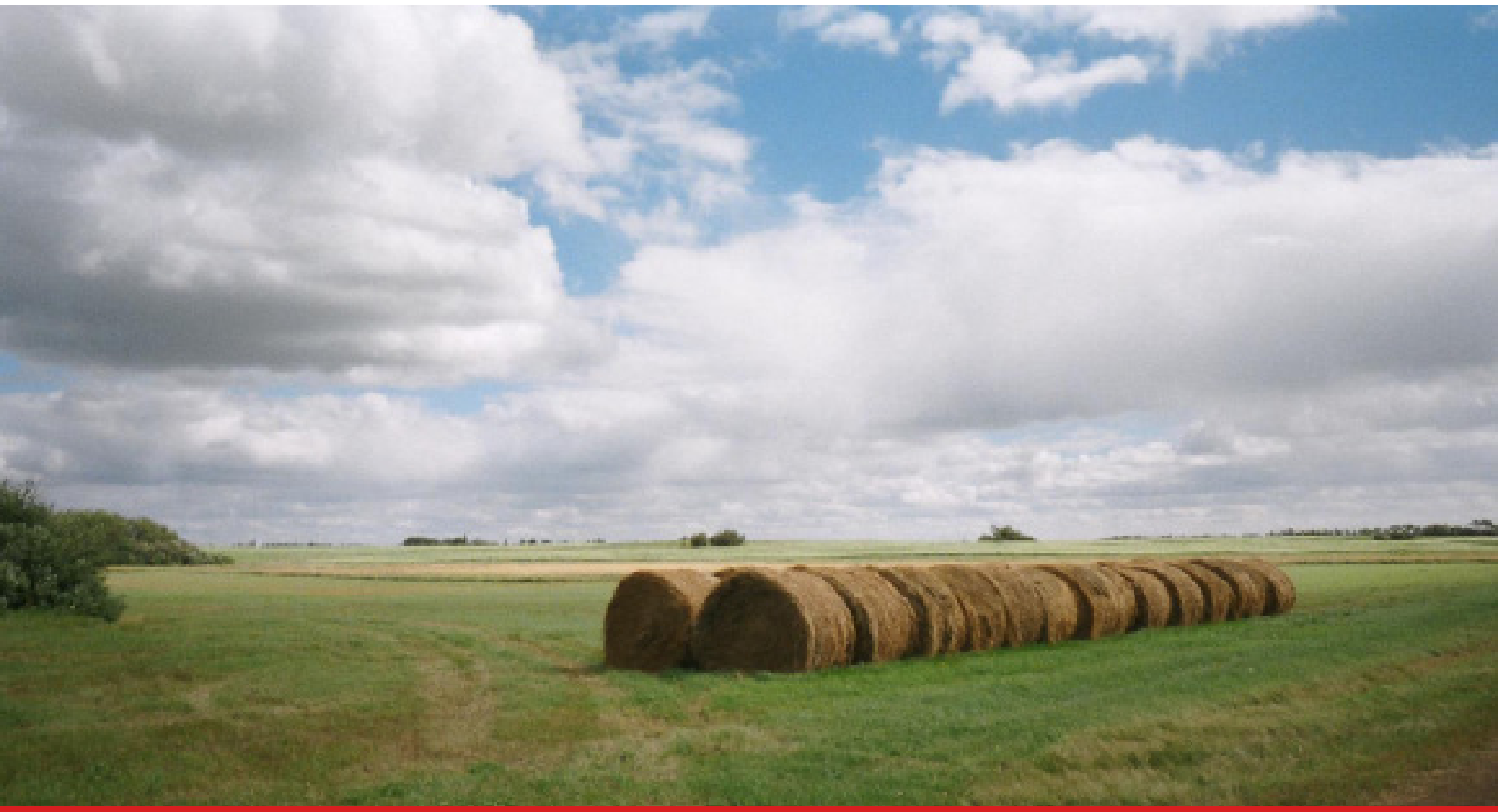
A Report for:
Alberta Environment



Review of Value and Funding Options for Airshed Zones and Watershed Planning & Advisory Councils to Support Cumulative Effects Management

UNIVERSITY OF ALBERTA
SCHOOL of BUSINESS
Centre for Applied Business Research in Energy and the Environment

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Definitions of Acronyms in this report:

ACAA	Alberta Capital Airshed Alliance
AENV	Alberta Environment
AWC	Athabasca Watershed Council
AZ	Airshed Zone
Battle RWA	Battle River Watershed Alliance
BRBC	Bow River Basin Council
CEMS	Cumulative Effects Management System
CRAZ	Calgary Region Airshed Zone
ED	Executive Director
FAP	Fort Air Partnership
GoA	Government of Alberta
LICA	Lakeland Industry & Community Association
LSWC	Lesser Slave Watershed Council
MRWCC	Milk River Watershed Council Canada
N/Appl	Not Applicable
N/Ava	Not Available
NSWA	North Saskatchewan Watershed Alliance
OWC	Oldman Watershed Council
PAMZ	Parkland Airshed Management Zone
PAS	Palliser Airshed Society
PASZA	Peace Air Shed Zone Association
RDRWA	Red Deer River Watershed Alliance
SEAWA	South East Alberta Watershed Alliance
WBEA	Wood Buffalo Environmental Association
WCAS	West Central Airshed Society
WPAC	Watershed Planning Advisory Council

Executive Summary

In recent years the demand for environmental management services in Alberta has dramatically increased. In response to this demand, Alberta Environment (the Department) has taken many steps to enhance the Province's environmental management system to meet key policy priorities. Most notably the Department is aggressively moving forward with the implementation of its Cumulative Effects Management System (CEMS).

As Alberta Environment transitions to the CEMS, Airshed Zones (AZs) and Watershed Planning and Advisory Councils (WPACs) must be positioned to ensure they can deliver their defined functions within the CEMS and demonstrate a value-added role. This becomes more important given the regional-focus of the CEMS and that the roles of both AZs and WPACs may correspondingly evolve and increase in the future.

Recognizing opportunities for improvement and the desire to enhance the value of the services provided by WPACs and AZs, Alberta Environment commissioned this report to achieve two key objectives:

Objective 1: To better understand the current qualitative and quantitative value of WPACs and AZs to Alberta Environment and the Provincial environmental management system.

Objective 2: To explore a series of potential funding options that could be used to provide long-term sustainable funding to enable future high-value services from WPACs and AZs.

Report Overview and Key Findings

Chapter 1

The first chapter of this report provides an overview of the purpose of this project and contextualizes the efforts of Alberta Environment to help facilitate the transition of WPACs and AZs to the CEMS. The chapter also articulates a conceptual framework that has guided this project and could support the efforts of Alberta Environment to facilitate the successful transition of WPACs and AZs to the CEMS and to adjust to related new initiatives such as the movement to a world class monitoring system and to the planned national Air Quality Management System.

Chapter 2

The second chapter of this report provides an assessment and summary of the current financial circumstances of WPACs and AZs. The purpose of this assessment is to provide a solid foundation to understand the quantitative and qualitative value of WPACs and AZs to Alberta Environment and the

Government of Alberta. This Chapter also provides a baseline assessment of the financial needs of WPACs and AZs and therefore can be used to support the development of a sustainable funding model.

To complete the financial analysis, an exploration of WPAC and AZ websites, newsletters, annual reports and other documents was undertaken. A series of categories was then developed that aimed to capture the quantitative value provided by partnership organizations. The categories are listed in the Evaluation Rubric (Appendix A), and contain the key quantitative and qualitative factors that enable one to determine the benefits and values of an organization

Key Findings:

This assessment provided a strong understanding of the financial characteristics of partnership groups in terms of their inputs (costs) and output (benefits) to Alberta's environmental management system. Based on the analysis it is evident that:

- Most WPACs and AZs demonstrate financial discipline and therefore demonstrate financial well-being. This infers that the funding provided by the Government of Alberta is supporting value.
- WPACs and AZs are able to attract volunteer and in-kind contributions. These contributions further enhance the value of the funding provided by the Government of Alberta.
- WPACs and AZs are able to draw substantial funding resources from entities other than the Government of Alberta (industrial and private members of society). This means the Government of Alberta's funding contributions are "leveraged". A government department would likely not be able replicate this leverage, and, therefore deliver the services internally for the same cost.

From the qualitative value assessment of the WPACs and AZs the following findings are offered:

- There is an important opportunity to develop a value reporting tool[1] that demonstrates and leverages the shared value created by WPACs and AZs.
- The clarification of the roles and expectations of WPACs and AZs under CEMS, which is currently underway in a separate process, will enhance the value of WPACs and AZs

1 Value Reporting Tool – is a metric of the concept of shared value, which is a measure of the societal value received from the WPACs and AZs. A further discussion on this concept is found in Harvard Business Review, January – February 2011 by Harvard University, Professor Michael E. Porter.

- Leveraging and expanding the relationships that WPACs and AZs have with their stakeholders, particularly First Nations, will further increase their intangible value.
- To ensure value is attained from WPACs and AZs there is a need to shift to outcome reporting that quantifies the quality of the partnerships in terms of the CEMS pillars.

Chapter 3

The third chapter of this report details the perceived qualitative value and benefits that Alberta Environment receives from WPACs and AZs. Specifically, the chapter complements the findings of Chapter 2 and presents the findings of a web-based survey that was used to measure the perceived and real value of the role and services of WPACs and AZs.

Key Findings:

The following highlights the key services and functions provided by WPACs and AZs that are perceived to be of the greatest value to Alberta Environment and environmental management in Alberta:

- WPACs and AZ are independent from government and industry, therefore offering trust and credibility;
- WPACs and AZs support multi-stakeholder engagement and participation;
- WPACs and AZs provide a means to support community ownership and capacity building in the province's environmental management efforts;
- WPACs and AZs are perceived to be transparent in their decisions.

Chapter 4

The final chapter of this report provides an overview the key components required to support a long-term sustainable financial model for WPACs and AZs. It also reviews a number of revenue generation and funding options that could be used to support WPACs and AZs. The chapter also highlights a series of self-financing tools available to WPACs and AZs should they wish to generate new revenue streams independent from the Government of Alberta. Each mechanism characterized in this report is complemented with a number of jurisdictional case studies. These mechanisms are summarized in Table ES:1.

ES:1: Mechanisms to Support the Development of a Sustainable Financial Model

REVENUE GENERATION TOOLS	SUMMARY
Environmental Approvals and Permitting Fees	Environmental approvals and permitting fees consist of nominal fees imposed on regulated parties in an effort to recover a portion of the associated administrative costs of an approval and permitting system. These fees can offer a predictable revenue source to government agencies.
Environmental Fees, Levies and Charges	Environmental fees, levies and charges are fees imposed upon parties based on their environmental performance. Environmental fees, levies and charges can be a very effective tool to generate revenue.
Environmental Penalties	Environmental penalties are monetary fines that are imposed upon regulated parties who fail to comply with an environmental regulation. As a funding mechanism, they do not offer governments a predictable source of revenue.
Municipal Levies	Municipal levies are most often used as a tool to recover the cost of special services, programs and projects and are most often imposed upon residents and/or local industries and businesses. They are implemented by municipal governments and enabled through provincial legislation. They can provide predictable sources of revenue.
Natural Resource Royalties	Natural resource royalties are levied upon private natural resource and energy companies who earn income through the extraction of publically owned natural resources. Natural resource royalties can potentially generate significant revenue for governments.
Environmental Bonds	Environmental bonds can be used to raise funds to support the delivery of publicly provided environmental programs and services. However, a government must buy back the bonds with interest, which increases the total cost to deliver a program or services. Relying on debt to finance government services is not viewed as a sustainable long-term practice.
REVENUE REALLOCATION TOOLS	**SUMMARY**
Grants	Grants are a form of financial aid. Grants are gifted to enable a party to undertake an activity or project. They are often used to support research, innovative practices and activities that are not yet financially viable or support the inception of an organization.
Dedicated Funding	Dedicated funding supports the direct allocation of government funds to an organization. Dedicated funding often eliminates the expensive administration process that is sometimes associated with grants. Dedicated funding provides recipients greater assurance that they will have a predictable source of revenue.
SELF-FINANCING TOOLS	**SUMMARY**
Fundraising and Donations	Fundraising and donations work on the premise that an individual and/or corporate entity is willing to offer a voluntary gift to a worthwhile cause, and is an effective means to generate revenue to support non-government environmental management agencies. This method can offer non-government environmental management agencies an attractive means to generate revenues, and also potentially enhance their public profile.
Endowment Funds	An endowment fund is an investment fund set up by an institution (such as a government) in which regular withdrawals from the invested principle are used to fund the operations of an organization. Endowment funds are often used by nonprofits organizations, universities, hospitals and churches.
Membership Fees, Professional Services and Events	It is possible to generate significant revenues through membership fees, professional services and events. These mechanisms provide an incentive for partnership groups to offer their value-added services to a broad audience. However, this approach often requires a significant upfront investment and does provide a predictable revenue stream.

To assist Alberta Environment's effort to develop a sustainable financial model a multi-criteria assessment framework was created to compare and contrast the various funding options presented in this report.

Key Findings:

It is unlikely that one funding option will be sufficient to meet the needs of WPACs and AZs. Therefore, it will be critical for Alberta Environment to support the development of a funding model that is resilient for partnership groups and has the following attributes:

- Allow the current level of financial resources needed by partnership groups;
- Complement or replace traditional funding resources by diversifying revenue streams; and,
- Support the financial health of partnership groups to maximize their value to Alberta Environment.

Many of the funding options highlighted within this report could have significant policy and regulatory impact upon regulated parties and Albertans. In other words, they are not just funding options they are environmental tools, which can be used to support the achievement of an environmental outcome. As Alberta Environment strives to develop a long-term sustainable funding system for its partnership groups, it will be important to consider the positive and negative environmental and economic impacts that may arise with each potential funding option.

Chapter 1

Introduction

1.0 Report Overview

In recent years the demand for environmental management services in Alberta has dramatically increased. In response to this demand, Alberta Environment (the Department) has undertaken many steps to enhance the Province's environmental management system in support of meeting key policy priorities. Most notably the Department is aggressively moving forward with the implementation of its Cumulative Effects Management System (CEMS).

As Alberta Environment transitions to the CEMS, the Department will require adequate financial resources to ensure envisioned benefits of this environmental management model can be realized. This transition is also likely going to require an infusion of financial resources to support the Province's key environmental management partnership groups – Airshed Zones (AZs) and Watershed Planning and Advisory Councils (WPACs) – to ensure they can deliver their defined functions within the CEMS and demonstrate a value-added role.

