

GUIDING PRINCIPLES FOR THE PRACTICE OF SOCIAL ASSESSMENT IN THE AUSTRALIAN WATER INDUSTRY

*Kym Seebohm*¹

INTRODUCTION

Arguably the most significant event to date in the growing applied social science field of social assessment (SA)—a term the author prefers with similar reasons as argued by Taylor, Bryan, and Goodrich (1995) as opposed to social impact assessment (SIA), to overcome the often negative associations attributed to the word *impact*—was the publication in the United States of *Guidelines and Principles for Social Assessment* (Inter-organizational Committee 1994). These guidelines and principles provide clarity to the methodological and conceptual approaches developed to date on SA. Since the Santa Barbara oil spill incident, which provided stimulus for the passage of the National Environment Protection Act of 1969 (NEPA) in the USA, and the first meeting in 1973 of academics and practitioners of social impact assessment (SIA) at the annual meeting of the Environmental Design Research Association (EDRA), where a paper presented by Johnston

¹ Kym Seebohm is part-time Ph.D student in the Department of Geography and Oceanography, University College, University of New South Wales, Australian Defence Force Academy. GPO Box 1871. Canberra ACT 2601 AUSTRALIA: tel: +61-6-0412-100366; fax: +61-6-274-1006; email: <kseebohm@dest.gov.au >. His research is on a social assessment of Sydney Water' Welcome Reef Dam proposal. Financial support for this research, which includes this article, is provided by the Urban Water Authority of Australia (UWRAA), a division of the Water Services Association of Australia (WSAA). This article is based on a paper presented at the 17th Annual Meeting of the International Association for Impact Assessment (IAIA), New Orleans LA USA, 25-31 May 1997. Mr Seebohm is employed as Senior Officer, Portfolio Marine Group, Environment Australia, part of the Department of the Environment, Sport, and Territories (DEST), Canberra. The content of this article does not reflect the views or the official position of the agencies, educational institution, or professional organizations referred to.

and Burdge (1974) can be regarded as the first tentative outline of a SIA methodology, the United States has been at the forefront, worldwide, in contributing to the development of SA. While the Guidelines and Principles have been well received, they provide only a generic prescription for the practice of SA. The next step required to be pursued by academic and practitioner is to use these Guidelines and Principles as a basis for the development of specific sectoral approaches to the practice of SA.

This article provides a discussion on the limitations in currently accepted “state of the art” SA practice through an analysis of the major developments in the history of SA practice in the United States and Australia. Further discussion outlines the general institutional barriers to the practice of SA cited by its practitioners and identifies specific constraints to the improved adoption of SA practice in the Australian water industry.² Initial guiding principles for the practice of SA in the Australian water industry are proposed in addition to initial strategies for the institutionalization of these guiding principles in the water industry.

BACKGROUND

Development of Social Assessment in the United States

The first significant event globally in the history of SA occurred in 1973 in the United States with a formal gathering of academics and practitioners of SA at the annual meeting of **EDRA** in Milwaukee, Wisconsin. At this meeting Johnston and Burdge (1974) presented their initial thoughts on the way forward for the practice of SA. Before this time the earliest forms of SA can be traced to the 1930s with the practice of cost/benefit analysis, and more recently, since the 1950s with SA developing out of environmental impact assessment (EIA) and technology assessment (TA). A number of SA academics have provided good historic overviews of SA in the United States including, amongst others, Finsterbusch (1980), Freudenburg and Keating (1982), Caldwell (1988), Burdge (1994), Taylor et al. (1995), and Vanclay and Bronstein (1995).

² The water industry is defined as providing, as core business, metropolitan and rural potable water service supplies, wastewater disposal, and reuse and drainage services.

Significant events in the history of SA in the United States since the passage of NEPA include the 1978 evaluation of the implementation of NEPA and resulting regulations for the preparation of environmental impact statements (EISs) (CEQ 1978), the foundation in Toronto in 1981 of the International Association for Impact Assessment (IAIA) at a meeting of the American Association for the Advancement of Science (AAAS), a major review of EIA in 1980, and the publication of *Guidelines and Principles for Social Impact Assessment* (Interorganizational Committee 1994). The field of SA has grown rapidly during this period with a cognizant growth in the literature. Select contributors to the development of the SA literature in the United States, and subsequently having an influence further afield, include Wolf (1975 1976; 1977), Bowles (1981), Finsterbusch and Wolf (1981), Branch et al. (1984), Freudenburg (1986), Burdge (1987) and Murdock, Leistritz and Hamm (1986a, 1986b). This literature concerns the conceptual/theoretical basis for doing impact assessment, various methodologies for assessing socio-economic impacts, and the description of general types of impacts likely to result from large-scale projects.

