Did it Work?

Summary Report on the Evaluation of the NSW Urban Stormwater Education Program
Introduction

Every program deliverer in the business of achieving social change wants to know, "To what extent did my program work?". This question is crucial for funders, program managers, partners and a wide range of stakeholders. It was a high priority for the Urban Stormwater Education Program (USEP), so in April 2002 the NSW Environment Protection Authority\(^1\) commissioned a major program evaluation.

This document provides a summary of the extent to which the program worked, and what was learnt from it. It is intended to help others who have responsibility for the delivery of education for sustainability.

The NSW Urban Stormwater Education Program (herein after called The Drain is Just for Rain was a major program [1999 - 2004]. The program involved the delivery of an extensive range of state-wide education activities across industry, community and local government sectors. It formed a small component [8.5% by funding] of the NSW Government's $82 million Urban Stormwater Program, 1999 to 2004.

The aim of The Drain is Just for Rain program is: 'Improving the quality of waterways through education that has a positive impact on behaviours that affect urban stormwater quality'.

Its objectives were to:

- Promote community awareness, knowledge and understanding of the extent and causes of stormwater problems;
- Promote new norms of community behaviours which improve stormwater quality;
- Facilitate behaviour change by promoting simple, practical ways for particular groups in the community to reduce stormwater pollution; and
- Build the community's capacity to undertake activities that improve stormwater quality.

Scope and scale of the evaluation

The evaluation of this program was undertaken by Elton Consulting from May to November 2002. Information was drawn from qualitative and quantitative data collection and analysis, including: stakeholder interviews; literature reviews; analysis of The Drain is Just for Rain and the Urban Stormwater Program (USP) objectives; reviews of program documentation and existing evaluation reports; analysis of corporate history and profile; surveys of project managers and the program's Reference Group; assessment of program management and support; and a range of evaluation workshops. Evaluation criteria were developed, and are reported on page 2. In obtaining data to assess whether the evaluation criteria had been achieved, the evaluation process was structured under the following hierarchy of outcomes:

**Ultimate Outcomes**: What are the key contributions and the key lessons learned?

**Intermediate Outcomes**: How do we assess the achievements and outcomes in relation to the overall program, and its strategic directions for the future?

**Immediate Outcomes**: What are the project-specific achievements and outcomes?

**Activities/Outputs**: How were the identified needs responded to, and translated into specific project activities and outputs?

**Needs**: What priority issues was the program developed to respond to? How was the program developed as a result?

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1 In September 2003 the NSW Environment Protection Authority (EPA) became part of the Department of Environment and Conservation (NSW).
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Findings of the evaluation: some highlights

For the purpose of this summary, results are organised in sections: Headline Findings identify the top line results. More in-depth results are organised under the headings; Activities, Outcomes (Immediate and Intermediate) and Ultimate Outcomes.

Headline Findings against Evaluation Criteria

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Highlight Findings - expressed against evaluation criteria</th>
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<tr>
<td><strong>Appropriateness:</strong> Does the program address the right issues? Is there a need for it? Do the objectives address the need?</td>
<td>Specific issues, targeted at a program-wide and project-specific level, have been reflective of the particular operational contexts of community and industry sectors. Methods of stakeholder engagement have been flexible and sensitive to operating environments, and central to building positive relationships. Level and nature of support to project stakeholders has been critical to the overall success of specific projects, through the provision of expertise and financial support. The organisational location of The Drain is Just for Rain program within the EPA has provided a supportive context for the program.</td>
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<td><strong>Effectiveness:</strong> Did the program achieve the desired objectives/outcomes?</td>
<td>The deployment of environmental education models, in particular with people of non-English speaking background and industry, has been highly effective. The EPA facilitated stakeholder engagement and support processes of communication and interaction, and positive institutional relationships. Enhanced processes of strategic and conceptual planning would strengthen the integration and sustainability of project processes, outcomes and activities.</td>
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<td><strong>Process and Management:</strong> Was the program well integrated -- internally/ across components/ externally with other organisations?</td>
<td>Activity-focused management in Phases 1 and 2 have resulted in underdeveloped strategic linkages and conceptual frameworks. The EPA provided management and support that facilitated the sharing of knowledge and expertise across a range of stakeholder groups; enabled organisations to deliver project activities; and encouraged and coordinated stakeholder commitment to specific projects.</td>
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<td><strong>Resource Efficiency:</strong> Could the program have used resources better?</td>
<td>The organisational location of the program in the Education and Community Programs Branch of the EPA has played a significant role in the efficient delivery of the program. The program's delivery within human resource constraints highlights the program's achievement in delivering substantial outputs, and engaging in considerable activity.</td>
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Activities -
Summary of what was done

Media Based Education Campaign

The Drain is Just for Rain media campaigns.