Furthermore, Alberta Environment, through the *Water for Life Renewal* and the draft *Alberta Clean Air Strategy*, has recognized that the role of WPACs and AZs is valuable and must be sustained for the long-term. This is further recognized by the Auditor General of Alberta, who provided recommendations to Alberta Environment to strengthen grants and service contracts with WPACs.[2] The Department also recognizes that sustaining their role and enabling partners to offer value-added services within the CEMS is very much dependent on a sustainable funding mechanism that ensures predictable, transparent and dedicated source revenue.

As the CEMS is mobilized, the Department's partnerships will continue to support the Province's efforts to achieve air quality outcomes and support the management of water resources. Given the regional-focus of the CEMS, the role of both AZs and WPACs may evolve and/or increase in the future. They will continue to require a secure, sufficient and predictable revenue stream supporting these future roles, to ensure they provide high-value services to Alberta Environment.

Alberta Environment wants to overcome the challenges associated with the current funding model of their key partnership groups. By overcoming these challenges, Alberta Environment will be better positioned to sustainably maximize the value of the roles and functions of AZs and WPACs within Alberta's long-term environmental policy and planning objectives. Yet long-term policy and planning objectives consequently require long-term commitments and thus require a stable and predictable stream of funds to support the presence and value of the Department's key partnership groups. The allocation of general revenues to WPACs and AZs through an annual grant process presents the risk

2 Auditor General of Alberta (2010). Report of the Auditor General of Alberta – April 2010. Recommendation 7, page 73. Available at: http://www.oag.ab.ca/?V_DOC_ID=936

of perpetuating a financial environment that is unstable, unpredictable and potentially under-resourced. This may limit the ability of WPACs and AZs to play the roles required for CEMS

Recognizing opportunities for improvement and the desire to enhance the value of the services provided by WPACs and AZs, Alberta Environment commissioned this report to achieve two key objectives:

Objective 1: To better understand the qualitative and quantitative value of WPACs and AZs to Alberta Environment and the Provincial environmental management system.

Objective 2: To explore a series of potential funding options that could be used to provide long-term sustainable funding to enable valued services to be provided by WPACs and AZs.

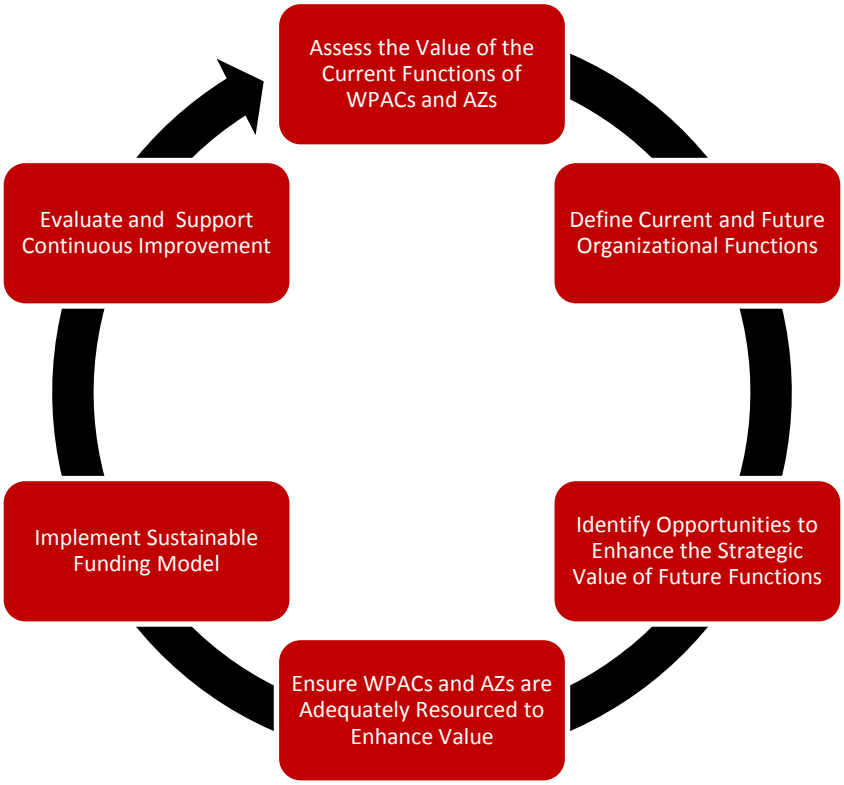
To serve these two objectives the project team has undertaken three distinct project phases which include:

- an assessment and summary of the current financial circumstances WPACs and AZs to provide a solid foundation to understand the quantitative and qualitative value of WPACs and AZs to Alberta Environment and the Government of Alberta;
- an assessment of perceived qualitative value and benefits that Alberta Environment currently receives from WPACs and AZs; and
- a review of funding mechanisms that could be employed by the Government of Alberta and partnership groups to develop a sustainable financial model.

Linking the Project Phases – An Overview

Going into the future, this report can be viewed as part of a cycle that will support and enhance the transition of WPACs and AZs into a CEMS world. More broadly, the WPAC/AZ Organizational Enhancement Cycle outlines key steps, which, if followed, will enhance the overall benefits and value of the services and outcomes provided by WPACs and AZs to Alberta Environment and Albertans.

Figure 2.1: WPAC/AZ Organizational Enhancement Cycle



NOTE: For the steps considered to be in the scope of this project, specific highlights and references are made from the report. For the steps considered to be out-of-scope, insights are presented on how Alberta Environment could approach the step in an effective and efficient fashion.

Step 1: Assess the Value of the Current Functions of WPACs and AZs

In this project, a significant effort has been made to highlight the *current* qualitative and quantitative values of WPACs and AZs within Alberta's environmental management system. Specifically, Chapters 2 and 3 provide a detailed overview of the current value of WPACs and AZs. The report also offers specific insights into the anticipated governance outcomes of CEMS and the current benefits and value added services provided by WPACs and AZs.

An annual (or bi-annual) assessment of the benefits and value added services provided by WPACs and AZs would be beneficial to Alberta Environment, enabling measurement of the progress on the value WPACs and AZs bring to the CEMS.

Step 2: Define Current and Future Organizational Functions

For the purpose of this project, the functions of WPACs and AZs have been summarized by referring to their currently accepted characterizations and mandates, as follows:

"Watershed Planning and Advisory Councils (WPACs) are multi-stakeholder, non-profit organizations that *assess the conditions of their watershed* and *develop plans and activities to address watershed issues*."[3]

"The primary responsibility of a multi-stakeholder air quality management zone is to *develop a management plan to deal with air quality concerns in the region*."[4]

As the Government of Alberta transitions to the CEMS, it will be critical for Alberta Environment to further clarify the primary functions of WPACs and AZs within CEMS.

This report's analysis recognizes the need to further define and articulate any potential changes to the functions of WPACs and AZs in a timely manner, as this will greatly aid in their successful transition to the CEMS. A clearly articulated definition of their future functions will enable WPACs and AZs to initiate any transitions required and to initiate efforts to ensure that their services are of value to the Province's environmental management system.

Step 3: Identify Opportunities to Enhance the Strategic Value of Future Functions

One of the key objectives of this report is to provide Alberta Environment a baseline understanding of the quantitative and qualitative values of WPACs and AZs (Step 2). An attribute of that baseline is to assist Alberta Environment in identifying opportunities and actions that could be taken to help enhance the *future* performance and value of Alberta Environment's partnership groups.

Step 4: Ensure WPACs and AZs are adequately resourced to Enhance Value

As noted above, Alberta Environment recognizes that there are challenges associated with the current funding model for WPACs and AZs. Furthermore, the success and value of WPACs and AZs to Alberta Environment are dependent on their ability to effectively and efficiently deliver their current and potential future functions in the CEMS.

A key factor in supporting their ability is access to a sustainable funding model. This funding model should aim to ensure that WPACs and AZs have the required financial resources to enable the delivery of their key functions and roles. A primary objective of this report is to help facilitate Alberta Environment's efforts to develop a sustainable funding model.

However, prior to implementing such a model it is important for Alberta Environment to fully understand the baseline financial resource needs of WPACs and AZs. Furthermore, it is important for WPACs and AZs to

3 Alberta Environment. Watershed Planning and Advisory Councils. Available at: http://www.waterforlife.alberta.ca/543.html

4 CASA. Airshed Management Zones. Available at: http://www.casadata.org/zones/index.asp

collaborate in characterizing the financial demands of any new functions and responsibilities that they may face once the CEMS is fully implemented.

Step 5: Develop and Implement a Sustainable Funding Model

In support of Step 5 of the WPAC and AZ Organizational Enhancement Cycle, Chapter 4 of this report details a series of funding options that could be used to increase and diversify the revenue streams of WPACs and AZs. Additionally, an Evaluation Matrix has been developed to facilitate Alberta Environment's efforts to develop a sustainable funding model.

Step 6: Evaluate and Support Continuous Improvement

As Alberta Environment continues to enhance the value of WPACs and AZs through the development of a sustainable funding model, it will be critical to develop an efficient and effective performance measurement system. A key attribute of this model will be to ensure that the functions and objectives of Alberta's WPACs and AZs align with the objectives and governance model of the CEMS, and identify opportunities for continuous improvement.

Chapter 2

Quantitative and Qualitative Analysis Overview

2.0 Quantitative and Qualitative Analysis Overview

2.1 Chapter Overview

This Chapter of the report provides an assessment and summary of the current financial circumstances WPACs and AZs. The purpose of this assessment is to provide a solid foundation to understand the quantitative and qualitative value of WPACs and AZs to Alberta Environment and the Government of Alberta, in support of the transition to the CEMS. Furthermore, this Chapter helps to articulate the financial needs of WPACs and AZs and therefore provides an essential base for supporting the development of a sustainable funding model.

Watershed Planning and Advisory Councils and Airshed Zones play a key role in regional water, and air quality management. As the Government of Alberta and Alberta Environment move towards implementing the CEMS, there is a strong need to understand the value that these partnerships bring in support of meeting the objectives of the Department.

As not-for-profit organizations, WPACs and AZs are able to garner substantial support – both from in-kind contributions and financial contributions from an array of stakeholders including, but not limited to Alberta Environment, the Federal Government and industry. While these contributions are central to the tangible benefits (outputs) the partnership groups provide to Alberta Environment, there are also many other qualitative or intangible benefits they provide to Alberta's environmental management efforts. These benefits are summarized in Table 3.1 below as "outputs":

Table 3.1: Inputs and Outputs

Alberta Environment Inputs	WPAC/AZ Outputs
• Financial support (grants and contracts) • In-kind support (representation on boards and committees, support for other activities such as outreach, collaboration and planning)	• State of the environment reporting • Environment indicators (monitoring, planning and management) • Knowledge, value and influence • Community outreach and influence • Partnerships and collaborations • Stakeholder engagement (issue identification and solving) • Local knowledge • Independent advice

2.2 Objectives

The main objective of this chapter of the report is to articulate the current quantitative value and benefits that Alberta Environment and involved stakeholders (including but not limited to municipalities, industry, and the general public) receive from WPACs and AZs. This section also provides a high-level overview of the qualitative value findings that have been captured to date, as related to the value WPACs and AZs offer to Alberta Environment.

2.3 Chapter Structure

This chapter has four main sections:

- The first section outlines the methodology used to collect the information and create the framework for evaluation;
- The second section summarizes the results of macro-quantitative and micro-qualitative and quantitative analysis;
- The third section outlines the qualitative valuation for each organization assessed; and
- The fourth section provides recommendations and proposed next steps for Alberta Environment.

2.4 Methodology

To understand the value provided by WPACs and AZs, the project team first explored the websites, newsletters, annual reports and other documents available that contained financial information about WPACs and AZs. The purpose of this data gathering exercise was to contextualize the financial characteristics of the partnership groups with respect to their current roles, functions and outputs within the Province's efforts to manage air quality and water resources. A series of categories were then developed that aimed to capture the quantitative value provided by partnership organizations. The categories are listed in the Evaluation Rubric (Appendix A), and contain the key quantitative and qualitative factors that enable one to determine the benefits and values of an organization. Sections 1, 2, 4 and 5 of the Evaluation Rubric have been designed to assess the qualitative aspects of an organization and Section 3 is has been designed for evaluating quantitative aspects.

Once the categories were defined, a series of questions and checklists were developed to obtain the data needed to estimate the value of partnership groups. This list was then transformed into an easily accessible on-line response questionnaire. At the direction of Alberta Environment, a request for data was sent to all Executive Directors (EDs) and Program Managers of WPACs and AZs through

email. When this online request and questionnaire was completed by a WPAC or AZ, follow-up meetings with the partnership groups were held to extract and collect information that was not adequately captured through the online questionnaire, and the responses transcribed. When appropriate, the information and data collected through the online process were used to support our initial qualitative analysis. Information that was relevant to this study's analysis, but not available publicly, such as budgets, was requested from the respective EDs and received through email. Understanding the heavy workload of EDs, every effort was made to keep disruptions to a minimum, while obtaining the information necessary for this analysis.

Appendix B lists the WPACs and AZs analyzed in this valuation exercise.

A series of evaluation categories was developed for the Evaluation Rubric, which was designed so that it could be applied to both WPACs and AZs. It was developed to be context specific to enable the assessment of each of the partnership organizations. The Evaluation Rubric in Appendix A summarizes each evaluation category and sub-categories and the corresponding levels of value under each category.

2.5 Results

The results of the analysis were broken down into two main categories: macro quantitative analysis; and micro qualitative and quantitative analysis. This approach allowed for two levels of assessment to be completed. The macro quantitative analysis was a high-level collective assessment of WPACs and AZs. This analysis was designed to identify the challenges faced by all partnership groups as well as any recurring themes with respect to their value. A micro qualitative and quantitative analysis was an organizational specific assessment that was designed to enable an evaluation of each organization individually. This enabled local factors such as geographic location, years in existence and any other organizational characteristics to be identified and incorporated into this valuation exercise.

