

REPORT ON ENGINEERING GROUP STRATEGY REVIEW

NOVEMBER 1999 TO JANUARY 2000

RUTH ALLINGTON: CHAIR OF THE ENGINEERING GROUP 1998-2000

This report is based on a strategic review and consultation process within the Engineering Group, which started on 3 November 1999 with a discussion meeting at Burlington House. It involved a wide range of individuals, who gave of their time generously and constructively to consider carefully the current situation of the Engineering Group and where it should go from here. Some came to the meeting on 3 November 1999, others wrote letters before or after the meeting setting out their point of view and making positive suggestions for the future. This has been a tremendously valuable exercise, leading to a clear vision for the future and a strategic planning framework to allow continuity and continued development of the Group. It has also re-kindled the feeling of community and common purpose that had been less evident in recent years. I thank everyone who participated or offered moral support.

I would especially like to thank the current committee and my fellow Officers for the work they did in encouraging me to convene the meeting, in helping me to plan it, in leading the discussion groups, in attending to what was said and feeding this back, and in considering drafts of the report and making constructive comments. I would also like to thank past Chairmen of the Engineering Group, who took time to discuss the issues with me at length and to give me the benefit of their experience.

This document is intended for use by the next Committee, principally as a reference point. There is no expectation that they should consider themselves to be hidebound by it in any way. It is both desirable and inevitable that this document is, to some extent superseded and out of date by the time it is read. This is symptomatic of an ongoing process of review and strategy making which was initiated by the review itself

Ruth Allington

MAY 2000

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REPORT ON ENGINEERING GROUP STRATEGY REVIEW, NOVEMBER 1999 TO JANUARY 2000

1. INTRODUCTION

On 3 November 1999, the current Chair of the Engineering Group, Ruth Allington, convened a meeting to discuss its future direction and strategy. The meeting was intended to provide an opportunity for discussion of aspirations for the future of the Group and its objective was to move towards a consensus about the Group and its activities over the next 5 years or so. Following the meeting (and receipt of further contributions), it was intended that the Committee should use the outcomes of the review to undertake strategic planning for the following five years.

1.1 Scope and purpose of this report

This report represents the outcome of the strategic review. Its findings and recommendations take into account the discussions at the meeting as well as further consultation with, and contributions received from, members of the Engineering Group since 3 November 1999. The report has been written by Ruth Allington and incorporates comments from the current Committee. It has been adopted by the current Committee as the basis for its detailed planning of activities and priorities over the next five years and beyond. Some themes and practical suggestions for change and development have already been progressed by the Committee under Ruth Allington's chairmanship in line with the aspirations set out in this report. It will be for the next Committee under the chairmanship of Dr. Kevin Privett to implement the review and progress strategic planning fully, and their work on this will commence following the AGM on 23 May.

As noted below, the meeting on 3 November involved, and sought to involve, a cross section of the membership of the Engineering Group.

This report and the strategic review process that led to it were never intended to be ends in themselves. The Committee wishes to continue to be engaged with the membership¹ of the Engineering Group and to hear ideas, suggestions and constructive criticism from anyone who cares to contribute, whether or not they have been involved in the review process in November 1999 or since. The report will be circulated to all those who were invited to the review meeting, whether they attended or not, and its existence will be advertised via Geoscientist and on the new web site to enable others who are interested to request a copy.

1.2 Background to the review

A major stimulus for the review was the cancellation of the Group's conference, due to have been held in Nottingham in September 1999. This was hugely disappointing and was felt to represent an important 'turning point' in the Group's fortunes. However, it was not the only reason why it was judged by the Officers and the Committee that a comprehensive review was timely. The reasons for widening the review beyond a consideration of the future of conferences organised by the Group included:

- a need to identify sources of income in addition, or as alternatives, to conference incomes;
- a perceived crisis in funding and support for education of engineering geologists, and the need for the highest standards of CPD and training to be available to practising engineering geologists;
- the ongoing problem of the status of Chartered Geologists, especially as compared with Chartered Engineers.

The Committee wanted to establish whether its current programme of activities was meeting the expectations, needs and wishes of its membership, and to get ideas for improving things. In particular, if it was the consensus that the Group was not meeting its members needs or aspirations, and/or not responding appropriately to external changes, what changes were required to existing activities, what could (or should) the Group stop doing, and what might it do in addition?

1.3 The strategy review meeting

1.3.1 Attendance

Seventy-seven people were invited to attend the meeting, drawn from the following 'constituencies':

- Current Committee members (21 including ex-officio members)
- Ex Chairmen of the Group (8)
- A cross section of the membership of the Engineering Group (35) including:
 - academics involved in MSc and BSc courses including the teaching of engineering geology and related subjects,
 - younger members of the profession,
 - those involved in publications and editing,
 - the Chairmen of Ground Forum, the British Geotechnical Society, and the Association of Geotechnical and Geoenvironmental Specialists
 - senior engineering geologists from consulting and contracting companies.
- A representative from each of the Geological Society's Regional Groups (13)

Almost all those invited responded to the invitation and all the responses received were supportive and encouraging. Some additional names were added to the list in response to suggestions from the original group of invitees. Of those invited but unable to attend, the majority took the time to send their apologies and to express interest in and support for the meeting. Some provided written contributions before or after the meeting, which have been taken into account in preparing this report. 40 people were able to attend on the day.

1.3.2 Structure

The meeting was organised in three main parts:

- Four short presentations were given covering the following topics:
 - What is engineering geology and how is it changing (if at all)? (Martin Culshaw, BGS and past Chairman of the Engineering Group)
 - What is the state of engineering geological education and geological education for engineers? (Michael DeFreitas, Imperial College and past Chairman of the Engineering Group).
 - What is the current status of engineering geologists and how are they represented? (Rodney Chartres, Bullen & Partners, UK secretary of the IAEG, member of the Geological Society Charter and Bye-Laws working party, member of the ICE Ground Board Committee, past Treasurer of the Engineering Group)
 - How much money do we have, what do we spend it on, and where does it come from? (Graham Garrard, Halcrow and current Group Treasurer)
- Discussion in three groups:
 - Meetings and conferences
 - Publications
 - Representation and promotion of engineering geologists
- Reports back from each of the discussion groups and open discussion.

