style="list-style-type: none"> <li>▪ increase the profile of student scholarships and awards by publicizing both the awards themselves and the winners.-</li> </ul>	DONE. Student awards are now announced on the web site
<ul style="list-style-type: none"> <li>▪ increase the value of student scholarships and awards.</li> </ul>	DONE. And we also increased the number of student awards.
<ul style="list-style-type: none"> <li>▪ include student nominees on ballot for Board of Directors-</li> </ul>	DONE.
<ul style="list-style-type: none"> <li>▪ revise Standard Operating Manual and assign two seats, with a two year term, staggered between the students and with equal representation in Canada and US.-</li> </ul>	DONE.
<ul style="list-style-type: none"> <li>▪ solicit student members on standing Board Committees-</li> </ul>	DONE- for example, a student is included in the 5-year plan
<ul style="list-style-type: none"> <li>▪ represent IAGLR on the communication task force of the IJC Council of Great Lakes Research Managers-</li> </ul>	DONE. But not always consistent.
<ul style="list-style-type: none"> <li>▪ liaise with and provide IAGLR outreach materials through existing organizations such as Sea Grant publications, IJC Focus , Great Lakes Commission-</li> </ul>	DONE. We have used our web site and the GLIN network to disseminate outreach materials.
<ul style="list-style-type: none"> <li>▪ arrange training sessions for "scientist communicators" as workshops before, during or after the annual conference-</li> </ul>	DONE. We are a sponsor of the GLIN press room, which allows us to submit items to their web news page. We have run expert workshops in 2002 and 2003 as part of the Joyce Fdn grant.
<ul style="list-style-type: none"> <li>▪ broaden internet dissemination and linkages to related</li> </ul>	DONE. The new web site has

organizations, associations, and community web-sites-	been one of the most successful improvements in communication.
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<b>2. Continue to Improve the Quality and Scientific Prestige of the Journal of Great Lakes Research</b>	
<ul style="list-style-type: none"> <li>○ increase the publicity associated with the Chandler-Misener Award (press releases, web-based announcements, special presentation at conference)-</li> </ul>	Reserve for next 5-year plan.
<ul style="list-style-type: none"> <li>○ produce a searchable CD index of all articles in the Journal and Proceedings since its inception and update that index every five years.</li> </ul>	DONE. A searchable JGLR index is available to members and nonmembers through our Web site. Members can retrieve pdf files from the index. See <a href="http://www.iaglr.org/jglr/db/search.php">http://www.iaglr.org/jglr/db/search.php</a>
<ul style="list-style-type: none"> <li>○ develop and implement a proactive program to encourage publication of special topics issues that are timely, have broad interest, and are of high quality.-</li> </ul>	<p>DONE. Four special sections and two special issues of JGLR since 1998.</p> <p>However, timeline is often long. We may be able to make things more efficient by making the submission and review facilitated through the web as is currently done in other journals.</p>
<ul style="list-style-type: none"> <li>○ in cooperation with the Association's Treasurer and appropriate Board representatives, conduct a thorough evaluation of the budget and cost recovery structure for the Journal in an effort to determine the best and most effective means of cost recovery relative to improving the status and quality of the Journal.-</li> </ul>	A comparison study of library subscription rates for comparable journals was completed- but is not publicly available. MORE WORK IS NEEDED HERE. The whole financial business model for IAGLR needs to be reviewed and potentially revised; this should be a <b>MAJOR</b> objective of the next 5 year plan.
<ul style="list-style-type: none"> <li>○ establish a means, probably through the development of a "discussion board" on the Association's web site, for open discussion and debate on issues raised in articles appearing in the Journal.</li> </ul>	NOT DONE. Like the expert directory, somewhat of a flop because of no champion and virtually no marketing. We do allow people to submit news items to our research highlights page. Whatever model we decide to adopt, we have to put more than just volunteers to do this as time permits. This is another reason for having someone like an Executive Director to champion it.
<ul style="list-style-type: none"> <li>○ conduct a thorough analysis of the feasibility and potential benefits of publication of the Journal electronically.</li> </ul>	DONE . See <a href="http://www.iaglr.org/jglr/journal.php">http://www.iaglr.org/jglr/journal.php</a>
<b>3. Improve the Quality and Management of the Annual Conference on Great Lakes Research</b>	
<ul style="list-style-type: none"> <li>▪ Organize training or technical workshops to develop information papers for publication</li> </ul>	DONE. Workshops were organized as part of the Joyce Foundation policy grant and included several technical workshops to write the Aquatic Invasive Species paper, and the Urban Non-Point Source Pollution paper- both now posted on the web.

<ul style="list-style-type: none"> <li>▪ Offer one-day short courses or continuing education courses on timely topics</li> </ul>	<p>These were done as part of the Joyce policy grant but have not been sustained. These brought a lot of visibility to IAGLR, and should be reinvigorated.</p>
<ul style="list-style-type: none"> <li>▪ Expand the Conference and Site Conference Committee SOP to include specific guidelines for organizing topical and technical workshops</li> </ul>	<p>This is something we did for the 2001 Conference ... there were 5 adjunct workshops and a public forum ... but the SOP has not included specific guidelines for organizing these, and it should be incorporated!</p>
<ul style="list-style-type: none"> <li>▪ Expand the Conference Chair's role to include responsibilities of a Program Chair to assist the Site Chair in developing topical and technical workshops</li> </ul>	<p>This is something that has not been incorporated in the Conference Chair's SOP. These last two items would represent/require a significant change to the typical conference schedule/flow. We should probably consider modifications to the typical conference program in our next 5 yr plan. Workshop days could be worked in with local field-trips, preferably on the weekend preceding the conference.</p>
<ul style="list-style-type: none"> <li>▪ Expand the Site Conference Committee SOP to include specific guidelines for preparing conference press releases</li> </ul>	<p>This has been added to the Site Conference SOP, but it is not been handled consistently</p>
<ul style="list-style-type: none"> <li>▪ Expand the Site Conference Committee SOP to require a committee member to act as 'press secretary' or public liaison</li> </ul>	<p>Media contact person is part of the Site Chair SOP, but it probably needs to be more explicit in the SOP, so it becomes a 'requirement'.</p>
<ul style="list-style-type: none"> <li>▪ Develop conference press releases to further publicize new Great Lakes research findings and to highlight conference events</li> </ul>	<p>This has been added to the Site Conference SOP, but it is not been handled consistently</p>
<ul style="list-style-type: none"> <li>▪ Provide a forum for members of the Great Lakes community and State/Provincial and Congressional/Parliamentary decision makers to assimilate new approaches and information for advancing the understanding of lake-ecosystems. -</li> </ul>	<p>DONE. Great lakes science and policy initiative funded by the Joyce Foundation. See <a href="http://www.iaglr.org/scipolicy/intro.php">http://www.iaglr.org/scipolicy/intro.php</a></p>
<ul style="list-style-type: none"> <li>▪ Develop a new mechanism to solicit the 'call for papers', abstract submission and announce the conference program information and announce Conference program information and publications on the IAGLR Web Site-</li> </ul>	<p>DONE through web site all electronic, including abstract submission, session editing, and payments.</p>
<ul style="list-style-type: none"> <li>▪ recruit new Sustaining Members through the Annual Conference's list of contributors-</li> </ul>	<p>We have six sustaining members, all agencies. One is new (Environment Canada-Ontario Region) during the last 5-year plan period. We ought to have an objective to expand this to at least 10 and increase the dues.</p>
<ul style="list-style-type: none"> <li>▪ Develop a detailed business plan for increasing the Endowment Fund-</li> </ul>	<p>Needed</p>
<ul style="list-style-type: none"> <li>▪ market the Endowment Fund to potential foundation</li> </ul>	<p>DONE</p>

donors through a new IAGLR Five-Year Plan brochure-	
▪ direct fund-raising efforts towards building an awards funds to support enhanced IAGLR awards -	DONE
▪ File for charitable status with Revenue Canada-	DONE
▪ Launch charitable tax status and number on the IAGLR home page with a call for donations to the endowment fund-	NOT DONE

## **APPENDIX II**

### **A NEW PARADIGM FOR IAGLR OPERATIONS**

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

#### **Preface**

IAGLR has outgrown its current volunteer structure for serving the needs of the Great Lakes community, both human and non-human. Although the concept of a paid management staff is not new to IAGLR – we already have a business office manager and a managing editor for the Journal of Great Lakes Research on our payroll and previous administrations of IAGLR have considered the potential need for a position like an Executive Director (ED) – the concept of an Executive Director has never progressed very far. The preparation of a new strategic Five-Year Plan for IAGLR provides us with an opportunity to revisit the needs of IAGLR in the 21<sup>st</sup> century and to consider adopting a new paradigm for conducting business so as to better serve the needs of our “clients”. This document provides a starting point for this debate. It represents the Committee’s thoughts and opinions in an effort to make an argument for change and to suggest an alternative to our current operating plan.

This discussion surely overlaps with other components of our Five-Year Plan development – business planning and financial status, Journal of Great Lakes Research publishing and financing, web site operation and services, association outreach and education programs, and conference structure and operations. And the arguments and recommendations presented below will touch on all of these at some level. Indeed, this topic may need to play an over-arching role in our strategic plan development, because it impacts what we are able to accomplish in those other areas of the Association. At any rate, the Five-Year Planning Committee has prepared this document to offer a proposal for change in IAGLR’s operating structure and function. It should be noted that the Committee is not proposing to eliminate either of the existing paid positions (business office manager and managing editor) but rather to expand our services to the membership and the public by adding an Executive Director position.

#### **Rationale for Change**

Over the course of its history, IAGLR has undergone a great deal of change, most of it very definitely for the better. To mention just a few of those changes:

- We have moved from publishing a non peer-reviewed proceedings of our conference to publishing a well-respected journal that deals with all aspects of Great Lakes research and management.
- We have grown in membership (mostly in the earlier years) and have recently done a great job of reaching out to students in the basin in an effort to interest them in spending their professional careers on Great Lakes research and management.
- We have embraced the Internet as a tremendous tool to facilitate our provision of services to our members and non-member clients.
- We have archived our entire history of the Journal of Great Lakes Research in electronic form for easy access, and we have begun the transition to electronic publication of our journal.

In spite of all of these tremendous advancements there is more that we can and should do. But it is the opinion of the Five-Year Planning Committee that the one thing that has not changed – our operating structure – is limiting our ability to better serve our community.

### **Current Operating Plan**

Our Association operates with a Board of Directors and a Committee structure that is largely made up of volunteers. We have essentially three paid positions – a business office manager, a journal managing editor, and a web-master. The web-master position is really the only real change to this structure in the past ten years; it was necessitated by our web site development and utilization for serving our membership. We have written and routinely updated (the first draft was written in 1987) a Standard Operating Procedures Manual to provide guidance to the people who serve in these various positions of the Association. Under this structure the Board has had to evolve from largely a policy-setting body to one that really does the work of the Association. This transition has been required because the growth in the Association and its services has required it. It is the Committee's observation that the success of this operating model depends a great deal on the individuals in the different positions and their dedication and ability to donate time, sometimes with less than optimal results. Also, it seems that the role of the Board in creating a vision for the Association has eroded somewhat merely because there is not time to focus on visioning and policy-setting at Board meetings.

### **What is Not Working**

The Committee maintains that because of the increased size and sophistication of the Association, it has outgrown the current operating model, its ability to provide services to its members and to play a leadership role in the research and management the Great Lakes. The Board is no longer able to spend its time governing the Association and creating a vision for the Association's role in the current issues of the basin today. For example, why isn't IAGLR playing a major leadership role in the development of a strategic plan for the restoration of the Great Lakes and in bringing our vast scientific knowledge base to that process? At the very least, IAGLR scientists should be writing a paper dealing with "bringing science and research to Great Lakes restoration planning and implementation."

Specific thoughts on what could be working better in the Association are presented here in bullet form:

- IAGLR is not taking advantage of its status as a non-profit to develop education, outreach, and even research programs that could be supported by Foundations. The Joyce Foundation project on strengthening the Science-Policy linkage was a good example; although it would not have happened had it not been for the dedication of a few individuals, and we really should have followed up for another grant in this area but did not. Related to this, our "policyweb" page is languishing, and we have not held the interest of policy-makers in the work of the Association.
- Our recent focus for the annual conference has been on smooth functioning and profit-making – and I think we have been very successful at this thanks to the hard work of our Conference Committee Chair, our webmaster, and our Business Office Manager. But the conference has become fairly stagnant in its offerings and may be failing to meet the current needs of its attendees. We should be thinking about other activities that could occur at the conferences, such as: better outreach to press and policy-makers during the conference; holding technical mini-workshops that reflect the current issues/problems in the basin (e.g., closing the door to ANS); or holding short-course prior to or after the conference.
- We have a problem maintaining continuity and "corporate memory" within the association. We contend that over the course of decades Boards "forget" where the Association has been and tend to reinvent the wheel – not always but occasionally.
- Volunteer secretary and treasurer officers find it difficult to really devote the time necessary to the Association for these jobs. The Association has great difficulty finding volunteers for these positions in the past, and this year sees both executives wanting to resign. An Executive Director to support these offices would greatly facilitate the operation of the Association.