**Method /tools:** Television, radio, print media advertising, resource kit for local government.

**Target audience:** English speaking and non-English speaking background communities.

**Outputs:** Resource kit for local government; targeted advertising for non-English speaking background communities [8 languages; Arabic, Chinese (Cantonese and Mandarin), Greek, Italian, Korean, Macedonian, Spanish and Vietnamese]; targeted mainstream advertising [state-wide].

Industry

Fifteen education and capacity building projects with industry groups.

**Methods/tools:** Industry partnerships; working collaboratively; process and outcomes-focused; engaging stakeholder groups; local government in liaison role. Utilising field days; education packages and resource kits; targeted brochures/fact sheets; training/workshops/trade shows.

**Target audiences:** Industries included: nurseries; landscapers; painters; concreters; golf course superintendents; motor vehicle and automotive; mobile businesses; urban development; small manufacturers; service stations; construction and demolition.

**Outputs:** Written materials specifically targeted to individual industries; information packages for ongoing use by educational institutions; delivery of training workshops, accredited courses and trade shows; industry association capacity building initiatives.

Community Education

The provision of stormwater education in targeted communities.

**Methods/tools:** Community-based education using bilingual educators and accredited community educators; web-based schools curriculum package; network of Aboriginal education officers; engaging Aboriginal people in planning and delivering community stormwater education.

**Target audience:** Non-English speaking background communities; schools [teachers, and through them, students]; Aboriginal communities.

**Outputs:** Targeted education materials in eight languages; education sessions; displays and education sessions at festivals and other events; team of bilingual educators; development of a 'sustainable living' approach; web-based Schools Kit; Aboriginal material.

Local Government

20 projects including training, resourcing, support, and capacity building.

**Methods/tools:** Process and context-oriented workshops; training programs; council stormwater resource kit; EPA education resources; stormwater mailing list; EPA support officer; access to other The Drain is Just for Rain initiatives; education grants process, management and administration; web-based materials.

**Target audience:** Local government staff [and through them, local community and industry].

**Outputs:** Workshops; council resource kit; evaluation plans and training; web case studies; training packages.
Outcomes - Immediate and Intermediate

Outcomes are organised under the headings consistent with the program components.

Media-Based Education Campaign

Major Outcomes
Broad increases in community knowledge, and attitudes and changes in behaviour; improved processes for planning and delivery of Media-Based Education Campaign for non-English speaking background communities; organisational learning about how to deliver education through the media (in English and other languages).

The Media-Based Education Campaign aimed at both English speaking and non-English speaking background people improved knowledge levels, awareness and understanding of the extent and causes of stormwater problems. For example:

- Unprompted recall rates of 20% in Phase 1, 67% in Phase 2 and 57% in Phase 3;
- Knowledge levels about key pollutants increased in all phases;
- Increase in knowledge that stormwater is a problem for water quality (from only 2% in 1994 understanding the potentially damaging impacts of stormwater which by 2000 grew to 90% who considered stormwater to be an important environmental issue);
- 20% of people self-reported behaviour changes as a result of the program;
- 33% of people identified recent adoption of correct car-washing methods.

In addition, while Media-Based Education Campaign activities are generally perceived as key drivers for strategic and policy development, these views are generally implicit, and are rarely evaluated over time. It is worth noting that the media has also been used effectively to profile program initiatives and outcomes.

Industry Activity

Major Outcomes
Significant education and training was carried out with industry. Enhanced organisational relationships were the basis for sustaining and integrating project achievements; overall, the model was an effective way of targeting industry. There was an increase in

organisational understanding about the most appropriate methods of engaging local government and industry together.

The Drain is Just for Rain program industry projects have promoted awareness, knowledge and understanding. These projects have been critical first steps in building relationships and developing models for effective and sustainable interventions.

Ownership is demonstrated through projects conducted with fifteen industry associations, and by specific company activity. For example, Porter's Paint put The Drain is Just for Rain logo on every tin of their paint.

Environmental assessments and audits have been an important part of particular industry initiatives. These have also been used as educative tools, alongside more conventional compliance-oriented approaches.

Industry projects have propagated new norms and regulatory requirements and facilitated the dissemination of this information more broadly. By building the community capacity to undertake pollution prevention activities, industry projects have recognised the critical role that local government plays in working with industry to improve (and regulate) environmental performance.

Community Education

Major Outcomes
(i) For non-English speaking background: Established relationships and partnerships; shared knowledge and resources; supportive, reflective and evaluative approach; beginning integration of non-English speaking background community education into local councils and community organisations;

(ii) For Schools: Stormwater Resource package integrated in the Primary and Secondary syllabus; provision of support when using these resources; enhanced relationships between schools and local government.

The non English speaking background Community Education Project had a significant impact on awareness, knowledge and understanding. Activities were delivered effectively, and responded to learning needs with a flexible, context-driven approach. Participants reported increased awareness, knowledge and understanding of the issues as a result of the project.
Some examples follow:

- 350 education sessions were conducted, with more than 9500 participants. 20 bilingual educators worked with 8 language groups. In 1999, 39% of people from a non-English speaking background were unaware that stormwater drains directly into waterways; this had decreased to 24% by 2002. Participants reported improved behaviour as a direct result of the project.