The presentations at the beginning were designed to set the current context within which the Group operates. The discussion and plenary sessions that followed were intended to focus on the Group itself, its activities, priorities and development.

Included in Appendix 1 is the text of the introduction to the meeting by Ruth Allington, and the suggested discussion points for the individual discussion groups.

1.3.3 Outcomes of the meeting

The meeting promoted significant debate and constructive comment. Everyone present felt that it had been a useful and highly stimulating day, although the afternoon 'plenary' session ran on and may have benefited from more time. The Committee felt that it had gained the support and input that it was seeking and that, once assimilated (in this report), it would provide the basis it was looking for to think strategically about the future of the Group. It was agreed that, if nothing else came out of the meeting, similar events should be organised in the future to allow discussion and strategic thinking. Someone coined the term 'Party Conferences' somewhere central in the UK for ease of access. There was general enthusiasm for spending a whole day every 3-5 years on such a meeting. The Committee welcomes this idea as providing a regular opportunity for wider consultation and for it to seek a 'mandate' from the membership. Such a 'Party Conference' would also allow the Committee to take advantage of, and listen to, expertise, perspectives and knowledge not necessarily available on the Committee. Although changes in emphasis, strategy, and the detail of the activities of the Group were agreed to be necessary, there was no general feeling of this having been a crisis meeting. Much of what was said celebrated the achievements of the Engineering Group over many years, whilst recognising that adaptation and change were necessary to meet the challenges of the future, and seeking ways in which such changes might be implemented.

2. A VISION FOR THE FUTURE OF THE GROUP

The following 'vision' has emerged for the future of the Engineering Group. The statements set out below are intended to encapsulate the intended priorities and objectives of the Group, and to be suitable for publication to others to explain 'what the Engineering Group is all about'. They form a framework for strategic planning and an outline strategic plan is included in Section 3.

For the most part the Engineering Group committee should change from being a body that organises things to one that facilitates activities and initiatives whilst concentrating on representation and protection of the subject and its practitioners. To do this, it must think more strategically about its role. Strategy must be dynamic and under frequent review, and designed to meet the needs of the engineering geological community. The Engineering Group needs now to be not only a forum for scientific debate and the development and promotion of good practice, but also provide strong and effective leadership for the subject and its practice.

It should adopt a definition of engineering geology based on the IAEG definition proposed in 1993:

The science devoted to:

the investigation, study and solution of engineering and environmental problems which may arise as the result of the interaction between geology and the works and activities of Man, and the prediction of geological hazards and the development of measures for prevention and remediation.

Based on this definition, it should communicate and promote to academic institutions, other professionals, Government and the public the importance and value of engineering geology anywhere where there is interaction between the activities of man and the earth's surface and

sub-surface, especially in the construction and extractive industries. This will be achieved through:

- Working within the Geological Society, other member bodies of the Ground Forum, the Construction Industry Council, Government and with the IAEG to enhance and maintain the standing of Chartered Geologists within the construction and extractive industries, especially striving for parity of status with Chartered Engineers.
- Working with all these bodies to promote the introduction of a legal framework obliging clients to engage recognised competence in engineering geology (e.g. through licensing) in construction projects.
- Participating vigorously in efforts to secure the long term future of MSc and BSc courses and research at PhD level and above in engineering geology and other ground-related subjects. This will include lobbying grant awarding bodies and government, striving towards cultural changes within engineering companies to gain wide acceptance of the importance of engineering geology, working with the Geological Society as well as with other affected bodies, companies and institutions to formulate alternative funding strategies for university courses and research in the future.
- Promoting and facilitating training and continuing professional development opportunities for engineering geologists.
- Maintaining and enhancing the Group's programme of meetings and conferences, actively seeking the involvement of, and co-operating more extensively with, Regional Groups and other Specialist Groups of the Geological Society, and with other institutions and societies such as the BGA, the AGS and the IMM.
- Promoting engineering geology as a career through the Geological Society and its Regional Groups and in other ways.
- Working with the Regional Groups of the Geological Society to bring a greater awareness of engineering geology to the public at large, through articles in newspapers and magazines, as well talks to clubs, societies and schools.
- Continuing to procure, support and publish the activities of Working Parties in important areas of engineering geological research and practice, and continuing to facilitate the production of Engineering Geology Special Publications, including those arising directly or indirectly from meetings or conferences.
- Supporting QJEGH more fully by actively encouraging engineering geologists to contribute high quality papers, and by facilitating meetings and research that will lead to papers.

3. A STRATEGY FOR THE ENGINEERING GROUP

This section is an attempt to give some substance to the ideas and aspirations in the 'Vision' statement in the previous section. The strategic objectives that have emerged from the review exercise and the formulation of the 'vision' for the Group are most conveniently expressed under the following headings:

- Identity and leadership
- Professionalism
- External relations (with other professionals and the public)
- Internal relations (with the Geological Society)
- Research and training
- Meetings and conferences
- Publications
- Funding

3.1 Identity and leadership

The Engineering Group needs to establish a stronger sense of identity, and to determine how engineering geology is different from, and/or complementary to, other ground-related disciplines, notably geotechnical engineering. Based on the definition set out in the vision statement above, the Engineering Group needs to work towards establishing engineering geology as a term that has a clear meaning to fellow professionals and clients. Having a stronger sense of identity will enable the Group to be more confident in promoting engineering geology and engineering geologists in all areas, notably in relation to university teaching and research and the status of engineering geologists working in industry. A stronger identity and sense of purpose, together with progress in enhancing the reputation of CGeol status are likely to benefit the Geological Society and its Engineering Group in that members who might otherwise have 'defected' to IMM or the ICE to gain Chartered Status will be more inclined to stay.

The Engineering Group should continue to take the lead in pushing forward engineering geology and in ensuring that the facilities and services exist to meet the professional and scientific needs of engineering geologists. It should do this more confidently and obviously through closer contact with its membership, making best use of opportunities to publicise itself, especially through Geoscientist and Ground Engineering, on the Geological Society website, and through direct contact with the membership by e-mail and conventional mailings. It should also promote itself and the Geological Society through presentations to and participation with other groups in a range of professions.