Development of Social Assessment in Australia

NEPA was a catalyst in many developed countries, including Australia, for the promulgation of EIA legislation. This occurred at the Commonwealth level in Australia with passage of the Environmental Protection (Impact of Proposals) Act 1974 and associated administrative procedures. Amendments to the act were made in 1987. The act makes a clear distinction for the need to consider potential impacts on the natural environment, the built environment, and social aspects of our surroundings.

In 1991, the Ministers of the Australia and New Zealand Environment Conservation Council (ANZECC) published a report in response to calls for greater uniformity in the approach to EIA in Australia (ANZECC 1991). This report outlined a framework of principles and practices for the conduct of EIA to be implemented progressively. A major outcome of this report was the negotiation with states and territories, through an intergovernmental agreement on the environment (IGAE), of uniform Guidelines and Criteria for Determining the Need for and Level of Environmental Impact Assessment in Australia (ANZECC 1996). A major process contributing to the development of the ANZECC guidelines was a comprehensive review of the Commonwealth's EIA legislation announced in late 1993. One component of this review included the commissioning of six studies to examine various facets of current EIA practice, and make recommendations for improvement.

Completed in late 1994, two studies of relevance to this article include the assessment of cumulative impacts and strategic assessment in EIA (Court and Associates 1994) and a review of SIA (BBC Consulting Planners 1994).

It was not until the early 1980s in Australia that academic interest grew in the field of SA. This interest took the lead from developments in the United States, Canada, and New Zealand. As Taylor et al. (1995) point out, Australia was very active in developing new approaches to the practice of SA, particularly with indigenous Aboriginal and Torres Strait Islanders (Craig 1989; Howitt 1989, 1994; Craig and Ehrlich et al. 1996). Contributions of note have also been made on institutional bases for SA, including community consultation (Wildman 1985; Wildman and Barker 1985; Hindmarsh et al. 1988; Beckwith 1990) and the provision of student and practitioner texts on SA (Vanclay and Bronstein 1995). The consideration and promotion of SA in sound environmental planning have been the subject of periodic discussion by academics and the Australian water industry. The first and, to date, most significant event occurred in 1986 at a workshop organized by the Centre for Resource and Environmental Studies (CRES) which resulted in a discussion paper, "The evaluation of social impact assessment in Australian water resources management" (Syme and Robinson 1986). Other Australian water-related studies in the area of SA include Boddington et al. (1989), Handmer et al. (1991), and Day (1994, 1996).

DISCUSSION

Limitations in Currently Accepted Social Assessment Practice

Looking back over the 28 years since the passage of NEPA and the subsequent development of SA as a subfield of EIA, we can begin to understand the present-day limitations in accepted SA practice. This article takes as given that, in the United States, the "Guidelines and principles for social impact assessment" (Interorganizational Committee 1994) represent the current state of the art" in SA. In Australia, which has not yet developed specific SA guidelines and principles, the state-of-the-art in SA practice is considered to be the "Guidelines and criteria for determining the need for and level of environmental impact assessment in Australia" (ANZECC 1996).

While NEPA was the major catalyst for an explosive growth in the field known today as EIA, the original act in 1969 provided a vague set of

requirements that included “integrated use of the social sciences in assessing impacts on the human environment” (Interorganizational Committee 1994 109). NEPA described in the most general terms what “environments,” “disciplines,” and “techniques” should be employed to carry out an environmental assessment. It was not until the injection of conceptual, theoretical, and methodological developments deriving from professional practice and academia that the vague and generic descriptions in NEPA were broadened to encompass more specific qualifications and directions.

This development was embodied in the Council on Environmental Quality’s Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (CEQ 1978). However, while the CEQ regulations provided more specific direction so the “human environment...[could be] interpreted comprehensively...to include aesthetic, historic, cultural, economic, social, or health effects whether direct, indirect, or cumulative” (Interorganizational Committee 1994: 110), the regulations were still unsatisfactory because economic or social effects could not, by themselves, trigger the preparation of an environmental impact statement (EIS) under NEPA.

