

# Final Report

## Review

of the

Ministry of Environment, Lands and Parks

## Eco Education Program

RFP #PPR9060



by

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EcoLeaders Interpretation

# Final Report

## Review of The Ministry of Environment, Lands and Parks Eco Education Program

RFP # PPR9060



SAMPLE PAGES

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# What This Review Is

## Snapshot of the Program

This review is a snapshot of the Eco Ed/Grizz Ed Program taken over a two month period, December 1998 to January 1999. It includes not just the review teams observations but both internal and external observations and perceptions about the whole program or individual components of it. The review provides an overall view of the program at a single point in time including reviews of:

- program foundations, the overall guiding principles, goals and objectives of the program
- how these program foundations are applied to program components, in-class sessions, communications, support materials and in some cases program administration
- the consistency of messages delivered by the above program components
- program evaluation
- carrying capacity of the program, the ability of the various program elements to grow to meet the needs of teachers and students
- gaps in the overall program in the present market place

The review identifies findings in the above steps and discusses implications of the findings and when appropriate, lists options that may be considered for moving forward in the development of the program.

## A Reference Document

The findings are clearly articulated and described using a variety of good practice or current practice models to explain findings. The review team included many definitions and examples of good practice that can be used by educators, program supervisors and the program manager in developing and planning components as they see fit. The models are used as mirrors and the staff may or may not want to continue to use these models.

The large number of options described in this review represents, we believe, not only the size and complexity of this expanding program but also the evolutionary stage that the program is in. As such, these options also represent the many directions that any environmental education program can go. These directions vary with different audiences, changing audiences and other organisations delivering programs with similar messages.

It was the intent of the review team to show the variation of approaches that could be taken. Hence the large number of options. They may be a useful reference for some time to come rather than a 'quick fix it' set of recommendations.

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## What This Review Is Not

This review is not:

- an evaluation of the program or its components
- an analysis of the outcomes of the program
- a complete summary of the program – because of time and budget constraints some details may have been missed or be inaccurate
- a planning document that outlines a process for renewing the program
- a complete review of the evolution of the program over time from its inception to the present
- a training document fully describing all aspects of good practice, and techniques for teaching and presentation
- a complete inventory of good practice models to be considered
- representative of one viewpoint - many are represented from external and internal sources

## How to Use This Document

### Overview of the Overall Program

The review can be used by Eco Ed/Grizz Ed and MoELP staff as snapshot of the program at the time of the review (December 1998/January 1999). It could be used as a benchmark against which to review the program over a number of years.

### A Foundation For Planning for The Future

Originally, this document was intended as a starting place for a comprehensive evaluation and update of the present program. The review team also feels that it could be a strong foundation for planning and adjusting the program to meet the changing environmental education conditions in BC. The planning process could include the development of a strategic plan for the next five years of the program. The strategic planning process would involve input and decisions from all members of the program including educators, program supervisors and Ministry staff. With this in mind numerous options for moving forward have been included as well as abundant examples of good practice in education and program planning have been included in the document. These options and good practice examples can be used as a starting point for discussion and decision making.

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## Executive Summary

### **A Note on Terminology.**

Throughout this report the overall program consisting of the Eco Education and Grizz Ed programs is referred to as the Eco Ed/Grizz Ed Program. This is to acknowledge that although these programs are similar in structure and intent, they have fundamental differences in funding which has required that the programs be managed separately.

### **Program Background**

The Eco Education/Grizz Ed program is a key component of the BC government strategy to reduce pollution and solid waste discharging in the province, promote grizzly bear conservation, and raise awareness and protect the environment. The program is managed by the Pollution Prevention and Remediation branch in the Environmental Protection division of the Ministry of Environment, Lands and Parks.

Starting in 1991 as an interactive mall display, the program transformed into a travelling road show in 1992, focusing on elementary students in schools. By 1998/99, the time of this report, the Eco Education program consists of four crews of three educators per crew, three program supervisors and one program manager. Each crew provides day-long in-class visits to grade 4-7 level focusing on the following:

- Waste Reduction Crew:
  - initiated in 1992, this program concentrates on waste reduction and environmental stewardship issues, including the impact of consumerism on the environment and product choices that are better for the environment
- Environmental Protection Crew:
  - developed in 1995, this program focuses on natural life cycles and the web of life, including air, water
- Grizz Ed Crew
  - conceived in 1995 and developed in 1996, this program supports the province's grizzly bear conservation strategy by focusing on wildland conservation issues and environmental connections using the grizzly bear as an ambassador and indicator species.
- Water Crew
  - currently under development (1998/99), this crew will focus on water management issues

The structure of all the above programs is similar, consisting usually of a one day class-room education session led by a three member crew. The day consists of several activities and at least one humorous skit in the morning, followed by three hands-on workshops in the afternoon and finished off by a set of student skits where workshop groups present their findings to the rest of the class.