3.2 Professionalism, continuing education and development and career structure

The Engineering Group, through its meetings, publicity and membership should actively promote the benefits of CPD for engineering geologists at all levels of their careers:

- young graduates
- mid career individuals
- those with late career needs

The Group should promote CPD and 'whole career' support as an important element of the benefit to the profession of joining the Geological Society and becoming a Chartered Geologist - particularly for career progression purposes and the development of personal and management skills. It should also work with the Professional Committee of the Geological Society to improve and develop this aspect of the Society's work.

The Group should work with the other members of the Ground Forum, the Construction Industry Council and through the Geological Society to influence and persuade government of the imperative of a legal framework requiring proper attention to site investigation and the employment of suitably qualified (licensed) individuals.²

In addition to courses and workshops on technical subjects, the Group should work with the Geological Society, the GTCC and the other members of the Ground Forum to organise, promote or facilitate courses on professional skills such as communication skills (verbal and written), report writing, conditions of contract, project management, team management etc.

3.3 External relations (with other professionals and the public)

The Engineering Group must participate fully, and visibly, within the broader geotechnical community. One focus for this is Ground Forum which, under the chairmanship of Quentin Leiper, has defined its aims and objectives fairly recently. The members of Ground Forum are in agreement that future strength in ground engineering will come from co-operation between the member bodies, with each body retaining a clear identity and sense of its own aims and objectives.

The Group should work with the Geological Society and its Regional Groups to provide information about engineering geology for dissemination to politicians, school teachers and pupils, and undergraduates in geology and civil engineering departments. A register of those prepared to give talks or to write articles about engineering geology in local or national newspapers or magazines could be maintained.

3.4 Internal relations (within the Geological Society)

The Engineering Group should continue to be actively and constructively engaged with the Geological Society at all levels in its structure and activities. In particular, the policy of retiring officers and committee members seeking election to Council should be continued.

The Group should strongly encourage the Geological Society to make CPD mandatory for Chartered Geologists³ and for this to be policed as rigorously as that undertaken by Chartered Engineers (see letter to the President of the Geological Society in Appendix 2). Assistance should be offered to the Society in policing CPD in engineering geology. Participation with the Society in creating and maintaining a portfolio of CPD training courses endorsed by the Society should be continued and stronger links should be developed with the Professional Committee to facilitate this⁴.

3.5 Training, teaching and research

The Engineering Group must become more involved in influencing the content of training, teaching and research at all levels in influencing the level of expectation of employers for properly trained individuals. It should seek vigorously to ensure that provision is enhanced and extended rather than contracted through withdrawal of support by NERC and other bodies. The quality and availability of research, training and development in engineering geology impact directly on the quality of engineering geologists and the benefits that they will provide to a project. This has a direct relationship to the status of engineering geologists.

3.5.1 Undergraduate courses

Some undergraduate geology courses include no or little engineering geological content, and appropriately qualified staff may not teach that which is offered. There are graduate geologists who have never heard of engineering geology. The Engineering Group should persuade the Geological Society that the validation of undergraduate courses must ensure that they include appropriate engineering geological content delivered by competent people. This means tuition by engineering geologists and not by soils engineers or structural geologists.

Geology is poorly taught in some civil engineering departments and this is where the 'rot' can set in as far as perception of the relative importance and worth of Chartered Engineers and Chartered Geologists in the workplace. The Engineering Group should work towards improving the standard of geological teaching to civil engineering undergraduates and proposes to set up a working party entitled 'Teaching Geology for Civil Engineers'. The objective of the working party will be to define a core curriculum of geology that a civil engineer must know and to recommend a syllabus for its delivery. This represents a further opportunity for promotion of the engineering geology in general and the Engineering Group in particular.

3.5.2 MSc courses

MSc courses in engineering geology are perceived to be under serious threat from withdrawal or severe curtailment of funding by NERC and EPSRC. The Engineering Group is wholly committed to doing everything it can to prevent these courses from disappearing or contracting. Participation

has begun with course providers, other members of the Ground Forum and the Geological Society to develop proposals for the future. There are two main short term objectives:

- To present a united front of influential interested parties (the members of the Ground Forum, course providers) to NERC and EPSRC to argue the case for the retention of these courses and to persuade them that alternative funding arrangements cannot be put in place in the short term;
- To persuade all those who employ engineering geologists that a reduction in the supply of suitably qualified graduates in engineering geology at MSc level will impact directly on their businesses. In this light, to develop with them a strategy for supporting these courses in the future.

It may be that there is continuing pressure to regard MSci and MEng courses as replacements for MSc courses in engineering geology and geotechnics, and that this will present a further threat to their future viability. It is already being recognised in engineering departments that MEng is no substitute for an MSc in geotechnics (although it may be a suitable model in structural engineering for example). The teaching resources (both in terms of skills and time) for the teaching of engineering geology and geotechnics at MSci and MEng level are not generally present in geology or engineering departments. The Engineering Group's input will be critical in ensuring that an adequate content of engineering geology and geotechnics is included in MSci and MEng courses and that the standard and content of engineering geological content in BSc courses is maintained. It should also work to ensure the future of the specialist MSc courses in engineering geology and their differentiation from MSci and MEng qualifications in the perception of employers.

3.5.3 Research

The Engineering Group should promote and encourage the formulation of a national strategic research plan for guiding engineering geology research and encouraging the establishment of centres of excellence. The application of established science and techniques to solving engineering problems is not being perceived by higher education departments and research councils as contributing to the advancement of science or as a contribution to knowledge and therefore bids for support to engineering geology activities are failing. The Group should take the lead by bringing together the users, funders, and providers of research to develop a national strategic research plan. This approach has been followed to good effect by the hydrogeologists. An essential starting point for progress on this issue will be identification of all the key players (users, funders, and providers of research). Maintenance of this list could be an important function of the Engineering Group, but it is likely that a body such as the Ground Forum would more effectively set it up.

Without research, engineering geology will lose credibility in universities and as a sub-discipline. Research also ensures debate, development and vitality and is closely linked to postgraduate training.

3.5.4 Training

The primary role of the Engineering Group in relation to training should be the identification of training needs amongst members and employers. Based on this, the Group should determine a national training strategy for engineering geologists at all stages of their careers and work to implement it. The Group may continue to organise courses using its own resources (and with the opportunity of a source of income) and it is committed to working more closely with the Geological Society's Regional Groups to develop and deliver courses. In addition, and through the GTCC, it will continue to identify suitable courses, especially in universities, and where there are gaps seek to procure development of suitable courses.