## **Moving Toward an Executive Director Position**

The concern of the Committee is that the Association, as an organization, has become more sophisticated with a potential to do really great things, but the volunteer-based infrastructure is not able to accomplish them. It is time to move IAGLR to the next level, and that requires someone to help create and implement new programs for the Association. The Committee's opinion is that this must be a paid position, because whoever it is needs a reason for strong commitment without the demands of another job. We realize that we are not in great financial condition and some may point to the expenditures on the web-master contract (general maintenance and member services, conference, online journal) as the reason for our financial condition. We maintain that we have made great strides in member services and outreach with our web site and we cannot afford to reduce that portion of our expenditures; however, with a paid executive director position, we may be able to divert some of the resources going to our web-master contract to this paid position.

The immediate question is how will we fit a \$30-50K per year salary into our budget? The Committee contends that the best approach is to increase our income (increase both general and sustaining memberships, increase Journal subscriptions, increase membership dues, increase donations) as part of developing a new business plan for the Association. In the transition to this new business plan, perhaps we can pay for this position through a foundation grant for improving the science-policy linkage in the Great Lakes.

### **Role of Executive Director**

Defining the job description of the position of Executive Director of IAGLR would require full Board participation, with an *Ad Hoc* search committee to draft a position description for Board approval and conduct the search. However, specific duties recommended by the Committee include:

- Supervise the IAGLR business office operations and personnel
- Provide logistical and clerical support to the Secretary and Treasurer of IAGLR
- Organize the logistics of Board and Committee operations, including Board meetings
- Work with the treasurer to develop and manage the budget of IAGLR
- Facilitate the implementation of any new education, outreach, and research synthesis programs of IAGLR; a good executive director might even recommend programs to the Board and lead their development
- Manage the development of grant proposals for new education, outreach, and research synthesis programs, and contribute to the proposal preparation
- Direct all of the education and outreach programs of IAGLR, including preparation of press/web releases and writing of articles on key issues in the Great Lakes
- Work closely with Annual Conference Chair in preparation for our highlight event of the year; perhaps eliminating the need for a separate conference committee with some "corporate memory" regarding running a successful conference.

**Qualifications of Executive Director**

Again, the required qualifications of the IAGLR Executive Director would depend on the final job description. However, given the types of duties listed above, the Committee suggests the following capabilities for an Executive Director position:

- Intimate knowledge of Great Lakes issues and at least a conversational knowledge of Great Lakes science
- Demonstrated grant writing experience
- Demonstrated ability to write on Great Lakes science for public consumption
- History of IAGLR membership and/or working within IAGLR governance structure
- Good interpersonal and communication skills
- Organization and logistics skills
- Some experience in preparation and maintenance of budgets for non-profit organizations
- Some ability to maintain and update our web site and to post material (i.e., take some of the more routine load off our web-master)

## APPENDIX III

### QUALITY AND SUSTAINABILITY OF THE JOURNAL FOR GREAT LAKES RESEARCH

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

#### **Preface**

The *Journal for Great Lakes Research* is arguably the major product of IAGLR. The reputation of the association is closely linked to the quality and prestige of the journal. The journal, now past its 25<sup>th</sup> year of publication, is recognized as one of the best journals in environmental science and the best journal dedicated to the Great Lakes. The journal is now listed by major abstracting services. The newest search engine, Google Scholar (<http://scholar.google.com/>) includes abstracts of JGLR articles. As a result of these sources, and the move to digitize our archives, our articles are more visible to the scientific research community, potentially more visible to the public, and we are now able to more easily compare our journal to those of our peers.

The quality of the journal is good. Our overall impact in the scientific research community appears to be increasing. Compared to journals in comparable subject areas, our journal articles are cited at a rate that is at least average compared to our peers. However, average is not good enough. We must improve the quality of the journal if we are to ensure its sustainability and meet the goals of our Association as a whole. We are concerned that our journal will not continue to improve under our current operating system.

Increasing the submission rate is tantamount to improving the quality and ensuring the sustainability of the journal. Low submission rate results in a low rejection rate that has the potential to adversely affect the quality of the journal. Discussions with our editorial community indicate that page charges and the limited audience are major factors discouraging submission to our journal.

The financial security of the journal is currently not sustainable without author page charges. We currently fund the journal from three major sources: author page charges; subscriptions; and reprints. The relative importance of these sources of support is roughly in the order listed, with author page charges being by far the largest source. In fact, for special issues, page charges fund the entire cost of the journal. For regular issues, however, the cost of the journal exceeds revenue from page charges. Further, our page charges to authors for regular issues are above average compared to our peers.

The scientific outreach that IAGLR has long declared a priority is nearly impossible with our current operating structure. The operations of the journal are largely volunteer. The editor is not paid but receives a small stipend to pay for part time administrative support. Many important goals of IAGLR remain undone including publicizing new articles to the scientific community, policy-makers and public.

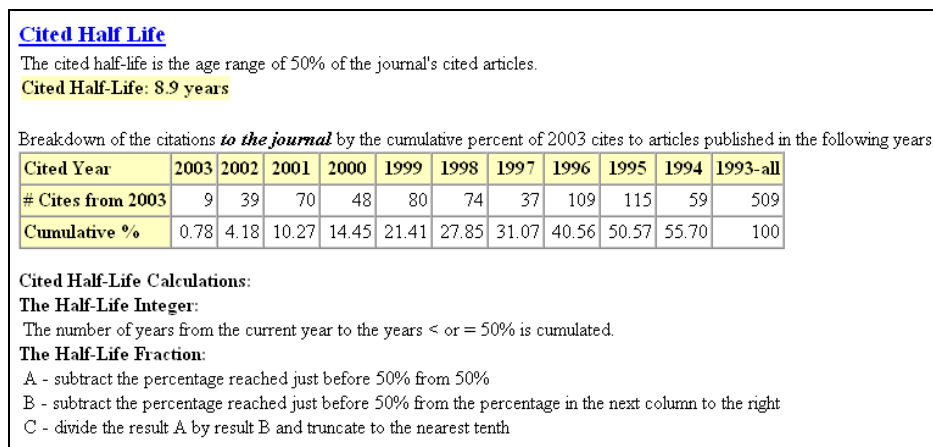
As a result of these issues, the Five-Year Plan Committee recommends major changes in the operation of the journal. First, we recommend reducing or eliminating author page charges for regular articles. Second, we recommend hiring of an Executive Director who promotes new articles and will thereby improve the impact and immediacy of all journal articles. We anticipate that these recommendations will be examined, considered, and hopefully accepted within the next five year cycle.

## Current Quality Metrics for JGLR

Our journal enjoys good metrics for quality. We considered three measures of journal quality: the half-life for citations to the journal's articles; the immediacy index; and the journal's impact factors. All measures are reported for JGLR by Thomson ISI. ISI demands that journals follow a publication schedule and have a history of publication to be listed. While our journal has an excellent publication history (~25 years), we have not always published our issues under a hard schedule. That has changed. Now that we are listed by major abstracting and indexing sources, and wish to continue, our Editor and Managing Editor are bound to a publication schedule. Listing our journal has improved the exposure of our authors and now allows us to easily compare ourselves to other journals that are also listed by ISI's Web of Science and the Journal Citation Reports.

Thomson ISI supports one of the major indexing and abstracting sources, Science Citation Index through Web of Science, but there are many others. In fact, Ulrich's Periodical Directory lists forty-seven different abstracting and indexing sources for our journal, including Current Contents, Chemical Abstracts, BIOBASE, and GEOBASE. Google Scholar also includes us in their academic search engine. Overall, our journal gets good coverage from indexing and abstracting sources.

Statistics show that the JGLR archive is well used by scientific researchers. Our archives continue to be well cited, although the down side is that our new articles are not cited very rapidly. That is, the value of our published articles is not in their immediacy, but in their long-term contribution to understanding of the science. The half-life of a JGLR article is 8.9 years, meaning that half of the total citations for a paper occur in 8.9 years. Figure 1 shows the citations to JGLR articles that appeared in any abstracted journal in 2003. In 2003, there were more than 1100 citations to JGLR articles. Almost half of those citations were for articles published in JGLR before 1994. Apparently, our archives are valuable to researchers and have a very long life in the research 'market'. Our overall half-life of our cited articles is higher than reported for this time last year (8.0 years). We suggest that this is a result of increased use of our archives, now that they are electronically available.

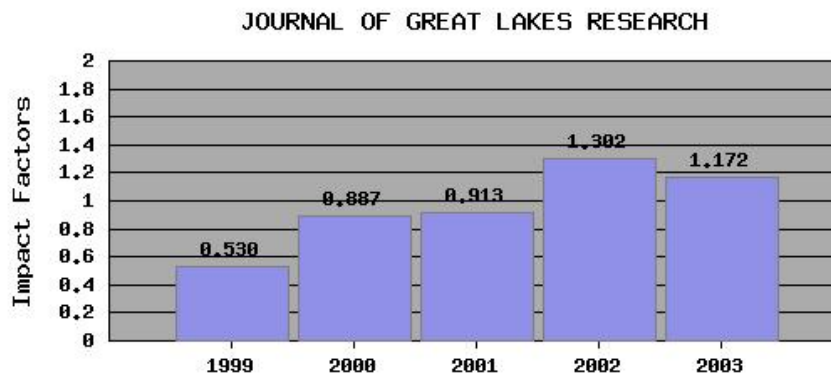


**Figure 1. Half life statistics for JGLR (Journal Citation Reports, ISI. Collected Jan 2004)**

ISI statistics show that JGLR articles do not have major impacts in the first year. ISI's Journal Citation Reports show an 'immediacy index' for JGLR of 0.161. The immediacy index is the number of 2003 articles (in any journal) that reference 2003 JGLR papers, divided by the number of articles JGLR published in 2003. In 2003, there were nine articles that were published that were also referenced in the same year. Of those nine, six of the citing articles were also published in JGLR. Compare this to a journal that has much more rapid and broad scientific response. *Nature*, for example, has an immediacy index of 6.7, meaning that there are many more citations to *Nature* 2003 articles than there were *Nature*

2003 articles. JGLR's low index is likely a result of publishing only four issues each year, the small number of total articles, and (perhaps) the nature of our material. It may also be a result of the very little effort we devote to publicizing new articles when they are released.

The journal 'impact factor' is a measure of the frequency with which the average article in a journal has been cited in a particular year. The impact factor will help us evaluate a journal's relative importance, especially when compared to others in the same field. Currently, our impact factor is about 1.0. This is calculated by ISI as a function of the citation rate for our articles. In 1994, the Keith Bedford published an assessment of the journal that included the impact factor from 1985 through 1991. It was a period of fairly stable impact factors, ranging from about 0.6 to 1.0. The most current trends for JGLR's Impact Factor show a little more variability, suggesting that there is potential to raise our impact factor (Figure 2).



**Figure 2. Trends in JGLR's Impact Factor (Journal Citation Reports, ISI. Collected Jan 2004)**

Our impact factor compares very well to our peer journals. For example, in the subject area of limnology, JGLR research ranks 5<sup>th</sup> in impact factor world-wide. In the subject of environmental sciences, JGLR ranks 54<sup>th</sup> in impact factor out of 131 listed by ISI. With respect to citation half-life, JGLR ranks 16<sup>th</sup> out of 125 in the subject area of environmental science. Our journal also has strong rankings in the area of Marine and Freshwater Biology. This is very good news and strong evidence of the importance of the JGLR archives. As noted above, our immediacy index shows that our articles are not often cited in the same year as their publications. We are ranked at 66 of 129 journals in the category of environmental sciences, with respect to immediacy index. Overall, we should be very pleased with our increasing stature in the scientific community compared to our peer journals. There are areas that need improvement, however. Our articles are not cited rapidly and our total number of citations is low. To improve these values we need to publish more articles, publicize new articles, and encourage our authors to submit articles of timely appeal more often.

## The Issue of Open Access

Open and free access to scientific information has been a major topic for scientific societies, scientists, and funding agencies over the last year. The National Institutes for Health (NIH) has led the charge in pushing for free access to scientific articles that result from work they fund. In September 2004, NIH announced plans to develop an online database of articles that report on research funded by the agency.

Also this year, the Public Library of Science (<http://www.plos.org>) launched two online journals that are free to the reader, *PLoS-Biology* and *PLoS-Medicine*. The desire for free access to scientific information is common among scientists whose work has the potential to impact the public. Researchers and publishers of research on human health are under particularly heavy pressure to make results public.

Some argue that research on the environment should also be available for free. Since most environmental research is publicly funded, the argument for taxpayer return also contributes.

