our environment
it's a living thing

Department of
Environment and Conservation (NSW)

Does Your Project Make a Difference?

A guide to evaluating environmental education projects and programs

sustainable
learn
engage
needs
activities

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Introduction

Knowing that your program makes a difference is crucial for everyone who is conducting education to promote more sustainable living.

This booklet provides guidance to help local government officers and others who are planning and delivering Education for Sustainability Programs, to understand, and to get started on evaluation. It helps you to build evaluation into your program – rather than evaluate it at the end, or not to evaluate it at all. The booklet bridges the gap between specialist program evaluation and the relatively simple evaluation processes that form part of good program design and implementation. It is applicable regardless of the size of the project or the evaluation budget.

The document is designed for all those who are delivering education about waste and/or water issues [including water quality, and water demand], and/or air quality, and other environmental management issues. Its aim is to help you to plan and conduct more appropriate evaluation of your work. Whether it is used for the evaluation of specific projects, or for whole programs, it is intended to provide guidance and assistance in a practical and useful manner.

Does your Project Make a Difference? shows you how to build an evaluation framework based on the logic of your project, through the development and use of an outcome hierarchy[1] model. Regardless of your project's focus, or where you are in its life cycle, an outcomes hierarchy helps you to think through, and to question, your assumptions about how your program is working. When implemented appropriately, it provides evidence of impact across a range of levels. Evaluating within the hierarchy gives you confidence to make practical decisions about adjustments to the project/program, to substantiate your reports and to assist in future funding bids.

Information gained through evaluation against an outcomes hierarchy will also help you to validate your project/program to others. The booklet's 'ultimate outcome', however, is to help you to continually improve your projects and their environmental, social and educational outcomes.

When and How to Use the Guide

This practical guide is to be consulted when you are researching, designing, planning, implementing and reporting your environmental education program or project. It is unlikely that you will read this guide from cover to cover. The document is essentially a guide to planning your evaluation. Once you understand the broad concept of program logic/outcome hierarchy, you should dip into it as you need it. Also, the document might be useful for team meetings, etc, when, for example, you are carrying out a scoping exercise, or making decisions about project tasks and roles. It can also help you explain program evaluation to other people.

To assist you to understand the flow of the document:

- Section One, *Getting Started on Evaluation*, explains what evaluation is and why it is important.
- Section Two, *Designing your Evaluation*, helps you to work out your program's logic and use this to create an outcome hierarchy for your program. This is the first step in planning the evaluation of your program.
- Section Three, *Developing your Evaluation Framework*, helps you to design an evaluation framework for

[1] **Outcome Hierarchy:** A thinking tool which organises short to long term outcomes of a project in an ordered sequence that has a cause and effect relationship with each other – with the highest level being the ultimate outcome desired as a result of the project.

your program based on your outcome hierarchy. It will assist you to determine your evaluation questions, and decide what data you need to collect, and from whom. It also provides information on how to analyse the data, and report on the results. It does this by working through two practical case studies.

- Section Four, *Learning from your Evaluation*, helps you to design your evaluation report so that you draw together the learning from the evaluation. It provides guidance on what goes into the report, and how it might be best structured.
- Section 5, *Addressing Evaluation Problems*, provides some guidance about the various problems that might occur during an evaluation process, and offers some hints for resolving these.
- Section 6 is the *Conclusion* to the document.

Note 1: hypothetical case studies are used throughout the document to assist you to view the model in action, rather than just as theory.

Note 2: throughout the document, quotes from educators involved in a number of evaluation training workshops are used to illustrate the issue under consideration.

Making Evaluation Simpler: An Explanation of the Terms

The first challenge for all of us who are developing an evaluation is to understand the words and phrases that go to make up the tools of the trade. For many of us who are not professional evaluators, these word and phases are confusing, and make the whole process difficult to understand. If you start to read this document without referring to the definitions in the table below, you'll become confused very quickly. As is the case with any area of professional endeavour, once you have grasped what is meant by a particular word or phase, the process becomes much clearer.

Some people would argue that it would be preferable if the jargon surrounding the evaluation process could be removed. They may be right, but this document attempts to work within the current context and explain the jargon, so that the reader can undertake an informed process.

So, before you start, get familiar with the following terms that are used throughout the text in this document.

Term	Explanation
Action	A broad statement of what stakeholders and agencies will do to obtain an Outcome.
Action Research	Action Research is associated with a cyclical process of inquiry. It involves planning, acting, observing and reflecting on practice, and leads to improving and innovating practice. Action research is a learning process leading to changes in: what people do; how they interact with the world and others; and what they mean and value.

Activity	Used in this document to describe what was done/produced by a project [e.g. brochure, event course, etc]. Synonymous with 'Output' or 'Product'
Appropriateness	Appropriateness measures "Does the project address the needs?" Is it appropriate for the target group and the issue or problem under development?
Capacity-building	Programs or initiatives aimed at enhancing the effectiveness of individuals, organisations and systems to achieve or define Outcomes. This is done by strengthening their knowledge base, competence, resources, networks, infrastructure, and through other forms of support.
Community	Includes all spheres of government, industry, special interest groups and the general public. The term is also used in a more specific sense to refer to those affected by a particular issue under consideration, or who are interested in some way.
Evaluation	A systematic process of gathering data to describe what is happening (going to happen/has happened), how it is working, and how well it is working.
Effectiveness:	Effectiveness measures "Does the project achieve the desired objectives?"
Efficiency	Efficiency measures "Is the project cost effective? What human, time and financial resources did it use?"
Formative Evaluation	Formative is the part of the evaluation process that focuses on appropriateness. It informs project development and builds staff capacity to deliver the project.
Goal	A statement of the overall aim of a project or program, describing what difference the initiative is expected to make. To be manageable, an initiative should only have one goal.
Impacts	When used correctly, this term refers to the immediate effects of the program or service. Impact evaluation data is collected immediately after the program. For example: "Were people aware of it?" "Did people read it?".
Literature review	Carrying out a document search for a particular subject matter, and researching and reporting on the results to build knowledge about the subject and its resources.

Milestone	A deliverable, measurable output that results from a sub-objective indicating project progress.
Needs	The difference between the desired and actual state of an issue.
Outcome	An intended result of delivering an output. Outcomes are usually long term and may be anticipated, or unintended.
Outcome Hierarchy	A thinking tool that organises short to long term outcomes of a project in an ordered sequence, that have a cause and effect relationship with each other. The highest level is the ultimate outcome that the project aims to achieve.
Output	Products or services that are produced and delivered by the project in order to achieve project outcomes [called 'Activities' in this document].
Performance indicator	A measurable item used to monitor and report changes; used to assess the extent to which Outcomes are being achieved.
Program[2]	A group of planned activities that contribute to a common strategic objective. A program is usually further subdivided into sub-programs or projects.
Project[3]	A set of small-scale planned activities that contribute to meeting the objectives of a larger program.
Program/Project Objectives	The yardstick against which the success of the program is measured. The objectives clearly identify what the program is intending to achieve in a measurable form.
Product	Sometimes called Outputs, but called 'Activities' in the document, products are the specific things that the project produced [e.g. training package, brochure, trained staff, etc]. Often people try to use these as the sole form of evaluation. For example: "The project was successful because 2000 brochures were distributed". If the only objective of the project was to produce and distribute brochures, then that is a reasonable yardstick. If the project was trying to improve knowledge and/or change behaviour, then on its own, this is not an evaluative measure.
Resources	Time, money, support, facilities and knowledge used to carry out an action, and not to be confused with 'Needs'.

[2] Program/ Project: This document refers to projects [single focus interventions] or programs [a group of projects with the same aim]. Evaluation plans [and outcome hierarchies] can be developed on a project or program basis. Therefore, the terms are used together through the document or specifically, as required.

[3] As above

Stakeholders	People or groups with an interest or stake in the project and/or its outcomes, and in the evaluation of the project.
Strategy	A broad statement of the methods employed for achieving an Outcome.
Summative Evaluation	A summative evaluation is the part of the evaluation that focuses on the activities of the project. It determines the extent to which the project is effective and efficient.

Section 1: Getting Started on Evaluation

What is Evaluation?

Evaluation is a systematic process of collecting credible data and using it to **make judgements about the worth of a product, service or process** at any point in a program's life cycle. Ideally, evaluation starts from the moment you design your program and runs through the program's life cycle.

Evaluation also communicates to stakeholders. It encourages discussion about what is being learned, resulting in continuous improvement by:

- Finding new ways to understand the issues, by engaging with your stakeholders;
- Finding the best ways to add to a program's strengths (also known as 'adaptive management') and correct its weaknesses ('risk management'); and
- Being accountable to the program's funding body, the host agency for the program, and to stakeholders.

Evaluation can be conducted on two levels. An *inward*-looking focus assesses the worth of the program's content and implementation; this is a management or process evaluation. An *outward*-looking focus assesses the difference that the program makes to its intended targets, thus it is an impact evaluation. This guide has an *outward*-looking focus. It concentrates on how your program makes a difference to your clients and the environment. It will help you to plan and conduct an evaluation that tells you, and others, whether what you did made a difference.

Essentially though, all evaluation is about informed judgement relating to the value or worth of a program – judgement that is informed by data collected at arm's length from the program itself. Effective evaluation projects can be costly and time-consuming, or simple and direct. It depends on what you need, and how you plan it; hence the development of this guide.

Why is Evaluation Important?

You put a large effort and many dollar and time resources into planning and delivering your education program. So it is important for you to know what worked [and why], and what did not work. Evaluation of your efforts helps you to find out the answers to these questions.

When you evaluate a program, you can learn from your experiences and adjust your program for the future, where needed. Evaluation provides a feedback mechanism for continuous improvement of your effort. It contributes to decision-making at every stage of the program. It encourages you to reflect on your outcomes so that you can consider future actions. Evaluation helps you understand your program's or project's 'worth' by assessing its effectiveness, efficiency, appropriateness and management. Most importantly, evaluation tells you whether you achieved what you set out to achieve, and if you didn't, why you didn't.