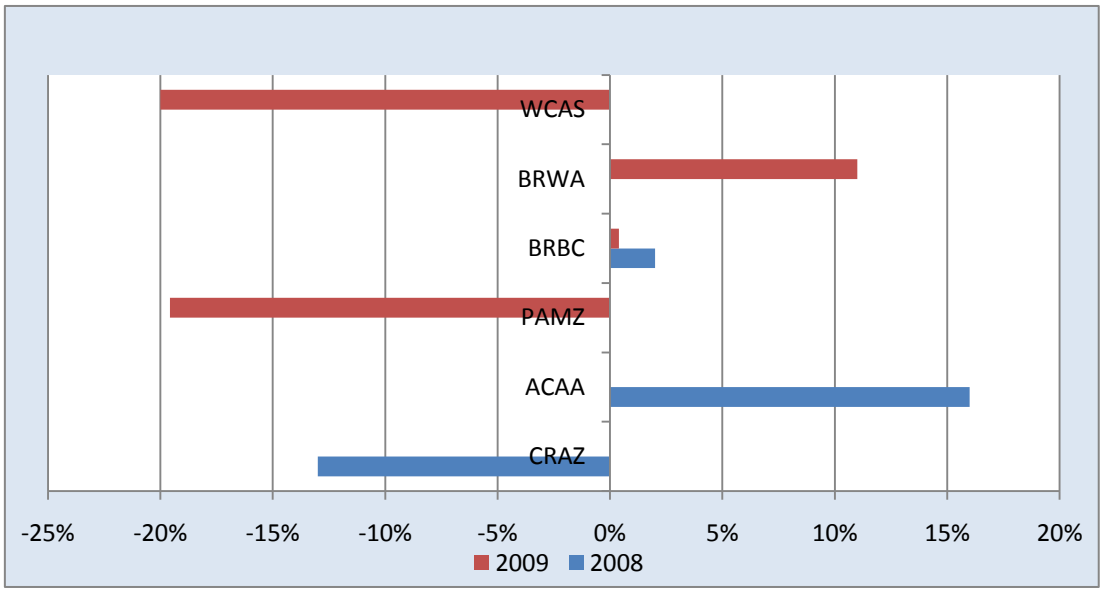
2.6 Macro quantitative Analysis

2.6.1 Financial Assessment

One of the key aspects of the health of any organization is its financial well being and discipline. Here, the budgets that were provided by WPACs and AZs were considered and compared with their actual financial statements. It must be noted that small discrepancies between these two numbers are to be expected for any organization, and that minor variability is an indication of financial discipline, ability to anticipate change, planning and foresight. It might even demonstrate the ability to cope with large changes – an important value added attribute for Alberta Environment. This

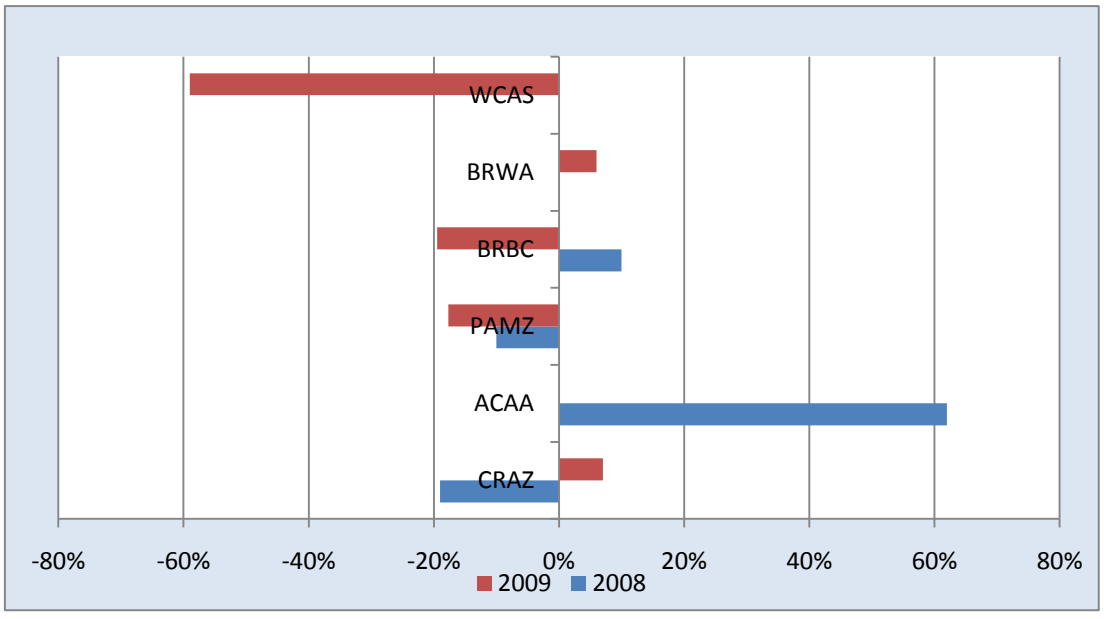
analysis provides an indication of the key factors that can drive variability in an organization's financial well being.

Figure 3.1: Percentage Variation in Revenues (actual compared to budgeted)



Notably, the above organizations' revenues are within 20% of their budgeted amounts. The decrease in 2009 might have been due to the negative impact of the recession in the broader economy. Since AZs and WPACs could have submitted their budgets before the full onset of the recession, the significant variation is not unreasonable.

Figure 3.2: Percentage Variance in Expenses (actual compared to budget)



Again, most of the organizations have demonstrated that their actual expenses were within 20% of their budgeted amounts. The two exceptions here are ACAA and WCAS. Since ACAA is a new organization, it might have either underestimated its costs and expense or might have faced expenses that had not been anticipated. In the case of WCAS, an established organization, its large decrease in expenses corresponds to its drop in revenues – thus indicating fiscal discipline. This should be considered ideal and is therefore illustrative of financial well being and value.

Another indicator of financial well being and financial discipline that is frequently used within the business community is overhead expenses. An overhead expense is defined as any expense incurred to ensure the fundamental and administrative operations of an organization occur i.e. "keeping the lights on". Overhead costs do not include direct operational or project expenses i.e. the cost of delivering an organization's key services and function.

For this report, overhead expenses have been divided into two categories:

- Human Resource & Administration Expenses; and
- Communication Expenses.

Thus, administrative and communications expenses together constitute overhead expenses for WPACs and AZs. The key criteria used to determine an organization's overhead expenses and direct operational expenses are provided in Table 3.2:

Table 3.2: Overhead Expense Criteria

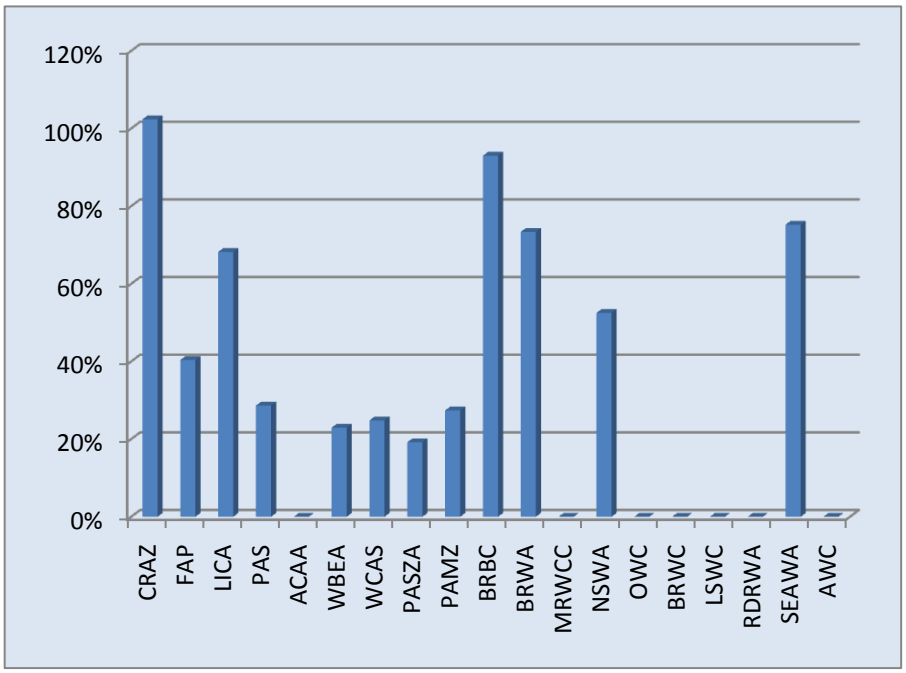
Direct Operational Expenses (NOT-OVERHEAD):	HR & Administration Expenses (OVERHEAD EXPENSES):	Communications Expenses (OVERHEAD EXPENSES:
Monitoring Expenses	Salary & Wages	Air Information Line
Direct	Employee Benefits	Annual Report
Air Monitoring Expenses	Office Expenses	Billboard Advertising
Water Monitoring Expenses	Professional Fees	Brochures and Newsletters
Project Expenses	Stakeholder Involvement	Communications Consultant
Monitoring Contracts	Travel	Meetings
	Strategic Plan	Newspaper Advertising
	Alberta Health and Wellness Cost	Media/Communications Training
	Program Cost Billable	Website Maintenance
	Presentations & Promotions	Open House and Trade Fair

As an indicator, overhead expenses can help identify whether or not an organization is being run efficiently and using its budget dollars effectively. More specifically, by comparing overhead

expenses to an organization's expenses insight can be gained on the organization's efficiency. Whereby the greater the percentage of overhead cost to total expenses the less efficient an organization is at delivering service and visa-versa.

Figure 3.3 summarizes the findings of the analysis undertaken on the overhead costs of partnership groups.

Figure 3.3: Overheads as a Percentage of Expenses (2009)



* For some WPACS and AZs, the information needed to calculate overheads was not available. They are, thus, shown as 0% in these graphs. While this does not imply that their overhead expenses were 0, it is important to leave them in to indicate the paucity of data.

The most obvious inference from this data is that overhead costs as a percentage of expenses vary significantly; from 45% to 90% for WPACs and 19% to 100% for AZs. This analysis was undertaken for the years 2007 and 2008 (See Appendix C and D) and yields similar results. Only one partnership group is below 20%. This finding is considered to be not ideal, and indicates a characteristic of reduced value. It appears that there is an opportunity to enhance partnership groups' adherence to their budgets. Alberta Environment could be of assistance to its partners in support of this capacity.

It should be noted that this is not a recommendation to decrease the overhead costs. Reducing overhead costs is not necessarily advantageous to partnership groups, possibly implying a decrease in activities that have operational importance and value. For example, stakeholder communication and public outreach efforts are overhead costs. Decreasing stakeholder communication and public

outreach efforts would certainly not be advisable since WPACs and AZs take pride in their consensus-building approach that brings together stakeholders from different backgrounds.

Rather, this indicator suggests that there is an opportunity to enhance the value of each dollar spent by partnership groups with respect to their overhead costs. Thus, before considering cutting back on any of these costs, partnership groups should look to develop capacity budgeting and managing overhead costs and expenses.

2.6.2 Volunteer/in-kind contributions

As non-profit organizations, WPACs and AZs are able to attract a large amount of volunteer and in-kind support. This support can take the form of contributions from their board members, highly skilled individuals serving on various committees (technical committee, communication committee, etc.), financial contributions, office space, computers, desks, other furniture items and so on.

While volunteer and in-kind contributions are tracked by some organizations better than others, it is clear that these contributions constitute a substantial proportion of the partnerships' daily operations. Table 3.3 details the in-kind contributions to WPACs and AZs, for partners that had information available. For many partnership groups only in-kind contribution estimates were available due to a lack of data. Although this valuation is only approximate, it shows the level of in-kind support WPACs and AZs are able to leverage to support their mandates.

Table 3.3: In-kind Contributions Summary

Type	2006	2007	2008	2009	2010	Estimated Total over 5 years ($)**
AWC	N/Appl	N/Appl	N/Appl	N/Appl	$72,878*	$72,878
BRBC	$14,080	$14,080	$14,080	$19,000	N/Ava	$76,550
LSWC	N/Appl	N/Ava	N/Ava	N/Ava	750	$3,750
MRWCC	$70,169	$83,464	$97,021	N/Ava	N/Ava	$417,757
NSWA	N/Ava	N/Ava	N/Ava	$350,000	N/Ava	$1,750,000
OWC	$176,616	$225,897	$314,250	$380,795	N/Ava	$1,371,948
CRAZ	N/Ava	N/Ava	N/Ava	$226,668	N/Ava	$1,133,340
PASZA	$34,804	$41,841	$38,386	$61,285	$58,700	$235,016
Total						$5,061,238
PAMZ (in hours)	2,200	2,100	2,400	N/Ava	1,774	

* From April 2010 to Jan 2011

** Estimated total over 5 years is obtained by multiplying the average of in-kind contribution approximations and then multiplying it by 5.

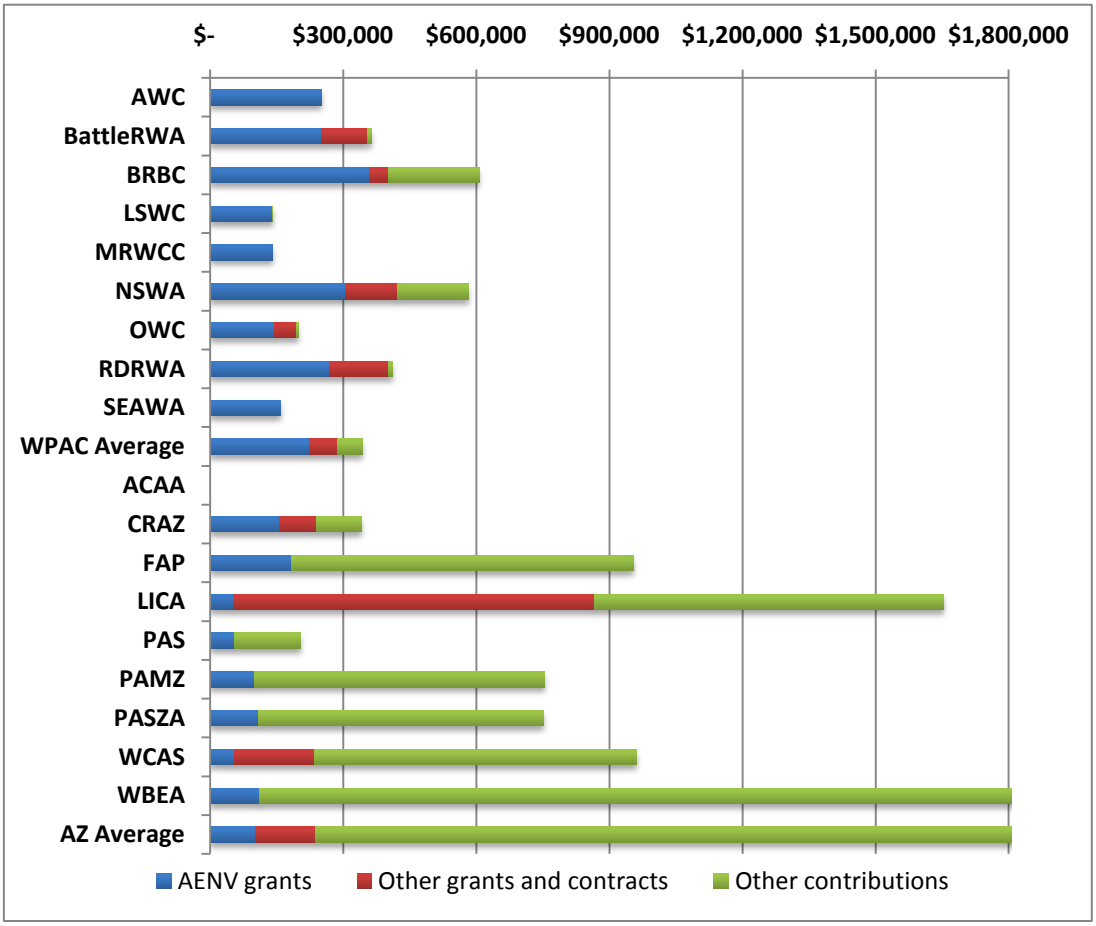
2.6.3 Leverage of Revenues

WPACs and AZs are able to draw on substantial funding resources from entities other than the Government of Alberta, such as industry and private members of society. These funds, in some cases, form the majority of the operating cash flows (e.g., WCAS and WBEA) of partnership groups. This financial leverage is not likely to be possible for a Government department to replicate if the services provided by WPACs and AZs were operated from within Alberta Environment.

