Article I Identification

Section 1. The name of our SIGMAA is *Environmental Mathematics.* It will usually be referred to as *SIGMAA-EM.*

Section 2. SIGMAA-EM has two goals. The primary goal is to provide a forum for discussion and promotion of mathematical analysis and problem-solving arising from environmental sources. This will include not only the development of mathematical models but also related pedagogical issues. A secondary goal is to contribute to an awareness of our responsibility to address environmental issues, such as recycling and energy conservation, and to utilize sound mathematical analysis to support such promotional activities. Such efforts will be focused on our own profession or institutions,
perhaps contributing to a further greening of the MAA, or more globally through efforts with public school systems or in the media.

Since environmental issues are inherently interdisciplinary, lend themselves to team efforts, and offer an abundance of mathematical content at many levels, these goals are designed to attract mathematicians from many specialties as well as physical and social scientists and engineers. These goals demonstrate to the larger community that mathematics recognizes its responsibility to address issues important to society. Further, they will appeal to the inherent environmental interests of young people of our society, including students of mathematics.

Article II Activities

Section 1. SIGMAA-EM will pursue its goals through activities such as:

a) Organizing presentations and workshops at national, section and regional meetings.

b) Encouraging members to publish and otherwise disseminate information.

c) Promoting organizational and individual environmental responsibility.

d) Maintaining a Web page, and a data base of publications, workshops and other activities.

e) Promoting the creation and dissemination of classroom electronic and print materials.

f) Recruiting students to SIGMAA-EM and encouraging their professional activity.

Section 2. Relations with MAA Activities:

a) SIGMAA-EM will maintain close ties with the Committee for Mathematics in the Environment and cooperate with other organizations with similar goals.

b) SIGMAA-EM activities will be represented as coming from the MAA at large only if these activities have been approved by the MAA Executive Committee.

c) SIGMAA-EM will submit annual reports of its activities to the MAA Committee on SIGMAAs and to the Chair of the Coordinating Council to which it is assigned.

Article III Meetings

Section 1. SIGMAA-EM will meet at Mathfest and at the Joint Mathematics Meetings in January. The Council (below) will have a (physical, phone or e-) meeting to set an agenda at least eight weeks before the next membership meeting. A suggested agenda will be e-mailed to members no more than two weeks later to allow one week for members to comment, add items, etc. The final agenda, along with notice of the meeting time and location, will be e-mailed to members at least three weeks before the meeting date.

Section 2. Meetings will be conducted in accordance with Robert's (simplified) Rules of Order except when they conflict with the rules set forth in this document. Decisions will be reached by consensus (no objections) whenever possible. If consensus is not attainable, decisions will be reached by an absolute majority (yeas – nays = simple majority vote). A simple majority vote will be used only when a yea or nay vote is required under a time constraint, as in such cases where an MAA governing body requires a decision.

Section 3. Electronic meetings may be held to decide specific issues.

Section 4. A quorum is defined for Membership meetings as follows:

January - 20% of the Membership, including **four members of the Council***.

Mathfest - 10% of the Membership, including three members of the Council.

Electronic - 70% of the Membership, including six members of the Council.

Section 5. The quorum for a Council meeting is five members.

Article IV Membership

Membership is open to any MAA member.

Article V Officers

Section 1. The executive arm of SIGMAA-EM shall consist of twelve elected members and one ex officio member. It will be known as the Council. Elected members will serve staggered three-year terms. No one may occupy the same office for more than six consecutive years.

The Council

1) *Coordinator* Presides at all meetings, reports to the Membership and Council, serves as liaison to MAA governing bodies and officers. Appoints, with the consent of the Council, two non-officers to the Nominating Committee.

2) *Associate Coordinator* Chairs Nominating Committee. Assists the Coordinator. **Note**: Assoc. Coordinator takes over in the Coordinator's absence, in the order 2), 3), 4).

3) *Assistant Coordinator* Assists the Coordinator - **Note**: Asst. Coordinator takes over in the Coordinator's absence, in the order 2), 3), 4).

4) *Secretary* Keeps records of all meetings, handles correspondence, & completes MAA reports. **Note**: Secretary takes over in the Coordinator's absence, in the order 2), 3), 4).

5) *Treasurer* Keeps track of expenditures and the MAA account. Ensures that requests for expenditures are carried out in the proper manner.