Often, evaluation results are also required by others. For externally-funded projects, it is included as part of a funding agency's requirements to provide evidence of accountability, achievement of outcomes, or suitability of transfer. The senior staff in the agency that conducted the program often require proof of its value or impact. Stakeholders in the project often call for evaluation to determine if they are on the right track, and to help them make decisions about where to head in the future.

Evaluated programs or projects are often in a much stronger position to take up opportunities for further funding than those that are not evaluated. Well-evaluated programs often help to justify further funding for your program in council. Continuation or extension is much easier to argue if you have an evaluated project, where the data is more than merely the thoughts and understandings of the program designer. As one educator said at a recent workshop on the *Our Environment – It's a Living Thing* program:

> *"I didn't realise how powerful evaluating your program was until I did it. Now I can talk about the impact in a way that makes people listen and want to know more. It's not just my view anymore."*

Why Is Evaluation a Challenging Process?

For many people, conducting an effective program/project evaluation is a challenging process. As indicated above, sometimes this is because the terminology clouds understanding of the process. People doubt their competence to be able to evaluate effectively. For others who are conducting education programs, there are not sufficient resources or time available for quality evaluation to occur. Sometimes the challenge relates to the difficulty of getting credible data or analysing it appropriately. Some people just cannot see the point in it. For example:

> *"I don't need evaluation – in a small-scale community, where relationships between council workers, stakeholders and consumers is primary, anecdotal information is all we need and how can you quantify behavioural change anyway?"*. [Council officer prior to Stormwater Program Evaluation Workshops 2002]

But as indicated above, there is a point. The following quotation describes a stormwater education worker's early experiences of using evaluation:

> *"It was a real brain strain at first. When I have my evaluation hat on, I am looking for strengths and weaknesses in the project, thinking ahead and encouraging my co-workers to do things differently if we need to. I encourage people to have a go – and to be realistic. I have to be flexible, but also keep my eye on the goal posts. I have to be careful about what I think I am measuring, and what I am actually measuring – you've got to take your time and think things through."*

It is essential not to let the challenges of high quality evaluation deter from evaluating your program/project. Be challenged by the challenge, not put off by it.

If you put time and energy into evaluation, the rewards are visible. You'll know that what you have done has worked.

Getting Help with Evaluation Planning and Process.

Sometimes consideration must be given to using outside evaluation experts to conduct all, or part of the evaluation. This might be needed when the evaluation is large and complex, or when the necessary specialised evaluation competence and experience are not available in-house. Other examples are when insufficient in-house staff time can be provided, and/or where independent evaluation may be a funding body requirement. While using consultants can bring specialist skills and expertise, this is often at the expense of developing those skills within your own agency/council. It also means that you, as an individual, are not further developing your own evaluation competencies. It should be noted that project management of an externally conducted evaluation does require quite a high level of understanding of evaluation process and practice.

The need for seeking external assistance might be viewed across a spectrum as follows:

Program externally evaluated — **Program internally evaluated**

Options along the spectrum are as follows:

- Program totally evaluated by external consultant [*see Appendix C*].
- Evaluation Framework developed by external consultant; implementation of evaluation undertaken internally.
- Evaluation Framework and development of evaluation tools undertaken by external consultant; implementation of evaluation undertaken internally.
- Evaluation Framework and Final Evaluation Report developed by external consultant; all other evaluation tasks, including data collection undertaken internally.
- Program totally evaluated internally, either by staff who conducted the project, or by specialist internal evaluators.

Appendix C provides information on preparing a consultancy brief for an evaluation.

Section 2: Designing your Evaluation

Planning the Program and its Evaluation

It is essential that the planning of the evaluation of the program occurs at the same time as the planning of the program itself. The document *'What we need is a community education project…'*, [see Resources Section page 48] outlines the steps in effective program planning, and how the evaluation component is integrated within these steps. It is essential that evaluation planning happens early in the designing of the program. Trying to evaluate after you have conducted the program will result in not being able to obtain necessary data and/or not identifying evaluation opportunities in advance.

As far as the evaluation is concerned, the most essential step in the program planning process is the establishment of the objectives. In the evaluation, you will be determining the extent to which these objectives have been achieved. While the remainder of this document concentrates on how to plan and conduct the evaluation itself, it is essential that this occurs within the context of the overall project plan.

The following hypothetical case studies are used throughout the document to illustrate the evaluation/outcome hierarchy process. A more complete description of the case studies can be found in Appendix A. However, the following brief description will be invaluable in helping you to make the most of the information in the remainder of the document.

Case Study 1: Nervervale Council. Sediment and Erosion Control

Nevervale Council's Stormwater Management Plan has identified sedimentation of stormwater on construction/development sites as a priority issue to be addressed over the next six months. A working group was formed which included the council's building inspector, environmental health manager and ranger, and two local builders who have a good reputation for best practice in sediment and erosion control. The working group has developed a plan to work with the local builders and developers to improve their knowledge and awareness of sediment and erosion control, and to follow this up by monitoring the change in their practices on the building/construction sites.

As well, the group has decided to review council's policies and procedures on sediment and erosion control to determine if they are adequate. It also suggested that improvements should be made to council's own sediment and erosion control practices. The group also thought it was important to evaluate the success of the project.

Case Study 2: Billoughby City Council. Householder Sustainable Practice Project

Billoughby City Council has identified improving the sustainable behaviour of its residents as an important challenge for now and the future. Through working with a range of key stakeholders, the council developed a project that is designed to encourage more sustainable practice at home, and to showcase this to the community. The project identifies and supports local residents who are willing to make substantial changes to their household systems, infrastructure and practices. It then uses these homes as demonstration sites for the remainder of the community. The Council has decided to evaluate the project to determine its effectiveness.

Working out your Program's Logic: Understanding the Theory

The first step in designing your evaluation is to identify the key issues. This means that it is important to first understand how your program or project works (its logic). This involves setting out a logical chain of cause and effect between your program or project activities, and the expected outcomes of these activities. Of course, to do this you need to have clearly planned your project and established measurable objectives for it. If your program does not have clearly stated objectives, it is unable to be evaluated.

The 'logic' or reasoning process is based on: if you do *this*, then you expect *that* to happen; and when *that* happens, then you expect *that* to happen, etc. This thinking helps you to check that what will be delivered at the end of the program will make a difference to the needs that you have identified at its inception. To understand this process better, think through the following simple analogy about giving up smoking.

The scenario: Sally has been smoking for 10 years at about one pack per day. She has tried to give it up before, but now is desperate to stop [read the hierarchy below from the bottom upwards].

Ultimate Outcome: Sally gives up smoking altogether. She continues to use gum and patches for the first ten weeks after giving up. She then progressively stops using these as well.

Intermediate Outcome: Sally further reduces her cigarette intake to five per day, with no increase in weight. She continues to use gum and patches. She remains at this level for a further six weeks.

Immediate Outcome: Sally reduces the number of cigarettes that she smokes to ten per day. She monitors her weight, which remains constant, and she gradually reduces her reliance on gum to mask the craving. She remains at this level for six weeks.

Activities: Sally calls the Quit Line to find out her options. She decides to progressively reduce the number of cigarettes she smokes daily, and to use non-smokers gum and patches to assist her.

Needs: To improve her health and her relationship [her new partner hates smoking], Sally needs to give up smoking without gaining weight.

Developing an Outcome Hierarchy

One method of determining a program's or project's 'logic' is to develop an outcome hierarchy. This is the model of evaluation planning that is proposed by this document. An outcome hierarchy sets out the thinking that describes what a program is intended to do. In generic terms, the hierarchy is best described through Table 1 below, and the accompanying text. The hierarchy is illustrated more specifically through the use of case studies, over the following pages.

The outcome hierarchy can be used at any stage of a program's lifespan. The ascending hierarchy [you should read the table from the bottom up] describes a logical chain of cause and effect from identified Needs through to Ultimate Outcomes.

Table 1. Understanding the Outcome Hierarchy

Outcome Hierarchy	Definitions and Example
Ultimate Outcomes 	Describe the impact of the overall program and the ultimate program goals in biophysical, social, economic, organisational or communications terms. Often the ultimate outcome has several programs, possibly from different organisations contributing to them. *e.g. Reduced stormwater pollutants at the source, and improved water quality of creek*
Intermediate Outcomes	Describe changes in individual and group knowledge, skills, attitudes, aspirations, intentions, practices and behaviours. *e.g. Change in behaviour of community members*

Immediate Outcomes	Describe levels and nature of participation and reactions to the activities to engage participants. *e.g. Raised community awareness of daily activities that can impact on stormwater quality*
Activities	Describe the activities [products, outputs and/or services] that the program will create to engage participants. *e.g. Media releases, newsletters, competition, catchment day, brochures, etc.*
Needs	Describe the priority issues/problems that the program must respond to (physical catchment issues, social, organisational or communications, for example), based on existing information (policies, data, consultation and research). *e.g. Source control of stormwater pollutants (identified gross pollutants as an issue for the creek in the Stormwater Management Plan)* *e.g. Need to increase community knowledge about human impacts on stormwater quality, and its effect on the natural environment* *e.g. Need to change behaviour*

Needs

The 'Need' is the difference between the desired and actual state of an issue. A program or project is a means of meeting a Need – bringing the actual state closer to the desired state. A simple example would be: the desired state for rivers is *clean water*, the actual state is *polluted water*, the Need is *reduced pollution in natural waterways*. Implementing a stormwater education program, installing gross pollutant traps, or carrying out a riparian management strategy, are all mechanisms for reducing pollution – for meeting the Need.

To identify a Need, it is essential to understand what is happening in your area to cause the gap between the desired and the actual state of the issue. Needs may be social, educative, technical, environmental, economic or political responses, whilst your issue remains environmental. You may have many Needs. They should be prioritised by considering urgency, cost, timing, expertise and available resources. This process equates to the identification of the issue/problem that is outlined in the document *What we need is a community education project…*, [see Resources Section page 48].