- The project facilitated capacity and integrated organisational development at the Ethnic Communities Council [ECC]. Partnerships were developed with councils, catchment trusts, community organisations and the ECC Waste Education Project. The project also informed strategic initiatives involving councils working with non-English speaking background communities in local place-based activities.

Note: Projects with Aboriginal communities were not sufficiently advanced at the time of the evaluation to be fully assessed. The web-based schools kit was not specifically evaluated.

Local Government

**Major Outcomes**

Led the development of an extensive series of stormwater education activities across NSW councils; promoted evidence-based education and evaluation; engaged local government in increasingly sophisticated capacity building initiatives; encouraged increased understanding of integrated, sustainable source control approaches to stormwater management.

The Drain is Just for Rain program included a series of projects aimed at supporting councils to promote community awareness (and awareness of council impacts), knowledge and understanding of stormwater issues. Overall, the approaches have been appropriate and efficiently delivered. All councils in NSW have received media and stormwater education kits. Most have been directly involved in training. For example:

- In Phase 2, of the 160 participants in Preventing Pollution in Local Government operations, 96% reported that they had developed better awareness of their responsibilities, and 86% learned new information.

- In Phase 3, impact evaluation was conducted on the training in Stormwater Trust Grants Stage 4 workshops. Results showed a statistically significant increase in reported skills and confidence in education and evaluation among the majority (78%) of council officers.

Work with local government has promoted growth in community norms to improve stormwater quality. This has come through support for locally focussed, values-based, catchment initiatives. The work has also encouraged the integration of environmental, organisational and societal factors, to identify priority issues and target key norms. Training programs, and workshops with local government officers and associated industry groups, have combined to raise awareness about sanctions and guidelines, promoting positive outcomes. The Stormwater Trust Grants workshops have been interlinked with workshops with operational staff and council managers to effectively increase the capacity, knowledge and skills of council staff.

The Drain is Just for Rain program has demonstrated the importance of working strategically with local government to enhance environmental outcomes. Local government is recognised as the key agent for sustaining environmental education. The evaluation found that the context in which local government operates is increasingly complex, and that future initiatives need to be strategically responsive to this. Projects that were found to have worked most effectively with local government were those that have understood this complexity and scoped their approach accordingly.

**Ultimate Outcomes and Findings**

This evaluation has important outcomes, with implications for even broader integration of environmental management and education.

**Integration**

While The Drain is Just for Rain program demonstrated significant integration, the effective design and delivery of environmental education occurs best within a framework of integrated environmental management and sustainability. Broadening the focus and strengthening the strategic linkages delivers more effective environmental education.
Programs need to build institutional relationships, particularly with cross-departmental agencies and the non-government sector; work to integrate local government operations at the project and program delivery levels; and enhance the local focus of environmental education initiatives, to reflect local community issues and needs.

Capacity building

The Drain is Just for Rain had a major impact on building organisational and institutional capacity, especially across industry and local government. However, organisational and institutional capacity building requires increased conceptual development and an analysis of strategies for the work of local government, industries and communities.

A capacity building approach to environmental education requires clearly conceptualised planning frameworks that articulate program logic; evidence-based strategic directions; strategies for the intra- and inter-organisational integration of program activities; and identification of evaluation as an integrated program management tool.

Improved coordination and a stronger conceptual framework

The Drain is Just for Rain demonstrated that a clear conceptual framework is needed to coordinate and support environmental education initiatives. This should ensure effective linkages between outcomes and outputs; stronger and explicit rationales for program outputs; enhanced coordination at the strategic policy and project activity level; accountable, transparent and demonstrated processes and outcomes; and a greater role for community engagement.

Specifically, the role of social marketing in future state-wide environmental education requires careful assessment. Improved targeting and better, more coordinated linkages to local activities is required to broaden the basis of achievements.

Research and evaluation issues

In the interest of demonstrating the achievements of significant environmental education initiatives, it is critical that there be adequate resources to allow for methodologically rigorous research and evaluation. This will allow the impacts of environmental education to be measured. Further research is required to provide an evidence base that will shape and test interventions, understand target audiences and help assess future directions.

Specifically, increased qualitative research is needed to identify and explore the factors that both enable and impede the community, local government and other organisations in working towards improved environmental sustainability.

Sustainability and longevity

Findings from the evaluation of The Drain is Just for Rain program demonstrate that capacity building approaches with community, industry and local government require ongoing support and coordination, and enhanced community engagement strategies. This is essential in order to ensure continuing and sustainable outcomes in environmental education. A time limited approach will not achieve the depth of outcomes required.

Note that the complete evaluation report runs to more than 110 pages. Stakeholders may find specific chapters of interest. These may be obtained from the Community Education Unit, Sustainability Programs Division, Department of Environment and Conservation (NSW).