There are three main categories used to assess how partnership groups generate revenues and as to which revenues can be defined as value added dollars to the Government of Alberta. These categories include direct grants from Alberta Environment, other grants and contracts (could include Alberta Environment contracts) and other contributions (mainly from industry and other members). For a detailed list of the criteria, please refer to Appendix E.

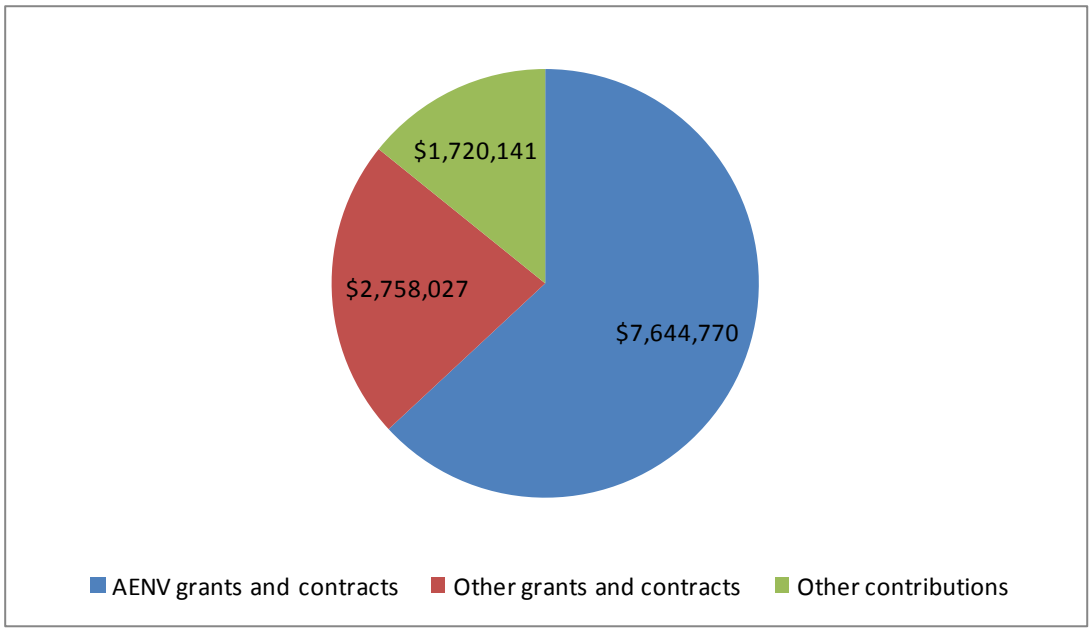
Figure 3.4 summarizes the breakdown of the revenues for 2009. Similar analyses were done for years 2006, 2007 and 2008. These are provided in Appendices G to J

Figure 3.4: Revenue Breakdown (2009)



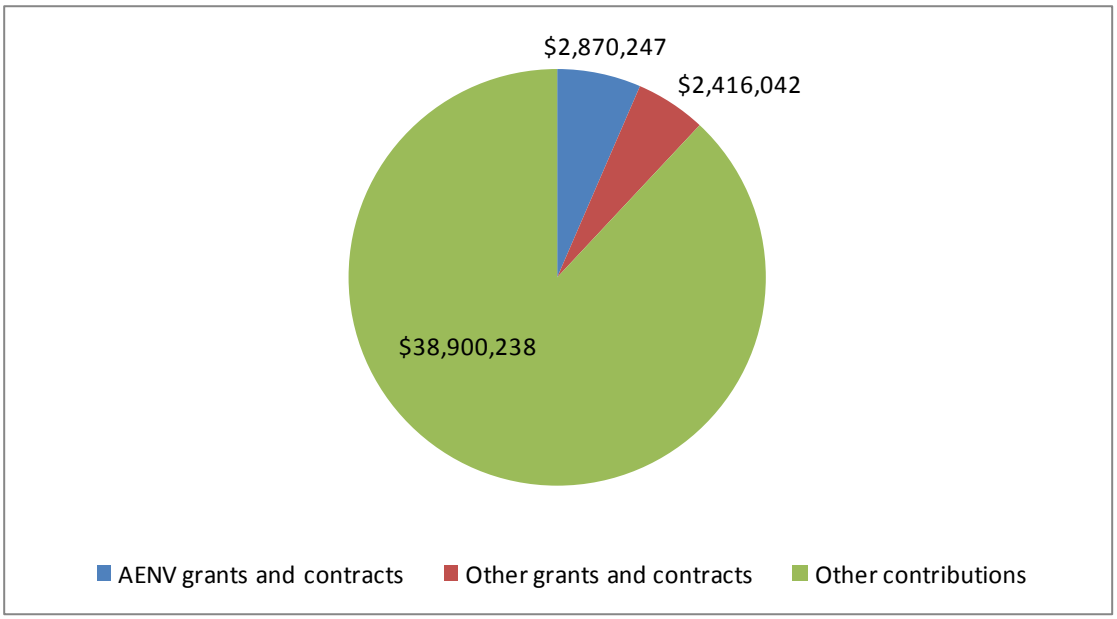
Note: WBEA's other contributions was $10,237,767. It cannot be seen on this chart as its scale is much larger.

Figure 3.5: WPAC Revenue Contributions by Source (2006-2009)



As illustrated in Figure 3.5, there are three main revenue streams for partnership groups. Alberta Environment grants provide the primary source of revenues for WPACs (Figure 3.5). By contrast, AZs have been positioned to leverage other sources of revenue (Figure 3.6). Therefore, it can be concluded that for every dollar invested through an Alberta Environment grant, there is greater leverage (and thus quantitative value) to Alberta Environment from AZs rather than WPACs.

Figure 3.6: AZ Revenue Contributions by Source (2006-2009)



However, it is important to note that there is a key reason for the difference in the level of "other contributions" between WPACs and AZs. The difference can be attributed to the regulatory framework in which AZs operate, which mandates large industry players to monitor and report their emissions and provide funding support to AZs. Because of this institutionalized funding system, AZs generate significantly more revenue relative to WPACs. Since WPACs generally monitor watershed health as a whole and do not monitor point source releases, their operations and services tend to be less financially demanding. Clearly their roles and functions are very different from AZs and therefore utilizing "other contributions" as a source of funding is not as critical to supporting the functions of WPACs within the broader environmental management system. In summary, the regulatory backdrop of WPACs and AZs differs and so too does the revenue generation mechanisms used to support their respective roles.

It seems the longer WPACs and AZs exist, the greater their revenue sources become – this is certainly an added value to Alberta Environment.

2.7 Micro Qualitative and Quantitative Analysis

After the macro level quantitative analysis, organization specific activities were considered to help assess the value of WPACs and AZs. These include the engagement of stakeholders, volunteers,

partners, publishing state of the air/water resource reports, developing air/water management frameworks and providing recommendations to the Government of Alberta. The characteristics and outcomes of each criteria evaluated are described below. Detailed qualitative assessments for WPACs and AZs can be found in Appendices L and M respectively.

2.7.1 Partnerships

WPACs and AZs have established partnerships with various organizations including government departments, municipalities, the general public, ENGOs, and First Nations. A key advantage of these partnerships is that they enable stakeholders to see each other's point of view first hand and express their own perspectives in a non-partisan environment. These partnerships result in the sharing of information and best practices amongst organizations and help in problem resolution. It also appears to offer stakeholders an opportunity to bring issues forward and resolve them collectively. This necessitates trust in the organization they are sharing information with. WPACs and AZs have, thus, developed a reputation for being unbiased and of credibility over the years. In addition, these partnerships serve to develop common strategies for all organizations. This is a key aspect that the government should consider leveraging more than it presently has, on the international scene.

2.7.2 Volunteers

The volunteer and in-kind participation is best valued by the number of hours individuals put in and by estimating the alternative costs had the in-kind contribution not taken place. Some of the WPACs and AZs track the number of hours of their board members, committee members and other in-kind contributions (such as contracts completed in-kind, office space or furniture provided) and state them in their annual reports. However, since this can be tedious and since tracking may divert them from the purpose of engagement, many organizations do not track these. Thus, a substantial amount of these contributions go unreported. These value-added contributions are unlikely to exist to the extent they do without the existence of WPACs and AZs.

2.7.3 Stakeholder Engagement

A key strength of the WPAC and AZ governance model is stakeholder engagement. Many partnership groups work through a consensus-driven decision-making model that brings individuals from different backgrounds and interests together. Most EDs emphasized this type of stakeholder engagement as an organizational strength. It was also emphasized that this model allows individuals to share their points of view and decide collectively, reducing tension between different parties and promoting a transparent decision-making process. This transparent process provides much-needed credibility and support to the actions of WPACs and AZs, and serves the interests of their stakeholders.

2.7.4 Operational, Business and Strategic Plans

An organization must have strong and detailed plans for it to achieve its objectives. This is generally articulated in operational, business and strategic plans, which are developed by a few individuals – namely Executive Directors and Board members. These documents then serve as guiding tools for organizational progress and their presence, quality and frequent review are important for a well-functioning organization.

2.7.5 Community engagement

Ultimately, the natural resources belong to the people of Alberta making the engagement of the general public by WPACs and AZs important. They use various methods to this end which range from newsletters to open houses to retreats. This promotes awareness amongst the general public regarding the presence and role of WPACs and AZs in their communities and is a value added service to Alberta Environment.

2.7.6 State of the Environment and similar reports

One of the key responsibilities of WPACs and AZs is to report on the current state of air/water using key indicators. These are instrumental in making recommendations to Alberta Environment regarding the planning and management frameworks in the sub-regions. In an ever-changing environment, publishing these reports on a regular basis and ensuring high quality is important.

2.7.7 Value of Knowledge and Influence

WPACs and AZs are also expected to share the knowledge they have acquired and use it to influence local air/water resource management frameworks. Such an objective requires that they contribute to appropriate seminars, conferences, or present to other external stakeholders. These take the form of presentations to the municipalities, industry and other similar organizations.

2.7.8 CEMS preparation

WPACs and AZs expressed a desire to be prepared to adapt to the CEMS model and proactively work to develop plans to implement it once it is available. As CEMS is rolled out, their capacity for this preparation and implementation can be evaluated.

2.8 Qualitative Analysis for Each Organization

In this section, the Evaluation Rubric (found in Appendix A) is used to assess each of the WPACs and AZs. The Athabasca Watershed Council was excluded from this analysis, as it has been operational

for only one year. A key strength is identified for each organization based on the analysis. Other strengths that the EDs of WPACs and AZs identified during the interviews with participating partners, are also listed. Since the latter do not necessarily come up in the analysis, it would be important to develop metrics to validate these traits as key strengths in the future. Additionally, the strengths of WPACs and AZs as perceived by their respective Executive Directors are compared with the findings of this project's analysis in Appendix M.

2.8.1 Battle River Watershed Alliance

The Battle River Watershed Alliance's key strength lies in its community outreach efforts. These include partnering with Agrium, engaging students to holding water forums, presenting to municipal councils, and holding state of the watershed presentations. Battle River Watershed Alliance considers the quality of its policy research and its watershed management planning to be its key strengths.

2.8.2 Bow River Basin Council (BRBC)

The BRBC is one of the oldest and most established WPACs in Alberta. Its key strength is its focus on working on one report/issue at a time. This allows it to achieve an in-depth analysis of an issue and dedicate all of its resources to it. The BRBC believes that the support and involvement of its membership provides it with a solid foundation to act. In addition, a unique value it believes it offers is its use of a collaborative approach to support better decision-making processes.

2.8.3 Lesser Slave Watershed Council (LSWC)

The LSWC prepares high quality annual plans (operational, strategic and business plans) and uses them as a close guide for operations. This is their key strength. The LSWC believes that the commitment and experience of its board members, some of whom have served for over 10 years, combined with its non-governmental nature allows it to build and leverage its partnerships much more than otherwise possible.

2.8.4 Milk River Watershed Council Canada (MRWCC)

The MRWCC engages different stakeholders in a very efficient manner and utilizes its partnerships very effectively. This results in a high level of in-kind contribution for the organization. These take the form of highly technical support from different organizations and expert advice for monitoring. The MRWCC believes that the ability to collaborate across industries and ability to provide and gather knowledge and science are its other strengths.

2.8.5 North Saskatchewan Watershed Alliance (NSWA)

One of the key strengths of the NSWA is the amount of knowledge it generates internally which it also conveys in a highly efficient manner, usually in the form of reports or presentations that are then used to influence other appropriate parties. The NSWA believes that its other key strengths are the dedication and commitment of its members and the credibility it has built over the years.