A major basis for actual practice in the United States is contained in the guidelines prepared by the Interorganizational Committee (1994): the nine principles for SIA (figure 1). Overall, these principles provide a good generic basis for the development of more sectoral and country-specific guidelines and principles. A careful analysis of the descriptions given with the nine principles, however, reveals some instances of implicit contradictions in the list.

Additionally, too much emphasis in these guidelines is placed on limited time and resource constraints and the subsequent need for the SA practitioner to get into perspective what realistic contribution can be made to the overall **EIS** process. This theme, which is both implicit and explicit in the guidelines, makes a number of underlying assumptions about EIS planning, project management, and equity in the distribution of resources towards the various elements of an EIS (for example, the socioeconomic components of an EIS are underplayed compared to biophysical aspects). These assumptions in the guidelines and principles undervalue the important role SA should play in the EIS process.

To clarify these suggested overall limitations in the guidelines and principles, a number of specific comments are required on several of the nine principles

put forward by the Interorganizational Committee. Principle **5**, *providing feedback on social impacts to project planners*, describes the informal feedback process that is often carried out with project planners before release of the draft **EIS** for public consultation (Interorganizational Committee 1994: 143). The description of this principle does not propose any mandatory requirement for the provision of social effects information to project planners. Emphasis on a mandatory social impact feedback requirement to project planners should be provided to ensure acceptable project planning and the identification and minimization of any potential conflict within the community before consulting with that community on the impact of the proposed project.

Principle **9**, *plan for gaps in data*, places too much emphasis on time and resource constraints (owing to the often-limited time available to prepare an **EIS**) and, in so doing, downplays the contribution social scientists should make to the environmental assessment process. The description of this principle recommends concentrating on available socioeconomic secondary data, not the collection of primary data, because of time and resource constraints. Additionally, again because of time and resource constraints, where a certain level of data is available, this principle suggests it is not always necessary to employ social science expertise when undertaking an **SA** (Interorganizational Committee 1994: 148).

This recommendation also contradicts principle **6**—*use SIA practitioners*. A major concern in this recommendation is in determining whether a satisfactory level of information is available. It can be argued that only a social scientist is capable of undertaking this task and, therefore, it will *always* be necessary to employ social science expertise in undertaking an **SA**. The real question at hand is not should I or shouldn't I employ social science expertise, but to ascertain the level of involvement of this expertise in an **SA**. The description of principle 9 also notes that "it is important to be on the 'conservative' side in reporting likely social impacts" (Interorganizational Committee 1994: 147). This statement, mindful again of time and resource constraints, underplays the importance of the entire **SA** process and does not support the need for a rigorous assessment.

Figure 1. Principles for social impact assessment

1. **Involve the diverse public**
Identify and involve all potentially affected groups and individuals.
2. **Analyze impact equity**
Clearly identify who will win and who will lose and emphasize vulnerability of under-represented groups.
3. **Focus the assessment**
Deal with issues and public concerns that really count, not those that are easy to count.
4. **Identify methods and assumptions and define significance in advance**
Define how the SIA was conducted, what assumptions were used, and how significance was selected.
5. **Provide feedback on social impacts to project planners**
Identify problems that could be solved with changes to the proposed action or alternatives.
6. **Use SIA practitioners**
Trained social scientists employing social science methods will provide the best results.
7. **Establish monitoring and mitigation programs**
Manage uncertainty by monitoring and mitigating adverse impacts.
8. **Identify data sources**
Use published scientific literature, secondary data and primary data from the affected area.
9. **Plan for gaps in the data**

Source: Interorganizational Committee 1994: 142

As this article has noted, the state of the art in SA practice in Australia is represented by the *Guidelines and Criteria for Determining the Need for and Level of Environmental Impact Assessment in Australia* (ANZECC 1996) which are grounded heavily in the context of ecologically sustainable development (ESD). Unlike the United States, Australia has not developed specific SA guidelines and principles. The ANZECC (1996) Guidelines and Criteria, however, provide a good basis upon which specific SA guidelines and principles can be developed. They provide a range of criteria and checklists for undertaking an EIA. Attachments deal specifically with the human character of the receiving environment, the resilience of communities to cope with change, and potential human impacts including cumulative impacts. Until Australia develops nationally specific and consistent standards of practice for SA, the professional consideration of socioeconomic issues

and dynamics will remain underrepresented in the macro EIA process compared to the consideration of aspects of the biophysical environment.