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### **Support Materials**

The Eco Ed component of the program (Environmental Protection and Waste Reduction) are supported by: a set of 3 documents aimed at assisting teachers and a promotional video.

In December 1998, Ann Finlayson and Associates was contracted by the Pollution Prevention and Remediation branch to conduct a review of three of four Eco Education/Grizz Ed programs – because it is still under development the water crew program was not included in this review. This review is a snap shot of the comprehensive operation of the overall program. The review team focused on three main components of the program: In-class Sessions, Support Material, and Communications (Advertising and Promotion). As well, parts of the program's operations and administration were reviewed. It must be stressed that this review is not an evaluation and that the review team was expressly requested not to look at outcomes of the program (e.g., assess the teaching outcomes).

### **Review Design**

The review team followed a seven step review where components of the program examined, basic operations noted and options for moving forward listed. The review consisted of the following steps:

#### **Step 1 Review of Program Foundations**

Here the overall program guiding principles, goals and objectives were examined.

#### **Step 2 Matching Objectives with Program Components**

Here the program components; In-class programs, Support materials, and Communications were observed and compared to the overall program's goals and objectives.

#### **Step 3 Consistency of Program Components**

Here the review team looked for consistencies and inconsistencies within the major program components.

#### **Step 4 Review of the Program's Evaluation Process**

Here the review team looked at the review practices used within the major program components.

#### **Step 5 Review of the Program's Carrying Capacity**

Here the review team looked at each program component's capacity to expand and identified limiting factors that prevent growth.

#### **Step 6 Gap Analysis**

Here the review team looked for within the overall program and it's components for gaps where service, training needs etc. of end users and the program were not yet being met.

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## **Step 7 Conclusions – Prioritising Options**

Here the review team identified approaches that the Eco Ed/Grizz Ed staff and management can use to sort and implement the options identified in the previous six steps.

## **Review Methods**

The review team observed nine in-class sessions, sampling all three crews at least twice, reviewed all current support materials and communications. As well educators, supervisors, Ministry staff, and a small sample of outside environmental educators who had viewed the program were interviewed directly, in focus groups, and via questionnaires.

## **Review Findings**

### **Step 1 Review of Program Foundations**

The overall program has a set of guiding principles but no written goals and objectives. However, educators, program supervisors, and Ministry staff identified many goals and objectives in interviews, focus groups and questionnaires. There was some divergence within and among the levels of delivery and management of the program. The review team listed nine options for moving forward in the development of program foundations.

### **Step 2 Matching Overall Program Objectives with Program Components**

The review team had difficulty finding written connections between program components and over program foundations. Lacking a complete and mutually agreed upon set of overall program goals and objectives, the review team composed a general set of program goals and objectives based on documents produced by the Ministry of Education and Ministry of Environment, Lands and Parks. In this step the review team examined and listed the intent of the components of the program. The review team identified 23 options for moving forward in providing more complete connections of program components to the program foundations.

### **Step 3 Consistency of Program Components**

In this step the review team examined ways that the program components support each other as well as the internal consistency of the components themselves. Observed practice were analysed. A key finding was that two of the in-class sessions, Environmental Protection and Waste Reduction have very similar messages as well as similar format. The review team identified 47 large and small options that should be considered for moving the program forward.

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### **Step 4 Review of the Program's Evaluation Process**

The review team identified over twenty forms of evaluation taking place within the Eco Ed/Grizz Ed program, and how evaluation is used and how information from it is used. Almost all evaluation was concentrated the in-class sessions. When the review took place, the review team found little explicit connection between these multiple evaluation types. Five options were identified for moving forward in evaluation of the program's components.

### **Step 5 Review of the Program's Carrying Capacity**

According to the information available to the review team, the program's carrying capacity is not limited by market. All crews are reaching, and over-passing their targets of contacting 125 schools per year per crew. The programs have waiting lists and could book even more classes. A key limiting factor identified was staffing which appears to be at or beyond its carrying capacity. Educators are concentrating on in-class sessions - presenting in-class sessions between three of four days per week on average. This workload and travel is straining the educators, making it very difficult for them to fulfill their other obligations of program development, communications and general office duties. The review team suggests five options to consider for moving the program carrying capacity forward.

### **Step 6 Gap Analysis**

The review team conducted a gap analysis with a focus on forward planning potential. Some minor structural gaps were identified in the program. It was also found that the Eco Ed/Grizz Ed program should look into identifying niches and partnerships with teachers, government programs and non-government organisations involved in related environmental education initiatives. Five options were identified for consideration in moving forward to fill these gaps.