3.6 Meetings and conferences

Meetings and conferences have always been at the heart of the Engineering Group's activities.

3.6.1 Meetings

Meetings provide, and will continue to provide:

- opportunities to disseminate knowledge and to discuss current research topics;
- opportunities for continuing professional development and both specific and non-specific learning;
- a 'shop window' for the Engineering Group and engineering geology
- a networking and social dimension giving a sense of community and common purpose.

The Engineering Group will develop and enhance its meetings programme and the accessibility of meetings to engineering geologists in the regions by:

- restricting meetings in Burlington House to joint meetings with other Specialist Groups and Societies and 'crowd pullers' (e.g. meetings on current construction projects or geohazards),
- holding all other meetings out of London as joint meetings with the Regional Groups of the Geological Society (and regional groups of other institutions and societies);
- considering running the same meeting in more than one regional location;
- creating and maintaining a list of speakers on engineering geological topics prepared to speak at meetings of the Regional Groups;
- inviting the Regional Groups to participate in developing the annual meeting programme and encouraging them to keep the Engineering Group informed of their programmes;
- including flexibility in the meetings programme so that urgent meetings on current topics can be convened at short notice, and 'generic' meetings (e.g. on a natural disaster that had occurred recently) could be included;
- including meetings in the programme that seek to communicate important issues to other bodies (such as MPs, NERC, insurers, architects).

3.6.2 Conferences

Over recent years, it has become more and more difficult to break even on conferences organised by the Engineering Group. This is due to two main influences:

- Pressure of work on potential delegates and reduction in company budgets for attendance at such conferences, leading to problems attracting sufficient delegates to meet costs at a reasonable registration rate;
- Increasing costs at suitable venues driven by universities insisting on conference organisers using their administrative facilities and reduced possibilities for voluntary effort amongst the academic and student community.

The 1999 conference was cancelled in the light of inadequate papers and low delegate registration; it was judged that it would make a loss. The 1998 and 1997 conferences were planned to break even, but both made a loss, in contrast to the surpluses generated by previous conferences.

Rather than attempting to run conferences independently, the Engineering Group might consider seeking to participate with others in related disciplines to put on conferences no more frequently than every alternate year. Participation with one or more members of the Ground Forum (BGA or

IMM) may be a more attractive option than participation in the biennial Geoscience conferences organised by the Geological Society. There is currently a more significant 'synergy' between the members of the Ground Forum than there is between the Engineering Group and the more academic Specialist Groups in the Geological Society. The Engineering Group could pursue the idea of a biennial 'Ground' conference organised under the umbrella of the Ground Forum and with a theme of interest to at least two of the GF's constituent bodies. Following Geoscience 2000, discussions are ongoing in the Geological Society at Council and the Science Board relating to the future of Geoscience conferences. One idea being actively considered is that all Specialist Groups would be encouraged to hold their annual conferences or prestigious meetings during one week and at the same venue. The Geological Society would convene some larger, cross disciplinary meetings and events and would provide the administrative support for all such meetings. This might be an attractive model for the Engineering Group as it could allow us to run our own conference, offer reasonable registration fees taking advantage of economies of scale, and reduce the financial risks that we have previously run with stand-alone conferences.

In years when no independent Engineering Group conference was run, several one or two day meetings and/or symposia in print could be organised, with a theme for the year, leading to publication in QJEGH or as an Engineering Geology Special Publication.

3.7 Publications

3.7.1 QJEGH

The QJEGH is probably the world's premier journal of Engineering Geology. It is the Geological Society Journal of choice for most members of the Engineering Group and the Engineering Group must continue to see it as a responsibility both to support it editorially and to seek to attract high quality papers. The Engineering Group has a representative on the Editorial Board and it has recently been decided that this representative should normally be the vice-Chair. The following points relating to QJEGH have been raised during this review and need to be taken into account by the Committee in formulating policy and continuing to support the journal:

- There is a need for an index covering past issues;
- There should be more review articles;
- The Engineering Group would welcome more practical articles, although it is recognised that this should be tempered by the need to publish the theoretical research articles consistent with being the premier journal of engineering geology;
- Delays between submission and publication had in the past been 18-20 months and this was felt to be too long (although this has improved in recent years);

3.7.2 Working party reports

The working party reports are regarded as the 'jewels' in the Engineering Geology Special Publications series. They are 'best sellers' in the Geological Society Publishing House lists, and enhance the reputation of the Engineering Group and the Geological Society in the wider ground engineering community. The Geological Society Special Publications series, of which the Engineering Geology Special Publications are a part, are an important source of income for the Geological Society and further good quality proposals will be welcomed by the Publications Committee. There is some element of competition with reports published by other organisations such as the BGS and CIRIA, although the Geological Society publications are seen as being more 'reflective' and this role could be more clearly defined. There are also opportunities for co-operation with other organisations in the production and publication of Working Party reports, but this would not necessarily result in Geological Society Special Publications.

3.7.3 Conference proceedings

Engineering Geology Special Publications arising from past Engineering Group conferences are considered to be a valuable source of reference material. Whilst there has been a hiatus in these publications in the last two years with the recent demise of Engineering Group conferences, all who contributed to the discussion under this heading felt that a way must be found to re-start these publications. The Publications Committee has been much concerned with ensuring consistently excellent standards across the entire range of Geological Society Special Publications, and is acknowledged to have succeeded over the last 3 or 4 years.

The Engineering Group, guided by the Editor, Engineering Geology Special Publications, will need to take into account the following general guidelines if it is to submit successful proposals for publication of Special Publications arising from its meetings and conferences:

- The Geological Society will not now publish groups of papers as conference proceedings, although a conference (or group of meetings) is still the proposal to the Publications Committee for a Special Publication;
- The group of papers must have coherence as a book and this may be achieved by the inclusion of invited review and keynote papers to augment those presented at the conference and submitted for publication.
- The standards of reviewing and editing must be consistent with those set by the Publications Committee; there can be no guarantee for presenters at a conference that their papers will necessarily be accepted for publication.