The ANZECC Working Group on National Environmental Impact Assessment, established to develop the Guidelines and Criteria, comprised representatives from all states and territories in addition to industry representatives. The Western Australian Social Impacts Unit, now abolished, was a member of the working group. Notably absent from the working group, with a resultant effect on the present content of the Guidelines and Criteria, were industry representatives for the Australian water industry, including the Major Urban Water Authorities of Australia (MUWAA) and the Australian Water and Wastewater Association (AWWA). The Institute of Engineers Australia and Western Australia Water Authority (WAWA) were represented, however.

Institutional Barriers to the Practice of Social Assessment in the Australian Water Industry

Despite the advancements made in the United States and Australia seeking to institutionalize SA practice as an integral component of the EIA process, the recently released final report of the *International Study of the Effectiveness of Environmental Assessment* (Sadler 1996) identified SA as an area that is inadequately treated in the EIA process.

The SA literature cited elsewhere in this article provides a broad discussion on the institutional constraints to the practice of SA. These institutional constraints—the patterns of behavior, values, and beliefs held by the bureaucracy, project proponents, and other SA stakeholders—includes difficulties in applying social science to SA, difficulties with the SA process itself, problems with the procedures applying to SA, and the prevailing “asocietal mentality” (that is, human impacts are inconsequential) (Vanclay and Bronstein 1995: 44–47). Rickson et al. (1990), in particular, provide good arguments on the institutional constraints to the adoption of SA as a decision-making and planning tool. The Interorganizational Committee argues that because of the “complexity, or the political consequences of making explicit the social consequences of projects and programs, SIA has not been well-integrated into agency decision making” (1994: 149). From a broader community perspective, Burdge (1994) suggests ‘three major barriers to public consideration of social impacts in the planning process:

1. Many people feel that understanding social impacts requires only common sense; everybody should know what social impacts are.
2. Social impacts cannot be measured and, therefore, should be ignored.
3. Social impacts always deal with costs, not benefits, and are, therefore, always used to slow up or stop development projects.

(Burdge 1994: 42-43)

In light of the literature on institutional constraints to **SA** practice, barriers to the improved adoption by the water industry of **SA** practice can be categorized into four main areas:

1. *Philosophical*

- ▶ Water industry culture is based on a 1950s and 1960s engineering ethos of “construction” which permeates contemporary industry culture creating divisions between structural (engineering) and nonstructural (social science) solutions to water provision and wastewater disposal.
- ▶ Difficulty in accepting **SA** because of its interdisciplinary nature which conflicts with the noninterdisciplinary nature of training received by engineers. This difference results in an unwillingness by engineers and **SA** practitioners to cooperate with one another.
- ▶ Disciplinary inertia (see Rickson et al. 1990: 233) whereby engineering and **SA** professionals are so narrowly specialized they cannot effectively collaborate with one another.
- ▶ Engineering culture that challenges **SA** training as a “soft” science (sociology, psychology, etc.) compared to the perceived “hard” science (physics, chemistry, etc.) central to the training of an engineer. This difference results in a perception that the “soft” scientists can only deal with qualitative data compared to the “hard” scientists who can only deal with quantitative data.

- ▶ Low level of representation by social scientists in professional water industry associations (for example, **AWWA**). This may be a result of the over-representation of engineers in these associations.

2. Operational

- ▶ Perception that an SA will only frustrate and delay a proposed project; therefore, it is disregarded or not taken seriously, and not undertaken rigorously.
- ▶ Weight placed on an SA vis-a-vis other considerations (for example, perceived more tangible biophysical considerations).
- ▶ Inadequate opportunity for formal public involvement in the planning for a project before and during the formal **EIS** process.

3. Administrative

- ▶ Technocratic approach (see Taylor et al. 1995: 30) to administration of **SA** that leads to bureaucratic rigidity.
- ▶ Bureaucratic conservatism and slowness in adopting new practices.
- ▶ Absence of nationally agreed **SA** guidelines and principles.
- ▶ Devolvement of planning responsibilities from the state to local government level resulting in less clear environmental planning roles and responsibilities.
- ▶ Inappropriate position whereby, in certain jurisdictions, a water authority, because of state/territory environmental planning legislation, is both the project proponent for a designated development (for example, a sewage treatment plant) and the assessor of the proposed project's **EIS** or other planning documentation. This can result in loss of assessment objectivity and an oversight of **SA** and other considerations.
- ▶ Insufficient administrative mechanisms and supporting institutions to facilitate **SA** as part of the **EIA** process.

- ▶ Human resource recruitment policy focused on engineering, economic, and accounting trainees/graduates as opposed to the range of social science professions.