### **Step 7 Prioritising Options**

This final step is an overview of the previous steps and attempts to collect, sort and prioritise options suggested in this review. At first it may seem that the number of options (more than 80) is overwhelming. However, the seven step review design ensured that there would be overlap between steps and options suggested. For example, the need for a comprehensive set of overall program goals and objectives was identified in at least three steps. Also, the number of options listed in this review does not mean the review team have been highly critical of the program. The snapshot approach and the review team's expertise in program design, planning and management means we understand the wealth of directions that this program could take at this time in its evolution.

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Four basic patterns of choice are suggested for sorting and addressing the options in this report.

- A Status Quo Option - the Eco Ed/Grizz Ed team and the Ministry may disregard all options and continue the program unchanged
- A Small Change Option - adopt some of the small change options only that may fine tune individual components of the program
- A Random Choice Option - choose options that you may find interesting but follow no overall plan
- Develop a Strategic Plan - here all parties work together in a strategic planning exercise that will allow them to consider all options in this report (and others) and incorporate those that meet their needs and the needs of their target students and teachers.

The review team recommends that the decision on what choice to take should be a team decision reached by the Eco Ed/Grizz Ed educators, supervisors, Ministry staff and partners.

Finally, the review team suggests the following steps for moving forward after this review:

- Sort through the information and options of this report using a set of critical thinking guidelines.
- Focus on core tasks for each member of the program development team
- Follow a clear planning process
- Carefully select doable tasks
- Follow a critical path starting with the development of a set of program foundations (principles, goals and objectives) that are mutually agreed upon and understood, simple, useful and memorable. After that, selection of tasks and change should all strengthen the program and its outcomes, not detract from it.

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# Introduction

The key component of an environmental education program is the people who deliver and manage it. The review team has been impressed throughout our review of the Eco Education and Grizz Ed programs by the enthusiasm, dedication and presentation skills of the educators and the helpfulness and dedication of the program manager and program supervisors. It is very apparent that the entire team is working very hard and is dedicated to providing a high quality environmental education experience to students across British Columbia through this government program. It is definitely a program that is evolving in terms of size and structure. To conduct a review at this time before more changes are made seems very appropriate and wise.

## **A Note on Terminology.**

Throughout this report the overall program consisting of the Eco Education and Grizz Ed programs is referred to as the Eco Ed/Grizz Ed Program. This is to acknowledge that although these programs are similar in structure and intent, they have fundamental differences in funding which has required that the programs be managed separately.

In December 1998, Ann Finlayson and Associates was contracted by the Pollution Prevention and Redemption branch to conduct a review of three of four Eco Education/Grizz Ed programs – because it is still under development the water crew program was not included in this review. This review is a snap shot of the comprehensive operation of the overall program. The review team focused on three main components of the program: In-class Sessions, Support Material, and Communications (Advertising and Promotion). As well, parts of the program's operations and administration were reviewed. It must be stressed that this review is not an evaluation and that the review team was expressly requested not to look at outcomes of the program (e.g., assess the teaching outcomes).

## **Program Background**

The Eco Education/Grizz Ed program is a key component of the BC government strategy to reduce pollution and solid waste discharging in the province, promote grizzly bear conservation, and to raise awareness and protect the environment. The program is managed by the Pollution Prevention and Redemption branch in the Environmental Protection division of the Ministry of Environment, Lands and Parks.

## **The Program Consists of the Following Components:**

### **In-class Sessions**

Starting in 1991 as an interactive mall display, the program transformed into a travelling road show in 1992, focusing on elementary students in schools. By 1998/99, the time of this report, the Eco Education program consists of four crews of three educators, three program supervisors and one program manager. Each crew provides day-long in-class visits

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to grade 4-7 level focusing on the following:

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- Grizz Ed Crew
  - conceived in 1995 and developed in 1996, this program supports the province's grizzly bear conservation strategy by focusing on wildland conservation issues using the grizzly bear as an ambassador and indicator species. (E-Team staffed)
- Water Crew
  - currently under development (1998/99), this crew will focus on water management issues. (E-Team staffed)

A temporary Follow-up Green Team Program was introduced 1996-1997 to provide an internal evaluation of the Program.

The structure of all the above programs is similar, consisting usually of a one day class-room education session led by a three member crew. The day consists of several activities and at least one humorous skit in the morning, followed by three hands-on workshops in the afternoon and finished off by a set of student skits where workshop groups present their findings to the rest of the class. The review team were asked to review only the Environmental Protection, Waste Reduction and Grizz Ed crews.