It is important to understand the Needs when using the outcomes hierarchy, because stating them inaccurately will make the outcome hierarchy faulty. They form the basis for the hierarchy. Your Needs will be based on existing or new information, such as stakeholder consultations, catchment assessments and literature reviews. The helpful hints in the boxes below will help you to understand more about these processes.

Helpful Hints: Evaluation Stakeholders

Your evaluation stakeholders are an important starting point in identifying the needs that should be evaluated. Evaluation stakeholders are people or groups with an interest or stake in the evaluation of the project. They can include the funding bodies, those managing the program, those implementing the program, and those whose Needs are being met by the program.

If you are designing your evaluation up front, at the planning stages of your program or project, your evaluation stakeholders can form part of your wider stakeholder consultation [see *What we need is a community education project…*]. This is a useful way to learn about the Needs from first hand, local experience. Stakeholder involvement could occur via representation on a steering committee, or by participation in the program. But remember, sometimes different stakeholders hold competing views.

There are also other people whose interests you may need to take into account when identifying stakeholders. In these cases, you need to consider ways to include them. For example:

- Those whose interests will be significantly affected by the program's implementation and/or outcomes
- The local community, interest-based networks and general public
- Peers doing similar work
- Students and academics in the project's field
- The media

You can use surveys, or more interactive processes such as focus groups, doorstep or street interviews, telephone interviews – or just hold consultative meetings for engagement.

Helpful Hints: Literature Reviews/Research

Literature Reviews are an efficient way of using past experiences to learn about the issues and processes that you are thinking of using. Literature reviews can vary from 'in depth', formal processes to fairly simple data searches on the internet. The level will depend on the nature of the project.

Some helpful hints to use when conducting literature reviews include:

- Create a direct question about your need, or design ideas to guide your review). Stay focused on it – don't get distracted with all the other interesting information around!
- Try to find at least three different sources relating to each question you pose (if possible);
- Don't overlook older publications, unpublished papers and media articles;
- Use abstracts to help you decide more quickly on which texts are relevant;
- Use clearing houses, relevant centres and libraries, as well as the internet;
- Don't read the whole text. Use the index to find the chapters that are relevant to your project and skim-read the first lines of paragraphs in papers. Use End Notes to track the subjects that really interest you;
- Make sure that you list the reference to the publication accurately when you refer to it in your text

Activities

The activities are the outputs, products and/or services produced and delivered by the program, that will allow you to achieve your outcomes. Activities are 'tools for change'. Some provide ways of motivating participants to take the action that addresses the need, whilst others help participants to overcome barriers that may otherwise stop them from taking action.

Activities can be grouped into five main categories: information dissemination (displays, newsletters, etc); hands-on activities (tours, training courses, competitions); media (press releases, launches, advertising); formal eduction (school excursions, teacher resources, TAFE courses); and events and functions (World Environment Day, working groups, capacity building). In planning your project, it is essential to identify and deliver activities that are appropriate to the target population. They should be chosen with a specific outcome in mind so that the objectives of the program can be met. Often a variety of activities will be needed to bring about the desired outcome. These must be planned and delivered in an integrated manner. It is rare that the evaluation of the program will measure activity alone.

> *"I finally realised that evaluation wasn't just about counting the number of brochures that has been distributed."* [Participant at Our Environment – It's a Living Thing workshop, May 2004].

Outcomes

Outcomes include changes in awareness, knowledge, attitudes, skills, behaviour, activities and decisions that result from the activities delivered. When outcomes are reached, they cause change in environmental, social and economic conditions. Outcomes from a project or program can occur over any range of time, from weeks to months to years. Therefore, they can be expressed as immediate, intermediate or ultimate outcomes.

- Immediate outcomes describe the levels and the nature of participation, and the reactions to the activities used to engage participants.
- Intermediate outcomes describe the changes in individual or group knowledge, skills, attitudes, practices and behaviours.
- Ultimate outcomes describe the impact of the overall program on the environment.

As one educator said:

> *"The distinction between immediate and ultimate outcomes really helps me. Sometimes it is tough to work out just how you are going to make a difference to the big picture. Just seeing outcomes as a series of steps towards this is great."*

Outcomes can be intended and unintended, positive and negative. They can either be action outcomes (what specific changes in activity, behaviour, condition or status is the program trying to achieve?) or learning outcomes (what learning outcomes does the initiative seek to achieve in relation to process, knowledge and skills?).

The relative level of program control over the intended outcomes clearly becomes less as you move up the hierarchy, as many factors influence outcome attainment over the longer term. Ultimate outcomes are often influenced by multiple programs and other interventions and situations. For example, to what extent is reduced water use influenced by drought, water restrictions, education activity, pricing regime and/or peer pressure? In reality, it is difficult to isolate the relative effect of each intervention.

Working out your Program's Logic in Practice

Outcome Hierarchy: Case Studies.

The following table demonstrates the outcome hierarchy in reference to two case studies [see above, and *Appendix A*]. It is designed to describe the logic of two programs with 'real' examples, rather than in the abstract.

Table 2: Understanding the Outcome Hierarchy: By Case Study

Outcome Hierarchy	Nevervale Council: Erosion and Sediment Control.	Billoughby City Council: Household Sustainable Practice Project.
Ultimate Outcome	Decreased sedimentation of stormwater from construction/development sites.	Decreased waste to landfill, decreased water and energy usage.
Intermediate Outcome	Integration of best practice sediment and erosion control by builders and developers. Increased enforcement of DA conditions.	Following demonstration days and promotional activity, 20% of householders in Billoughby can demonstrate more sustainable practices.
Immediate Outcome	Improved awareness of environmental responsibility and best practice sediment and erosion control by builders, developers and council staff. Strengthened DCP policies and compliance procedures on sediment and erosion control.	Raised community understanding of general issues of sustainability. Ten households change current practices in waste, water and energy. Level of environmental impact on household practice is documented.
Output	Workshops held for builders/developers and council staff on sediment and erosion control. Review of DCP policies and procedures.	Householders identified [by competition] and supported to retrofit their homes; household practices changed. A number of households used as 'demonstration' sites. Regular open houses and promotional activity.
Needs	Decrease sediments entering waterways from building/development sites. Encourage use of best practice sediment and erosion control amongst builders and developers and council staff.	Increase in the use of sustainable practices by householders, without negatively impacting on lifestyle choices. Demonstrate real household actions that have significant community impact.

This outcome hierarchy will form the basis for developing an evaluation framework for these case studies throughout the booklet.

Putting it all together

There can be several projects within one program, and it is often best to divide the program into its component projects and develop an outcome hierarchy for each. However, don't lose sight of the fact that the success of the program depends on the interaction of several outcome hierarchies. You need to look for interdependencies across the outcome hierarchies that will affect the success of the program. This will mean determining the relative importance of each of the hierarchies in achieving the program's objectives.

You should now be able to track your program's logic by determining your program's Needs, Activities and Outcomes. The next step is to consider how you will know that you have achieved these outcomes.

Helpful hints when using the Outcome Hierarchy to help design your program

- It is essential that your Outcomes [and therefore the program objectives] are achievable. Too often, projects are set up to fail because the Outcomes just cannot be achieved in the life of the project.
- Relate your program needs to real environmental problems and issues.
- Make sure that your intended Outcomes are drawn from participant input and good document research.
- Choose Outcomes that are clearly stated and precise, and that they describe the changes that you want to achieve. Consider the impact that these changes will have on the environment, the community and on organisations, systems and practices.
- Make sure that your Outcomes relate directly to the program objectives.
- Make sure that there is a logical and attainable sequence of cause and effect between the Need and the Ultimate Outcome on the Hierarchy. (avoid leaps of faith and best guesses).
- Build in, and plan for, appropriate forms of evaluation from the start (e.g. data collection).
- Develop sound indicators for monitoring, and stick with them over time.
- Be realistic about the time frame and budget. Allow for changes in implementation based on evaluation.
- Check your project design against current good practice (benchmarking).

Section 3: Developing your Evaluation Framework

The Outcome Hierarchy provides the foundation for answering evaluation questions and developing measures of performance. It forms the basis of your evaluation framework (Table 2) because, without the hierarchy in place, the remainder of your evaluation planning has no strategic context or shape. The hierarchy forms one axis of the matrix that will become your evaluation framework. The other axis comprises:

- Evaluation questions
- Performance indicators
- Performance information
- Making judgements

Each of these is discussed below, and examples are provided in the two case studies. But first, to the overall Evaluation Framework table.

When you are developing the matrix for your project, you complete it for each outcome on the hierarchy in turn. Starting with Needs, work across that row and then up to the next row to Activities, etc. The amount of information in the matrix will vary depending on the dimensions of the program/project that you are evaluating. For example, more detailed information will be needed if the evaluation framework is being used to help design/evaluate your whole program, rather than to evaluate an individual project within the program.

> *"The evaluation planning framework helped me to put it all together. Sure it is complicated, but that's what makes it worthwhile when you use it to shape your evaluation."* [Evaluation Trainer, 2004].

Table 3. A Model for an Evaluation Framework based on the Outcome Hierarchy [see also *Appendix E*]

	Evaluation Questions	Performance Indicators	Performance Information	Making Judgements About Success (Did We Do Well?)
Ultimate Outcomes	-	-	-	-
Intermediate Outcomes	-	-	-	-
Immediate Outcomes	-	-	-	-
Activities	-	-	-	-
Needs	-	-	-	-

Evaluation Questions

You can use your outcome hierarchy to develop evaluation questions. These help you to clarify your stakeholders' and your own assumptions and expectations about your program, and form the basis of your evaluation. It is a good idea to develop these evaluation questions in discussion with your evaluation stakeholders. Your questions should reflect the priorities and purpose of the evaluation, and could relate to:

- **Appropriateness:** Does it make sense? Does the program address the needs?
- **Effectiveness:** Does it work? Does the program achieve the desired objectives/outcomes?
- **Efficiency:** Is it cost effective? Could we have made better use of resources?
- **Process:** Is it well managed? Is the method for making decisions and managing the project going ensure its success?