Scientific societies are sensitive to this call, and some IAGLR members have strongly supported the release of all our digital archives and current issue to the public for free. The major justification is that Great Lakes science would have a positive impact on the Lakes themselves through better policy or management. The potential benefits to IAGLR include increased readership, better immediacy of impact, and publicity for IAGLR.

Who pays for free access? In the case of PLoS and other free electronic journals, free access to all readers is supported by authors and grants from foundations. PLoS charges authors \$1500 per manuscript and also received a \$9 million grant from the Gordon and Betty Moore Foundation. PLoS claims that even when their grant is completed they will be financially sustainable with author charges. They urge institutions to operate under a new business model, whereby institutions and funding agencies pay for their own scientists to publish rather than paying for the publications from scientists at other institutions. Cornell University released a study that is partly a direct response. They found that the costs of this model to Cornell would be much higher than the current model (<http://hdl.handle.net/1813/193>). They concluded that the additional costs of publishing would be borne by universities and libraries, not by funding agencies. In the case of NIH's database, the agency proposes to pay for maintenance of the server and web site but the journal that originally published the manuscripts would still foot the bill for all the costs associated with handling the article, including conducting reviews and formatting articles. This remains controversial and has been a point of contention for publishers. Non-profit scientific societies who publish journals are especially concerned that they would lose revenue from subscriptions as a result.

The Washington DC Principles for Free Access to Science is a statement prepared by a group of not-for-profit medical/scientific societies and publishers (<http://www.dcprinciples.org/>). The DC Principles contend that scientific information is already free to the vast majority of researchers through their employers and academic institutions. Although the DC Principles support increased generosity with respect to scientific institutions in low-income countries, the statement makes a clear case for the need for non-profit scientific societies to meet their broader mandates. These mandates are true for IAGLR as well and include support for scholarships, travel awards, conferences, and costs associated with maintaining a high quality product.

Authors are not uniformly in favor of free access when the cost would be borne by authors. In February 2004, the Proceedings of the National Academies of Science (<http://www.pnas.org/>) published results of an author survey. They asked for comments of the 610 authors that had published in PNAS in the previous year and the results are quoted from the report below:

Would you be willing to pay a surcharge to make your PNAS article freely available online at the time of publication?

- Yes: 104 (49.5%)
- No: 106 (50.5%)

If yes, what is the maximum amount you would be willing to pay for open access to your work?

- \$500: 81 (79.4%)
- \$1,000: 15 (14.7%)
- \$1,500: 4 (3.9%)
- \$2,000: 2 (2.0%)

It is interesting to note that JGLR charges our authors an average of about \$1200 per article.

## Improving the Quality of the Journal

We have identified three actions to improve quality. First, improving the quality and ensuring the sustainability of JGLR is dependent upon increasing the submission rate. A reasonable goal for JGLR is the publication of 4 issues per year consisting of ~10 papers. We should be pleased to note that the number of submissions has remained somewhat constant at ~70 articles per year, excluding special issues. In fact submissions have shown a slight increase in recent years.

We suggest that attracting more submissions requires reducing or eliminating page charges for regular issues, improving the visibility of new articles, and reducing time to publication. We must acknowledge that we currently compete with peer journals that serve a similar niche like *Aquatic Ecosystem* which actively solicit submissions and do not impose page charges. Many changes are already in motion to satisfy these goals. We must focus on retaining contributing authors by reducing the turn-around time between submission and review response. Recent efforts have focused on reducing the time between submission and first response to four weeks for articles submitted to regular issues. As we observe a shift toward greater publication of Special Issues it is necessary that we maintain the same standards of quality.

The increase in the number of Special Issues observed in recent years has implications for the costs generated by the journal, the return rate for individual articles, and ultimately affects author satisfaction and the quality of JGLR. Currently page charges for regular issues are \$60 US per printed page for IAGLR members and \$80 US for non-members. Page charges for Special Issues are \$100 US per page. As the number of special issues increases JGLR may generate revenues that allow for the reduction of page charges for regular issues. As most of us know, Special Issues move at the pace of the slowest author. Publication of Special Issues relies primarily on the efficiency and tenacity of Associate Editors who volunteer their time. While this lessens the burden on the JGLR editor, failure to produce Special Issues in a timely manner may result in a negative experience for individual authors who may choose not to submit to JGLR in the future. The Five-Year Plan Committee recommends that every article for Special Issues require one external reviewer.

The limited distribution of the journal is perhaps a natural consequence of the focus of the journal. JGLR specializes on science of the Laurentian Great Lakes. Consequently we serve a specific scientific niche, which benefits the scientific community but does not lend itself to widespread distribution or demand for the journal. The International Association of Great Lakes Research has worked to expand the focus of the journal by promoting a devotion to research in large lakes and watersheds of the world. This renewed emphasis reflects the direction of current research and has the potential added benefit of increasing the submission rate.

Second, we suggest that interaction between the editor, the IAGLR board, the associate editors, and the managing editor could be improved. Regular meetings between the parties who are invested in the journal could promote better service to our authors and improvements in the quality of the final publication.

Third, we suggest that an Executive Director be installed. A major activity of the director would be to promote the journal to other researchers and especially to the public. This may be particularly important for the next five years, when congress is considering major spending for remediation of contaminated sediments in the Great Lakes basin. IAGLR is in a key position to advise congress, regulatory agencies, and the public on this effort. Articles published by JGLR deserve to be highlighted in this regard. But without an Executive Director with the mandate and support, IAGLR and the science published in JGLR will not receive the attention deserved.

Although not out of reach, the costs of these activities cannot be supported by our current mechanism for funding the Journal and the Association. The decision to implement these changes and fund them will be a major focus of the Board and the Association over the next five years.

## Sustainable Funding of JGLR

The annual cost of producing JGLR has ranged from about \$40,000 to about \$90,000 for volumes 22 through 29 (1996 through 2003). The higher costs are for years where a larger number of manuscripts are handled, including years where special issues are produced. Because the number of manuscripts has varied widely between years, there is no major trend in the cost of producing the Journal. The annual revenues that support the journal ranged from about \$30,000 to about \$70,000. It has been common for the Journal costs to exceed revenues, especially for regular issues. Special topic collections are funded entirely from page charges and so cannot and do not result in a net loss. The remaining debt from the publication of regular issues has been covered in most years from the annual conference profit. In Table 1, we list the expenses and revenues associated with the journal for 2001-2003, reasonably representative years. There are three direct sources of revenue for the journal: author page charges, subscriptions, and reprints. Page charges to authors represent 39%, 50%, and 52% of total revenues the last three years, respectively.

**Table 2. Journal Financial Information**

Expenses	Issue 27 (2001)	Issue 28 (2002)	Issue 29 (2003)
<b>Total</b>	<b>\$76,329.29</b>	<b>\$88,093.39</b>	<b>\$87,227.85</b>
<u>Invoices</u>			
<b>Total</b>	<b>\$84,939.87</b>	<b>\$72,464.03</b>	<b>\$99,013.50</b>
Net operating balance	\$8,610.58	(\$15,629.36)	\$11,785.65

The Journal for Great Lakes Research uses an unusual model for funding the journal. We charge both authors and subscribers. We are heavily dependent on our authors for support, yet we do not supply our authors with all the services they might reasonably expect. We do not release their papers for free on our web site, although we have the capability to do so. We do not provide authors with the high resolution pdf file of their article, although we have the capability to do so. We do not actively publicize their work. We justify these limitations because we need the revenues from institutional subscribers and because of heavy reliance on volunteers.

If we released the Journal for free, we would no longer have institutional subscribers. Institutional subscriptions are currently the second largest source of income to the Journal and without them we would have to rely on individual memberships and conference proceedings for to fund the Journal. As a result, we would lose income that currently support many scholarships and travel awards, travel for the IAGLR Board, our small staff, to name a few of the expenses we have that are not directly related to the production of JGLR.

We believe that support for JGLR should be borne by either authors or subscribers. Our current model is unsustainable and limits our potential for improving the quality of the Journal. We prefer to move towards a subscriber-paying model. Under this model, all costs of the Journal would be borne by subscribers, except in the case of Special Issues. The costs associated with the publication of special issues should remain with the authors or the funding agencies that support this work. IAGLR should consider if the benefits of author-borne costs should be provided to authors in Special Issues. In the case of regular issues, we support an increase in institutional and membership fees and a reduction or elimination of author page charges. We believe that our institutional subscriptions are currently below market value and the small increases that have already been implemented will be sufficient to support this revised approach within five years.

## **Our Recommendations**

We recommend changes that will improve the quality and prestige of the Journal. First, the number of submitted articles needs to increase. Second, interactions amongst the Editor, Associate Editors, reviewers, and authors must improve. Third, outreach and publicity is needed to draw public and scientific attention to new articles published in the journal. We make the following specific recommendations:

1. Reduce pages charges for regular issues by 50% immediately and then to zero after five years. We believe this will increase the number of papers submitted to the Journal and the quality of papers ultimately published.
2. Encourage and financially support regular attendance of the Editor, Managing Editor, and selected associate editors to IAGLR board meetings.
3. Install an Executive Director with a major mandate to improve the visibility of new JGLR articles to scientists and to the public.

## APPENDIX IV

### EXPANDING IAGLR'S EFFORTS ON SCIENCE AND POLICY OUTREACH

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

#### Preface

One aspect of the Association's fundamental mission is the promotion of research on the Great Lakes and other large lakes of the world. Integral to the promotion of research is a concerted effort at science and policy outreach. For the Great Lakes community to achieve the full benefit of research, research findings must be used to inform public policy and decision-making. The purpose of this Appendix is to review the Association's past efforts at science and policy outreach and to make recommendations for outreach objectives for the next Five-Year Plan.

#### Previous Efforts on Outreach

IAGLR's efforts at science and policy outreach have continued to expand over the life of the organization, with significant progress over the last 5 years. Many of the previous Five-Year Plan's outreach goals were met. They include:

- Development of the IAGLR website including special sections on
  - Press releases
  - An expert directory
  - Journal electronic access
  - Research News section
  - Special Reports
  - Fact Sheets
- Electronic Journal publication and electronic access to all back issues
- IAGLR representation on communication task force of IJC Council of Great Lakes Research Managers
- Distribution of IAGLR outreach materials through other organizations (Sea Grant, IJC, GLC, GLIN press room)
- Communication workshops in association with annual conferences
- Conference press releases to highlight research findings

Many, if not most of the goals, were completed and funded under IAGLR's Science-Policy Initiative, funded by the Joyce Foundation. These accomplishments have built a sturdy foundation for the next 5 years. Current issues concerning outreach that are being discussed by the Five-Year Planning Committee are:

- Hiring a public relations person (and/or Executive Director) with a science background to support outreach

- Provide free access to the electronic JGLR, including archives
- Improve our ability to inform the press
- Train scientists to interact with the media more effectively
- Communicate the importance of Great Lakes research
- Outreach beyond US and Canada
- Follow up on the Science-Policy Initiative recommendations
- Funding for new initiatives.

## **Expanding Efforts on Outreach**

The current Five-Year Planning Committee has been asked by the Board of Directors to address the following questions:

- Why should IAGLR expand its efforts on Science Policy Outreach?
- What are the benefits to the Association?
- How does this fit in our overall priorities?
- What changes in how we do outreach are needed?
- How would it benefit the Journal?