### **Support Materials**

The Eco Ed component of the program (Environmental Protection and Waste Reduction) are supported by a set of 3 documents aimed at assisting teachers and a promotional video. The first learning resource binder (Eco Education Program 1 module) about solid waste reduction was developed and distributed in 1991. A supplementary Compost Module was added in 1992. The second binder (Eco Education 2 module) was developed and distributed in 1994. Both binders were distributed to elementary school resource centres and other libraries throughout British Columbia.

A Teacher's Guide was produced in 1996. The Guide is distributed by the Green Team and Grizz Ed Crew educators as they visit schools. The video entitled Choices for Teacher's was also produced in 1996 and is distributed to teachers who would like to be introduced to the Eco Education Program.

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## Communications

The communication components noted by the review team included:

Advertising and Communications With Teachers:

- Faxes sent to principals inviting teachers to book in-class sessions
- teacher confirmation packages
- teacher pre-workshop focus questions
- advertising programs
- teacher Pro-D days
- video: Choices for Teachers

## Publicity

- press releases
- newsletter articles
- attending conferences
- media
- teacher Pro-D days
- vans

## Organisation and Administration

The review team were fortunate to work with all the staff, a very open and helpful group, in order to gain an understanding of the organisation and administrative procedures and how they support the program. The financial aspects of this program were not part of this review. To aid in this task, the review team used the Draft Procedures Manual, interviews, questionnaires and many other documents found in the Eco Education office. A copy of the office database was also used and a limited analysis of pertinent statistics was done to support some questions as they emerged in the review.

## Varying Opinions

Our review has indicated that there are varying opinions about the Eco Education/Grizz Ed programs. Firstly it is a program that reaches at present through 4 programs going to 500 school in a year a total of 13,000 students per year for one of the longest in-class environmental education programs on offer in BC. The programs all have waiting lists. On the teacher evaluation forms, a high percentage of teachers indicate satisfaction with the in-class sessions presented by the crews of educators. However, many professional Environmental Educators interviewed in our review had serious concerns and there has been at least one notable negative review of the program in the press. This is in part due to the fact that the program cannot be a full environmental education program due to the nature of the one-shot delivery system that has been designed to reach the maximum number of students face-to-face. This review by comparing with models, teaching practice, perceptions of principles, goals and objectives attempts to reveal some of the different ways that one could look at this program and what conclusions you may come to.

There are also varying opinions amongst staff about the program and its effectiveness. These differences are a very useful tool in a review like

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this since they help understand the program in greater depth. The approach the review team took was one of deconstructing language and observations throughout and making comparisons. Many tables in the report show these comparisons.

This idea of varying opinions and different perspectives is followed through in the analysis of the findings under headings such as "Perspectives" and "Implications". The idea of Options rather than recommendations also reflects this view held by the team that there are many ways to view the program and therefore many ways to move forward with it.

### **The Review Process**

The team of three people conducted the following review tasks:

- in-class observations
- focus groups of all staff at all levels connected with the program
- in depth questionnaire for Eco Educators and supervisors (16 respondents)
- informal interviews with staff as follow-up
- interviews/internet questionnaire with a wide range of environmental educators including lecturers, formal educators in schools, President of EEPsA (the Environmental Education Provincial Specialist Association), educators from non-profits, and E-Team educators
- researched comparable environmental education programs in BC
- reviewed all documents pertaining to the program including support materials, communications and operation documents.

The Reviewed team then researched comparative tools which were many and varied and can be found throughout this report. Some are good practice examples, others are merely used as mirrors.

Even in a short period of this Review November 1998 to February 1999, the review team noted variations and changes to the in-class programs as well as in the operations. It shows a dynamic program with staff responsive and willing to make changes when necessary. It makes the snapshot approach difficult though since 3 different snapshots may have been taken. We have tried to be clear which viewing is being analysed where ever possible.

Since this is a naturalistic approach to some extent, where goals and objectives are unearthed rather than objectively measuring performance against them, it is very language dependent. This also means the analyses vary in the terms and descriptions of components.

Finally the review process by looking at the program through a number of filters and from different angles validates many of the findings that occurred again and again. The filter used were:

- planning models
- goals and objectives statements
- carrying capacity
- gap evaluation

- niche description
- operational principles
- current practice as shown in 'Good Practice Models'
- evaluation models.

## **How to Use the Report**

The review team is aware that many different people will read this report. Some will read it all. Some will only read parts depending on their interests and level of involvement with the program. Step 7 will guide you through the conclusions embedded in options. We hope the report will provoke thought, discussion and well considered changes. It may be a document that only gets used once. We hope not. We have included raw data in a companion Results booklet for future reference. We also hope the report and the Appendices have an educational element. We have tried not to hide how we came to our conclusions so that you too can follow our lines of enquiry and then evaluate them for yourselves.

**SAMPLE PAGES**