6) *Formal Activity* Coordinator Encourages members to organize formal Mathematical events so that there are some Environmental Mathematics activities at every MAA meeting.

7). *Informal Activity Coordinator* Encourages members to organize informal Mathematical events such as skits, social events, etc.

8) **Student Affairs Coordinator** Responsible for encouraging student participation.

9) *PIO* Responsible for publicity. Works with the Activity Coordinators and Web Master.

10) *Web Master* Edits and maintains web pages.

11) *Archivist* Keeps a record of all environmental mathematics activities, including dates, organizers, etc. Works closely with the Webmaster.

12) *Grant Coordinator* Seeks sources of external support for SIGMAA-EM (as per Article VII).

Section 2. The Council will make decisions by consensus (no objections) whenever possible. If consensus is not attainable, the Council will make decisions by an absolute majority vote. A simple majority vote will be used only when a yea or nay vote is required and there is a time constraint.

Section 3. A Nominating Committee will propose a slate of at least two candidates for each position. The Committee should actively encourage self-nominations and make every effort to have (at least) two candidates for each position.

Here is the time table:

• **01-30 SEP** - Send out an electronic call for nominees, allowing (at least) two weeks for responses. Construct a ballot based on the responses and Committee suggestions.

• **16 –31 OCT** - Send out electronic ballots, allowing (at least) two weeks for responses. Every returned ballot should be promptly acknowledged. Whoever gets most votes is elected. In case of a tie, report it to the membership and have another election. If it is still a tie, the Council will choose the winner.

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Elected Council members will begin their terms 15 December.

Article VI Finances

Section 1. An MAA dues supplement for SIGMAA-EM shall be set at $10. The manner of collection and disbursement of these funds will be determined by the MAA Executive Committee.

Section 2. This SIGMAA-EM shall submit an expense budget for each calendar year to the Chair of the MAA Budget Committee by no later than October 1 of the preceding year. It shall include the projected cost for any receptions, space, equipment, etc., at meetings, national and otherwise. The budget is subject to approval by the Executive Committee.

Section 3. SIGMAA-EM may apply to the MAA for specific funding beyond what is provided from dues. All requests for funds shall be substantiated by a budget for the proposed expenditures.

Section 4. Requests for funds from the MAA require the following approval:

1) Up to $ 50 Coordinator, Associate Coordinator or Treasurer

2) $50+ to $150 As in item 1 plus two Council members

3) $150+ As in item1 plus five Council members

Article VII External Funding

Section 1. No officer or member of SIGMAA-EM may apply for a grant to support this SIGMAA's activities or enter into any contract to support such activities or to provide services without specific approval in writing by the president of the MAA or designee thereof. Any such activity shall be coordinated with the MAA Subcommittee on Externally Funded Projects and go through the standard procedures for applying for external funding under the auspices of the MAA.

Section 2. Neither SIGMAA-EM nor any of its representatives shall have any authority to contract debts for, pledge the credit of, or in any way bind the MAA.

Article VIII Changes

Section 1. Changes to this Charter must be approved by the MAA Executive Committee. Any such proposal for changes requires absolute majority vote of the non-Council membership and a signatured absolute majority of the Council.

Article IX Dissolution

Section 1. This SIGMAA shall be dissolved for either of the following reasons.

a. Failure to maintain at least 20 members for two consecutive years;

b. For reasons agreed to by a majority of the Board of Governors.

Section 2. If dissolved, any unspent funds of this SIGMAA shall be returned to the MAA's general fund.

EM-SIG Initial Slate		Term (yrs)	Expires 31 DEC
1) Coordinator	Ben Fusaro	1	2004
2) Associate Coordinator	Don Miller	2	2005
3) Assistant Coordinator	Nancy Zumoff	3	2006
4) Secretary	Ahlam Tannouri	1	2004
5) Treasurer	Bill Stone	2	2005
6) Formal Activity Coord.	Karen Bollinger	3	2006
7) Informal Activity Coord.	Jochim Schalt	1	2004
8) Student Affairs Coord.	Mohammad Moazzam	2	2005
9) PIO	Greg Langkamp	3	2006
10) Webmaster	Marty Walter	1	2004
11) Archivist	David Trunnel	2	2005
12) . Grant Coordinator	Marcia Sward	3	2006
13) Liaison	Pat Kenschaft	1	2004