To address these questions and the current outreach issues being discussed by the planning committee, input was sought from a small group of members with outreach experience with IAGLR's outreach committee and/or as part of their professions. This effort was focused on collecting 'lessons-learned' and advice from those with outreach experience. In particular, their input was sought on our current science policy outreach and initiatives, what has worked well in the past and new ideas they may have for the future. They were invited to prioritize 8 different initiatives and provide additional commentary. The initiatives were:

- 1) Hiring a public relations person and/or Executive Director with a science background to support outreach
- 2) Provide free access to the electronic JGLR, including archives
- 3) Improve our ability to inform the press
- 4) Train scientists to interact with the media more effectively
- 5) Communicate the importance of GL research
- 6) Outreach beyond US and Canada
- 7) Follow up on the Science-Policy Initiative recommendations
- 8) Funding for new initiatives

Input was sought from 9 IAGLR members, and detailed responses were obtained from six. Each participant was asked to rate the priorities as follows:

- 1 = lowest priority
- 2 = very low priority
- 3 = low priority
- 4 = high priority
- 5 = very high priority
- 6 = highest priority

Summing the respondent scores for each question, then ranking the questions by their total scores (see Table 1), reveals the following priority of initiatives (total scores are shown in parentheses):

1. Hiring an Executive Director with a science background to support outreach. (33)
2. Communicate the importance of Great Lakes research. (33)
3. Improve our ability to inform the press. (29)
4. Follow-up on the Science-Policy Initiatives. (28)
5. Funding for new initiatives. (24)
6. Provide free access to the electronic JGLR, including archives. (23)
7. Train scientists to interact with the media more effectively. (20)
8. Outreach beyond US and Canada. (15)

**Table 1.**

Outreach Actions		Respondent					
		1	2	3	4	5	6
1	<b>Hiring an Executive Director with a science background to support outreach.</b>	6	6	6	4	5	6
2	<b>Provide free access to the electronic JGLR, including archives.</b>	1	4	5	1	6	6
3	<b>Improve our ability to inform the press.</b>	5	6	6	5	4	3
4	<b>Train scientists to interact with the media more effectively.</b>	2	3	5	5	4	1
5	<b>Communicate the importance of Great Lakes research.</b>	6	6	6	4	6	5
6	<b>Outreach beyond US and Canada.</b>	1	4	4	3	2	1
7	<b>Follow-up on the Science-Policy Initiatives.</b>	4	5	5	4	5	5
8	<b>Funding for new initiatives.</b>	5	4	6	4	3	2
9	Other	nr	nr	nr	nr	nr	*

nr – no response

\* - enhance recruitment from student groups and newer staff at agencies and institutions

## Discussion

The respondents felt that communicating the importance of Great Lakes research and hiring an Executive Director to support outreach are the two highest outreach priorities. The majority of the respondents ranked these as the highest priority, with the remaining two ranking them as a high or very high priority. One respondent felt that an Executive Director would help with developing media contacts and make IAGLR more visible to legislators and decision-makers. It was further suggested that if funding doesn't allow a full-time person, IAGLR should consider starting with a part-time person. Another respondent stated that IAGLR needs to get the concept “weight of evidence” out in front of the public so the public can make decisions, apply appropriate actions, and eliminate confusion when poor science is used to support public policies. The respondents in general felt that it is essential to let legislators, decision-makers and stakeholders know the importance of Great Lakes research.

All of the respondents, except one, ranked improving IAGLR's ability to inform the press as high, very high, or the highest priority, making this the third highest priority for IAGLR outreach. One respondent ranked informing the press as a low priority although the same respondent ranked communicating Great Lakes science and hiring an Executive Director as very high and highest priorities. One respondent commented “Visibility is the key to success and reaching the media is an essential element to IAGLR's visibility beyond the scientific community. I think the press release effort has been positive, but if there was paid staff I'm sure the frequency of contact with the press would increase significantly.” Another respondent stated “We need to have an outreach professional(s) working for IAGLR. Outreach is not just a news release to increase awareness. It is face-to-face interactions that impact the decisions of citizens, managers, legislators, grantors, etc. We want to effect change by having individuals, groups or institutions use science based information”. A third respondent suggested that “... having press releases on the Journal and/or specific articles in the Journal is extremely important in raising awareness of the issue as well as bringing attention to the Journal and the Association. The Outreach Committee has developed a system to initiate these press releases from the Journal authors, re-write them for clarity and get them timed for release when the Journal is out ... but it takes a more concerted effort to make this happen on a consistent basis. Another reason to hire someone to do this.”

Follow-up on the Science-Policy Initiatives ranked as the fourth highest priority for IAGLR outreach. The Science-Policy Initiatives (<http://www.iaglr.org/scipolicy/report/conclusion.php>) are suggested actions and activities to strengthen the science-policy linkage that can be generally grouped into the following categories:

- Clarify and reach agreement on [science-policy] priorities
- Plan cooperatively
- Share responsibilities for delivery of programs
- Share resources
- Build partnerships and cooperative relationships
- Integrate research, monitoring, and management
- Develop new approaches to science, policy, and management issues; and
- Communicate the value and benefits of a strong linkage amongst science, research, policy, and management

All respondents rated this priority as high or very high. One respondent encourages IAGLR to write another grant to continue the Science-Policy Initiatives; she suggests that the funding could be used to support a paid position for outreach to strengthen the link of science and decision making. Another respondent believes that following up on the Science-Policy Initiatives will increase the scientific community's influence in decision making. A follow-up would increase use of scientific information in policy-making and management decisions, leading to better outcomes.

Funding for new initiatives ranked as the fifth outreach priority. The respondents were mixed in their support of this priority, with ratings ranging from a very low priority to the highest priority. Respondents felt that funding for new initiatives should primarily be sought that would support a paid position for outreach, and that would parallel the Science-Policy Initiative. Some respondents were doubtful that new initiatives would be funded in light of current constraints on budgets and external funding.

Providing free access to the electronic JGLR, including archives, ranked sixth of the eight outreach priorities. While 4 respondents ranked this initiative as a high to very highest priority, two respondents ranked this initiative as the lowest priority. Clearly, views are split on this issue. All of the respondents were concerned that free access should not jeopardize IAGLR's membership base. Two respondents suggested that free access or paid subscriptions could be provided to those outside of research (i.e. legislators, resource advisors, decision makers, political leaders, etc.) as a means of reaching a greater audience.

No respondent ranked training scientists to interact with the media more effectively as the very highest priority. Three respondents ranked this initiative as a low to the very lowest priority. One respondent suggests that IAGLR needs to first learn to more effectively communicate with the media and that scientists are not good advocates for their own work; IAGLR should focus on press releases on the Journal and the annual conference.

Outreach beyond the US and Canada ranked as the lowest priority initiative of the proposed eight initiatives. Four of the respondents ranked this as low priority to the lowest priority. No respondent ranked this as a very high or the highest priority. Respondents felt that IAGLR first needs to perform outreach well in the US and Canada. Outreach activities beyond North America were suggested to be limited to sending the Journal to libraries abroad.

## **Conclusions**

Based on input from IAGLR members experienced in science outreach, IAGLR's next Five-Year Plan should focus on the following top 4 priorities:

1. Hiring an Executive Director with a science background to support outreach.
2. Communicate the importance of Great Lakes research.
3. Improve our ability to inform the press.
4. Follow-up on the Science-Policy Initiatives.

## **Response to Board of Directors' Questions**

### **Why should IAGLR expand its efforts on Science Policy Outreach?**

- Enable an informed public to make better science-policy decisions
- Communicate the importance of Great Lakes research to legislators, decision-makers, and stakeholders

**What are the benefits to the Association?**

- Increase IAGLR's role/relevance in public policy
- Increase visibility of IAGLR beyond the scientific community
- Continue the growth and evolution of IAGLR
- Attract members who see the extension of their work to public policy as a membership benefit

**How does this fit in our overall priorities?**

Expanding science policy outreach should be one of the highest priorities of the association. However, initiatives will have to be carefully pursued that will not put our membership base at risk or place the Association in financial jeopardy.

**What changes in how we do outreach are needed?**

- Hire a paid part-time or full-time Executive Director
- Increase the consistency and frequency of media contact
- Achieve face-to-face outreach interactions
- Initially seek a grant to continue the Science-Policy Initiatives then implement an active endowment campaign to support outreach

**How would it benefit the Journal?**

- Raise awareness of the Journal
- Attract Journal contributions
- Increase Journal relevance and sustainability

***Acknowledgements***

I would like to express appreciation to the following IAGLR members who provided input to this report: Frank Lichtkoppler, Mary Ginnebaugh, Rochelle Sturtevant, Tim Johnson, Helen Domske, and Lesley Lovett-Doust.

## **APPENDIX V**

### **THE NEED FOR A BUSINESS PLAN**

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

#### **Preface**

Many of the recommendations of the Five-Year Plan require a financial investment from the Association. The Five-Year Plan does not, however, direct the organization on financial aspects and does not identify a strategy for raising the funds to support recommendations. Instead, the committee recommends the development of a business plan for the organization. The purpose of this appendix is to describe a typical business plan and discuss the reasons that IAGLR should invest effort in its development.

#### **Fundamentals of Business Plans for Non-Profit Organizations:**

A planning document precisely defines an organization's business, goals, and serves as the organization's resume. It helps an organization allocate resources properly, handle unforeseen complications, and make good business decisions. It informs members, and potential sponsors about the organization's operations and goals.

Business planning is often conducted when:

- Starting a new venture (organization, product or service)
- Expanding a current organization, product or service
- Working to improve the management of a current organization, product or service

There are a wide variety of formats for a business plan. The particular format and amount of content included in a plan depends on the complexity of the organization, product or service and on the demands of those who will use the business plan to make a decision. In the case of IAGLR, decision-making is predominantly carried out by the Board of Directors.

Overall, the contents of a business plan typically aim to:

1. Describe the venture (new or current organization, product or service), often including its primary features, advantages and benefits
2. What the organization wants to do with it (e.g. expand it)
3. Justification that the plans are credible (e.g. results of research that indicate the need for what the organization wants to do)
4. Marketing plans, including research results about how the venture will be marketed (e.g. who the customers will be, any specific groups (or targets) of customers, why they need the venture (benefits they seek from the venture), how they will use the venture, what they will be willing to pay, how the venture will be advertised and promoted, etc.)

5. Staffing plans, including what expertise will be needed to build (sometimes included in business plans) and provide the venture on an ongoing basis
6. Management plans, including how the expertise will be organized, coordinated and led
7. Financial plans, including costs to build the venture (sometimes included in business plans), costs to operate the venture, expected revenue, budgets for each of the first several years into the future, when the venture might break-even (begin making more money overall than it has cost), etc.
8. Appendices (there are a wide variety of materials included in appendices, e.g. description of the overall organization, its other products and/or services, its current staff, etc.)

## **Why IAGLR Should Have a Business Plan**

Essentially, a business plan is a combination of a marketing plan, strategic plan, operational/management plan and a financial plan

For IAGLR, a sound Five-Year Plan should:

- Serve as a framework for decisions.
- Provide a basis for more detailed planning.
- Explain the business of the Association to others in order to inform, motivate & involve.
- Assist in evaluating the Association's performance according to its mandate.
- Stimulate change and become building block for next plan.

The business plan can help to define and focus the Association's objectives. It can be used as a selling tool in dealing with important relationships including sponsors and granting organizations. The exercise of developing the business plan can uncover omissions and/or weaknesses in our planning process.

The business plan defines the service or product the Association provides and what needs it fills. It fosters an understanding and agreement on project objectives, deliverables, scope, risk, cost, approach. It helps to identify and secure the resources the Association needs.

The Association needs to maintain a current business plan if it intends to embark on any initiatives to produce breakthrough results for IAGLR, and to address where the Association is performing poorly in critical areas for business success (operating costs, endowment development, membership satisfaction, quality of goods or services, etc.)

The business plan helps address potential situations where

- many initiatives are underway, with much activity producing little results.
- it is hard to tell when we are successful - no roadmap exists to chart progress.
- it is not apparent whether the current activities will take the organization where we need to go, because no one is quite sure where that is.

The Business Plan should include:

- a mission statement
- goals to achieve that mission
- measurable objectives to guide and track whether goals are being met or can be accomplished
- specific, assigned activities that need to be completed to attain the objectives
- a timetable to evaluate progress, update the plan, and make any adjustments or changes

IAGLR's Board needs to determine what elements will be included in the final business plan. Here is a list of commonly addressed matters for business planning purposes:

- 1. Historical Description** — What is IAGLR's vision, mission, case and cause for existence?
- 2. Projected Growth and Developmental Strategies** — Why was IAGLR created? What are our plans for growth? What can members/donors expect from supporting IAGLR?
- 3. Market Analysis** — Who are IAGLR's supporters, members, board, clients and volunteers? Who is IAGLR serving through our mission?
- 4. Operational Goals** — Create a plan, including data-driven timetables, measurable benchmarks and include long-term revenue-generating strategies for services.
- 5. Organization and Management Plan** — What type of governance and management structure is required for success? (see notion of Executive Director in Appendix II)
- 6. Marketing and Funding Plan** — What annual operating budget is desirable? What annual operating budget is obtainable? How can members/donors be engaged and rewarded for supporting IAGLR?

## APPENDIX VI

### COMPARATIVE SURVEY OF THE GOVERNING STRUCTURE AND BUSINESS OPERATIONS OF SCIENTIFIC SOCIETIES AND ASSOCIATIONS

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

#### **Preface**

The purpose of this survey is to provide information to assess how the governance structure of our Association compares with other scientific societies. Items compared include the primary mandate or mission of representative societies, their governing structure, size of office staff, number and kinds of standing committees, type and size of conference or annual meetings, membership benefits, fee structure, and any other unique or innovative features pertaining to running of an association such as IAGLR.

Information for this survey was collected by Pat Chow-Fraser, who attended the semi-annual meeting of the Council of Scientific Society Presidents (CSSP) in December 2004, and networked with other society Presidents and Past-Presidents to prepare the comparative database.

The CSSP represent over 60 scientific societies and federations, with a collective membership of well over 1.25 million. Many of these societies have truly international memberships in the tens of thousands, spanning all the continents. CSSP performs a great service by providing leadership in lobbying, bringing emerging issues to the membership, and providing an open forum for discussion and exchange, and brings a unique voice to Washington on behalf of science research and education.