2.8.6 Oldman Watershed Council (OWC)

A key strength of the OWC is the level of volunteer support it has been able to gain and maintain over time. This may be a result of the partnerships it has established over the years, enhancing its reach.

2.8.7 Red Deer River Watershed Alliance (RDRWA)

A key strength of the RDRWA is its ability to bring together various stakeholder groups and volunteers on various committees that are dedicated to making the collaborative approach work through the development of trust in each other.

2.8.8 South East Alberta Watershed Alliance (SEAWA)

Innovation and leadership is considered to be a key strength of the SEAWA. They are currently working on putting together the first web-based State of the Watershed reporting tool and indicators. This will certainly be useful to other WPACs and is transferable to other frameworks such as the CEMS. The SEAWA considers its board representation and their ability to work together, a strength of the organization as well.

2.8.9 Alberta Capital Airshed Alliance (ACAA)

The ACAA is able to identify the factors behind its success. It is also good at developing goals and plans to achieve those factors.

2.8.10 Calgary Region Airshed Zone (CRAZ)

The CRAZ believes that its key strengths are its relationship with key stakeholders such as municipalities and its learning and growing organizational culture. This allows it to be more open and flexible to accommodate various stakeholders and challenges.

2.8.11 Fort Air Partnership (FAP)

A key strength of the FAP is its ability to attract strong financial support from industrial associations. The FAP considers high quality data and its ability to inform and communicate with stakeholders its key strength.

2.8.12 Lakeland Industry & Community Association (LICA)

The LICA's strength lies in its ability and efforts to reach various stakeholders from the community. These include large number of presentations to various towns and municipalities, lecture series and open houses.

2.8.13 Palliser Airshed Society (PAS)

A key strength of the PAS is its ability to engage industry personnel and leverage its credibility to raise funds for the organization. The PAS believes its key strengths are its effective and collaborative governance model and the communication its personnel have with each other, which helps resolve issues early on.

2.8.14 Parkland Airshed Management Zone (PAMZ)

A key strength of the PAMZ are its clearly defined committees which are better able to work on their specific tasks and bring solutions to the table. This type of division allows for efficient and detailed analyses. The PAMZ believes that its other strengths are its responsiveness to issues of concern, and credibility with and representation of various stakeholders.

2.8.15 Peace Airshed Zone Association (PASZA)

A key strength of the PASZA is its ability to attract large volunteer support and financial contribution from its members. The PASZA believes its inclusive process – one that is transparent, collaborative and engages stakeholders – and its ability to provide high quality data are among its strengths as well.

2.8.16 West Central Airshed Society (WCAS)

As the oldest AZ in Alberta, the WCAS is a well established organization. This is evident in its ability to raise substantial funds from its members. The WCAS believes that its other strengths are its collaborative stakeholder engagement process and its ability to raise awareness about air quality issues as a third party in the region.

2.8.17 Wood Buffalo Environmental Association (WBEA)

One of the key strengths of the WBEA is the abundance of resources available to it and its ability to leverage the knowledge and network of its scientific members. The WBEA also considers the support of its members and volunteers to be highly successful.

2.9 Chapter Findings

This chapter aims to provide an overview of the financial characteristics of partnership groups in terms of their inputs (costs) and output (benefits) to Alberta's environmental management system. From the overview it is evident that:

- Most WPACs and AZs demonstrate financial discipline and therefore demonstrate financial well-being. This infers that the funding received from external sources (the Government of Alberta) is supporting value.
- WPACs and AZs are able to attract volunteer and in-kind contributions. These contributions further enhance the value of the funding provided by the Government of Alberta.
- WPACs and AZs are able to draw substantial funding resources from entities other than the Government of Alberta (industrial and private members of society). This means the Government of Alberta's funding contributions are "leveraged". A government department would likely not be able replicate this leverage and therefore deliver the services internally for the same cost.

From the qualitative value assessment of the WPACs and AZs the following findings are offered:

- There is an important opportunity to develop a value reporting tool[5] that demonstrates and leverages the shared value created by WPACs and AZs.
- To enhance the value of WPACs and AZs there is a need to clarify their roles and expectations under CEMS.
- Leveraging and expanding the relationships that WPACs and AZs have with their stakeholders, particularly First Nations, will further increase their intangible value.
- To ensure value is attained from WPACs and AZs there is a need to shift to outcome reporting that quantifies the quality of the partnerships in terms of the CEMS pillars. With this reporting focus on low transactional cost[6] items that are a benefit and that might otherwise be taken for granted. In other words, focus on providing resources for services that benefit to Alberta, but require minimal cost inputs to oversee the funding arrangement.

5 Value Reporting Tool – is a metric of the concept of shared value, which is a measure of the societal value received from the WPACs and AZs. A further discussion on this concept is found in Harvard Business Review, January – February 2011 by Harvard University, Professor Michael E. Porter.

6 Transactional Costs - organizations have long been concerned about the cost of transactions related to providing goods and services to their clients. Therefore, many organizations seek to lower the costs transactional costs associated to reduce their total costs of doing business. In the context of WPACs and AZs, transactional costs refer to the costs required to secure funding, define a scope of service from funding and oversee the arrangements pertaining to a funding agreement.

The key value service WPACs and AZs offer to Alberta Environment is in acting as third party, non-partisan, multi-stakeholder institutions that support environmental management in the Province and complement the services and roles of Alberta Environment that are provided to Albertans. Furthermore, they play a critical reporting role that is independent from the Government of Alberta. This enhances Alberta's environmental management system and its credibility. They also offer Alberta Environment high quality localized knowledge which can prove valuable in developing future management frameworks by Alberta Environment. Cumulatively, the benefit of the above mentioned attributes to Alberta Environment is an environmental management system that is better able to leverage the services of partnership groups to identify emerging issues and weak signals[7] and to provide expert advice on managing and mitigating them, as necessary. These are important value added services for Alberta Environment.

2.10 Recommendations

Based on the analysis and findings of this Chapter, the following recommendations are offered:

- It is critical to develop a reporting tool that focus on services that require minimal administrative and transaction costs, but support key policy and program outcomes of the Government of Alberta. This reporting tool will enable low transactional outcome reporting[8] that will leverage the value of these partnerships beyond the current reporting systems;
- There is an opportunity to obtain greater buy-in by the WPACs and AZs partners in reporting their value-added services to Alberta Environment. It is likely in the government's best interests to explore opportunities to develop a "value reporting" tool;
- There appears to be a need to assist partners in developing greater capacity to support budgeting processes and managing expenses. This holds especially true with respect to their overhead expenses;
- Outside of the direct terms of reference of this contract, there appear to be opportunities to further leverage the relationships that WPACs and AZs have with their stakeholders, particularly First Nations. In international policy circles, CABREE recently polled its extensive international network of stakeholders to garner their perspectives concerning Alberta's image as regards air and water management. The impression of this informal polling is that the concerns raised by Environmental Non-Government Organizations and in particular, David Suzuki, are confined to a

7 For purposes of this report the concept used is one of fragmented and incomplete data which can lend support to the development of early warnings for Alberta Environment Executive and managers.

8 In this case two things are meant: first, outcome reporting helps to quantify the quality of the partnerships in terms of the CEMS pillars. Second, and just as important, "low transactional" acknowledges those outcomes in the partnership that have low costs and might otherwise be taken for granted.

much narrower group internationally than is often portrayed and/or assumed. For example, negative articles in popular UK media like the Guardian do not impact Alberta and Canada's image to the extent portrayed in provincial and national media and by ENGOs in Canada. There are many who indicated that they expect to hear "good" stories of how Alberta and Canada are leading the way in managing these resources in keeping with their long track record of environmental management. Alberta Environment should strongly consider developing a more proactive strategy to leverage the on-the-ground, grassroots aspects of WPACs and AZs and the value they add internationally.

Through conversations with EDs, several themes emerged which are summarized as recommendations below:

- There is a fundamental difference between how the regulatory system of Alberta supports WPACs and AZs. It is apparent that WPACs currently have little ability to leverage their grant funding from Alberta Environment and obtain other financial contributions. Therefore, Alberta Environment should continue to explore funding options and governance models that enable WPACs to leverage their current resource base.
- One key theme that emerged time and again was that the grants and contracts that WPACs and AZs receive are unpredictable and unreliable in terms of their amount and timing. To optimize the efficiency of their operations i.e. overhead costs and expenditures, Alberta Environment should continue its exploration of a funding mechanism that provides a predictable revenue stream. This will enhance their quantitative and qualitative value.
- Many EDs noted that the role and expectations of WPACs are becoming ambiguous and not clearly articulated within the broader policy frameworks of Alberta. With the development of CEMS, this challenge appears to be magnifying. It was noted by one respondent that a "(lack of clarification on) operational role of different players is the #1 problem". Clearly defined roles and responsibilities for WPACs (and AZs) will enable them opportunities to discover greater operational efficiency, and thus enhance their value to the efforts of Alberta Environment and the Government of Alberta. Alberta Environment has started a separate process to clarify WPAC and AZ roles in CEMS.

Chapter Three

Stakeholder Survey: Exploring the Perceived Value of WPACs and AZs

3.0 Stakeholder Survey Overview

This chapter of the report details the perceived the qualitative value and benefits that Alberta Environment receives from WPACs and AZs. Specifically, the chapter complements the findings of Chapter 2 by presenting the findings of a web-based survey that was used to measure the perceived value and benefits of the role and services of WPACs and AZs.

To gain a fuller understanding of the perceived value and benefits of these organizations and the governance model under which they currently operate, several types of data collection and analysis processes have been developed for this project. This includes a detailed web-based survey that was designed to solicit the insights of the stakeholders most intimately involved with WPACs and AZs, both directly and indirectly. The results collected from the stakeholder survey provide detailed insights to the value of the role and services of WPACs and AZs within Alberta's environmental management system. This Chapter presents the findings of the stakeholder survey.

The web-based survey developed for this project provided an opportunity for Executive Directors of WPACs and AZs, Board members, and representatives of industry, environmental organizations, and government to share their input and insights regarding the value and benefits accruing from WPACs and AZ. When necessary, the web-based survey was complemented with the insights provided by the interviews conducted with WPACs and AZs during the previous valuation exercises presented in Chapter 2.

The survey was conducted using an online, confidential survey tool of the Alberta School of Business, University of Alberta, developed by CABREE and Urban Systems in partnership with Alberta Environment. The survey was conducted from March 15 to March 24, 2011. The URL link to the survey was sent out to staff at all levels in Alberta Environment, other Government of Alberta Ministries involved with WPACs and AZs, and WPACs and AZs Executive Directors and Board Members. It was also sent to individuals from the industry and ENGO communities involved in water management issues and air quality management issues in the province of Alberta.

While there were a total of 81 respondents to the survey, only 34 of the respondents completed all survey questions. Given a population size of about 250 this represents a statistically valid distribution. However, the comments, analysis and observations are very broad in perspective with limited applicability to individual WPACs and AZs as regards the current governance discussion needs. In other words, while the results meet the expressed need of the government to look at the wider public policy and governance opportunities to support the value of their partnerships with WPACs and AZs they do not focus on any particular WPAC or AZ.

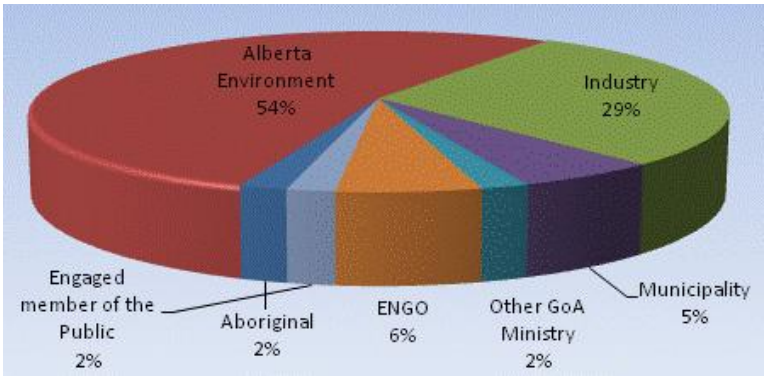
This is the first survey that measures and assesses the qualitative value of Alberta Environment's partnership groups. As such, it provides a preliminary foundation for future decision-making processes within the Government of Alberta and future research in this area. As this was the first survey of its kind, a trend analysis is not possible. This study could be used to enable such an analysis in the future, however, so that long-term trends, directions and enhancements in the services and value of partnership groups can be ascertained.

4.0 Characterization of Survey Respondents

4.1 Organization

As illustrated in Figure 4.1 below several organizations responded to the qualitative valuation survey conducted in for this study. It is evident that the majority of respondents (54%) were from Alberta Environment and 29% of the respondents were from industry. Additionally, environmental non-government organizations represented approximately 6% of the respondents, municipalities represented approximately 5% of the respondents, and members of the public, aboriginal stakeholders and other Government of Alberta ministries each represented 2%.

Figure 4.1: Survey Respondents

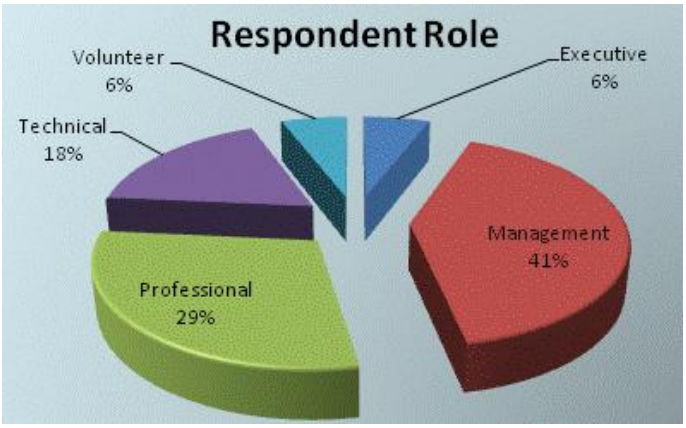


The profile of the respondents highlighted above demonstrates the project team's effort to strategically target key stakeholders who had not participated in the quantitative and qualitative survey work completed earlier which focused on the executive directors and staff of the WPACs and AZs to provide an in-depth self-evaluation of the benefits and values of the WPAC and AZ organizations. Suffice it to say that the majority of respondents that participated in this survey represented the views of government or industry.

4.1.1 Role in Organization

The survey respondents were asked to self-identify as Executive, Management, Professional, Technical, or Volunteer. It is important to highlight that most of the completed survey responses were from those identifying themselves as Management or Professional. This is helpful in the analysis since one would expect that this group of respondents is best suited to give the type of information and knowledge needed for the key objectives of this project. Figure 4.2 below highlights the respective roles of each survey respondent.