At the *'needs'* level, the evaluation asks basic questions: why is this project needed, and how do you know it is needed? These questions clarify who the stakeholders are, and check that your needs are correct, or if they should be modified. This will involve research into the needs and consultation with stakeholders, as outlined under Needs in Section Two.

At the *'activity'* level, the evaluation asks questions about resource use. It checks that inputs such as money and time are producing activities – such as events and materials – that are well targeted. This allows management to correct or value add where necessary.

At the level of *'immediate outcomes'*, the evaluation checks on the way that the program or project is being managed, and what it is delivering along the way.

At the level of *'intermediate outcomes'*, the evaluation asks if the program or project is achieving changes in participant's knowledge, skills or behaviour.

At the level of *'ultimate outcomes'*, the evaluation will consider if the outcomes have addressed the needs they were designed to benefit. This level of questioning confirms the 'logic' underpinning the education strategy design.

Case Study 1: Nevervale Council's Sediment and Erosion Control Project

Outcome Hierarchy	Evaluation Questions
Ultimate Outcome Decreased sedimentation of stormwater from construction/development sites.	Is there a reduction of sediments in stormwater? Is this reduction caused by improved sediment and erosion control practices?
Intermediate Outcome Best practice sediment and erosion control is used by builders/developers and council's outdoor staff. Reduced non-compliance with DA conditions.	Is best practice being used by builders/developers? Are council's own operations improving? Is compliance increasing? What are infringement notices being issued for?

Immediate Outcome Improved knowledge and awareness of best practice sediment and erosion control. Strengthened DCP policies and compliance procedures on sediment and erosion control. Increased enforcement of DA conditions.	Do builders/developers and council's outdoor staff understand their responsibilities under legislation, and the consequences of their poor practices on the waterway? Are building inspectors referring non-compliances to Rangers? Are Rangers enforcing DA conditions?
Activities Workshops held for builders/developers and council staff on sediment and erosion control. Review of DCP policies and procedures.	Did the right people attend? Who did not come, and why? Was there a better way to do this? Who participated in the review? What did the review find?
Needs Decrease sediments entering waterways from building/development sites. Encourage use of best practice sediment and erosion control amongst builders and developers, and council staff.	Do we know who is causing the sedimentation? Do we know what best practice sediment and erosion control is? Do we know of any demonstration sites in LGA?

Case Study 2: Billoughby City Council's Householder Sustainable Practice Project

Outcome Hierarchy	Evaluation Questions
Ultimate Outcomes Decreased waste to landfill, decreased water and energy usage.	Is there reduced waste to landfill, energy and water usage by residents of Billoughby?
Intermediate Outcomes Following demonstration days and promotional activity, 20% of householders in Billoughby can demonstrate more sustainable practices.	What percentage of Billoughby householders is demonstrating more sustainable practices at home?
Immediate Outcomes Raised community understanding of general issues of sustainability. Ten households change current practices in waste, water and energy. Level of environmental impact on household practice is documented.	Is the Billoughby community more aware of sustainability issues? Have householders volunteered for, and become involved in, the demonstration aspects of the project?

Activities Householders identified [by competition], and supported to retrofit their homes; household practices changed. A number of households used as 'demonstration' sites. Regular open houses and promotional activity.	Was the competition held? Did the council identify sufficient householders willing to be involved? Were demonstration days and promotional events conducted? What was the response to these?
Needs Increase the use of sustainable practices by householders, without negatively impacting on lifestyle choices. Demonstrate real household actions that have significant community impact.	What do we know about the Billoghby community and sustainability? What practices can householders undertake to live more sustainably?

Performance Indicators

You can use your Outcome Hierarchy to scope Performance Indicators for monitoring implementation and outcomes over time. Performance Indicators are designed to show that your program is delivering the expected output, and realising the outcomes that it is intended to produce. They are useful for monitoring the program's progress as it is being delivered. They can also provide data, which feeds into the evaluation proper. For relatively short projects, it is unlikely that indicators will be required or necessary. For whole program evaluations or longer term projects, these are useful. Evaluation is easier to manage and more appropriate if indicators are developed along the way.

Certain quality checks are needed when choosing indicators:

- Do your indicators help you to demonstrate the program's impact on meeting the need, rather than other factors?
- Are they measurable and affordable?
- Do the indicators measure changes within the timeframe of the initiative?
- Are the indicators **valid**? Do they use reliable and credible information?
- Are the indicators **feasible**? How easy is it to collect the information that will tell you how the performance indicator is rating?
- Are the indicators **useful**? Will they produce information that will help you with program implementation and future design?

"We knew what we wanted to do with the project and how we wanted to do it, so the Outcome Hierarchy model gave us a framework to put the project into, and develop the indicators for how we were going to make a judgment about the success or failure of the project."
Stormwater Education Manager 2002

Case Study 1: Nevervale Council Sediment and Erosion Control

Outcome Hierarchy	Evaluation Questions	Performance Indicators
Ultimate Outcome Decreased sedimentation of stormwater from construction/ development sites.	Is there a reduction of sediments in stormwater? Is this reduction caused by improved sediment and erosion control practices?	Visual/photographic evidence. Amount of sediment trapped in GPTs. Water quality monitoring statistics.
Intermediate Outcome Best practice sediment and erosion control is used by builders/ developers and counci'l's outdoor staff. Reduced non-compliance with DA conditions.	Is best practice being used by builders/developers? Are council's own operations improving? Is DA compliance increasing?	Increase in number of builders/developers improving their sediment and erosion control practices. Increased compliance with internal council environmental audits. Increased DA compliance.
Immediate Outcome Improved knowledge and awareness of best practice sediment and erosion control. Strengthened DCP policies and compliance procedures on sediment and erosion control. Increased enforcement of DA conditions.	Do builders/developers and council's outdoor staff understand their environmental responsibilities, and know what best practice is? Are DCP policies strengthened? Are building inspectors referring non-compliances to Rangers? Are Rangers enforcing DA conditions?	Positive response to post workshop phone survey. Decrease in non-compliances referred to Rangers by building inspectors. Decrease in numbers of infringement notices issued.
Activities Workshops held for builders/developers and council staff on sediment and erosion control. Review of DCP policies and procedures.	Did the right people attend? Who did not come, and why? Was there a better way to do this? Who participated in the review? What did the review find?	Well-attended workshops. Phone calls to those that did not attend. Number of recommendations from review of DCP adopted.

Needs Decrease in sediments entering waterways from building/ development sites. Encourage use of best practice sediment and erosion control amongst builders and developers and council staff.	Do we know who is causing the sedimentation? Do we know what best practice sediment and erosion control is? Do we know of any demonstration sites in LGA?	Focus group of builders/ developers. Discussions with building inspectors and compliance group. Analysis of any water quality monitoring. Photographic evidence of current practice.

Case Study 2: Billoughby City Council: Householder Sustainable Practice Project

Outcome Hierarchy	Evaluation Questions	Performance Indicators
Ultimate Outcomes Decreased waste to landfill, decreased water and energy usage.	Is there reduced waste to landfill, and energy and water usage by residents of Billoughby?	Review data on waste to landfill annually. Comparative analysis of volume.
Intermediate Outcomes Following demonstration days and promotional activity, 20% of householders in Billoughby can demonstrate more sustainable practices.	What percentage of Billoughby householders is demonstrating more sustainable practices at home?	Level of attendance at demonstration days. Extrapolated data from participating households on energy, water and waste practices in Billoughby
Immediate Outcomes Raised community understanding of general issues of sustainability. Ten households change current practices in waste, water and energy. Level of environmental impact on household practice is documented.	Is the Billoughby community more aware of sustainability issues? Have householders volunteered for, and become involved in, the demonstration aspects of the project?	Number of demonstration days held in first six months of project. Photographic records, etc. Comparison of water and electricity bills, using the quarter prior to the program. Number of articles in local press about the program.

Activities Householders identified [by competition], and supported to retrofit their homes; household practices changed. A number of households used as 'demonstration' sites. Regular open houses and promotional activity.	Was the competition held? Did the council identify sufficient householders willing to be involved? Were demonstration days and promotional events conducted? What was the response to these?	Competition entry form. Number of respondents to competition.
Needs Increase use of sustainable practices by householders, without negatively impacting on lifestyle choices. Demonstrate real household actions that have significant community impact.	What do we know about the Billoghby community and sustainability? What practices can householders undertake to live more sustainably?	Review of Billoughby Council State of the Environment Report and Management Plan. Review of local press mentions of sustainability issues [letters to editor, etc].

Performance Information [collecting the data]

Once you have developed your performance indicators, you will need to determine what quantitative (numerical) and/or qualitative (descriptive) information is needed in order to fully evaluate your program. You need to identify which are the most important aspects of your program, so that they can be measured. On most occasions, this means reviewing and giving a weighting to your outcomes. For some projects, the weighting across outcomes will be equal. For others, it may be necessary to obtain information about the activities and immediate outcomes very soon after the completion of the program. It is important that you analyse the level of importance of issues very carefully, and in consultation with your stakeholders. Otherwise, you may be putting a lot of evaluation effort into an outcome that is relatively low priority.

Performance information will help you answer your evaluation questions and provide data for analysis of your performance indicator. You need to identify the type of performance information to be collected, rather than the methods of collection. Options for the way you collect this information will flow from this. The information should describe the performance over time, or within different parts of the program or different client groups.

Then you need to consider if the information is accessible, how it might be gathered, and the cost of collection. You should assess the cost in

terms of dollars and officer time. For example, contracting out the collection task will cost you dollars, but save you time.

Some sources of information could include tools such as pre- and post-questionnaires; case studies; checklists and other surveys; and processes such as workshops, observation, interviews, focus groups; and literature reviews. It is beyond the scope of this document to provide a handbook on how data can be collected. However, Appendix F provides a very brief summary of the tools you might use to collect performance information. More detailed descriptions are available in *Every Day Evaluation on the Run* [see Resources Section page 48]. Additional information and suggestions can also be provided by specialist evaluators and by your peers.