The CSSP meeting was well attended, and included Presidents, President-Elects or Past-Presidents of a number of societies that included the American Fisheries Society, Ecological Society of America, Estuarine Research Foundation, American Chemical Society, the Entomological Society of America, and American Society for Limnology and Oceanography. Table 1 shows the diversity of the organizations represented in terms of size of membership and the year it was founded. The type of employees/staff corresponding to each association/society is also highlighted in a separate column.

Compared with many of the associations listed in Table 1, IAGLR is a relatively young organization. American Chemistry Society, for instance, which was established in 1870, was also the largest with a world-wide membership of 150,000. In contrast, IAGLR seems to match the size and mandate of the Estuarine Research Federation (ERF), which has a regular membership of a little over 1,000 but together with members of affiliated societies, number over 2,000. ERF was founded in 1971 and focuses on estuaries throughout the world, although clearly, there is an emphasis on those in N. America. Hence, it has many of the same issues IAGLR faces when dealing with publishing an interdisciplinary journal to an international audience.

#### **Office staff and governing structures**

Not surprisingly, a sizeable staff works for many of the very large societies; this is in addition to a large number of standing committees and regional sections that are operated by volunteers. In Table 1, at least half of the associations that were surveyed had either an Executive Director or Executive Officer, or an

Executive Vice-President, which are all professional paid positions in addition to an office staff of administrative assistant, business manager or secretaries. In many cases, there was a President-Elect position, which is equivalent to Vice-President. Some societies have a 2-year term for their Presidents and President-Elects.

The American Society for Limnology and Oceanography (ASLO) eliminated their position of Executive Director in 2002, but they maintained a business manager, a web editor, a Director of Public Policy, and Editors for all of the journals and bulletin. They contract out all of these positions. The evolution of the ASLO web site was well documented on one of their pages, and the important role of the then Executive Director played in spear-heading the project and in expanding the functionalities of the website for the society is notable.

### **Detailed comparison of six societies**

We chose six of the organizations in Table 1 to do an expanded survey of how they conducted the regular business of the society (Appendix). Their fee structure, membership benefits, and any other unique or innovative features were compared.

The size of the membership of six of the societies seemed to be correlated with the age of the organization (Table 2). There was quite a range of dues and membership benefits. To make these comparable, we calculated the amount that an individual (“active” member living in N. America) would have to pay to join the association and receive a paper copy of the journal. This is because several societies had membership dues that did not include a subscription to the journal or journals. We could not compare the price for e-journal subscription, even though that would have been relevant to IAGLR because not all of the societies had an e-journal option available. Both ASLO and the ERF provided volumes older than 5 years on-line free to the public whereas AFS charged \$25/year to access all four of their archived journals. By comparison, IAGLR used to provide this resource free to the public, but we now permit access only to members.

### **Value of a professional website**

Almost all of these associations have professional looking web sites that are informative, and clearly outline membership benefits, and they have either a committee or a dedicated web master that looks after the web. Without exception, everyone at the meeting felt that having a functioning web site was essential, but they also mentioned the need to regularly update the web site and to keep the issues current. Compared with many of the sites that were visited while doing this research, IAGLR needs to improve on this aspect. Research results need to be communicated to the public in a media-savvy manner, and to the research community and policy makers in a more focused and timely manner.

**Table 1.** Partial list of attendees of the Semi-Annual Meeting of the Council of Scientific Society Presidents (CSSP) December 4-7, 2004, who were representatives of scientific societies.

<b>Organization</b> (membership) <i>year of foundation</i>	<b>President Elect/President/ Past President</b>	<b>Employees/Staff</b>
<b>American Society of Biochemistry and Molecular Biology</b> (10,000+ members) 1906	<b>Judith Bond</b> , President Hersey, PA 17033-2390	???
<b>American Chemical Society</b> (159,000 members) 1876	<b>Charles P. Casey</b> , President, Madison, WI 53706  <b>William F. Carroll, Jr.</b> , President Elect, Dallas, TX	Executive Director + many other staff positions
<b>American Crystallographic Association</b> (2,500 members) 1949	<b>Frances Journak</b> , President, Irvine CA 902697-4560	Administrative Manager, Publications Manager, Membership Secretary, Records Manager
<b>American Fisheries Society</b> (9,000 members) 1870	<b>Barbara Knuth</b> , President, Ithaca, NY 14853	Executive Director
<b>American Institute of Chemists</b>	<b>Gerald Meyer</b> , Past President Laramie, WY 82073-0966	Affiliated with university— primarily for course accreditation
<b>American Physical Society</b> (43,000+) 1899	<b>Marvin L. Cohen</b> , President Elect, Berkeley, CA 94720-7300	Executive Officer
<b>American Phytopathological Society,</b> (5,000) 1908	<b>John H. Andrews</b> , President Elect, Davis CA 95616	Executive Vice President + many staff
<b>American Psychological Association</b> (150,000)	<b>Diane Halpern</b> , President Claremont CA 91711-6400  <b>Philip Zimbardo</b> , Past President, Stanford CA 94305-2130	Chief Executive Officer and many staff at headquarters
<b>American Society for Limnology and Oceanography</b>	<b>Peter A. Jumars</b> , Past President, Whitefield, ME 04573  <b>Sybill P. Seitzinger</b> , President Elect, New Brunswick, NJ 08901-8521	Executive Director until 2002; many other staff positions including Business Manager
<b>American Society of Agronomy</b> (11,000) 1955	<b>Lee E. Sommers</b> , President, Ft. Collins CO 80523	<b>Ellen G. M. Bergeld</b> , Exec Director, Madison, WI 53711
<b>American Society of Parasitologists</b> (1,500 members) 1924	<b>Tim P. Yoshino</b> , President Elect, Madison, WI 53706	Administrative Assistant, Editorial Assistant, and Program Officer, and other hired staff as needed for projects
<b>American Society of Plant Biologists</b> (6,000 members) 1924	<b>Roger Hangarter</b> , President Rockville, MD 20855	<b>Crispin Taylor</b> , Executive Director, Rockville, MD 20855-2768

<b>Organization</b> (membership) <i>year of foundation</i>	<b>President Elect/President/ Past President</b>	<b>Employees/Staff</b>
<b>Association for Computing Machinery</b>		<b>John R. White</b> , Executive Director, New York, NY 10036-5701
<b>Association for Women in the Sciences</b>		<b>Susan Ganther</b> , Exec. Director Clemson, SC 29634-0975
<b>Botanical Society of America</b> (?) 1906	<b>Edward L. Schneider</b> , President Elect, Santa Barbara CA 93105	<b>William M. Dahl</b> , Executive Director, St. Louis, MO 63166-0299
<b>Crop Science Society of America (Consortium of 3 societies)</b> (11,000) 1955	<b>Stephen L. Fales</b> , President Elect, Ames, IA 50011  <b>Ron Phillips</b> , Past President, St. Paul, MN 55108	<b>Ellen Bergfeld</b> , Executive Director
<b>Ecological Society of America</b> , (9,000) 1915	<b>Ann Bartuska</b> , Past President, Washington DC 20250  <b>Diana Wall</b> , Past President Fort Collins, CO 80523-1499	<b>Katherine McCarter</b> , Executive Director, Chief Financial Officer, Assoc Director, Information Systems, Administrative Assistant, etc.
<b>Entomological Society of America</b> (6,000) 1889	<b>Michael Ivie</b> , Past President Bozeman, MT 59717-0001	<b>Paula Lettice</b> , Exec. Director, Admin Asst, Director of Membership and Marketing, Director of Meetings, Director of Communications, etc.
<b>Estuarine Research Federation</b>  <b>Most similar to IAGLR in structure, age, size and mission</b> (1200 + 1,000 affiliates) 1971	<b>Linda C. Schaffner</b> , President, Gloucester Point, VA 23062-1346	<b>Joy Bartholomew</b> , Exec. Director, Chief Operations Officer, Web Master, Membership Services (contracted service)
<b>Geological Society of America</b> (16,000) 1888	<b>William A. Thomas</b> , President Lexington, KY 40506-0053	<b>John (Jack) W. Hess, Jr.</b> , Executive Director, Boulder, CO 80301-9140
<b>Health Physics Society</b>	<b>Raymond A. Guilmette</b> , President, Los Alamos, NM 87544	
<b>International Association for Great Lakes Research</b> (1000 members) 1953	<b>Pat Chow-Fraser</b> , Past President, Hamilton ON L8S 4K1	
<b>Mathematical Association of America</b>	<b>Carl C. Cowen</b> , Indianapolis, IN 46202-3276	
<b>Mathematical Association of America</b>	<b>Carl C. Cowen</b> , President Elect Indianapolis, IN 46202-3276	<b>Tina H. Straley</b> , Executive Director, Washington DC 20036
<b>Psychonomic Society</b> (2,500) 1960	<b>Randall W. Engle</b> , President Atlanta GA 30332	
<b>Sigma Xi</b>		<b>Patrick Sculley</b> , Executive Director, The Scientific Research Society Research Triangle, NC 27709

<b>Organization</b> (membership) <i>year of foundation</i>	<b>President Elect/President/ Past President</b>	<b>Employees/Staff</b>
<b>Society for Industrial Microbiology</b>	<b>Gaylen Bradley</b> , Past President Hersey, PA 17033	
<b>Society for Integrative and Comparative Biology</b> (2000) 1902	<b>Sarah Ann Woodin</b> , President Elect, Columbia, SC 29208	
<b>Society of Sedimentary Geologists</b>	<b>J. Frederick Sarg</b> , Houston TX 77060	
<b>Society of Toxicology</b> (5,200) 1961	<b>Marion Ehrich</b> , Past President, Blacksburg, VA 24061	<b>James Propp</b> , Executive Director Lancaster PA 17601
<b>Society of Vertebrate Paleontology</b>	<b>Richard K. Stucky</b> , Past President, Denver CO 80205	
<b>Soil Science Society of America</b>	<b>Mary E. Collins</b> , President Elect, Gainesville, FL 32611	

**Table 2.** Comparison of other societies with our association with respect to age, size of membership, dues and availability of on-line archives.

<b>Name of Society</b>	<b>Year founded</b>	<b>No. of Members</b>	<b>Dues*</b>	<b>Public access to on-line archived issues**</b>
American Chemistry Society	1876	159,000	127	Non-existent
American Fisheries Society (AFS) ( <i>for the journal Trans. Am Fish. Soc only</i> )	1870	9,000	119	\$25/y to anyone
American Society for Limnology and Oceanography (ASLO)	1936	3,800	95	Free
American Crystallographic Association (ACS)	1949	2,500	145	Non-existent
American Society of Parasitologists	1924	1,500	75	Non-existent
Estuarine Research Federation (ERF)	1971	1,200	110	Free
International Association for Great Lakes Research (IAGLR)	1953	1,000	70	Free for members only

\* Dues are for regular full-time N. America active members who receive a printed version of the journal

\*\* Archived refers to journals published more than 5 years

## American Chemical Society

<http://www.chemistry.org/portal/a/c/s/1/home.html>

**Membership:** The American Chemical Society is a self-governed individual membership organization that consists of members at all degree levels and in all fields of chemistry. The organization provides a broad range of opportunities for peer interaction and career development, regardless of professional or scientific interests. The programs and activities conducted by ACS today are the products of a tradition of excellence in meeting member needs that dates from the Society's founding in **1876**.

Size of membership: 159,000 world wide

**Governing structure:** President, Immediate Past-President, President-Elect, Chair of the Board, and eleven other directors, and the Executive Director

**Office staff:** Executive Director: Current ED had served as the as the Editor-in-Chief of Chemical and Engineering News (C&EN), and 2004 marks Ms. Jacobs first year as Executive Director of the American Chemical Society. She worked for C&EN from 1969 until 1972 and returned again in 1993. She is a much-honored science journalist, an internationally sought after public speaker, and brings an extensive familiarity and understanding of Society programs, products, and services.

**Conferences:** Emphasize the potential commercial applications of recent scientific discoveries— The National Meetings tend to vary between 10,000 to 18,000 (talked to the Past-President at the CSSP) while the regional meetings will range from 500 to several thousand, depending on the chapter.

**Benefits:** Subscription to Chemical & Engineering News and Chemistry, both online and print versions (weekly subscription of 51 issues per year); career counseling, job listings, salary surveys; access to technical and scientific information, other journals, books, plus online access to largest database of chemical information—members get discounted prices; continuing education and professional development (discounted fees to attend national and regional meetings, expositions, short courses, online and video courses, participation in local community education and legislative affairs programs); professional networking opportunities (can team up with noted specialists in any of 33 discipline-specific divisions which are organized and operated by member volunteers); access to insurance programs and financial services (Mastercard Platinum Card).