3.7.4 Professional Handbooks

There is no value to the academic community in writing training manuals. They attract little or no status in academic circles and the time spent receives no career rewards. There has been reluctance in the Engineering Group to seek to commission Professional Handbooks, although an 'in principle' commitment from the Geological Society Publishing House that fees would be considered for authors.

Professional Handbooks could meet three particular needs consistent with the general objectives and 'vision' of the Engineering Group as set out in Section 2 of this review report:

- They could provide reference and course materials for training courses⁵ and for those working towards Chartered Geologist status;
- They could find a market amongst students and young professionals (in civil engineering and geology) as textbooks or reference books for those looking for practical guidance or an accessible introduction to aspects of engineering geology;
- If the legislative context of construction were to change so as to require engineering geologists to undertake certain tasks and to require proper attention to ground investigation by suitably qualified (possibly licensed) individuals, then such handbooks could be invaluable both to the specifiers of the work and to those carrying it out.

The Engineering Group should seek to find ways to support this initiative of the Geological Society. A first step would be to develop a 'wish list' of titles that might be attractive to engineering geologists and to identify suitable authors. Proposals would then need to be discussed with the Geological Society and remuneration discussed. The list of titles might usefully reflect the subjects of training courses in the past few years as well as those that are and will be under development, in order to produce a 'portfolio' of courses and complimentary publications to meet the needs of the profession.

4. FUNDING

Until 1995, Engineering Group conferences consistently returned surpluses of income over expenditure, some of which was returned to the Geological Society on an ad hoc basis. It is these conference surpluses that have allowed the Engineering Group to be financially independent for many years. Committees under the chairmanships of Martin Culshaw and John Charman decided to invest much of the fund that had been built up and use the income from it to set up and fund the Glossop Lecture. The Geological Society's fund managers manage this investment fund. It was expected that future conference surpluses would be added to the investment fund so that, after a few years, the Glossop Lecture would be self-supporting from the fund alone. There have been two conferences since 1995 (Coventry 1996 and Newcastle 1997), both of which have made losses. The 1999 Conference was judged not to be viable and it was cancelled before it took place (with some unrecoverable cost as a result). The investment fund has not grown since the surplus from the 1995 conference (Portsmouth) was added to it, and the cost of the Glossop Lecture exceeds the annual income from it. The Group's 'liquid' assets are now at a level such that, during the coming year, investments may have to be sold to fund the Group's activities, including the Glossop Lecture, in the absence of any other income.

The current Committee considers that the absolute priority should be to continue with successful Glossop Lecture series. These are, however, expensive and a large proportion of the expense relates to administrative support from the Conference Office and publicity. A sensible course of action would be to pass the financial risk associated with the Glossop Lecture to the Society. The adoption of the Glossop Lecture as one of the Geological Society flagship meetings would pass administrative responsibility and responsibility for publicity to the Geological Society, whilst retaining control over the choice of lecturer and organisation of the event within the Engineering Group. This has been suggested and the idea has been well received in exploratory discussions with Officers of the Society, but the details need to be negotiated and the financial implications assessed on both sides. The idea would be that a proportion of the investment fund would be retained under the Group's control to fund its ongoing activities for a period to be determined, and the remainder would be absorbed into Geological Society funds. However, it is clear that the retained monies would only last for a finite period and that there is a need to generate modest sums in the future in some way.

It will be for the next Committee to determine how it will meet the financial needs of the Group in the short and medium term, but implementation of the strategic objectives set out above provide some opportunities for the future.

5. A MECHANISM FOR IMPLEMENTATION AND REVIEW OF GROUP STRATEGY AND MEASURING PROGRESS

5.1 The Committee - ensuring continuity between successive Chairs

Chairmen of the Group serve on the Committee for 4 years in total; 2 as Vice-Chair and 2 as Chair. The current Committee has assigned defined roles to the Vice-Chair to enable him or her to be aware of, and involved in, strategic issues at an early stage, thus aiding the transition to the full Chairmanship and all the duties that this entails. These roles include representation of the Group on the QJEGH Editorial Board, the BGS/BGA Committee (subject to the approval of the nomination by Council) and the GTCC6. These are all strategic roles which are not particularly time consuming and will enable him or her to prepare for taking the Chair (which is particularly time consuming!).

5.2 The Committee - organisation of Committee business

The current Committee has reduced the number of standing items on its agendas for Committee meetings, encouraged more written reporting from sub-committees, and programmed committee business through the year. This has four advantages:

- Meetings are kept to a manageable length and important business does not get 'bounced' off the bottom of an agenda because we run out of time;
- Ex-officio and co-opted members can attend selectively when matters that concern them directly are under discussion (although they are always welcome to attend any meetings they wish);
- 'Seasonal' business (such as the Glossop, ratifying the meetings programme and discussion of awards) is programmed at an appropriate time of year, thus avoiding missing deadlines.

Committee meetings are generally held monthly in London between September and May (excluding April). The September meeting has been designated as a planning and strategy meeting for the coming year, at which sub-committee responsibilities and the year's committee business are finalised.

5.3 Wider involvement of the membership

In order further to assist forward strategic planning and continuity, it is proposed to hold regular strategy meetings or 'Party Conferences' in order to ensure that a rolling review of the strategic plan for the Group is achieved and that the members at large can have a say and a feeling of involvement. The group that discussed this matter on 3 November thought every 3-5 years would be appropriate. In order to give every future Chairman an opportunity to consult with the membership on priorities and strategies in preparation for and during his or her term of office, such 'party conferences' should possibly be held every two years. It is provisionally suggested that future 'Party Conferences' should last a full day and be organised every two years, midway through each Chair's term. It is suggested that meetings should take place between May (date of the AGM) and October (start of the new season of technical/scientific meetings). On this basis, every Chairman would be involved in two such meetings during their period on the Committee; firstly, a year before taking the Chair and secondly halfway through their term as Chair.

It may be that more modest events involving only the committee, immediate past, current and future Officers could alternate with larger events open to the wider membership if it were felt that the convening of such meetings every 2 years was too onerous.

A simple first step in introducing more of a sense of 'membership' is to communicate more directly with the members rather than relying on Geoscientist with its limitations on space and content and impossibly long copy deadlines. This would be expensive if attempted by post (there are currently around 2,000 members of the Engineering Group). However, new developments with computing capability and the membership database at the Geological Society mean that it will soon be possible to e-mail every member of the Engineering Group that has an e-mail address in one go. The cost of surface mail to the members who cannot be contacted in this way should be relatively small.