It is part of good evaluation design to think about the performance information you need within an outcome hierarchy at the start of your program. This way, it is often possible to build the collection of this information into the design of the program in a cost effective way. Often, the information can be collected by the project manager or staff/volunteers during the delivery of the program, instead of using a specialist evaluator.

Case Study 1: Nevervale Council Sediment and Erosion Control Project: [Identifying your Performance Information]

Outcome Hierarchy	Evaluation Questions	Performance Indicators	Performance Information
Ultimate Outcome Decreased sedimentation of stormwater from construction/ development sites.	Is there a reduction of sediments in stormwater? Is this reduction caused by improved sediment and erosion control practices?	Visual/photographic evidence. Amount of sediment trapped in GPTs. Water quality monitoring statistics.	Photos, site reports. Monitoring, maintenance and WQ reports.
Intermediate Outcome Best practice sediment and erosion control is used by builders/ developers and council outdoor staff. Improved audit results of council sediment and erosion control operations. Reduced non-compliance with DA conditions.	Is best practice being used? Are council's own operations improving? Is compliance increasing? What are infringement notices been issued for?	Numbers of builders/developers changing their sediment and erosion control practices. Change in level of compliance in internal council environmental audits. Change in % compliance.	BA and DA reports, feedback, comments and meetings. Audit reports of council's activities. Infringement database. Infringement reports.
Immediate Outcome Improved knowledge and awareness of best practice sediment and erosion control. Strengthened DCP policies and compliance procedures on sediment and erosion control. Increased enforcement of DA conditions.	Do builders/developers and council's outdoor staff understand their responsibilities under legislation, and the consequences of their poor practice on the waterway? Are building inspectors referring non-compliances to Rangers? Are Rangers enforcing DA conditions?	Well-evaluated workshops. Positive response to post-workshop phone survey. Personal visits to builders who did not attend to provide educational resources, and follow-up mail survey. Number of non-compliances referred to Rangers by building inspectors. Number of infringement notices issued.	Evaluation results of workshops. Post-workshop phone survey data sheets. Mail survey results. Council KPI data. Infringement database.

Activities Workshops held for builders/ developers and council staff on sediment and erosion control. Review of DCP policies and procedures.	How many builders/developers came? Who did not come, and why? Was there a better way to do this? What did the review find?	Well-attended workshops. Phone calls to those that did not attend. Number of recommendations from review of DCP adopted.	Evaluation results of workshops. Review report.
Needs Decrease in sediments entering waterways from building/ development sites. Encourage use of best practice sediment and erosion control amongst builders and developers and council staff.	Do we know that sedimentation from this source is a problem? Do we know what best practice sediment and erosion control is? Are best practice controls being used for sediment and erosion? Are there any potential demonstration sites in LGA?	Focus group of builders/developers. Discussions with building inspectors and compliance group. Analysis of any water quality monitoring. Photographic evidence of current practice.	Focus group feedback. Notes, meetings. Water quality and monitoring reports. Photos.

Case Study 2: Billoughby City Council: Householder Sustainable Practice Project [identifying Performance Information]

Outcome Hierarchy	Evaluation Questions	Performance Indicators	Performance Information
Ultimate Outcomes Decreased waste to landfill, decreased water and energy usage.	Is there a reduction in waste to landfill, and in energy and water usage by residents of Billoughby?	Review of waste to landfill data annually, comparative analysis of volume.	Annual gross waste to landfill results for Billoughby Council. Annual volume of green waste collected by Billoughby Council. Annual water usage data for Billoughby Council [available from water authority].
Intermediate Outcomes Following demonstration days and promotional activity, 20% of householders in Billoughby can demonstrate more sustainable practices.	What percentage of Billoughby householders is demonstrating more sustainable practices at home?	Level of attendance at demonstration days. Data collection by survey of those who attend demonstration sites about water and energy usage. Extrapolated data from participating households on energy, water and waste practices in Billoughby.	Survey about current sustainability practices from those who attend demonstration sites. Collection of actual water and energy use data from 100 residents, and extrapolation to Billoughby.
Immediate Outcomes Raised community understanding of general issues of sustainability. Ten households change current practices in waste, water and energy. Level of environmental impact on household practice is documented.	Is the Billoughby community more aware of sustainability issues? Have householders volunteered for, and become involved in, the demonstration aspects of the project?	Number of demonstration days held in first six months of project. Photographic records, etc. Comparison of water and electricity bills, using the quarter prior to the program as a benchmark. Number of articles in local press about the program.	Telephone survey of a random sample of Billoughby residents about sustainable behaviours undertaken in the previous period. Comparison of water, energy and waste data from the demonstration sites.

Activities Householders identified [by competition], and supported to retrofit their homes; household practices changed. A number of households used as 'demonstration' sites. Regular open houses and promotional activity.	Was the competition held? Did the council identify sufficient householders willing to be involved? Were demonstration days and promotional events conducted? What was the response to these?	Competition entry form. Number of respondents to competition.	Competition entry data. Data from demonstration days: number of people who attended, number of information sheets distributed, etc. Promotional data [number of newspaper insertions, etc].
Needs Increase in use of sustainable practices by householders, without negatively impacting on lifestyle choices. Demonstrate real household actions that have significant community impact.	What do we know about the Billoghby community and sustainability? What practices can householders undertake to live more sustainably?	Review of Billoughby Council State of the Environment Report and Management Plan. Review of local press mentions of sustainability issues [letters to editor, etc].	Billoughby SOE Report. Press monitoring data. Calls to Billoughby Council information service.

Standard/Judgement Methods

Depending on the type of performance information collected, it may be possible to judge the success of your program in relation to some 'standards' or 'judgement' methods. You may be able to compare your performance with targets and milestones, or with client expectations. You could benchmark your program against best practice or professional standards (e.g. water quality standards). Best practice examples may be found by talking to other councils, or through literature reviews and web searches of programs similar to yours. Alternatively, you could benchmark your program against stakeholder criteria that has been set by your evaluation stakeholders in the planning stages of the program. If you are repeating a program that has been modified after it has been conducted previously and fully evaluated, you could also use those previous evaluation results as a benchmark for comparison.

Handy hints for fining standards or benchmarks

When you are attempting to locate standards or benchmarks for your program, the following hints might assist you:

- Identify a peak agency working in the area of focus for your project and seek assistance – there may be existing standards or benchmarks.
- Discuss the issue with your colleagues and peers, and seek their advice about possible sources of information.
- Talk to other education specialists who have conducted similar projects.
- Refer to your professional association and ask them for examples of similar projects or activities.
- Seek out other relevant professional associations and request their advice.
- Go to the literature. Conduct a web search for similar projects.
- Seek out academics working in the area and request their assistance.

You will note in the case studies below that some of the outcomes are unable to be compared against standards and/or benchmarks. This is not a major problem for your evaluation. However, when independent standards are available, the opportunity to use these should not be missed.

Note: The following two case studies now represent a complete evaluation framework for each project

Case Study 1: Nevervale Council Sediment and Erosion Control: Making Judgements about Success

Outcome Hierarchy	Evaluation Questions	Performance Indicators	Performance Information	Judgements about success
Ultimate Outcome Decreased sedimentation of stormwater from construction /development sites.	Is there a reduction of sediments in stormwater? Is this reduction caused by improved sediment and erosion control practices?	Visual/photographic evidence. Amount of sediment trapped in GPTs. Water quality monitoring statistics.	Photos, site reports. Monitoring, maintenance and WQ reports.	Comparison with water quality standards and trend data over time.
Intermediate Outcome Best practice sediment and erosion control is used by builders/developers and council's outdoor staff. Improved audit results of council sediment and erosion control operations. Reduced non-compliance with DA conditions.	Is best practice being used? Are council's own operations improving? Is compliance increasing? What are infringement notices been issued for?	Number of builders/ developers changing their sediment and erosion control practices. Change in level of compliance in internal council environmental audits. Change in % compliance.	BA and DA reports, feedback, comments and meetings. Audit reports of council's activities. Infringement database. Infringement reports.	Benchmark review of best practice in sediment and erosion control. 100% compliance with audit recommendations.
Immediate Outcome Improved knowledge and awareness of best practice sediment and erosion control. Strengthened DCP policies and compliance procedures on sediment and erosion control. Increased enforcement of DA conditions.	Do builders /developers and council's outdoor staff understand their responsibilities under legislation, and the consequences of their poor practice on the waterway? Are building inspectors referring non-compliances to Rangers? Are Rangers enforcing DA conditions?	Well-evaluated workshops. Positive response to post-workshop phone survey. Personal visits to builders who did not attend, with educational resources; follow-up mail survey. Number of non-compliances referred to Rangers by building inspectors. Number of infringement notices issued.	Evaluation results of workshops. Post-workshop phone survey data sheets. Mail survey results. Council KPI data. Infringement database.	No relevant standards available.

Activities Workshops held for builders/ developers and council staff on sediment and erosion control. Review of DCP policies and procedures.	How many builders/ developers came? Who did not come, and why? Was there a better way to do this? What did the review find?	Well- ttended workshops. Phone calls to those that did not attend. Number of recommendations from review of DCP adopted.	Evaluation results of workshops. Review report.	No relevant standards available.
Needs Decrease in sediments entering waterways from building/development sites. Encourage use of best practice sediment and erosion control amongst builders/developers and council staff.	Do we know that sedimentation from this source is a problem? Do we know what best practice sediment and erosion control is? Are best practice controls being used for sediment and erosion? Are there any potential demonstration sites in LGA?	Focus group of builders/ developers. Discussions with building inspectors and compliance group. Analysis of any water quality monitoring. Photographic evidence of current practice.	Focus group feedback. Notes, meetings. Water quality and monitoring reports. Photos.	Priorities within the Stormwater Management Plan.