### Dues:

2005 Membership dues are as follows:

- **Regular/Associate Member \$127**
- **Society Affiliate \$95**
- **Student Member \$64**
- **Student Affiliate \$20**

Note: Dues include a small assessment for Division and Local Section funding

ACS offers five categories of membership:

- **Regular Member** - Entitled to all member benefits including lower member subscription rates and a subscription (print and online) to Chemical & Engineering News, individuals must have a bachelor's degree in a chemical science from an ACS approved program, a bachelor's degree in a chemical science from a non-approved ACS program and three years work experience, an earned doctoral or master's degree in a chemical science, or less formal training than indicated above but having significant achievement in a chemical science.
- **Associate Member** - Individuals may be placed in this membership category if they have not yet met the requirements for full Society membership. Associate Members receive the same member benefits as a Full Members, excluding the ability to hold an elective office.
- **Society Affiliate** - A person who is not eligible to become a member of the Society but whose major vocational effort is directly concerned with the practice of a chemical science may become a Society Affiliate of the Society at a dues rate of 75% of the member dues. Society Affiliates receive a full year of Chemical & Engineering News and qualify for member subscription rates.
- **Student Affiliate** - Undergraduate students majoring in or interested in chemistry qualify for membership at substantially discounted dues. You may select a membership package that suits your needs. Student Affiliates receive special student subscription prices for journals.
- **Student Member** - A member who is a graduate student, majoring in a chemical science or a related academic discipline, shall be entitled to a discount of 50% of the membership dues. Special student subscription prices for most journals are available. Please note: Post Doctoral Work is not eligible for the student discount.

#### **Former Members**

ACS welcomes former members whether resigned in good standing or "delinquent" (removed from the rolls for nonpayment of dues). ACS does not require payment of back dues and no longer require a \$10.00 reinstatement from former members who did not resign in accordance to ACS Bylaws. To reinstate your membership just complete the online membership application.

## American Fisheries Society

<http://www.fisheries.org/>

**Membership:** AFS is the oldest and largest professional society representing fisheries scientists. AFS promotes scientific research and enlightened management of resources for optimum use and enjoyment by the public. It also encourages a comprehensive education for fisheries scientists and continuing on-the-job training. The AFS publishes some of the world's leading fisheries research journals. The mission of the American Fisheries Society is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals. Also offers professional certification programs. Founded in **1870**.

About 15% are student members—very actively recruiting them—in their strategic vision.

Size of membership: 9,000 world wide

**Governing structure:** President, President-Elect, First Vice-President, Second Vice-President, Past President, and Executive Director

**Office staff:** Hired Executive Director in 1965. Prior to that, many AFS leaders volunteered their time to handle the Society's business. Since then, they have had 5 other ED, with terms ranging from 3 to 16 years.

Many other staff including the Managing Editor of *Fisheries*, Information Technology Coordinator, Annual Meeting Abstracts Coordinator, Editorial/Production Coordinator, Membership Assistant, Coordinator of Unit Services, Books Coordinator, Director of Administration and Finance, Secretary to the Exec Director, Policy and Development Coordinator, Administrative Assistant, Publications Manager, Accounting Assistant, Technical Editor, Journals, Membership Assistant (part-time), Sea Grant Fellow, Membership Database Coordinator, Accounting Coordinator, and Production Editor, *Fisheries* (duties are spelled out on their web site).

**Standing Committees:** a large list is listed on their web sites, apparently, run by volunteer members.

**Conferences:** Annual meetings have different themes and can vary from 1,000 to over 5,000, depending on location

### Benefits:

- Membership gives reduced registration fees for the Annual Meeting and symposia.
- Reduced rates for publications.
- Provides a free subscription to the AFS monthly magazine *Fisheries*.
- Permits member to apply for certification as an Associate or Certified Fisheries Professional.
- Gives access to the Society's Jobs Bulletin on the Web.
- Student membership allows member to apply for student travel awards and scholarships.
- Get access to the members site on the Web with the full text of *Fisheries*, the Membership Directory, and more.
- Save money with reduced rates for AFS publications
- Students receive awards and grants

## Dues:

The annual membership dues provide a significant portion of the revenue needed to produce the Society's publications. A very small but highly qualified and dedicated editorial staff oversees the production of publications. A large cadre of members volunteer their services as editors and peer reviewers to ensure that the Society publishes only the highest quality science. Special funds and publication policies allow even those who cannot afford page charges to publish in AFS journals. It is only by sustaining and expanding our membership that the Society can continue to produce these vitally important publications.

*NOTE: These memberships do not include the 4 scholarship journals, which are available to members through subscription rates (see Table on next page)*

- **Regular N. America \$76 Others \$88** (New members join at half price if given as a gift from a member)
- **Student N. America \$38 Others \$44**
- **Young Professional (within 3 years of graduation with Ph.D) N. America \$38 Others \$44**
- **Retired N. America \$38 Others \$44**
- **Life Membership One time \$1,737** (includes journal subscription)
- **Golden Membership** (emeritus status)
- **Honorary Membership** (outstanding service to Society and who have nominated at least 100 active members to the Society)
- **Sustaining \$350** (small companies, agency field offices, and academic departments) e.g. *HydroLab, Smith-Root, Marine Science Consortium*, and consulting firms. Sustaining Membership includes a complimentary 12-month subscription to the AFS monthly magazine *Fisheries* and acknowledgement in the AFS Annual Report, the Membership Directory and Handbook, and on the AFS web site. Members also receive complimentary job postings on the AFS Jobs Bulletin and the special member rate for annual meeting trade show booth rental.
- **Associate \$2,000** (individuals, corporations and foundations) e.g. *ChevronTexaco Energy Research Technology*. Associate Membership includes a complimentary 12-month subscription to the AFS monthly magazine *Fisheries*, acknowledgement in the AFS Annual Report and the Membership Directory and Handbook and on the AFS web site. Members also receive complimentary job postings on the AFS Jobs Bulletin and the special member rate for annual meeting trade show booth rental.
- **Official \$1,600** (federal, state, provincial, territorial, or intergovernmental agencies) e.g. many State DNR, USFWS, etc. Official Membership includes a complimentary 12-month subscription to all four AFS journals and the monthly magazine *Fisheries*, acknowledgement in the AFS Annual Report and the Membership Directory and Handbook and on the AFS web site. Members also receive complimentary job postings on the AFS Jobs Bulletin and the special member rate for annual meeting trade show booth rental.

**AFS Journal Subscription Rates:**  
Covers journals published after 2000 only.

Journal	Print or Online	Subscription Rates	
		N. America	Elsewhere
Trans Am Fish Soc	Print	<b>\$43</b>	\$48
	On-line	<b>\$25</b>	\$25
	Both	<b>\$68</b>	\$73
N.Am.J. Fish Man.	Print	<b>\$43</b>	\$48
	On-line	<b>\$25</b>	\$25
	Both	<b>\$68</b>	\$73
J. Aquat. An. Health	Print	<b>\$38</b>	\$41
	On-line	<b>\$25</b>	\$25
	Both	<b>\$63</b>	\$68
N.Am J. Aquaculture	Print	<b>\$38</b>	\$41
	On-line	<b>\$25</b>	\$25
	Both	<b>\$63</b>	\$66
Fisheries	Print or On-line	Free with membership	
*Fisheries InfoBase (archived volumes 1970-1999)	On-line only	<b>\$25</b>	

\*Subscribers may search, access, and download all full-text articles from all four AFS journals from the years 1970-1999. There is unlimited access to the database during the term of the subscription.

- Includes Transactions of the American Fisheries Society, featuring papers on basic fisheries science;
- North American Journal of Fisheries Management, covering management research, experiences, and recommendations;
- Progressive Fish-Culturist (now known as the North American Journal of Aquaculture), providing guidance for those who breed and raise aquatic animals; and
- Journal of Aquatic Animal Health, focusing on health maintenance and disease treatment

**Also included are Fisheries magazine science articles, 1976-2002**

## American Society of Limnology and Oceanography

<http://aslo.org/>

**Membership:** ASLO fosters a diverse, international scientific community that creates, integrates and communicates knowledge across the full spectrum of aquatic sciences, advances public awareness and education about aquatic resources and research, and promotes scientific stewardship of aquatic resources for the public interest. Its products and activities are directed toward these ends. Founded in **1936**, under the name of Limnological Society of America.

Size of membership: 3,800 world wide (as of 1993) (with 25% from outside N. America)

**Governing structure:** President, President-Elect, Immediate Past-President (each serve 2 years since 1995), Treasurer, Secretary, 2 Student representatives since 1997, and 7 board members.

### Office staff:

- Business Manager (since before 1985)
- Web Editor (1995-present)
- Director of Public Policy: (2002-present)
- *Limnology and Oceanography* Editor-in-Chief (1998-present); Journals Manager (1998-present)
- *Limnology and Oceanography Bulletin* Editor (2001-present)
- *Limnology and Oceanography: Methods* Editor-in-Chief (2002-present)
- Managing Editor (2002-present)
- Executive Director (discontinued in May 2002) **Note:** it was the leadership and energy of the ED between 1995 and 1999 that got the website started and fully functional
- Web Editor (1995-present)
- Director of Public Policy (2002-present)

### Standing Committees/Volunteer Positions:

- Publications Committee - Determine the future of scientific publication. The face of publishing is changing faster than it has ever changed before through consolidation of commercial publishers and the transitions to electronic publishing and open access.
- Education and Human Resources
- Meetings Committee - Committee members gain and provide a longer view of meetings structure and add features that will make meetings even more valuable.
- Finance Committee - Work with others to ensure ASLO's future financial stability.
- Ethics Committee - Critical in maintaining the rational idealism that makes science an attractive career choice.
- Nominations Committee - Help to choose ASLO's future leaders.
- Awards Committee - Recognize achievements in the aquatic sciences by the distribution of a broad portfolio of awards to aquatic scientists at all career levels.

**Conferences:** Tend to range from 1000 to several thousands, depending on location (based on personal experience—held in N. America primarily until late 1990s). Now, there is a system of meetings held in different parts of the world every 3 to 5 years.

**Benefits:**

- Receive journal *Limnology and Oceanography* in print or electronic version
- Receive the *Limnology and Oceanography Bulletin*, free to all members and provides ASLO news, book reviews and timely analyses of current events and issues affecting the aquatic sciences. Available in print and online.
- *Limnology and Oceanography: Methods*: Introduced in 2003, this topical e-journal is ideally suited to the strengths of electronic media. Prior to the introduction of L&O Methods, aquatic sciences methods have been scattered over scores of journals. Journal articles are linked forward and backward to related material. Multi-media capability (e.g., film clips) enhances ease of adoption.
- Attend different meeting venues including 1) **Aquatic Sciences Meetings** (held in February of odd-numbered years, designed to integrate the aquatic sciences—combine limnology and oceanography in novel ways, rapidly bringing innovations from one field to the other and incorporating advances from sister disciplines 2) **Ocean Research Conferences** (held in February of even-numbered years, to bring together the many disciplines and research traditions of oceanography and allied marine science and engineering 3) **ASLO Summer Meetings**--June of even-numbered years brings a gathering that is a counterpoint to Ocean Research Conferences and assures a venue attractive to all aquatic scientists. It is noted for highlighting recent advances and for innovative sessions. 4) **International Meetings**--Introduced at Copenhagen in 2000 and continuing with the meeting in Santiago de la Compostella, Spain in July 2005, ASLO will incorporate meetings every 3 to 5 years outside North America to serve their many members worldwide. 5) **Special Meetings**--Occasionally, ASLO will hold meetings, such as international meetings or joint meetings with other organizations, in summers of odd-numbered years.
- The online membership directory is a membership database searchable by name, specialty or locality to find members with specific interests.
- Job posting services: The ASLO Positions Offered Board is widely read, and was viewed more than 275,000 times last year. In 2003 the average announcement is viewed more than 800 times. Your position is sure to get the attention it deserves.
- Employment opportunities: Position announcements include all levels from undergraduate research and internship opportunities, to professional positions for senior scientists.
- Funding opportunities: Announcements from funding agencies are regularly posted to the Funding Opportunities Page.
- Contact and interactions with recent graduates: The PhD programs and CareerLink pages provide opportunities for recent graduates to meet each other, interact, and seek career advancement opportunities.

**Dues:**

- **Member-electric journal \$80**
- **Member-no journal \$55**
- **Member-printed journal (N. America) \$95**
- **Member-printed journal (outside N. America) \$115**
- **Sustaining member-Electronic and printed journald \$1,500**
- **Student Member-electronic \$35**
- **Student Member-printed journal \$75**
- **Student Member-no journal \$25**
- **L&O Archival CD ROM set (1956-1998) (N. America) \$160**
- **L&O Archival CD ROM set (1956-1998) (outside N. America) \$165**

Articles in L&O appear in PDF format. Articles with the "unlocked" icon are Free Access Publications and may be freely downloaded by anyone. Non-FAP articles are available for download to subscribers only. Single copies of non-FAP articles can be purchased for \$10 by clicking the square check box (the left-most of the three icons below the page range for a paper) and then clicking "add to cart" at the bottom of this page.