4. Political

- ▶ Bureaucratic tendency toward secrecy and control of information which may be encouraged by politicians. This situation may be highlighted by the SA process (and the possibility of stakeholder conflict resulting from withheld information). This may frustrate and delay the proposed development; therefore, the **SA** is not undertaken or is undertaken unsatisfactorily.
- ▶ Focus in water authorities on micro-economic reform and implementation of national competition policy at the expense of social equity considerations.
- ▶ Insufficient discussion of water issues at the national level in major forums such as the Agricultural and Resource Management Council of Australia and New Zealand (ARMCANZ) and the Standing Committee on Agriculture and Resource Management (SCARM). In these forums agricultural issues disproportionately dominate discussion.

GUIDING PRINCIPLES FOR SOCIAL ASSESSMENT PRACTICE IN THE AUSTRALIAN WATER INDUSTRY

To this point this article has outlined the limitations in currently accepted SA practice through an analysis of major developments in the history of SA in the United States and Australia. The institutional barriers to the practice of SA as cited by SA practitioners have also been identified. An extension to this discussion has been the sector-specific identification of the constraints to improved **SA** practice in the Australian water industry. It has also been stated that, unlike the United States, Australia has yet to develop its own SA guiding principles which can in turn be used as a basis for the development of sector-specific guiding principles for the practice of SA.

Conscious of the issues discussed in this article, six areas of consideration are proposed as a basis from which the Australian water industry can further

develop its own guiding principles for the practice of SA. In outlining these six areas, particular reference has been made to Kaplan (1964), BBC Consulting Planners et al. (1994), Interorganizational Committee (1994), and Taylor et al. (1995). The major over-arching areas of consideration for the water industry in developing SA guiding principles must include ensuring that the conduct of an SA be mandatory for any water supply, sewerage, or drainage project proposal requiring an environmental impact statement (EIS)—in addition to ensuring community participation, transparency, equity, human rights, community sustainability, community acceptance, certainty, accountability, integrity, and flexibility in conducting an SA. The six areas include:

1. Strategic environmental assessment

One element of the strategic core business of a water authority should be the development of a regional environmental impact assessment (REIA) for the authority's operations or activities in its area of operation and catchment area(s). The REIA is to be used as a baseline for the periodic future update of this REIA. Separate local/community level studies are to be undertaken in areas where the REIA reveals impacts on the community as a result of the authority's operations or activities.

2. Use SA practitioners

Experienced social scientists (geographers, sociologists, psychologists) should be employed at all times in conducting an SA. Social science conceptual frameworks should be used as a way of looking at the facts—analyzing, organizing, and representing them. A preliminary identification of available information should be undertaken to ascertain assumptions, expected effects, and significance on the community of the proposed project. Every SA should include some primary research on the affected population.

3. Approach to SA

A mixed proactive participatory, research, and technocratic approach should be used in conducting an SA with an equitable distribution of resources allocated to each of these three approaches. Close links and communication should be pursued between those responsible for each of these approaches. A comparable level of time and effort should be accorded to the conduct of an SA as accorded to the conduct of other EIA investigations (for example, biophysical investigations). Due diligence throughout the SA should be maintained.

4. Community consultation

All stakeholders should be invited to be actively involved in the SA. The directly affected community should be collaboratively involved in developing the *SA terms of reference* through consensus with other major stakeholders. Community involvement from the very start of the SA will ensure an early understanding by the proponent of the socioeconomic issues related to the proposed project, as well as early conflict identification, resolution, or negotiation. Regular feedback on progress made in developing the SA should be provided to all stakeholders (community, project planners, etc.).

5. Acknowledge negative effects!

Equity in impact identification should be provided in the SA. An SA should identify both negative and positive direct, indirect, and, where relevant, cumulative effects and should analyze the distribution and significance (winners and losers) of these effects on the community. The vulnerability of specific sectors of the community to the proposed project should be considered.

6. Implement monitoring and mitigation programs

Monitoring and mitigation programs should be implemented to address any detrimental effects of the project before, during, and after execution. These programs should be reflected in the periodic update of the water authority's REIA.