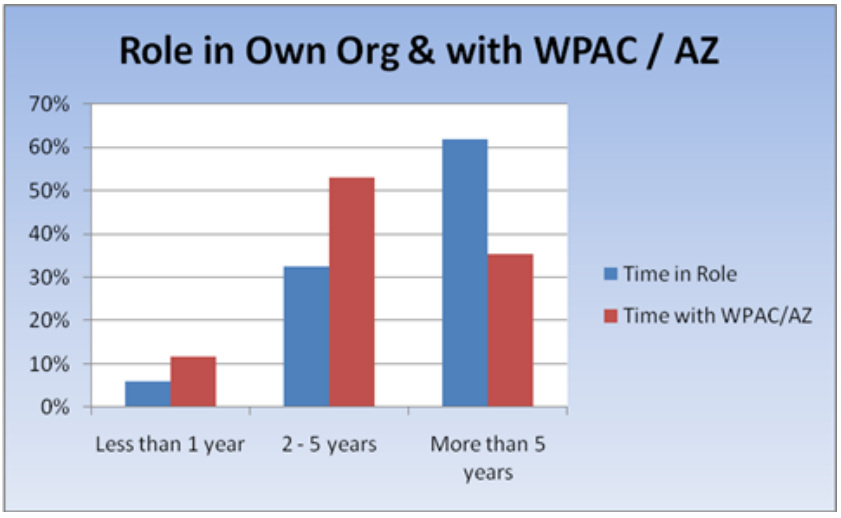
Figure 4.2: Respondent Role



4.2 Time working in own Organization and time with WPAC/AZ

The next characteristic about the respondents considered within this survey is the amount of time each respondent has had in their current role and the length of time spent relating to and working with WPACs and AZs. In other words, it was assessed whether the people responding to the survey work extensively within their organization and whether they have enough experience with the WPACs and AZs to critically reflect upon and offer insight into their value to Alberta's environmental management efforts. It is important to highlight that of the survey respondents, 60% of the respondents have been in their respective organization for over 5 years and approximately 35% of these have been working with WPACs and AZs for over 5 years.

Figure 4.3: Role in own Organization with WPAC/AZ



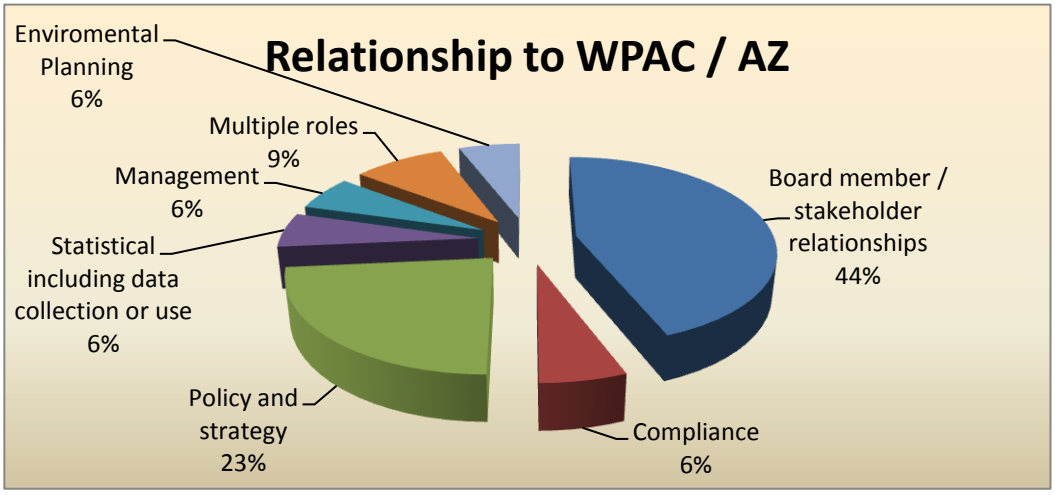
4.3 Primary Involvement

The next characteristic of each respondent considered was the organization or type of organization that constituted the respondent's primary involvement.[9] Here there is an even split between WPACs and AZs. It is important to note that this split could have turned out differently, and future surveys should carefully consider the risk of having an unbalanced representation from one group or the other. It is also important to note that only one organization received no responses, the Milk River Watershed Council. Given the overall percentage of respondents it is important not to disaggregate the results to the level of individual organizations. While this is a typical instinct and desire, as respondents wish to see that there is value for their organizations, it can have detrimental impacts, including reduced buy-in and participation.

4.4 Relationship to WPAC / AZ

The next characteristic that was considered was the relationship of each of the survey respondents to the WPACs or AZs. Approximately 45% of the respondents were either involved at the Board level or stakeholder level. Another 25% were involved in the policy and strategy work of WPACs and AZs; with most respondents working for Alberta Environment at a professional or management level. The remainder can be readily inferred from the following chart. Nearly 10% of the other respondents have multiple roles with significant variance, including advisors on cumulative effects to board members with a statistical role in policy development and data support. The relationship of survey respondents is summarized in Figure 4.4.

Figure 4.4: Relationship to WPAC/AZ



9 It should be noted that the suitability of the survey for government employees working with multiple organizations was considered. The solution determined was a group, either WPACs or AZs, and not a specific "Association" as such. This works well for the survey which stressed the higher level focus on the value of the governance model itself.

Again the mix of relationships bodes well for the purposes of this project and the validity of the survey results since the respondents were those who offer a governance perspective, rather than those who work in a statistical, compliance or assurance role. It is interesting to note there were no responses from individuals who play a regulatory assurance role in Alberta's environmental management system.

4.5 Summary of the Characterization of Respondents

The "average" respondent has worked for over 5 years in either government or industry in a professional or management role. He or she is quite conversant with either WPACs or AZs, having been involved with them for at least 5 years at either a board or strategy/policy level.

Such a characterization is helpful for a number of reasons. First, it is reflective of the overall picture that the government is seeking making it evident that those fitting this characterization have a wider outlook and perspective on the value and benefits of WPACs and AZs. Second, the background and role of the average respondent is helpful in that it suggests that the focus of this group is mostly likely to be upon the policy, strategic value and benefits of these organizations. Finally, this group reflects the opinion of those who have seen trends and patterns emerge and can reflect upon them overlooking faddish topics and take a more substantive consideration of the themes of the survey.

The "average" respondent has worked for over 5 years in either government or industry in a professional or management role. He or she is quite conversant with WPACs or AZs having been involved with them for at least 5 years at either a board or strategy/policy level.

5.0 OPEN ENDED SURVEY QUESTIONS AND FINDINGS

From the perspective of style, it was decided that the survey would pose open-ended questions. This offers a means to test the knowledge of the respondents and more importantly to provide an opportunity for the respondents to offer an unprompted overview of what they consider the key responsibilities of the partnership group they work with most closely. Further, since the respondents are voluntarily participating in a survey on the value of these organizations, deeper insights and considerations can be offered on the key responsibilities and valued services provided by the organization, as distinct from the "value-added" services of the organization. The raw data from the web based survey can be found in Appendix N of this report.

5.1 Key Responsibilities of the WPAC or AZ

The following section provides an overview of the findings associated with the assessment of the respondents' perspectives upon key responsibilities of WPACs and AZs. The survey question presented to respondents was:

- In your opinion, what are the organization's key responsibilities?

5.1.1 Summary of Findings: Airshed Zones

The value of the AZs hinges on disseminating information about air quality and data management. This was often qualified by terms like: defendable, credible, accurate, independent, and scientifically credible. While such a question poses the risk of people copying their response verbatim from a mandate document, its value as a question stems from an analysis of what respondents see as important and valuable in terms of the roles and responsibilities of the AZs.

Based on the survey results, it is evident from the widely prevalent use of terms such as "data collection" and "monitoring" that these activities represent the importance of these functions and responsibility to air quality management in Alberta. All responses explicitly included, at least once, the term "monitoring" and "data collection" as key responsibilities. In the context of air quality management, it can be concluded that these responsibilities and roles help to ensure system integrity and quality.

The second most prevalent theme in response to the question, seen in about one-half of the responses, refers to public education, whether by sharing information or actively seeking to engage stakeholders in collaborative management processes. There is no statistical difference between respondents on the basis of their role or involvement in the AZs.

Lesser still is the use of the word, and therefore the theme of management. However, when it did arise, it was often quoted in the context of monitoring and management. It was also referenced once in terms of cumulative effects and once again in terms of "framework".

Ranked lower were single responses, which discussed themes and responsibilities such as "creating policy changes" or "interacting with stakeholders". There was only one comment about interaction with the government.

Significantly, no respondent used the word "strategy".

5.1.2 Summary of Findings: Watershed Planning and Advisory Councils

For WPACs the picture was quite different. Stakeholder engagement and capacity building were the themes most frequently discussed by respondents. There was also a strong focus on reporting but this was often discussed in the context of either stakeholder engagement or the Water for Life Strategy. Furthermore, the theme of working with Alberta Environment is widely prevalent, especially in the context of "developing local solutions" and taking into account "social, environmental and economic values". One respondent's statement is offered as being representative of how the majority of respondents perceived the key roles and responsibilities of WPACs:

"I personally see a more important role as being local champions for protecting and enhancing the watershed. This is done by news stories and activities at the local level."

In other words, WPACs are seen more as "champions" for water management and protection within the context of supporting government direction (e.g. the Water Strategy and Management Planning).

5.2 Areas of High Success / Need to Improve

The following provides an overview of the findings associated with the assessment of the strengths and successes, as well as the opportunities for enhancement in the services of both the WPACs and AZs.

The two survey questions presented to the respondents were:

- In which areas is this organization highly successful?
- In which areas can the WPAC or AZ improve, to add more value to stakeholders?

5.2.1 Summary of Findings: Airshed Zones

Not surprisingly for AZs, the comments almost universally referred to two areas in which the organizations were considered to be highly successful: good technical and scientific skills, and sharing information and data. This certainly aligns with responses concerning the key responsibilities of AZs' that were highlighted above. Based on the review and analysis of the responses, the key message is that this is a valued service offered by AZs and this is evidently the AZs are key strength.

Interestingly, those that offered other comments about key responsibilities for AZs in the previous survey question did not discuss the themes of "technical and scientific skills" as areas of high success but rather discussed the themes of sharing information and sharing knowledge. The focus on this theme was summed up by one response provided to the question of: "In which areas can WPAC or AZ improve, to add more value to stakeholders?"

"I believe in sticking to the knitting. Maintain credible databases; educate when opportunities arise. Don't try to make empires....or become regulatory bodies under current mandate."

While this statement certainly supports the themes discussed in the previous two questions, it does not reflect the diverse insights shared with respect to areas for improvement. Several responses are offered in the table below to illustrate the general direction in which AZs could potentially enhance their value, which essentially fall into four categories:

- Enhancing the role of air quality management frameworks;
- Aligning the mandates and the strategic focus of AZs (especially at a Board level) with cumulative effects management better;
- Expanding or improving monitoring capabilities and capacity;
- Enhancing stakeholder involvement.

Table 5.1 – Air shed Improvement Suggestions Collected through the Survey

General Area of Concern	Respondents Suggestions
Management frameworks and mandate	Response to ambient air quality issues in relation to Framework planning and implementation-this is a new area that needs clarification. Additional support or mandate from Alberta Environment since this organization is the forum for air quality discussions in the region. Assistance in programs; both financial and guidance. Better integration of the Air shed monitoring with cumulative effects management frameworks in the region.
Strategic focus	Better strategic focus at the Board level.
Expanded or improved monitoring	Ensure that all sources of pollution are reported. Regional air quality monitoring (not tied to operating approvals) to improve understanding of the drivers of air quality in the region Monitoring air quality by increasing the number of stations throughout the region, especially deployment of temporary mobile units in areas of concern throughout the region Installation of additional air monitoring stations to cover more areas. The organizational capacity can be strengthened to expand the network so that areas currently unmonitored may be brought under surveillance. It will help resolve data gaps and providing valuable information to all stakeholder groups.
Stakeholder involvement	Greater involvement and engagement of non-regulated sectors and stakeholders. Better engagement and involvement of the transportation industry, agricultural industry and personal vehicle use. Air shed zones need to be visible in the community, so that people know that air quality is being measured. Get more involvement from municipalities, towns and cities.

From a policy perspective Alberta Environment may wish to consider these four points in the development of a checklist for discussion with AZs. This will in other words, offer a framework, which could be used to test and identify explicit opportunities to enhance the value of the AZs within Alberta Environment's transition to the CEMS. It is important to note that it is possible to enhance three of these identified areas for improvement without any further capital expenditure – the only one requiring additional capital expenditure is the expansion of monitoring capacity.

The following comment by one respondent quite passionately summarizes the many themes seen in other respondents' answers, with respect to the fundamental value-added service of AZs:

"I don't know about WPAC's. They seem to thrive on giving advice to others to carry out while operating on gov't grants. Air shed zones do more for the province than the province does for them!! If they didn't exist they would have to be invented now. Their volunteer nature and the fact that they fund themselves (for the most part) mean the province needs to talk nicely to them!! I CAN'T EMPHASIZE ENOUGH THAT THEY ARE VOLUNTARY ASSOCIATIONS OF PEOPLE AND ORGANIZATIONS THAT SHARE A COMMON INTEREST IN UNDERSTANDING REGIONAL AMBIENT AIR QUALITY. THEY ARE ACCOUNTABLE TO THEIR STAKEHOLDERS. THAT IS A BIG DEAL. THINK WHAT ACCOUNTABILITY REALLY MEANS." *(emphasis by writer)*

This suggests that AZs see themselves and are seen by others as good service providers in the niche they operate in. Improvement should simply build on this foundation of successful operation, to increase their value-added service to the government and Albertans.

5.2.2 Findings: Watershed Planning and Advisory Councils

The situation for WPACs is quite different from that of the AZs. In summary, most people see WPACs as being in their infancy with some great early success in watershed reporting and stakeholder (community) engagement.

An interesting theme about value-added services runs through several of the comments provided by the respondents and is best summed in the following comment by one of the participants.

"The organization has been overly focused on its responsibilities to Alberta Environment (as an advisory council); and has not fully taken advantage of the partnership engagement and collaboration offered by a multi-sector organization."