All articles in Volumes 1-49 of L&O are now available on the ASLO web site and fully searchable via a web form. Free Access articles are available without a subscription. All other articles less than five years old require a current subscription to L&O.

*NOTE: Articles published five or more years ago will be placed into Free Access and become freely available without a subscription.*

### **Other features worth noting:**

The first version of the web site contained a few dozen pages. Since that start, the ASLO website has grown exponentially and now contains over 26,700 files. In 2003, the website received 3.5 million hits from 240,000 different users. It is likely that more people have been introduced to ASLO via its web site than by any other means.

- **1994:** Sue Weiler issues a call for assistance in building an ASLO Home Page.
- **1995:** The first ASLO home page is set up, with server space provided by NOAA. Limnology and Oceanography Tables of Contents are posted on the web site.
- **1996:** ASLO purchases the domain name "aslo.org" and moves the ASLO website to a commercial web server. The first "web appendix" to a paper in Limnology and Oceanography is published, following a suggestion by Associate Editor Paul Falkowski.
- **1997:** The web site is first used to provide information about and help organize an ASLO meeting, the 1997 Aquatic Sciences meeting in Santa Fe, NM.. An ad hoc Electronic Publishing Committee is formed to evaluate the future of ASLO's electronic publishing needs.
- **1998:** Abstracts and registration for the St. Louis ASLO meeting are submitted via online forms. A staff position of Web Editor is created by the ASLO Board. The ASLO web site is redesigned and moved to a dedicated, independent server.
- **1999:** Complete issues of L&O are posted on the website for the first time. Past and current issues of the ASLO Bulletin are posted on the web site.
- **2001:** Free Access Publication is offered to authors of papers published in Limnology and Oceanography. The "Public Policy" and "Minorities in the Aquatic Sciences" sections are added to the web site.
- **2002:** The ASLO Board votes to start a new all-electronic journal, Limnology and Oceanography: Methods.

- **2003:** The ASLO web site is completely redesigned for the second time. The first all-electronic paper appears in *Limnology and Oceanography: Methods*. The "Education Resources" section is added to the web site.
- **2004:** The ASLO web site is redesigned for a third time to allow more frequent updates. All L&O past issues are installed online and are fully searchable. Citations to articles appearing in L&O, L&O:Methods and the L&O Bulletin are hyperlinked to the original article.

## **Public Policy in the Aquatic Sciences: ASLO's Policy Office**

In January 2000, ASLO opened its Washington, DC office in order to better engage aquatic scientists in US policy decisions and to inform ASLO members and the general public on aquatic science policy. ASLO's Washington office is staffed by Adrienne Sponberg, ASLO Director of Public Policy, who splits her time with the American Institute of Biological Sciences (AIBS). ASLO also has a Public Policy Committee, which is currently chaired by Jim Ammerman of Rutgers University.

### **ASLO's Policy Mission:**

ASLO does not take positions on issues of environmental policy. However, ASLO strives to make the most recent scientific information on aquatic ecosystems available to policy-makers. Through activities such as congressional briefings, ASLO provides the political know-how and logistical assistance for ASLO members to present their research to policy leaders who make decisions regarding the management and study of aquatic ecosystems.

### **Policy Action Network:**

ASLO maintains an Aquatic Sciences Database to facilitate communication among aquatic scientists. The Policy Action Network is a targeted sub-section designed to enhance communication between the ASLO Public Policy Office, members of ASLO, and policy makers in the U.S., Canada, and the EU. Aquatic scientists who sign up for the database have the option to:

- receive periodic updates on policy issues of interest to aquatic scientists;
- stay informed of the latest trends in research funding in the U.S., Canada, European Union and other governments;
- receive alerts when letters or calls to your government representatives are needed, and
- serve as a resource for policymakers in your district who are seeking scientific advice in your area of expertise.

## American Crystallographic Association

<http://www.hwi.buffalo.edu/ACA/>

**Membership:** Merger of the Am. Society for X-Ray and Electron Diffraction (ASXRED) and the Crystallographic Society of America (CSA). The objective of the ACA is to promote interactions among scientists who study the structure of matter at atomic (or near atomic) resolution. These interactions will advance experimental and computational aspects of crystallography and diffraction. They will also promote the study of the arrangements of atoms and molecules in matter and the nature of the forces that both control and result from them. Founded in **1949**.

Size of Membership: 2500 worldwide.

**Governing structure:** President, Vice President, Secretary and Treasurer, and the Past-President form the Council, which shall have general charge of the affairs of the Association. Terms of the President and Vice President are 1-year each, while Secretary and Treasurer are 3 years each.

**Office staff:** Administrative Manager, ACA/IUCr Publications Manager, Membership Secretary, Records Manager.

**Standing Committees** (held by volunteer members): *Communications, Continuing Education, and Data, Standards and Computing*

**Special Interest Group Officers** (held by volunteer members—mostly academics): *Biological macromolecules, Fiber Diffraction, General Interest, Material Science, Neutron Scattering, Powder Diffraction, Service Crystallography, Small Angle Scattering, Small Molecules, Synchrotron Radiation, Young Scientists*

**Conferences:** no mention of size of conferences and what is the focus

**Benefits:** 12 issues of *Physics Today* magazine each year; reduced cost of *Transactions of the A. Crystallographic Association* (scientific journal), the published proceedings of the annual symposium on Frontier Topics, full abstracts of the Annual Meeting, and the ACA newsletter (quarterly about 24-50 page newsletter with information on jobs, databases, latest developments, program and registration material for ACA meetings).

Charge extra airmail fees for outside N. America (ACA Quarterly newsletters \$30, Program and Abstract Book \$20, *Physics Today* \$20).  
Optional subscriptions to *Acta Cryst E* \$40

### Dues:

- **Regular \$90**
- **Post-doc (available for 5 years following conferring of Ph.D) \$36**
- **Student \$24**
- **Retired \$39**
- **Corporate \$850**

NOTE: web site of *Physics Today* allows advertisements from Springer—also very newsy and appealing web site—looks like it is constantly updated, with lots of “news picks”.

## American Society of Parasitologists

<http://asp.unl.edu/>

**Membership:** The American Society of Parasitologists (ASP) is a diverse group of scientists from industry, government, and academia who are interested in the study and teaching of Parasitology. ASP members have contributed not only to the development of parasitology as a discipline, but also to primary research in systematics, medicine, molecular biology, immunology, physiology, ecology, and biochemistry. Founded in 1924.

Size of membership: 1,500 world wide (but primarily N. America)

**Governing structure:** President, President-Elect, Immediate Past-President, Vice-President, Secretary-Treasurer, and 8 Council Members

**Office staff:** According to the President-Elect, Tim Yoshino, ASP does not have an Executive Director, but has an Admin Assistant to the Sec-Treas, a Program Officer (faculty member, partially funded by ASP), and Editorial Assistant to the Editor of the journal. The Editor is not paid by the Society. They also hire people on an ad hoc basis for projects, conferences, etc.

**Standing Committees/Volunteer Positions:** Scientific Program Officer, Editor-Journal, Editor-Newsletter, Archivist, Nominating Committee, Business Advisory Committee, Several Award Committees (one for each award—has many members in each), including one for student awards, Tellers Committee, Nomenclature and Terminology Committee (ad hoc), Education Committee, Meeting Site Selection Committee, Membership Committee, Priorities and Planning Committee, Industrial Liaison Committee, Auction Committee (ad hoc), Auditing Committee (ad hoc), By-Laws and Officers' Handbook Committee (ad hoc), Information Technology Committee (ad hoc), Parasitology Literature for Foreign Scientists Committee (ad hoc), Public Advocacy Network, Resolutions Committee (ad hoc) to be appointed at each meeting. NOTE: many of these committees have at least 5 or 6 members listed. Some of these are from foreign countries.

**Conferences:** Tend to range from 600-800 depending on location (according to talk with President-Elect)—held in N. America normally, but future meetings in 2006 and 2007 will be in Scotland and in Mexico, jointly with other Societies.

**Benefits:**

- Members of the ASP receive the Journal of Parasitology, a quarterly newsletter, and discounts on new publications and services to interest to parasitologists. In addition, charges for the first three pages of each article published in the Journal are waived for members and non-members. Page charges are then different for members (\$45) and non-members (\$75). Student members enjoy all the benefits of active membership by payment of the low "student fee."

**Dues:**

- **Active Individual \$75**
- **Student \$35**
- **Retired \$32.50**
- **Spousal \$20** (no journal subscription included)
- **Institutional \$210 (US) \$220 (outside of US)**
- **Consortium Membership \$90** (supports up to 6 individuals from a foreign country)—only one copy of the journal is sent

*Will assess a late fee of \$5 for renewals after February.*

## Estuarine Research Federation

<http://www.erf.org/>

**Membership:** The Federation's members are dedicated to advancing human understanding and appreciation of the Earth's estuaries and coasts, to the wise use and management of these environments and to making the results of their research and management actions available to their colleagues and to the public. Members of the Federation include academic researchers, public sector managers, teachers, consultants, students and others who are interested in estuaries.

The Estuarine Research Federation is a private, nonprofit non partisan organization. The Federation was created in **1971**, when the members of two older, regionally-based estuarine research societies (AERS and NEERS) decided that a national organization was needed to address estuarine and coastal issues more broadly. The regionally based Affiliate Societies now number seven and encompass all of the coastal regions that border the United States, Canada and Mexico.

The Purpose of The Federation:

- to promote research in estuarine and coastal waters
- to promote communication between members of Affiliated Societies
- to conduct meetings and
- to be available as a source of advice in matters concerning estuaries and the coastal zone.

Size of membership: 1,200 in N. America (including Canada and Mexico) + 1,000 who are members of affiliated societies.

**Governing structure:** President, President-Elect, Immediate Past-President, Vice-President, Secretary, Treasurer, and 4 Members-at-Large; Society Presidents of 7 other societies

**Office staff:** Executive Director (Joy Batholomew), Chief Operations Officer, Web Master, Membership Services (The Schneider Group, Inc).

**Standing Committees/Volunteer Positions:** Education Committee, Conference Chair, Program Chair

**Conferences:** Biennial conferences of 800-1,200 depending on location (according to discussions with President)— normally held in N. America

**Benefits:**

- Members have fee access to *Estuaries* (bimonthly journal) and *Chesapeake Science* online
- Reduced rates for meetings

**Dues:**

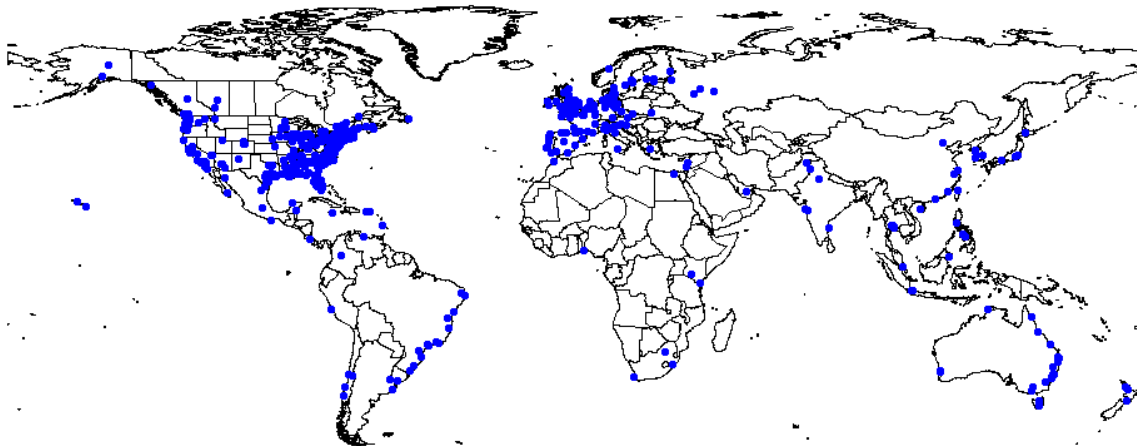
- **Full Member, N. America \$110**
- **Full Member, Overseas \$110**
- **Sustaining Member \$200**
- **Associate Member, \$60** (does not receive journal)
- **Student Member (5-year limit) \$50**
- **Family Member** (spouse of full or sustaining member only) (does not receive journal) **\$35**
- **Emeritus Member** (does not receive journal) **\$35**
- **Sponsoring Member \$600**
- **Institutional Member, N. America \$470**
- **Institutional Member, Overseas \$490**

**Interesting Feature**

In summer 2000, the Managing Editor's office produced a set of 4 CD-ROMs containing the back issues of 40 years of ESTUARIES (1978-1999) and CHESAPEAKE SCIENCE (1960-1977). The CD-ROM set may be ordered online from the Estuarine Research Federation. Subscriptions to the journal, in print and online, may also be ordered there. **\$60 for 4 CD-ROM set.**

Journal has the following staff: Managing Editor, Dr. Stephen Threlkeld, Professor of Biology, and the Assistant Editor Ms. Kate Eidt and Editorial Assistant Tequila Sunrise.