INSTITUTIONALIZING THE GUIDING PRINCIPLES FOR SOCIAL ASSESSMENT

There is no straightforward or easy prescription for the improved adoption of SA practice in the Australian water industry. A first step in this process would be the development of negotiated and agreed-upon national SA guidelines and principles. It is, however, not necessary to wait for this to occur. The Interorganizational Committee's Guidelines and Principles (1994) and ANZECC Guidelines and Criteria (1996), in addition to contemporary research in the field of SA, provide sufficient basis for development in Australia of sector-specific SA principles and guidelines. A precautionary note in pursuing this proactive approach, however, is the potential for the development of non-uniform national approaches with little consistency in application. Initial strategies for the institutionalization of the *Guiding Principles for SA in the Australian Water Industry* include:

Commonwealth and State Levels

- ▶ ANZECC to take the lead in developing negotiated and agreed national SA guidelines and criteria as an extension to the ANZECC (1996) Guidelines and Criteria. An alternative to ANZECC would be ARMCANZ.
- ▶ SCARM and ARMCANZ to endorse developed SA guidelines and criteria and designate these as a mandatory “operating instruction” for all Australian urban and non-urban water authorities.
- ▶ For each state/territory, establish a community elected citizens advisory panel to provide input to government on proposed development activities considered to be of state/territory significance.
- ▶ Develop agreed memoranda of understanding (MoUs) for mandatory SA practice. By example, in the first instance MoUs to be negotiated between MUWAA members and relevant state/territory environment protection and planning agencies.
- ▶ Establish a national research institute for environmental assessment and ecologically sustainable development.
- ▶ Where relevant, amend state/territory “due diligence” legislation (for example, NSW Environmental Offences and Penalties Act) to require an **SA** in all EIS.
- ▶ Water industry professional associations (for example, AWWA and Institute of Engineers Australia) to make reference in member Codes of Conduct to a best practice requirement to undertake an SA in all EISs, regardless of whether **SA** is a statutory requirement in their state/territory.
- ▶ Make explicit reference to SA in WSAA Environment Management Guidelines for the Australian Water Industry.

individual Water Authority

- ▶ Corporate environment policies/plans to require an SA to be conducted as part of all EISs.

- ▶ Corporatized/privatized water authorities to include in the customer contract (usually required as a condition of an operating licence) a commitment to undertaking an SA as part of all **EISs**.
- ▶ An organizational ISO 14004 environment management system (**EMS**) should include provision of a requirement to undertake an SA for all **EISs**. This is based on the premise that an EMS is as a tool to ensure the need to protect and enhance the environment through identifying and controlling the environmental effects or aspects of the organization.
- ▶ Encourage increased recruitment of social scientists and environmental engineers.
- ▶ Provide training and education for employees in **SA**, including the costs of not undertaking an SA and benefits of undertaking an SA.

CONCLUSION

The basis of discussion in this article has been on the contemporary state of the art in SA—in the United States, the Interorganizational Committee's Principles and Guidelines and, in Australia, ANZECC's Guidelines and Criteria. Discussion has been supported with reference, over time, to the contributions of SA practitioners and academia to the discourse on **SA**. The comparative analysis discussed outlined the limitations in SA practice, highlighting the gap in progress made in the development of SA practice in the United States and Australia. The United States and Australia have different benchmarks for **SA** practice with Australia having some ground to catch up upon in developing its own SA principles and guidelines, although the foundations for this do exist.

Moving from a general discussion on SA, the focus turned to the development of improved SA practice in the Australian water industry. The constraints to improved practice and institutionalization of SA in the Australian water industry were suggested to be in four main categories: philosophical, operational, administrative, and political. Mindful of these constraints, initial Guiding Principles for SA in the Australian Water Industry were provided as a basis for further development. Initial strategies for the institutionalization of these Guiding Principles at both the Commonwealth/state and organizational levels were also been provided.

This article fit well with the theme of the 1997 IAIA Conference, "Reflections on water: learning from history and assessing the future," by constructively analyzing the historic development and achievements in the field of SA and providing a basis for the improved development of SA practice in the Australian water industry for assessing the effects of proposed structural and nonstructural developments.

The principal intent of this article is to engender cultural change within the Australian water industry and, for that matter, the broader global water industry, to more diligently and seriously adopt **SA** practice as a major component of **EIA** and integrated environmental planning. At the global scale this approach could be pursued by the International Water Supply Association (IWSA). The time is right for the water industry to become proactive in pursuing this approach. In Australia, this can be achieved not by waiting for the Commonwealth to take the lead in developing nationally agreed-upon SA principles and guidelines, but for the water industry to take the initiative and develop water-industry specific SA guidelines and criteria mindful of the discussion and initial guiding principles and strategies outlined in this article.

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