Case Study 2: Billoughby City Council: Householder Sustainable Practice Project [Making Judgements About Success]

Outcome Hierarchy	Evaluation Questions	Performance Indicators	Performance Information	Judgements about success
Ultimate Outcomes Decreased waste to landfill, decreased water and energy usage.	Is there a reduction in waste to landfill, and in energy and water usage by residents of Billoughby?	Review waste to landfill data annually, comparative analysis of volume.	Annual gross waste to landfill results for Billoughby Council. Annual volume of green waste collected Billoughby Council. Annual water usage data for Billoughby Council [if available from water authority].	Comparisons of waste to landfill and water usage with councils of similar size and demographics.
Intermediate Outcomes Following demonstration days and promotional activity, 20% of householders in Billoughby can demonstrate more sustainable practices.	What percentage of Billoughby householders is demonstrating more sustainable practices at home?	Level of attendance at demonstration days. Data collection by survey of those who attend demonstration sites about water and energy usage. Extrapolated data from participating households on energy, water and waste practices in Billoughby.	Survey about current sustainability practices from those who attend demonstration sites. Collection of actual water and energy use data from 100 residents, and extrapolation to Billoughby.	Comparisons between household water and energy usage between those who retrofitted their houses and changed behaviours, and those who did not. Compare in Billoughby, and in other council areas.

Immediate Outcomes Raised community understanding of general issues of sustainability. Ten households change current practices with waste, water and energy. Level of environmental impact on household practice is documented.	Is the Billoughby community more aware of sustainability issues? Have householders volunteered for, and become involved in, the demonstration aspects of the project?	Number of demonstration days held in first six months of project. Photographic records, etc. Comparison of water and electricity bills, using the quarter prior to the program as a benchmark. Number of articles in local press about the program.	Telephone survey of a random sample of Billoughby residents about sustainable behaviours undertaken in the previous period. Comparison of water, energy and waste data from the demonstration sites.	Comparison of attitudes towards sustainability of Billoughby residents with those elsewhere in NSW [comparison to Who cares about the environment data, or ABS data].
Activities Householders identified [by competition], and supported to retrofit their homes; household practices changed. A number of households used as 'demonstration' sites. Regular open houses and promotional activity.	Was the competition held? Did the council identify sufficient householders wllhing to be involved? Were demonstration days and promotional events conducted? What was the response to these?	Competition entry form. Number of respondents to competition.	Competition entry data. Data from demonstration days, number of people who attended, number of information sheets distributed, etc. Promotional data [number of newspaper insertions etc].	Not available standards.
Needs Increase in the use of sustainable practices by householders, without negatively impacting on lifestyle choices. Demonstrate real household actions that have significant community impact.	What do we know about the Billoghby community and sustainability? What practices can householders undertake to live more sustainably?	Review of Billoughby Council State of the Environment Report and Management Plan. Review of local press mentions of sustainability issues [letters to editor, etc].	Billoughby SOE Report. Press monitoring data. Calls to Billoughby Council information service.	No available standards.

Section 4: Learning from your Evaluation

Monitoring your Program

Monitoring your program means checking that it is reaching its expected level of performance (as defined by your standard/ judgement method) over time. Check using the performance indicators that you identified in your Evaluation Framework [See Section 3].

Setting up a monitoring system can often simply involve gathering your performance information and entering it into a database that you can analyse, to track your results. This is especially applicable when quantitative data is obtained. It is important to enter information from the same source at regular intervals, and to compare the results with past results each time. If the information you are gathering is numerical (participation numbers, for example), then you can produce graphs to plot performance over time. If the information is verbal or visual, then you need to report on progress using appropriate reporting forms: e.g. comparative photographs to plot physical changes, or quotations to plot participants' responses.

Monitoring can act as an early warning system, telling you where you are having problems. This allows you to deal with them early without jeopardising the whole project. It also tells you where your successes are occurring, for future program design. Monitoring your program forms the basis of evaluation reporting [see below].

Monitoring can also be used to inform decisions about the way the program is managed. (See Appendix B. Forms of Management that Informs Decisions).

> *"The Outcome Hierarchy created ideas for the project plan and its evaluation, but we did not always have the project results to work on once we were into implementation. We learned to use the hierarchy more frequently, to monitor our progress and to help us to change what we were doing in an adaptive management way. The hierarchy is good for comparing beginning and end of project results so we can track what we achieved."* [Workshop participant].

It is important to keep your stakeholders informed about the information that you are identifying in the monitoring process. This will encourage them to continue to support their level of ownership of the program, and ensure that they are informed before any major changes are made. Stakeholders' views are essential to the success of the program, so keep them in the loop.

Helpful hints about monitoring your program

- Make sure that your information sources are accessible for the whole time you will need them, and that they are able to provide the information at the time that you will need it.
- Stay simple – just track one or two indicators. Review the indicators to determine which are most important.
- Make sure that the indicators answer questions that are critical to success.
- Enter your information regularly, and report regularly to help you spot problems in time.
- Don't jump to conclusions about what a problem is, or why it exists – use the monitoring information to inform discussion.
- Keep your stakeholders informed throughout the project about the results of your monitoring processes. Be prepared to discuss these openly with a view to program adaptation if necessary.

Reporting the Findings of your Evaluation

When you analyse your monitoring data, you start to make findings about your program's level of performance, based on some standard/judgement method. You can compare these findings with your evaluation objectives, and start to make draft conclusions, value judgements and recommendations about your program. You should then consult with your stakeholders on the accuracy and appropriateness of these, and make modifications where needed. All this information can then be combined into a final report on the evaluation. In the past, evaluation used to be opaque, in that it often occurred in-house and with very little input from stakeholders. Increasingly, a more transparent, participatory approach is used in evaluation, with stakeholders invited to explore the meaning of the evaluation information, and to contribute to findings, value judgements and recommendations.

Evaluation potentially produces four kinds of knowledge. All could be included in the evaluation report:

- **Findings:** evidence about the program's process, performance, output or outcomes.
- **Conclusions:** bringing numerical and verbal information together to identify what has been learned.
- **Value judgements:** state whether the conclusions, indicate 'good' or 'bad', and their extent (e.g. effective, ineffective; efficient, inefficient; appropriate, inappropriate).
- **Recommendations:** advice about what program management, council, or other stakeholders could do next, given what has been learned from the evaluation.

When you write your evaluation report, you need to consider each of these areas of knowledge to determine the extent to which you report on each. In doing this, it is important to know who your audience will be, and what they will do with the information. While various audiences require different forms of reporting and different levels of detail, at the minimum, all evaluation reports should include the following:

- A summary, and a list of findings, judgements and/or recommendations;
- A brief description of the evaluation objectives, method, participants and limitations;
- A brief description of the project background, description, management, participants, objectives and method;
- A section on evaluation findings. Evaluation results and their sources should be displayed.
- A section on the conclusions drawn from the evaluation; and
- A summary section, [this may be an executive summary] describing what was learnt from the evaluation, and who should know about this information.

Some helpful hints about evaluation reporting

Managing evaluation information

- Number all surveys and other accounts as you receive them, and update your tallies regularly.
- Use Excel or equivalent program for data entry so that totals are automated.
- Double check all data entries (numerical and quotations) for accuracy.

Displaying the evidence

- Display results (numerical totals and all, or selected, quotations).
- For data display purposes, there is no need to make verbal statements about the conclusions where information can be drawn from the data.
- Make sure that you explain the evaluation's purpose to your audience.
- Extrapolate data to your whole population. For example, "35% indicated that …. . This equates to xx people in the Council area". This is an important factor in making your findings real.

Making value judgements

- Each project Outcome deserves its own value judgement, if appropriate.
- Different Outcomes have different value judgements.
- It is not necessary to make a single value judgement about a whole project.
- Value judgements need to be made using recognised criteria for assessing success.
- The people making the value judgement need to be given the authority to do so.
- The consequences of making the judgement need to be taken into account.
- The recipient of the judgement should be to be respected at all times, even if they behave inappropriately.

Drawing the conclusions

- The conclusions must be drawn form the findings of the evaluation. Do not draw in data from elsewhere.
- The conclusions must be about issues of significance.
- The conclusions form the link between findings and recommendations [if recommendations are to be made].
- The conclusions must stand alone as the final section of the report [if need be].

Making recommendations

- Recommendations flow directly from conclusions of the evaluation. They might refer to findings.
- Don't jump too quickly to make recommendations on obvious courses of action; consider all issues before recommending a way forward. The best recommendations have been carefully considered.
- Question your assumptions in making the recommendation.
- Think of other options.
- Consider factors such as cost, time, effect, effort and morale.
- Number the recommendations.
- Be action-oriented by clearly recommending actions that need to happen. Set a time frame, and state who is responsible for each action.
- Use precise, concrete language in your recommendations.
- Gather recommendations under theme headings or program outcomes.

Providing an Executive Summary

- Often an evaluation report is long and somewhat difficult to read. It is important that all reports provide an executive summary, which contains the headline findings and conclusions. It would be useful if this pointed directly to the recommendations, if they cannot be contained in the body of the summary.

Using the Findings of your Evaluation

Once your evaluation is finished, your evaluation report is the main means of communicating with your stakeholders and decision makers about your program or project. It should hold 'no surprises' for your stakeholders because they have been involved in consultation throughout the process. The report is a summary of knowledge that has been gained through the evaluation, and is an important means of giving feedback to stakeholders. It enhances their ownership of the evaluation's outcomes, and increases the likelihood of their involvement in future programs.

Often, once the report has been completed, it can be used to drive the provision of public information about the project/program and its successes. This can be by means of a press release, and/or a launch event for the report. Seminars or briefings that present the findings of the project can also be held, and/or an article drafted for a journal or newspaper. This promotional component is important. It places the project on the public record, and promotes further similar or follow-up projects.

Evaluation reports tell us what we are doing, what is working. They measure the extent of success and how this compares to recognised standards. They also tell us what it all means. The findings of your evaluation can be used

for decision-making, accountability, and to improve existing programs. Decisions about improvements can be made at any time during the evaluation for continuous improvement, or they can be used to improve the way that future programs or projects are designed. Findings from your evaluation can also be used to inform decisions about the way the program or project is managed (See Appendix B: *Forms of Management that Informs Decisions*).