5.4 A strategy group

It might be advantageous to set up a strategy group comprising, for example, retired officers of the Engineering Group, to assist and support successive committees in progressing strategic planning and implementation. This group could, with the dual benefits of distance from the day to day running of the Group (objectivity) and the experience of its membership serving on the committee be tasked with assessing progress against plans and strategies developed by the committee with or without participation from the membership.

RUTH ALLINGTON

CHAIR OF THE ENGINEERING GROUP OF THE GEOLOGICAL SOCIETY OF LONDON

MAY 2000

APPENDIX 1

TEXT OF RUTH ALLINGTON'S INTRODUCTION TO THE MEETING AND PAPERS CIRCULATED TO PARTICIPANTS ON 3 NOVEMBER 1999

INTRODUCTION TO THE SPECIAL MEETING OF THE ENGINEERING GROUP, 3 NOVEMBER 1999

11.00-11.15 WELCOME AND INTRODUCTION

Ruth Allington, Chair

Welcome to this special meeting of the Engineering Group and thank you all for coming. For those of you who do not know me, I am the current Chair of the Engineering Group. I will complete my term of office in May 2000 at the AGM, when Dr. Kevin Privett will take the Chair. His vice-Chair and chair elect will be Rodney Chartres. All three of us are here and very much looking forward to hearing your views on how we should take the Engineering Group forward. Many members of the current Engineering Group Committee are also here, both to listen and to participate.

The response to my invitations to attend has been overwhelmingly positive both from those of you who are here and from those who are unable to attend.

I would like to extend a particularly warm welcome to representatives from the Regional Groups of the Geological Society. The Regional Groups of the Geological Society grew out of the Institution of Geologists and the vast majority of active members are Engineering Geologists, Hydrogeologists, Extractive Industry Geologists, or Environmental Geologists. Our relationship with these groups has been 'hit and miss' for too long in my opinion. If we achieve nothing else today, I would hope that we would begin a process of strengthening links between the Engineering Group and these Regional Groups in a variety of ways, to everyone's benefit, most notably the Geological Society itself.

The cancellation of our conference this year represented a turning point for the Engineering Group and has encouraged us to consider our situation and our future in detail. The prospects are far from gloomy, however. The Glossop Lecture this afternoon, our active programme of technical meetings, and the active Working Parties are three examples of why this is not so. We are discussing how we should change and adapt to the circumstances in which we find ourselves. The cancellation of the conference was certainly a setback, but the opportunity that this has presented to re-vitalise and re-think cancels the disappointment out, at least to some extent.

The idea is that we spend most of the meeting discussing (and attempting to agree) how we want the Group to be and what we want it to do. There are wider questions, some of which I listed in my letter, and these may be relevant to our discussions. However, to keep the discussion to manageable proportions, I do want to concentrate on the activities and priorities of the Engineering Group rather than Engineering Geology in general.

By the end of the meeting, I want us to have moved towards some sort of consensus about the Group and its activities over the next 5 years or so. Essentially, I am looking for a 'wish list' from the membership, it will then be for the committee to take forward these recommendations and seek to implement them.

We will need to spend some time thinking about how we do things at present in order to establish whether we prefer to carry on as we are or whether we wish to change things. I do not want to concentrate on how we arrived at the situation we are currently in and what is wrong/right about that. Similarly, there will not be time to indulge ourselves in nostalgia during the meeting (but I am sure those of us who feel that way will be able to find kindred spirits over lunch or outside the meeting). I do not want us to get bogged down in the detail of how we will get to where we want to be and raising obstacles to meeting our objectives. These are problems for the Committee to solve once the ideas have been generated.

You have a programme in front of you, on which you will see that there will first be four short presentations that will set the scene. These will cover the following topics relevant to the general context of Engineering Group activities:

- What is engineering geology and how is it changing (if at all?)
- What is the current state of engineering geological education and geological education for engineers?
- What is the current status of engineering geologists and how are they represented?
- How much money do we have, what do we spend it on, and where does it come from?

After these presentations, the meeting will divide into four discussion groups on the following topics:

- Meetings (facilitator Ivan Hodgson, reporter Laurance Donnelly)
- Conferences (facilitator Paul MacMillan, reporter Ian Nettleton)
- Publications (facilitator Mike Rosenbaum, reporter Max Barton)
- Representation and promotion of Engineering Geologists (facilitator Martin Culshaw, reporter John Lewis)

Attached to your programme you will find papers listing issues that may be discussed in each of the groups. These lists are not exhaustive or prescriptive; they are merely provided to stimulate discussion. We have circulated all of the papers to everyone and you have them with your bundle. As to how we divide you up,

..... (seek advice from facilitators before meeting).

Each of these discussion groups will report back to a plenary session after lunch and, for those who can stay on, there will be an opportunity for open discussion on each of these topics.

I will prepare a paper following the meeting with the assistance of the committee and all those who have assisted in running the meeting today. This will take a little time to put together but will be circulated to all of you here today. Eventually, a short paper will be prepared for wider dissemination amongst the Group, setting out a strategy for the Engineering Group over the next 5 years.

RA

1 November 1999

DISCUSSION ISSUES RELATING TO REPRESENTATION AND PROFESSIONAL RECOGNITION

Facilitator: Martin Culshaw

Reporter: John Lewis

1. Recognition by employers

- Are engineering geologists adequately recognised as a separate professional discipline from geotechnical engineers? Does it matter?
- If it does matter, how can we persuade employers and professional colleagues to recognise engineering geologists properly and provide adequate opportunities for professional development?
- Should we be thinking about a set of seminars, or just a presentation, to take around to employers 'selling' the importance of engineering geologists? Perhaps an information pack written by the Engineering Group but sent out by the Society would be a good start?

2. Recognition by other professions and internationally

- Has parity with geotechnical engineers in terms of mutual recognition had any practical effect? If not, why not?
- If the hydrocarbons and mining industries attach little importance to Chartered Geologist status will it ever be taken seriously?
- Is EurGeol of any value and if not, why not? Why have so few Chartered Geologists taken it up?