Their distribution is as follows:



## APPENDIX VII ALTERNATE BUSINESS PLANS

*Prepared by*  
The IAGLR Five-Year Plan Committee  
May, 2005

### Preface

Implementation of the new Five-Year Plan will require a change in the business plan in order to cover the additional salary of an Executive Director and the reduced income from elimination of page charges. The purpose of this document is to calculate total Association incomes and expenses for an average year, and to explore different income-expense scenarios that could be used to support the new Five-Year Plan.

### INCOME CATEGORIES (does not include interests earned from investments)

#### 1. Memberships

The proposed membership rates should bring in **\$160.5K** if we assume that we will have 500 regular members (\$120), 235 library members (\$400) with electronic access only, and an annual total of \$6.5K in all other membership categories. These numbers are conservative estimates compared with recent memberships (i.e. since 2000; Table 1).

**Table 1.** Changes in association membership from 1990 to 2004.

Year	Total	Regular	Library	Student	Retired	Life	Sustain	Complim
1990	1000	644	251	62	20	1	2	20
1991	1095	691	270	82	25	2	4	20
1992	1083	673	258	95	22	3	5	27
1993	1065	844	251	96	18	5	4	29
1994	1075	653	251	108	20	8	7	28
1995	990	561	261	100	21	9	6	32
1996	984	582	260	69	25	11	5	26
1997	891	510	252	59	26	13	5	21
1998	870	482	251	64	26	13	5	21
1999	960	574	255	52	24	13	5	13
2000	984	<b>594</b>	<b>255</b>	61	23	13	3	22
2001	972	<b>561</b>	<b>248</b>	59	30	13	4	26
2002	926	<b>501</b>	<b>251</b>	59	29	14	6	26
2003	907	<b>493</b>	<b>233</b>	53	37	14	6	26
2004	1013	<b>527</b>	<b>239</b>	124	35	17	6	25

#### 2. **Page charges and shipping charges** (average from 2002-2004; see Appendix 1)

Regular page charges brought in an average of **\$53.1 K** to the Association in 2003-4 while publication of the Special Topics (ST) brought in an additional **\$125.2 K** during 2003.

#### 3. **Reprint charges** (average from 2002-2004; see Appendix 1)

On average, total charges for regular paper reprints (\$6.6K) and from ST paper reprints (\$4.6K) from 2002-2004 totaled **\$11.2K**.

**4. Conference Charge-back**

Annually, **\$15K** for web site maintenance and development is charged back against conference accounts.

**5. Sale of products**

Sale of items such as digital reprints (e.g. \$200/regular paper and \$400/ST paper, or Journal archives on CD-ROM (\$200 each) could bring in another **\$60K** per year.

**EXPENSE CATEGORIES****1. Electronic access to regular Journal articles** (average from 2002-2004; see Appendix 1)

This is the estimated costs associated with web programming (\$15K), web hosting (\$5K), typesetting (\$19.3K), the salary of the Managing Editor (\$10K) and the expenses of the Editor (\$10K) for a total of **\$59.3K**.

**2. Paper copies of the Journal** (average from 2002-2004; see Appendix I)

This is the estimated costs associated with printing of regular journal articles (\$22.6), mailing (\$3.7K), printing the reprints (\$3.3K), and sending reprints (\$.8K) for a total of **\$30.4K**.

**3. Electronic access to ST articles** (data only available for 2003)

This is the estimated costs associated with typesetting (\$32.3K), the salary of the Managing Editor (\$15.7K) for a total of **\$48K**.

**4. Paper copies of ST articles** (data only available for 2003)

This is the estimated costs associated with printing of ST journal articles (\$27.8), mailing (\$7.2K), printing the reprints (\$3.1K), and sending reprints (\$0.5K) for a total of **\$38.6K**.

**5. Salary of paid staff**

This is the estimated costs associated with the new position of the Executive Director (\$40K) and the Business Manager (\$36K) for a total of **\$76K**.

**6. Scholarships**

This is the estimated allocations for endowed scholarships (\$12.5K) and travel scholarships (\$4K) that must come out of general revenue **\$16.5K**.

**7. Web site maintenance and development** (based on information from 2000-2004 received from the Business Manager)

This is the estimated costs for maintaining the web site for Association business (\$18K) and running the annual conference (\$15K) for a total of **\$33K**.

**DIFFERENT INCOME-EXPENSE CATEGORIES**

Table 2 compares 5 income-expense scenarios based on the above assumptions, specifically the additional salary of the Executive Director, and that there will be 500 regular members and 235 library members at the new proposed annual fee of \$120 and \$400, respectively.

- **Scenario A** assumes no change in page charges for either regular or ST articles. The total income minus expenses gives us a **surplus of \$63.2K**.
- **Scenario B** assumes no page charges for regular articles, but retains page charges for ST. The total income minus expenses gives us a **surplus of \$10.1K**.

- **Scenario C** assumes no page charges for regular articles, but retains page charges for ST, but no paper copies of the regular or ST articles. The total income minus expenses gives us a **surplus of \$67.9K**.
- **Scenario D** assumes no page charges for either regular or ST articles, and no paper copies of the regular or ST articles. The total income minus expenses gives us a **deficit of \$57.3K**.
- **Scenario E** assumes no page charges for either regular or ST articles, no paper copies of the regular or ST articles, but additional income through the sale of products such as digital reprints and CD-ROM archives of the Journal. The total income minus expenses gives us a **surplus of \$2.7K**.

### Uncertainties

In Scenarios A, B and C, page charges from Special Topics are based only on figures for 2003, and are likely to be an overestimate of average charges for any other year.

**Table 2. Comparison of different income-expense scenarios based on given income and expense categories (in thousands) (see text).**

Scenario	Income categories							Expense categories							Income minus expenses	
	2006 member-ships	Reg. page chg	ST page chg	Reprint charges	Sale of products	Conf charge	Total Income	Reg. on-line	Reg. paper	ST on-line	ST paper	Salary	Scholar-ships	Web		Total expenses
A	\$160.5	\$53.1	\$125.2	\$11.2	--	\$15	\$365.0	\$59.3	\$30.4	\$48.0	\$38.6	\$76	\$16.5	\$33	\$301.8	\$63.2
B	\$160.5	0	\$125.2	\$11.2	--	\$15	\$311.9	\$59.3	\$30.4	\$48.0	\$38.6	\$76	\$16.5	\$33	\$301.8	\$10.1
C	\$160.5	0	\$125.2	--	--	\$15	\$300.7	\$59.3	0	\$48.0	0	\$76	\$16.5	\$33	\$232.8	\$67.9
D	\$160.5	0	0	--	--	\$15	\$175.5	\$59.3	0	\$48.0	0	\$76	\$16.5	\$33	\$232.8	(\$57.3)
E	\$160.5	0	0	--	60	\$15	\$235.5	\$59.3	0	\$48.0	0	\$76	\$16.5	\$33	\$232.8	\$2.7

**Summary of individual costs per issue**

	YEAR - 2002	VOLUME 28	ISSUE 1
Typesetting	\$3,349.50		
Printing	3,499.56		
Mailing	803.86		
Reprint printing	616.00		
Reprint mailing	201.67		
Managing Editor	2,493.00		
<u>Total expenses</u>	<u>\$10,963.59</u>		
Page charge billing	5,903.00		
Reprint billing	1,032.00		
<u>Total income</u>	<u>\$6,935.00</u>		

YEAR – 2002	VOLUME 28	ISSUE 2
Typesetting	\$5,575.50	
Printing	6,152.76	
Mailing	904.20	
Reprint printing	970.00	
Reprint mailing	133.19	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$16,228.65</u>	
Page charge billing	11,173.00	
Reprint billing	1,598.00	
<u>Total income</u>	<u>\$12,671.00</u>	

YEAR – 2002	VOLUME 28	ISSUE 3
Typesetting	\$5,481.00	
Printing	6,034.04	
Mailing	978.62	
Reprint printing	1,178.00	
Reprint mailing	215.29	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$16,379.95</u>	
Page charge billing	11,051.00	
Reprint billing	1,994.00	
<u>Total income</u>	<u>\$13,045.00</u>	

YEAR – 2002	VOLUME 28	ISSUE 4
Typesetting	\$6,143.00	
Printing	5,118.22	
Mailing	1,218.30	
Reprint printing	900.00	
Reprint mailing	152.62	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$16,025.14</u>	
Page charge billing	18,243.00	
Reprint billing	1,526.00	
<u>Total income</u>	<u>\$19,769.00</u>	

YEAR – 2003	VOLME 29	ISSUE 1
Typesetting		\$5,997.00
Printing		5,582.97
Mailing		959.47
Reprint printing		1,594.00
Reprint mailing		159.06
Managing Editor		2,493.00
<u>Total expenses</u>		<u>\$16,785.50</u>
Page charge billing		11,920.00
Reprint billing		2,584.00
<u>Total income</u>		<u>\$14,504.00</u>

YEAR – 2003	VOLUME 29	ISSUE 2
Typesetting		\$4,878.50
Printing		3,782.35
Mailing		891.45
Reprint printing		1,168.00
Reprint mailing		212.01
Managing Editor		2,493.00
<u>Total expenses</u>		<u>\$13,425.31</u>
Page charge billing		9,567.00
Reprint billing		1,890.00
<u>Total income</u>		<u>\$11,457.00</u>

YEAR – 2003	VOLUME 29	ISSUE 3
Typesetting		\$4,560.00
Printing		7,415.31
Mailing		1,027.95
Reprint printing		98.98
Reprint mailing		737.76
Managing Editor		2,493.00
<u>Total expenses</u>		<u>\$16,333.00</u>
Page charge billing		13,662.00
Reprint billing		1,195.00
<u>Total income</u>		<u>\$14,857.00</u>

YEAR – 2003	VOLUME 29	ISSUE 4
Typesetting		\$5,211.00
Printing		9,394.10
Mailing		1,087.23
Reprint printing		1,122.00
Reprint mailing		241.50
Managing Editor		2,493.00
<u>Total expenses</u>		<u>\$19,548.83</u>
Page charge billing		18,509.00
Reprint billing		1,860.00
<u>Total income</u>		<u>\$20,369.00</u>

YEAR – 2004	VOLUME 30	ISSUE 1
Typesetting	\$6,523.50	
Printing	7,565.64	
Mailing	725.73	
Reprint printing	168.00	
Reprint mailing	137.65	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$17,613.52</u>	
Page charge billing	16,432.00	
Reprint billing	2,239.00	
<u>Total income</u>	<u>\$18,671.00</u>	

YEAR – 2004	VOLUME 30	ISSUE 2
Typesetting	\$3,482.00	
Printing	4,167.80	
Mailing	813.63	
Reprint printing	734.00	
Reprint mailing	102.33	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$11,792.76</u>	
Page charge billing	8,059.00	
Reprint billing	1,262.00	
<u>Total income</u>	<u>\$9,321.00</u>	

YEAR – 2004	VOLUME 30	ISSUE 3
Typesetting	\$3,307.00	
Printing	5,295.90	
Mailing	812.96	
Reprint printing	606.00	
Reprint mailing	91.75	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$12,606.61</u>	
Page charge billing	7,930.00	
Reprint billing	1,184.00	
<u>Total income</u>	<u>\$9,114.00</u>	

YEAR – 2004	VOLUME 30	ISSUE 4
Typesetting	\$3,452.00	
Printing	3,672.42	
Mailing	976.54	
Reprint printing	715.00	
Reprint mailing & PDF charges	91.76	
Managing Editor	2,493.00	
<u>Total expenses</u>	<u>\$11,400.72</u>	
Page charge billing	7,173.00	
Reprint & PDF billing	1,444.00	
<u>Total income</u>	<u>\$8,617.00</u>	

YEAR – 2003	VOLUME 29	ISSUE – Supplement 1(Sea Lamprey)
Typesetting	\$23,860.00	
Printing	21,572.14	
Mailing	6,016.76	
Reprint printing	2,160.00	
Reprint mailing	259.97	
Managing Editor	11,517.66	
<u>Total expenses</u>	<u>\$65,386.53</u>	
Page charge billing	90,741.00	
Reprint billing	3,056.00	
<u>Total income</u>	<u>\$93,797.00</u>	

YEAR – 2003	VOLUME 29	ISSUE – Supplement 2 (African Lakes)
Typesetting	\$8,455.00	
Printing	6,266.73	
Mailing	1,157.49	
Reprint printing	936.00	
Reprint mailing	259.97	
Managing Editor	4,138.38	
<u>Total expenses</u>	<u>\$21,213.57</u>	
Page charge billing	29,878.00	
Reprint billing	1,560.00	
<u>Total income</u>	<u>\$31,438.00</u>	

**2005-2010 IAGLR FIVE-YEAR PLAN COMMITTEE  
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