Section 5: Addressing Evaluation Problems

Not all evaluation processes go smoothly. While following the steps in this booklet will assist you to plan and conduct high quality evaluations, the process does sometimes go awry. The following dot points summarise some of the reasons for this.

- Conflicting stakeholder interests, leading to tension between stakeholders about the findings of the report.
- Neglecting stakeholder interests in the evaluation process.
- Too many outcomes, or unrelated outcomes being addressed in the one program.
- An unclear program logic, and causing outcomes that don't flow logically in the hierarchy.
- A program that is actually harmful and lacking in transparency.
- Poor decision-making and communication about the program and the evaluation.
- Lack of flexibility in program implementation; lack of coordination between management and implementation operatives.
- Inability to obtain quality arms-length data. Poor performance information processes.
- Inability to read the signs that the process is failing early enough.
- Poor use of performance indicator data and/or poor monitoring.
- Lack of a clear, open reporting process.
- No clarity about what the judgement stage is trying to do.
- Lack of competence on behalf of the evaluator and/or the program manager.
- Lack of real commitment to quality evaluation.

If the evaluation is not progressing smoothly, it is important to identify why, and to set it right as soon as possible. This demands good project management and strategic skills on behalf of the project manager and the evaluator, and a willingness to call a halt and determine what is wrong.

It is important to note that finding out that your program/project is not meeting its objectives is not an evaluation problem. The independence of the evaluation process is important. It enables you to find out what worked and what did not, and respond accordingly.

Helpful hints about managing a difficult evaluation

- When stakeholder confluence of views is an issue, try to respond to the interests of parties fairly, despite how you are being treated. Try to meet at least one need of each party effectively.
- Where a situation is impossible, identify it as such. If possible, bring parties to the negotiating table to try to come to an agreement about what to do with the evaluation.
- Try to create an evaluation process that fits the idiosyncrasies of the project, even if it doesn't feel like a very comprehensive evaluation to you.
- Don't put out false findings; at no time compromise your ethics as an evaluator.
- Assess negative findings clearly and openly. Talk with people about why the project failed.
- In your report, document clearly the limitations within which you have had to work.
- Report in a way that the stakeholders can understand and respond to.
- Always treat the participants and stakeholders with respect, understanding that the problems are more likely to be associated with structural issues than personality-based ones.
- Where possible, provide the results of the evaluation to all of those that provided data.
- Be open about discussing the findings in depth.
- Use the Outcome Hierarchy to guide you through each step of the evaluation.

Section 6: Conclusion

Evaluating the outcomes of your education programs is essential. This is not a luxury item, but a 'must do' in all cases.

It is no longer good enough for those developing and delivering education to rely on 'gut feel' about whether a project or a program has worked. Projects and programs that are not evaluated lack credibility and substance. While not all practitioners will want to become researchers, every education practitioner should be able to appreciate evaluation methods, and be able to conduct an appropriate level of evaluation of their programs.

It is the responsibility of all education professionals who are conducting programs/projects to determine whether their work is making a difference. Given that significant time and energy is put into the design of an intervention, an equal commitment must be given to determining its successes and failures.

When you find out the extent to which a project has been successful, the rewards are visible, and the impact is obvious.

Appendix A:
Hypothetical Case Studies Used Throughout this Document

Case Study 1:

Nervervale Council. Sediment and Erosion Control Project.

About the Council

Nevervale is a large regional council with 61,000 residents. It is the amalgamation of two councils, which previously covered the town centre and the outlying rural areas. Nevervale has a substantial tourist and agricultural base, and is undergoing a construction boom

What is the Problem/Issue?

Nevervale Council's Stormwater Management Plan has identified sedimentation in stormwater on construction/ development sites as a priority issue to be addressed over the next six months. All stormwater runoff from the sites flows into Nevervale Creek. This causes major pollution problems for the creek, which is central to the city's tourism industry.

Who are the Stakeholders?

A working group was formed which included the council's building inspector, environmental health manager and ranger, and two local builders who had a good reputation for best practice in sediment and erosion control. These are the project's stakeholders, along with council and the local branch of the Master Builders Association.

Who are the Targets?

The working group has developed a plan to work with the local builders and developers to improve their knowledge and awareness of sediment and erosion control. They will follow this up by monitoring the change in their practices on the building/construction sites. Council staff are also a target for this project.

What are the Objectives/Outcomes?

To improve the knowledge and practices of builders and developers in the ways that sediment and erosion control is managed onsite.

To improve the understanding of council staff about sediment and erosion issues from building sites.

To improve council practices in managing sediment runoff and erosion on its own construction sites.

What education methods will be used?

The principle method to be used will be a series of workshops with the local builders and developers. As well, the working group has decided to review council's policies and procedures on sediment and erosion control to determine if they are adequate. The group also wants to improve council's own sediment and erosion control practices, and so internal workshops are also planned

What is the project's budget?

The project has a budget of $20,000

Case Study 2:

Billoughby City Council. Householder Sustainable Practice Project.

About the Council

Billoughby Council is an inner metropolitan council with 56,000 residents. They are mostly English-speaking, older middle class professionals who own their home. Small pockets of younger people live in multi unit dwellings [mostly rented]. A small group of Mandarin-speaking residents live in a part of one suburb. Single unit dwellings are older, and tend to be a little run-down.

What is the Problem/Issue?

Most residents in Billoughby do not engage in sustainable practices at home. A local survey has identified that they do practice kerbside recycling, but do not avoid waste generation, or compost at home. They tend to use significant amounts of energy and water.

Who are the Stakeholders?

Stakeholders include:

- Mayor and Councillors of Billoughby Council;
- Members of the small local environmental community group;
- Members of the Chinese community;
- Council waste management program staff; and
- Real estate agents in the community.

Who does the project target?

Primary target:
All homeowners in Billoughby Council area.

Secondary target:
All renters in the Billoughby Council area.

What are the objectives of the project?

This project aims at encouraging all householders in Billoughby to:

- Consume less and avoid waste generation;
- Compost all garden and appropriate food waste;.
- Reduce the use of energy and water at home; and
- Engage more in green waste recycling.

What education methods will be used?

Initially the council will conduct a competition to find homeowners who would be prepared to make sustainability changes at home. An incentive of $500 per household will be offered. Promotion of the competition will occur through the mayor's column in the local paper, and via the community radio station. Selected households [including at least one Chinese-speaking household] will then be used as demonstration sites by Council. Householders who are selected will need to agree, at the least, to undertake the following:

- Retrofit their homes as negotiated. The $500 will assist them to do this, in setting up composting systems and making changes to purchasing behaviour, etc.
- Open their homes twice yearly [two days only] as a demonstration site [Council will advertise dates of opening in the local newspaper.
- Provide pre and post data to Council, as indicated below, on a six monthly basis, and provide Billoughby Council with a waiver to use this data as they see fit. Data will include:

- Waste: Weight of waste to garbage collection, weekly. Weight of material to compost, weekly. Volume of green waste to Council Collection [other reuse actions if identified], monthly. Volume of compost generated;
- Energy: Energy use data [gas and electric] provided pre retrofitting, and at six monthly intervals; and
- Water: Water use data [from water bill] provided at benchmark, and every six months.

- Council will use this data as the basis for an education program with the wider community about waste reduction and sustainability. This will comprise a newspaper insert, and Promotions through other print and electronic media. All print material to be available in Mandarin.

What is the project budget?

$5,000 for incentive competition [10 households at $500/household]; $4,000 to support demonstration events; $10,000 to buy space in the local newspaper [insert plus advertising over the course of the program]. Evaluation at no cost as it will be done in-house.

Appendix B: Forms of Management that Inform Decisions

There are two particular forms of management that make evaluation reporting central to informing decisions: they are *adaptive* and *integrated* management.

Adaptive Management

Adaptive management allows you to change, in an orderly and accountable way, elements of a program's design or plan, or change the way the project is managed in order to produce better results. Decisions to change course are not *ad hoc*, but the result of evidence of progress. Once the decision to change is made, there are processes to follow to ensure that the change is tracked across the program so as to monitor its effect on output and Outcomes. Changes are made to the Outcome Hierarchy, and to evaluation systems and tools accordingly.

Adaptive management is made up of six steps:

- Problem assessment and decision to act.
- Addressing program and evaluation design.
- Implementing new course of action.
- Monitoring changes.
- Adapting Outcome Hierarchy.
- Adapting evaluation plan.

Adaptive management helps you to find better ways to meet Needs, identify gaps in understanding, change practices to fit changed circumstances, save resources, and encourage innovation and learning. It also shows participants how to economically manage the knowledge they gain from experiences, and helps foster a learning culture within an organisation. The Outcome Hierarchy can guide these decisions and be adapted accordingly; evaluation output informs such decisions.

Integrated Management

Outcome Hierarchies can identify situations where integration will be needed to support a particular Outcome. Evaluation findings can plot its development when it is included as a performance indicator.

Integrated management allows you to be aware of, and consider a program's effect on, other people, contexts and activities, for maximum benefit. It is the opposite of what is commonly referred to as 'silo' thinking – where people, systems and activities are allocated discrete boundaries and lines of control, with the right hand not knowing what the left hand is doing.

Integrated management is used in many different elements of a program:

- setting up implementation structures such as multi-stakeholder groups or committees;
- carrying out activities such as communicating across departments, units within departments, and programs and projects within the units;
- thinking about the Needs being met, qualitative and quantitative information, multi-disciplinary skills and responses; and
- planning a program's scope, including past, present and future timelines, sub-catchment, whole catchment and multi-catchment planning, and linking social, economic and environmental Outcomes.

Integrated approaches enable organisations to deal with complexity. Complex problems create complex Needs, and integrated responses can meet them. Integration should be considered at all stages of a program's life cycle, planned in the beginning and developed through adaptive management to its completion. Integrated management requires good communication, holistic thinking, and the ability to work with difference and build communities around programs.