3. Training

- Should we be seeking to persuade the Geological Society to make training to Chartered status and CPD mandatory? Can we do this? Would this help with employers?
- How can we support Regional Groups in training needs for their members and how can they assist us? Perhaps the Engineering Group could provide a catalogue of 'off the shelf' training courses which Regional Groups or companies could 'purchase'.
- How many training courses should the Group be running on an annual basis? Where, how should they be financed, what subjects? Should we be running courses or just 'badging' and promoting them or should we do both? (the Geological Society is very keen for us to do as much as possible in this area and wishes to produce a dynamic list of courses offered by Specialist Groups).

4. Issues for the Geological Society

- Should we be pressing to be represented on the Professional Board instead of, or as well as, the Science Board? Regional Groups are currently represented on the Professional Board and not on the Science Board. Is this helpful to communication and does it adequately recognise that both Regional Groups and the Engineering Group have professional as well as scientific interests.
- Should the Society be more active in selling Chartered Geologist status to both Fellows and employers? If so, how?

DISCUSSION ISSUES RELATING TO MEETINGS

Facilitator: Ivan Hodgson

Reporter: Laurance Donnelly

1. How many technical meetings each year?

- We currently have six ordinary meetings (October, December, January, February, March & May), the Glossop Lecture in November and a field meeting in April.

2. Is the emphasis and style about right?

- Perhaps we should include some training/seminar type meetings more suitable for students and young professionals? All current ordinary meetings are similar in style and format. What other styles and formats would be attractive and appropriate?
- Why do people come to meetings - to learn from speakers and solve problems? To make and maintain contacts? As a social forum for the Group?
- Why do people stay away - pressure of work? Insufficient encouragement at work? Subjects not appropriate? Locations not helpful? Subjects too specialised or not specialised enough

3. Joint meetings

- Is the number of joint meetings about right or should we seek to make every meeting a joint meeting?
- Which groups and organisations should we run joint meetings with regularly and occasionally?

4. Location of meetings

- How many should be in London and how many elsewhere?
- Is there scope to develop a theme over several meetings in more than one location?

5. Lecture or meeting tours?

- Is there scope for having the same meeting in different locations (e.g. once in London and again with one of the Regional Groups)? Is there anything to be said for having a prestigious lecture tour following the Glossop Lecture to far flung regions, or would that diminish the London audience?

6. Meeting length and timing

- Few of our technical meetings last for more than half a day; what scope is there for longer meetings? What about meeting length and start times vs people getting away from work to come? Does this depend on location of the meeting?

7. Field meetings

- We currently have one a year over a weekend in April - could we/should we have more?
- Should there be a more overt training element in any of these meetings?
- Is this another opportunity to work more closely with the Regional Groups in organising and promoting field meetings?
- Is their primary purpose social or academic or are we aiming for a mix or for a range of such meetings with different emphases?

8. Training

- Should some of our meetings have an overt training objective or should this be a separate activity of the Group?

DISCUSSION ISSUES RELATING TO CONFERENCES

NB THE MEETINGS AND CONFERENCES DISCUSSION GROUPS WERE JOINED TOGETHER AND THERE WAS NO DETAILED DISCUSSION OF CONFERENCES EXCEPT IN THE PLENARY SESSION FOLLOWING THE DISCUSSION SESSIONS.

Facilitator: Paul MacMillan

Reporter: Ian Nettleton

1. Engineering Group 4 day Conferences

- Can we/should we present our own stand-alone conferences in future? If so, how often, at what time of year and how do we make them successful financially and scientifically?
- How much are people prepared to pay? How long will they want to attend for? Is it best to include weekends or to avoid them? Why do people come and why do they stay away?
- What would present an attractive format for speakers/delegates/trade exhibitors? Is it possible to please all groups - this was attempted at EG99 with two days of 'traditional sessions' and two days with a training/CPD emphasis, one at BGS and one in the field. Would the 'tried and tested' 4 day format attract delegates and speakers again? If so, what would make it work? Could there be a number of themes in one conference?
- Are there conference subjects from the past that should be re-visited? Have recent subjects been too specific or too open? Is there a place for 'state of the art' reviews?

2. Alternative models for Engineering Group Conferences

- If we want to do 'our own thing' in future, is a viable alternative to a four day conference to select a theme for each year with 3 or 4 one or two day themed meetings in the regions throughout the year leading to a Special Publication?
- Could the theme of a set of meetings be linked to the Glossop Lecture, culminating with (or starting with) the lecture itself?
- Could a short conference or 2 day meeting be convened in tandem with the Glossop Lecture?

3. Conferences run jointly with others

- If we work with others, who are our audience and potential collaborators?
- Is a multidisciplinary 'ground' conference organised jointly by the participants in the Ground forum (EGGS, IMM, BGS/BGA, AGS, BTF, FPC) a viable proposition (e.g. biannually)?
- Should we develop a closer relationship with IAEG, and is it practical to organise the Congress in 2006?
- Are there other ideas, or would some combination of these ideas be appropriate, e.g. participation in something big leading to a Special Publication every two years alternating with 3 or four one or two day regional meetings leading to published papers in QJEGH.

4. Geoscience Meetings

- Given the 'cultural' differences between the Engineering Group and more academically based Specialist Groups in the Society (especially their insistence on very low registration fees - £100 for four days), is there any point in us continuing to be involved in future Geoscience meetings?

- Currently our involvement comprises the running of technical meetings that we might have convened anyway but for which members would not have had to pay a registration fee (around £50 for a day at Geoscience 2000). On what 'terms' would we run a conference or extended meeting in association with Geoscience 2002? How should this be different from our general meetings programme? Is it worth the effort?

APPENDIX 2

COPY OF A LETTER TO THE PRESIDENT OF THE GEOLOGICAL SOCIETY DATED 20 DECEMBER 1999 SETTING OUT THE ENGINEERING GROUP'S RESPONSE TO THE CHARTER AND BYE-LAWS WORKING PARTY REPORT

Please reply to: BURLINGTON HOUSE

Ruth Allington PICCADILLY

Chair, Engineering Group LONDON W1V 0JU

Geoffrey Walton Practice

Oxford House, Market Street 0171 734 5673 (library)

Charlbury, OXFORD, OX7 3PH

Tel: +44 1608 810374

Fax: +44 1608 810093

e-mail: allingtonr@aol.com or gwp@gwalton.compulink.co.uk 20 December 1999

File ref: rc181299.let.rk.doc

Dr. Robin Cocks, President The Geological Society, Burlington House, Piccadilly LONDON W1V 0JU

Dear Robin

Charter and Bye-Laws Working Group

I was sorry not to be able to attend any of the special meetings on the above. Unfortunately, the dates were advised rather late and clashed with commitments I already had in my diary.