This comment and several others provided by the survey respondents speak of a need to let the WPACs mature as organizations. All this requires is time and nurturing by their partnership groups, including the Government of Alberta. It is important to note that that WPACs are perceived as not wanting to break away from or reduce their "understanding of what Alberta Environment needs and how to produce it", considering this as being at the core of their purpose. However, it is perceived that may offer greater value by focusing more on "community integration and volunteer organization" and the "need to engage the public more." As one respondent suggested:

"I see happening by getting involved more in outreach activities and having the council get involved in smaller scale projects that involve volunteers."

5.3 Tangible and Intangible Outputs and Outcomes

The following section provides an overview of the findings associated with the assessment of the respondent's perspectives on the tangible and intangible value-added services of WPACs and AZs. Three questions were asked concerning the tangible and intangible outputs and outcomes that WPACs and AZs provide in relationship to understanding, managing and reducing impacts on air and water.

Strikingly, the open-ended responses for each group of organizations were quite similar in terms of the themes provided in the responses. Table 5.2 highlights the findings from this question and summarizes the key themes captured by the provided comments, by selecting *representative* comments.

Table 5.2 – Outputs and Outcomes

	Air shed Zones	WPACs
Understanding regional impacts on air and water:	outreach within the community and with stakeholders through the website; workshops and seminars They collect a lot of data; more than would be collected by industry alone	State of watershed report. Educational forums for watershed communities and residents There were so many data gaps especially as related to Oil and Gas impacts on water that it is quite hard to get an overall picture of the impacts.
Managing regional impacts on air and water:	Management plans supported by Alberta Environment (like pm and Ozone); but without current definite direction and support from Alberta Environment it is viewed as a weakness of AZ. Air shed zones are in a position to manage air quality impacts. They are the ones implementing the PM and Ozone management frameworks.	The watershed plan will guide management ; I get a feeling that stakeholders are becoming more aware of their impacts thus controls are getting introduced voluntarily
Reducing regional impacts on air and water:	Without direction and support from Alberta Environment (and other air sheds and stakeholders) there is no legislative authority of AZ to do this Air shed zones provide useful and reliable air quality data that enables air quality management.	Hopefully will result from public education and watershed planning. Not sure at this point whether the WPAC will have influence on this.

This table illustrates the level of maturity that the two types of organizations are perceived to exhibit. For example, reducing impacts on water is seen at best as a hopeful output or outcome for many of the WPACs, whereas the key theme with respect to AZs is a repeated concern about further direction and support from Alberta Environment. The next question with respect to the importance of relationship, confirms this analysis.

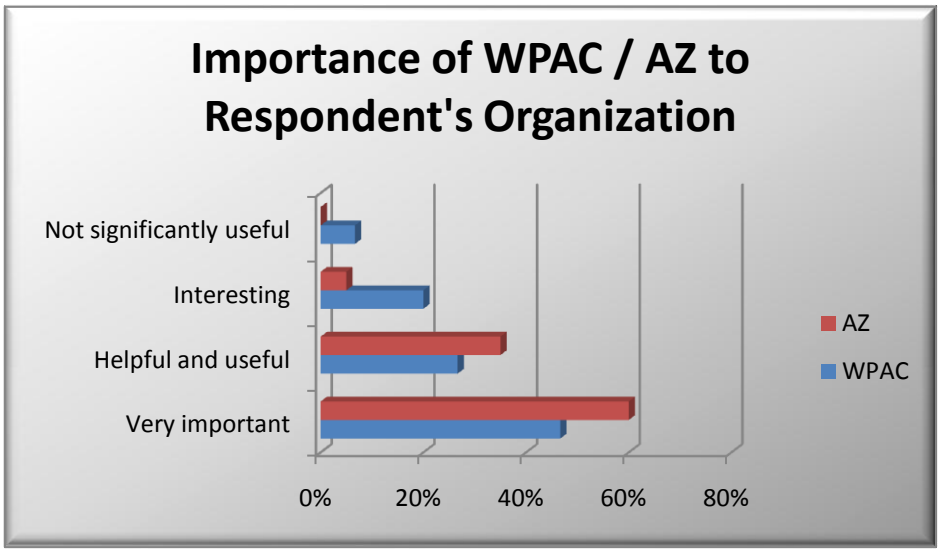
5.4 Importance of Relationship to WPAC or AZ

The following provides an overview of the findings associated with the assessment of the respondent's perspectives on the importance of both the WPACs and AZs. The survey question presented to the respondents was:

- How would you describe the importance of the WPAC or AZ relationship to your sector, community or organization?
  - Very Important
  - Helpful and Useful
  - Interesting
  - Not significantly useful
  - Not Applicable

Here the survey responses between WPACs and AZs diverge significantly. Over 60% of the respondents connected with AZs see them as "very important" organizations. The remainder suggested that they are "helpful and useful" organizations. Only one respondent felt that they were "interesting." For WPACs, only 47% said that they were "very important" and one person recorded that they were "not significantly useful".

Figure 5.1: Importance to Respondent's Organization



On the contrary, AZs are seen as providing a particular value-added service that is clearly understood and deemed as necessary. The perceived lack of clarity concerning the role of WPACs and their level of maturity, suggests that it is "too early to tell" what their importance to others is, or "the work of the WPAC is somewhat more limited in its relevance to current Department … needs" and therefore, they are not necessarily perceived as being a value-added service provider. However, there is one useful response amongst the few comments under "other" recorded by respondents to this question.

"The WPAC is the primary instrument for assessing the state of the watershed and developing watershed plans. Has improved our organization's relationship with various stakeholders."

This comment should be kept in mind as Alberta Environment transitions to the Cumulative Effects Management System. It is likely representative of the onset of the potential for value-added services that can be provided by WPACs in the long-run.

5.5 Overall Satisfaction

The following section provides an overview of the findings associated with the assessment of the respondent's perspectives regarding their satisfaction with the services provided by WPACs and AZs. The survey question presented was:

- Rate your overall satisfaction with the outputs such as information; products and advice generated from WPACs / AZs?

This question attempted to capture the value of the outputs from WPACs / AZs and possibly identify areas of concern.

There is a marginal difference between responses for WPACs and AZs. This is particularly true in terms of relevance, quality and timeliness. This survey data (detailed in Table 6.3 below) points to a few key themes. First, this data and work from the early quantitative valuation exercise of the organizations points to a need to assist both groups in providing timelier and higher quality outputs. The further automation of such reporting might offer a solution and has been suggested by several AZ and WPAC Executive Directors. Secondly, the use of the internet and web-based tools (such as social-media tools), should be continually leveraged to highlight value. This is particularly important to engage younger generations. This would build on the accessibility of the organizations and therefore enhance the value of their services.

Table 5.3 – Overall Satisfaction with Outputs

	Very Satisfied	Satisfied	Neutral	Unsatisfied	Very Unsatisfied
Relevance	57.14%	34.29%	5.71%	2.86%	0% (0)
Quality	34.29%	57.14%	8.57%	0%	0% (0)
Timeliness	34.29%	42.86%	17.14%	5.71%	0% (0)
Accessibility	62.86%	31.43%	5.71%	0%	0% (0)

5.6 Alignment, Value, Positive Impact and Influence

Table 6.4 identifies statements that people would agree with. As such it serves as a checklist for improvement that the department can consider. Statistically, there is little difference between the two types of organizations in these responses.

The average level of agreement is quite strong at 85% for all statements excepting the last two where there is greater uncertainty. While most people (a full 100%) perceive both organizations as an effective way to interact with community and stakeholders , there is again little certainty about their impact on reducing the footprint on the environment. The large number (25%) of “Don’t Know” responses suggests that it is hard for people to see a direct correlation. Since water and air policies and actions are by their very nature long-term and broad-horizon, taking decades to demonstrate their impact, this is understandable... However, this uncertainty suggests a strategic way forward in

addressing this issue – the suggestion from earlier in the survey of smaller projects with greater visibility can be used to create localized wins for the organizations.

Table 5.4 – Agreement Statements

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
Are aligned with current government policies and directions for air and water management	37.14%	51.43%	5.71%	5.71%	0% (0)
Add value to what our sector / community / organization needs to do	48.57%	40%	8.57%	2.86%	0% (0)
Are an effective way to interact with the community and/or stakeholders	60%	40%	0% (0)	0% (0)	0% (0)
Are positively impacting management of water and air	25.71%	60%	11.43%	2.86%	0% (0)
Are a positive influence on reducing the footprint on the environment	22.86%	48.57%	25.71%	2.86%	0% (0)
Should receive additional financial support from my sector / community / organization	31.43%	31.43%	31.43%	2.86%	2.86% (1)

5.7 Government Model Effectiveness

Table 5.5 provides an overview of the governance model that is used for WPACs and AZs. In this case, surprisingly, the organizations can be viewed as one for the purposes of data analysis with little statistical difference between them. This could be attributable to respondents stepping back and taking a high level view of the organizations, as sister units, albeit with different levels of maturity. Phone calls to a few of the respondents confirmed this interpretation.

The greatest value of the current model appears to be its effectiveness in providing quality knowledge and information. This is not surprising given previous information supplied by the respondents. At the other end of the effectiveness scale are the particular governance models' capacities to leverage funding. However, since this is also the largest unknown in the whole survey, it

suggests that new metrics would of the great importance to demonstrate the value and effectiveness that organizations bring to the table.

Table 5.5 – Effectiveness of Current Governance Model Used For WPACS / AZS

	Excellent	Very good	Good	Poor	Very poor	Don't know
Providing quality knowledge and information	12.12%	66.67%	15.15%	3.03%	0% (0)	3.03%
Influencing decision-making of government and stakeholders	9.09%	21.21%	42.42%	12.12%	0% (0)	15.15%
Delivering efficient monitoring programs	12.12%	39.39%	18.18%	9.09%	6.06%	15.15%
Promoting Government of Alberta air and water management goals and objectives	12.12%	36.36%	36.36%	3.03%	0% (0)	12.12%
Engaging stakeholders	30.3%	36.36%	24.24%	6.06%	0% (0)	3.03%
Creating strategic partnerships	24.24%	36.36%	24.24%	12.12%	0% (0)	3.03%
Involving, training and leveraging of volunteers	0%	45.45%	33.33%	18.18%	0% (0)	3.03%
Providing cost savings to government and/or industry while meeting objectives	15.15%	27.27%	21.21%	15.15%	0% (0)	21.21%
Leveraging additional resources (including financial and in-kind)	6.06%	21.21%	42.42%	12.12%	3.03% (1)	15.15%
Gaining increased acceptance and action towards environmental management decisions	12.12%	30.3%	30.3%	12.12%	0% (0)	15.15%
Gaining increased goodwill and respect for environmental management in Alberta on a provincial, national and international basis	12.12%	36.36%	36.36%	3.03%	0% (0)	12.12%

Surprisingly enough the governance model receives relatively low scores for delivering efficient monitoring programs. Given the self perception of the organizations, especially the AZs, regarding this part of their deliverables, one might have expected higher numbers in the "Excellent" and "Very Good" categories. The results under cost savings to government and industry reinforce this view, which is also relatively lower than what one might expect. However, it is important to note that what we have here is the difference between being *good* and being *great*. The model is certainly seen as good but not great in terms of efficiency and cost savings to government.

One area for further development that is closely linked with the above is the involvement, training and leveraging of volunteers. Not a single respondent suggested that the model produces excellent results in this regard. Given the importance the model places on engagement and involvement of the community, it is important to consider supplementary strategies to leverage and report on the greater use of volunteers.

5.8 Unique Benefits

In this open-ended question respondents were asked to consider the unique benefits that the current partnership model provides, which are not likely to be delivered by a different model. The answers can be summed up in the following words and phrases.

- Independence from government and industry – greater trust;
- Multi-stakeholder engagement and participation;
- Community ownership and capacity building;
- Transparency in decisions.

The summation of these open-ended answers was relatively easily. This suggests that there is a strong perception and consensus on the unique benefits that this particular governance model provides to Alberta. As such it provides a very workable framework that could be used to enhance the ability and capacity of the organizations within that governance model.

A few statements here give context to the above analysis:

- From industries perspective; monitoring and reporting of ambient air quality information could (and some have argued should) be delivered just as effectively by government. The current model provides for a multi-stakeholder process; however given the very technical nature of monitoring; the skill set required to make informed decisions is not easy to come by...that creates challenges for the organizations.

- There is a much greater level of trust than if the government provided the service.
- Provide more transparency to a broad range of stakeholders which can facilitate more objective consideration for community; environment and economy.
- The ability to involve stakeholders BUT they still look to government for policy or legislation. The stakeholders know that the buck stops with GOA.

5.9 Changing the Current Model

The responses to the last question again provide a number of consistent themes, specifically changes to the current governance model that would enhance the organizations' ability to create greater value. These themes are:

- Dedicated funding models that allow for greater stability but also make the organizations more self-sufficient;
- More clearly defined roles and expectations;
- Greater involvement of First Nations and other aboriginal communities.

This question elicited more elaborate responses reflecting the fact that people took more time to consider what was important for the future evolution and development of these organizations. There were several comments regarding air shed zones which suggest that, no change is needed except in the area of dedicated funding.

The answers seem to suggest that the respondents are more or less content with the current governance structure but are looking for things that would make it more sustainable. The First Nations comments are the first received in the survey and betoken something for future consideration.

6.0 Summary of Key Messages Collected from Survey Respondents

The following provides a summary of the key messages collected from each of the respondents:

- Alberta Environment should demonstrate greater leadership in the collaborative governance model (perhaps beginning by formalizing the governance model among GOA ministries); be clear in its expectations of the partnerships; establish success criteria to evaluate partner engagement; and build policy enablers/processes that allow the work of WPAC and AZs to inform policy/regulatory operations. To date; much of the investigation into collaborative governance has focused on how partnerships benefit Alberta Environment. However; the true test of a successful partnership would be the reciprocal of that relationship, whereby Alberta Environment's contribution enables the work of its partners.
- The First Nations need to be involved, but there are a lot of issues impeding their participation. A different organizational model with more committees actively doing the work is needed, so that the Board can meet less frequently and remain focused on governance and overall direction.
- The air shed zone model leaves little to be desired. They are independent and the province does not need to nettle them by suggesting that they need to change. It would be better for the province to ask the zones how it can help them, rather than vice-versa. The zones are not looking for government handouts. This question also presumes that the zones are part of a governance model. They are not. They are financially independent legal entities that have formed voluntarily and provide a tangible benefit for their members.
- The importance of a guaranteed income stream to allow proper planning for achieving long range goals is critical.
- The governance proposed in the policy documents of partnership groups is one of collaborative or shared governance; however there is concern that the Department has not truly implemented or enabled this governance model to be successful. Clarity is needed around roles/responsibilities.
- All partnerships are at different levels of maturity and should be looked at independently as to their roles and even a governance model. Regionally; their roles and community expectations are different too.
- In order to increase community awareness and perhaps support, greater public acknowledgement and awareness-building of Water for Life and Air sheds by the GOA would be beneficial. This could reduce the amount of time/energy/resources spent by partnerships in awareness building which is usually a cost to GOA.