Appendix C: Using Consultants for your Evaluation

Establishment of a Steering Committee or Working Group

It is often helpful to establish a small steering committee or working group to support the program manager in carrying out the day-to-day responsibilities of managing the evaluation consultancy. The role of such a group is to support the program manager to achieve a high quality evaluation that is useful to decision makers and program staff. It should be formed as soon as planning for the program commences, and should oversee all stages of the evaluation. The group could be drawn from a mix of program staff, other council members and members of the target audience. The group can provide advice on the extent to which external assistance is required to conduct and/or plan the evaluation [see Section 1].

Whether or not a steering committee/working group is established, the program manager will still need to manage any consultancy/contractor.

The Consultancy [Contractor] Brief

The following are some major headings that can be used as a basis for preparing a consultancy brief:

A broad statement of why the evaluation is being done, and for whom.

Background on the council/host agency, and the context for the program being evaluated – consultants may not be familiar with your organisation, or the program. This should also include a clear statement of the program's objectives.

Evaluation Objectives – as well as stating the key objectives, it should include the issues, questions or topics that the evaluation will address.

Scope of the Study – define the boundaries of the evaluation project. If only part of the program is being evaluated under this brief, specify which aspects of the evaluation the consultancy will be involved in, and how these will link to other elements of the evaluation. Similarly, if you require the contractor to take on only a part of the evaluation process, specify this clearly.

Nature of the Evaluation – specify the exact nature of the evaluation that you require. Is it summative, formative or process; is it really a needs assessment?

Project Activities – state the nature, format and number of reports to be provided. This could include presentations to council on preliminary findings, or for review meetings, or arrangements for skills transfer between the consultant and council staff.

Timetable – including start and finish times, and when progress reports, and draft and final reports are due.

Budget – broad indication of the financial resources available for the consultancy. This can provide a guide to the depth of the study expected.

Project Management – contact details for the project manager

Copyright and Intellectual Property Rights

The process of seeking proposals will need to follow your own organisation's requirements regarding seeking expressions of interest and/or tendering. The selection of the consultant should be based on agreed selection criteria; these could be developed by your selection committee or working group.

Appendix D: Standards and Guidelines for Program Evaluation

Program Evaluation Standards (Joint Committee on Standards for Education Evaluation, 1994) that identify evaluation principles have been developed. When these are addressed, the result should be improved program evaluations which contain the four basic attributes:

- **Utility Standards:** intended to ensure that an evaluation will serve the information needs of intended users.
- **Feasibility Standards:** intended to ensure that an evaluation will be realistic, prudent, diplomatic and frugal.
- **Propriety Standards:** intended to ensure that an evaluation will be conducted legally, ethically and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results.
- **Accuracy Standards:** intended to ensure that an evaluation will reveal and convey technically adequate information about the features that determine the worth or merit of the program being evaluated.

The Australasian Evaluation Society (**www.aes.asn.au**) has also produced guidelines for the ethical conduct of evaluations. These are intended to promote the ethical practice of evaluation, and assist in recognising and resolving particular ethical issues that arise in the course of an evaluation. The guidelines are particularly directed towards the evaluation of programs. They refer to three main stages of commissioning, preparing, conducting and reporting an evaluation.

Appendix E: Outcomes Hierarchy Framework Template

Outcomes Hierarchy	Measures		Information sources	Standard/ judgement method	Evaluation output use
	Evaluation questions	Indicators			
Ultimate outcomes					
Intermediate outcomes					
Immediate outcomes					
Activities					
Needs					

Evaluation Framework Explanatory Notes

Outcomes Hierarchy

- **Ultimate outcomes** – impact on the overall problem and ultimate goals (biophysical, social/economic, organisational, communications).
- **Intermediate outcomes** – changes in individual and group knowledge, attitudes and skills; changes in aspirations, intentions, practices and behaviour.
- **Immediate outcomes** – levels and nature of participation; reactions to the activities by participants/ stakeholders.
- **Activities** – what products/services/ activities the program actually offers to engage participants.
- **Needs** – priority issues that the program must respond to (physical/catchment issues, social, organisational, communications), based on existing or new information (policies, data, consultation, research).

Evaluation Questions

Depending on *purpose*, evaluations relate to a variety of issues concerning:

- **Appropriateness** (does it make sense?). Does the program address the right issues? Is there a need for it? Do the objectives address the need?
- **Effectiveness** (did it work?). Did the program achieve the desired objectives/outcomes?
- **Efficiency** (was it cost effective?). Could we have made better use of resources?
- **Process** (was it well managed?). Did the method used for making decisions and managing the project ensure its success?

Indicators of Outcomes

The following questions can be asked to determine if all indicators are worthwhile:

- **Are the indicators valid?** Do the indicators accurately focus on the outcomes, and describe the program's situation? Are they observable and measurable?
- **Are the indicators universal?** Do the various indicators link together and provide a broad picture of the program and its targeted outcomes? Do they cover enough levels in the evaluation framework?
- **Does each indicator tell what characteristic or change will be counted?** Does the indicator tell the amount of change that is expected? Will the indicators reflect both positive and negative outcomes?
- **Will the indicators enable generalising from sample data to larger populations?** Can data be obtained from a sample of the population that will accurately represent the total program?
- **Are the indicators broad enough that they can be cumulative across various activities within a program?** Will the date accommodate variations in sites, activities, and outcomes?

- **Are the indicators affordable?** Are resources available to gather the data or the acceptable evidence for the indicators?

Information Sources

Information sources could include such things as:

Statistical: Surveys, checklists and inventories, tests, statistical data banks, public and academic reports.

Written: Diaries, interviews, workshop notes, electronic communication, reflective reporting, minutes, plans, formal documents (policies, agreements).

Aural: Interviews, workshops, focus groups, radio tapes, teleconferences.

Visual: Time lapse and stills photography and videos, visual arts, maps and mind maps.

Evaluation Output Use

Evaluation is a process, not a product. It can be used to:

- **Integrate** into all stages of program: designing, monitoring and reflecting on success.
- **Adaptively** manage the project (formative).
- **Communicate/report**, discuss, theorise, redesign (summative).

Standard/Judgement Method

How can we make judgements about success? We can use:

- Stakeholder criteria and approval.
- Accepted standards of water quality.
- Cost-benefit analysis (funding, time).
- Predetermined level.

Appendix F: Brief Description of some Evaluation Tools

The following are brief descriptions of useful ways of collecting data, an essential tool and process of evaluation. For more information about these methods, see *Everyday Evaluation on the Run* or *The Evaluation Handbook for Health Professionals* [Reference List page 48].

Questionnaires [Pre and post. Telephone, written or face-to-face]: These involve the crafting of a questionnaire or survey to be completed by evaluation participants. They can be standardised or validated for a specific purpose, and can be used to collect quantitative or qualitative data. Questionnaires can be used to collect information on participants' knowledge, attitudes, behaviour and awareness. Data collation and analysis can be computer-aided, and the results entered on a database. Random sampling can be used and results triangulated with other methods of data collection. This can also be done within the questionnaire by asking the same question in two or three different ways.

Case Studies: This method involves the written documentation of the ways that particular individuals or organisations responded to a program. They are both evaluative and demonstrative in nature. It is a means of obtaining qualitative information which will assist in the evaluation of the program. Similarly, the case study can be used as an example of positive practice that occurred as a result of the program, and so will encourage the involvement of others.

Checklists: These are routine data collection methods that are purpose built for the project. They are often used for service evaluations where it is important to collect data about client contact on a daily or weekly basis.

Routine data collection: Data collection at a population level. It can be broad scale [for example, how many people are in this particular non-English speaking target group, using data from the ABS census] or specific to project [for example, how many people attended this workshop].

Observation: Observation can take place anywhere at any time, and is particularly useful for collecting data about behaviour. The observer can be a participant in the program, or a passive observer. Specific records of observations need to be kept. These include written notes, photographs, video records, audit results, etc. Observation as an evaluation method particularly suits programs where the target is expected to behave differently.

Interviews [telephone or face to face]: These involve one-on-one discussion between the evaluator and the subject of the interview. They might occur in a structured manner, where a questionnaire or discussion guide is used. At times, however, they might be semi-structured, or not structured at all [for example, "Can we talk about this project?"].

Focus groups: These involve the identification of groups of between 5 and 12 people who are then involved in a facilitated discussion about the outcomes of a project. The groups should reflect the population that is targeted by the project, although sometimes focus groups of stakeholders might be used. The facilitator will use a purpose-built discussion guide to ensure that the process obtains the data required. Data is analysed through the grouping of like information, then the identification of key themes and findings. Note that the data collected is qualitative in nature.

Literature reviews: A useful precursor to the evaluation proper. Literature reviews can be extensive or more precise. They will help establish the framework for both the program and its evaluation, and will often identify benchmarks that are useful for the Standard Judgement part of the framework. Also, this process will sometimes unearth useful evaluation tools that will save a lot of work for the program manager.

Diaries: The keeping of a diary about what is being learned as a result of a program is useful for long face-to-face training and/or community development projects. It can be used when there is a need to explore attitudes, determinants, processes and/or experiences. A diary can be totally unstructured, or focus on specific issues or processes.

Ethnographic studies: Such studies provide a written description of the rules, norms and traditions of a particular ethnographic group. They offer real life evidence of activity, and integration of theory and practice within a group.

Resources

Referred Readings

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Some Useful Web Sites

For Outcome Hierarchy:

Community Evaluation Network: *Finding the Best Outcome Approach for your Community Programs*

http://depts.washington.edu/hprc/CRC/reports [select Outcome 5 document]

For evaluation:

Australian Evaluation Society

www.aes.asn.au

Dr Paul Duignan: Introduction to Strategic Evaluation

www.parkerduignan.com/documents/104.htm

For using Outcome Hierarchies for stormwater management and planning:

www.environment.nsw.gov.au/stormwater/usp

For Planning of Education

What We Need Is…….A Community Education Project

www.environment.nsw.gov.au/internet/community/edproject

stormwater
TRUST
A NSW Government initiative

sustainable
learn
engage
needs
activities