However, at our last Engineering Group Committee Meeting, (7 December) we did discuss the matter and we had the benefit of a short presentation from Rodney Chartres, which was most helpful.

The main outcome is that we have no hesitation in supporting the proposed amendments to the Bye-Laws, obviously with minor amendments to detail in the light of discussions and meetings held since the report was published. We had a more lengthy discussion regarding the status of CGeol. As you will appreciate, the issue of Chartered Geologist status, and its standing and relative merit in the wider world (especially in relation to CEng) is of great concern to us. We decided in the end that Chartered Geologists would be best served by retention of the existing

Charter, rather than seeking a supplemental charter. The risk of loss of our current status as a Designated Authority clearly needs to be weighed against all of the disadvantages of securing a Supplemental Charter and being answerable to the Privy Council with the possibility of other chartered institutions having a "say" in our affairs.

Professional matters are a central issue to many of the Fellows, and this is true of most of the Fellows in the Engineering Group (around 25% of the total Fellowship). Geologists in applied fields such as engineering geology and hydrogeology also dominate the Regional Groups. We will be pushing the Society hard to raise the standard and status of CGeol and have it recognised as worthwhile by others. We will be arguing for mandatory CPD for Chartered Geologists as part of this drive to maintain and increase standards. We are particularly committed to ensuring that CGeol is even more widely recognised as equivalent in standing to CEng, especially amongst the engineering community. If we do not do this, ICE will create routes to CEng for engineering geologists who currently cannot attain this status within the ICE. IMM have already taken this step and the effects will start to become apparent before very long. If we are not to lose Fellows to other institutions, and particularly to the ICE, we must be sure that CGeol is just as desirable as CEng, and that its requirements for qualifications and maintenance are at least as stringent. If we can achieve this, there will be a genuine choice of Learned Institutions based on suitability of that institution for the person applying. Currently, many geologists who join the Geological Society and work towards CGeol would prefer to have CEng as it is better recognised and supported within the construction industry. For the time being, many with a first degree in geology cannot choose the CEng route, but this is changing. The likelihood of attaining a professional qualification with importance to career progression tends to outweigh all other considerations. If the choice of attaining CEng becomes available to these people, they may not stay in the Geological Society (or their employers may cease to support them by paying their subscriptions) unless we attend to these matters. In short, we need to persuade geologists and their employers that CGeol is both more relevant and more desirable to them than CEng. Our understanding is that nothing in the current Charter, re-drafted Bye-Laws or legislation prevents the Geological Society from progressing this.

We understand that Designated Authority is only relevant in relation to mutual recognition of qualifications between States. Whilst it would be highly undesirable to lose it, we urge the Geological Society to seek an accommodation with the DTi through calm negotiation rather than seeking a Supplemental Charter. This seems likely to be a mutually acceptable means to solve this potentially embarrassing situation.

We have always taken the view that there need not be tension between professional matters and academic matters within the Geological Society. The raising of the profile and importance of professional matters need not (and must not) compromise all of the other work of the Society. Indeed, mandatory CPD and proper recognition of CGeol as a professional qualification in the wider community seem to us to sit very comfortably within the requirements of charitable status of the Society, as well as with the over-arching objective of furthering education and public safety.

The Engineering Group hopes that Council will adopt the report and support the revised Bye-laws. The Working Group is to be congratulated on a fine, painstaking piece of work presented under cover of a clear and helpful report.

Yours sincerely

Ruth Allington

cc. Rodney Chartres

John Knill (Chairman of Charter and Bye-laws working group)

Edmund Nickless (Executive Secretary)

Andrew Pitchford (Secretary, Engineering Group)

Peter Styles (Professional Board)

ENGINEERING GROUP COMMITTEE, MAY 1999 TO MAY 2000

OFFICERS

Ruth Allington Chair

Dr. Kevin Privett Vice Chair

Dr. Andrew Pitchford Secretary

Dr. Graham Garrard Treasurer

ELECTED MEMBERS

Mr. Ian Marychurch Chair Publicity sub-committee

Mr. Ivan Hodgson Chair, Meetings sub-committee

Dr. Laurance Donnelly

Mr. David Entwisle

Dr. Jim Griffiths

Dr. John Lewis

Mr. Paul McMillan

Mr. David Patterson

Mr. Peter Phipps

Mr. George Reeves

EX-OFFICIO MEMBERS

Mr. Rodney Chartres IAEG UK secretary

Dr. Max Barton Editor Engineering Geology Special Publications

Dr. Graham West Rep. for Clay Working Party

Prof. Chris Clayton Scientific Editor, QJEGH

Mr. David Giles Field meeting convenor

1 Any Fellow of the Geological Society of London can be a member of the Engineering Group, simply by advising Burlington House of their interest in engineering geology.

2 It is noted that the new Quarries Regulations (September 1999) identify Chartered Geologists as of equivalent status to Chartered Engineers and require that Geotechnical Specialists with one of these qualifications (and relevant experience) are used for defined investigations and reporting. Progress is being made by members of the Ground Forum to include similar provisions in the Building Regulations.

3 This would apply only to Chartered Geologists who were not retired.

4 Currently the Group is represented, together with other Specialist Groups on the Science Committee and not the Professional Committee. Given the Professional Committee's responsibilities, inter alia, for CPD and for the Regional Groups, the Engineering Group should argue a case for it (and other Specialist Groups for which this would be relevant) to be represented on both. Alternatively, the Engineering Group should press for there to be more obvious co-ordination between the two Council committees and clearer communication between the Professional Board and the Specialist Groups.

5 They could not arise from course materials for such courses without considerable additional effort from the course providers.

6 Geotechnical Training Co-ordination Committee.

Report on Engineering Group Strategy Review

November 1999 to January 2000