7.0 Chapter Findings

There are several key findings about the values and roles that the survey, by virtue of its online and personal interviews, can now help answer.

1) What is the value of the current governance model?

The survey respondents described that the current non-partisan and quasi-governmental model of WPACs and AZs allows them to earn the trust of local stakeholders. They play a key role in bringing individuals with differing opinions together, to reach a collaborative decision. This is possible largely because of the credibility that WPACs and AZs have earned through their governance model. Such external involvement along with in-kind expertise from various organizations allows WPACs and AZs to build their internal intellectual capacity.

2) What is the role of WPACs?

Most WPACs identify their role as monitoring and improving water quality and ecosystems. They achieve this primarily through reporting with state of the watershed reports and integrated watershed management plans. They also provide advisory services and recommendations to the appropriate authorities. WPACs provide a forum for various stakeholders to voice their concerns and reach out to engage the general public and community members.

3) What is the role of AZs?

AZs see monitoring & reporting ofregional air quality and education & outreach to the community as their main goals. AZs provide periodic reports on the air quality monitoring to their stakeholders. They also produce regional air quality monitoring plans such as for ozone management.

4) How does their role align with CEMS?

The survey respondents reported that the CEMS requirements or the framework have not been clarified or described to WPACs or AZs. Until this happens, it will prove to be difficult for these organizations to prepare for CEMS. Thus, the mandate of these organizations under CEMS stands in need of being clarified. In addition, there are no clear guidelines or metrics at present for WPACs and AZs to follow in preparing their reports. These should be clarified by Alberta Environment to prepare them for CEMS.

5) Where can WPACs and AZs add value?

WPACs and AZs have a lot of local knowledge and a great understanding of the issues in the local ecosystems. They should be encouraged and facilitated by Alberta Environment to play a greater role in policy-making in future.

In summary, the services and functions provided by WPACs and AZs that are perceived to be of the greatest value to Alberta Environment and environmental management in Alberta:

- WPACs and AZ are independent from government and industry, therefore offering trust and credibility;
- WPACs and AZs support multi-stakeholder engagement and participation;
- WPACs and AZs provide a means to support community ownership and capacity building in the province's environmental management efforts;
- WPACs and AZs are perceived to be transparent in their decisions.

Chapter Four

Review of Funding Options and Assessment Tool

8.0 Introduction

8.1 Chapter Overview

It is evident that from the Auditor General of Alberta's report that partnership groups are currently challenged to overcome the attributes of their funding model – a model that does not offer budgetary foresight, clear lines of accountability, or the funds needed to meet the complex environmental planning issues of Alberta. The current model also appears to present administrative challenges for both partnership groups and Alberta Environment staff. The attributes of this model could inhibit the successful integration of WPACs and AZs into regional planning processes, the CEMS and the achievement of defined environmental outcomes.[10]

This section of the report has been structured to offer both a theoretical overview of the multitude of funding options available for Alberta Environment's consideration and a series of case studies to highlight the attributes of several financial models used throughout Canada, North America and internationally.

To profile each mechanism the following elements are highlighted in this report:

- An overview of the attributes of each the funding options;
- The strengths and weakness of the funding option;
- Applicable trends and experiences from other jurisdictions; and
- The Alberta context.

As mentioned, this report also includes a series of case studies to illustrate the financial models of organizations that deliver similar functions and services to that of AZs and WPACs, particularly the innovative revenue and expenditure models.

8.2 The Attributes of a Long-Term Sustainable Financial Model

In addition to providing an overview of a variety of tools that are available to support and fund partnership groups, this report also recognizes the importance of developing a financial model that supports and enhances the value added services of partnership groups. To support this objective, it is important to articulate the attributes and characteristics of what actually constitutes a resilient

10 Auditor General of Alberta (2010). Report of the Auditor General of Alberta – April 2010. Recommendation 7, page 74. Available at: http://www.oag.ab.ca/?V_DOC_ID=936

financial model that will support Alberta Environment's partnership groups. The following characteristics have been identified as critical attributes:

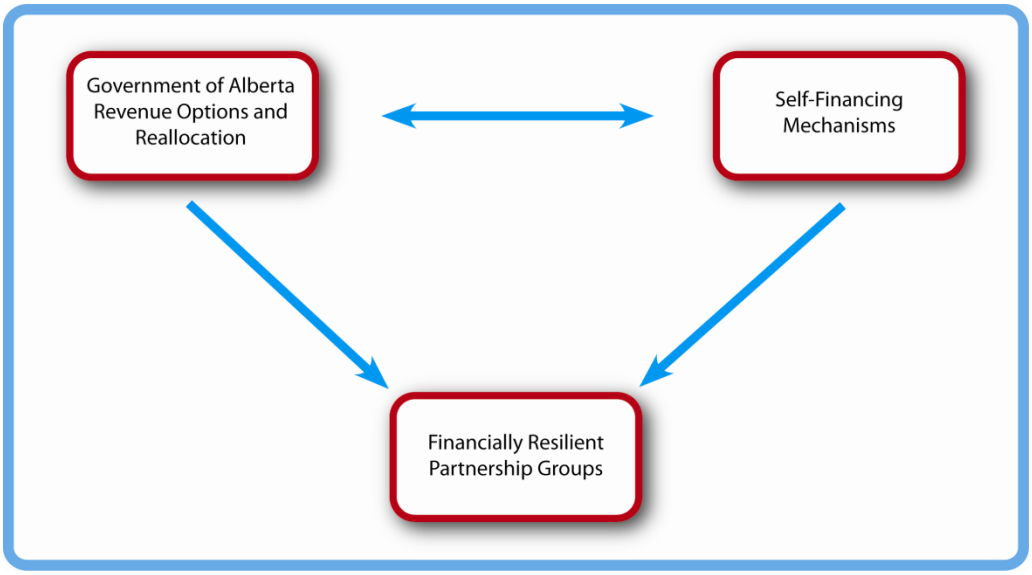
1) The revenue and reallocation mechanism(s) offer partnership groups the required resources to fulfill their defined roles, responsibilities and functions within CEMS;
2) Partnership groups work under a predictable revenue model – limiting short-term (3 year) budget variability and fluctuations;
3) Partnership groups are not solely dependent on the conditions of the economic circumstances of Alberta and finances of the Government of Alberta for their core funding;
4) The funding mechanism enables partnership groups to provide a series of value added services to Alberta Environment/Government of Alberta;
5) Partnership groups maximize the value of the financial revenues in the services they provide in support of the CEMS.

It is also important to recognize that dedicating a Government of Alberta revenue source to a specific environmental objective and associated services is, at its root, a decision for elected representatives. Therefore, at a minimum, two requirements should be met to enhance the probability of developing and implementing a funding option:

1) There should be a direct relationship between the source of funding and that of the services provided by WPACs and AZs;
2) The cost burden of the funding mechanism should be equitable and fair—meaning either polluters or program beneficiaries pay.

While the primary scope of this project aims to identify potential funding mechanisms that could offer the needed revenues to support partnership groups, it is important to note that this is only half of the equation to supporting a resilient financial model. To develop a resilient financial model, it is important to recognize that financial health of partnership groups is dependent on their revenues and expenditures, as well as the utilization of self-financing tools available to generate revenues to finance their services. This concept is illustrated in Figure 9.1 found below.

Figure 8.1: A Systems Perspective to Building a Resilient Financial Model for Alberta Environment's Partnership Groups.



There are many ways for a government to generate revenues, further there are several options for the government to reallocate its revenues to a partnership group. The following revenue generation options have been examined as key tools to meet WPAC and AZ funding needs:

- Environmental approvals and permitting fees
- Environmental fees, levies and charges
- Environmental penalties
- Natural resource royalties
- Environmental bonds
- Municipal Levies

As well, two government reallocation tools have been examined, as the potential revenues generated must be reallocated. These tools include:

- Grants
- Dedicated Funding

To support the development of a resilient financial system, a variety of self-financing options are available to partnership groups as well as tools to maximize the value of revenues. For example, is

revenue reallocated to finance a partnership group's functions, or is it saved and invested? The reallocation of revenues can significantly influence the financial predictability and stability of WPACs and AZs. The self-financing mechanisms are classified as:

- Fundraising and donations
- Endowment funds
- Membership fees, professional services and events

In summary, it is critical to recognize that when developing and supporting a resilient financial model for WPACs and AZs — a secure revenue stream for the Government of Alberta is required, the utilization of self-financing mechanism is capitalized and the value of each dollar collected is maximized.

8.3 Approaches to Generating Additional Funds: Government Tools

There is a diversity of environmental tools that could be utilized to generate additional revenues to support the functions and value of WPACs and AZs. While both regulatory tools and economic instruments[11] are explored within this report as an approach to generate revenues, the focus of the tools assessed within this report can be classified as economic instruments. This is primarily due to the nature and context of the policy challenge at hand – generating a secure and sustainable source of revenue for partnership groups. As such, it is important to offer a high-level overview of their traditional role as governance tools within environmental management systems.

Economic instruments offer a (relatively) new generation of environmental management instruments for policy makers. The first jurisdictions to utilize economic instruments were the United States and Europe during the 1970s. Initially, they generated significant concern and controversy; as many felt they would lead to the commoditization of the natural environment. In contrast, many economists were concerned about the idea of valuing common goods like air, water and even immaterial goods like landscapes, as it would impose additional costs on private businesses. However, it has become recognized by both economists and the majority of stakeholders involved in environmental management that economic instruments offer governments an environmentally effective and economically efficient means to support the achievement of policy outcomes.

In most circumstances, the primary function of an economic instrument is to fund government budgets (and associated services) and to encourage environmental performance. This presents both

11 Also known as market based instruments (MBIs).

strengths and weaknesses. A potential weakness can arise if the funds raised are applied to finance activities which are not related to environmental conservation or pollution control. In other words, the mechanism could act as a perverse incentive to raise funds for government agencies: the greater the environmental impact, the more the revenue generated. On the other hand, and in most contexts, they are used as an instrument to influence environmental behaviour and sustain the financial requirements of administrating a jurisdiction's environmental management system. Therefore, economic instruments offer an opportunity for Alberta Environment to strengthen the finances of its key functions as a "regulator", increase the capacity of partnership groups and support a regulatory environment that continually incents better environmental performance.

Alberta Environment could potentially leverage new revenues from pre-existing regulatory tools and economic instruments. As well, opportunities exist to develop new funding mechanism(s) through the application of new initiatives that utilize economic instruments. With this in mind, the funds that could be potentially raised may not be the primary driver in developing and implementing these tools. They could be seen as a way to directly and significantly impact a regulated party's environmental performance, operating costs and investment decisions. Furthermore, some of the funding options highlighted below can distort the intentions of other policy efforts of government. If designed with diligence and care these mechanisms represent an opportunity to generate the revenues required to enable the long-term sustainability of WPACs and AZs.

8.4 Approaches to Generating Additional Funds: Self-Financing Tools

Partnership groups are also positioned to generate additional funds independent of the Government of Alberta. While WPACs and AZs are not able to generate revenues through funding mechanisms that require a regulatory and legislative backing, they are positioned to pursue new revenue streams through other means. In particular, many partnership groups are well positioned to generate income from fundraising and donations, membership fees, conferences and workshops, professional services, and publications. These approaches are discussed in Section 3 of this report. It should be noted that many partnership groups are designated as a "not for profit" organization under the Alberta *Societies Act*. This report did not assess any potential limitations this designation may present to partnerships in generating revenues, as this was considered to be beyond the scope of this project.

9.0 Review of Revenue Generation Funding Options

This section provides an overview of the revenue generation options available to the Government of Alberta to secure additional financial resources to support the roles of WPACs and AZs within CEMS.

9.1 Environmental Approvals and Permitting Fees

9.1.1 Funding Mechanism Overview

Alberta Environment has long utilized environmental approvals and permitting processes to authorize a multitude of activities on the landscape. Currently, Alberta's environmental approval and permitting processes impose nominal fees[12] in an effort to recover a portion of the associated administrative costs of the approval and permitting system.

In line with the polluter pays principle and recognizing that activities which require environmental approvals and permits place additional demands upon Alberta's environmental management system, there may be an opportunity to apply a "full-cost recovery"[13] fee structure. In other words, the approval and permitting processes under the *Environmental Protection and Enhancement Act* and *Water Act* and the associated fee structure can be utilized to fund the functions of Alberta Environment's management system, including, but not limited to the roles of WPACs and AZs. Further, other Provincial regulatory agencies such as the Energy Resources Conservation Board and the Natural Resources Conservation Board could potentially apply a full-cost recovery fee structure to support the roles of WPACs and AZs.

9.1.2 The Strengths and Weakness of the Funding Option

The strengths:

- The additional administrative capacity required to deliver this revenue generation model would be minimal, as it would only be a change in the fee structure
- The costs imposed upon many regulated facilities would likely be marginal relative to the approval and capital costs of many large facilities operating in Alberta
- This approach aligns with and supports the polluter pays principle, assuming that a significant portion of the environmental management efforts that are supported by the WPACs and AZs are correlated with the regulated activities within each basin or air shed

12 While the term "fee", "charge" and "taxes" are often used interchangeably, for the purpose of this report, a tax is viewed purely as a revenue generating instrument, whereas charges and fees are intended to offset costs to government.

13 Full-cost recovery refers to a revenue generation model that enables a service provider to recover and fund the full costs associated with the delivery of a service.

The weaknesses:

- Increased approval fees would increase the cost of doing business in Alberta for regulated parties. This may be a perceived or real barrier to Alberta's competitiveness priorities
- The amount of revenue generated through the approval system is dependent on the number of approvals and permits issued by the Province
- This approach does not provide an avenue to collect revenues from non-regulated activities and dispersed impacts (i.e. non-point source emissions, such as vehicles)

9.1.3 Applicable Trends and Experiences from Other Jurisdictions

Using environmental approval and permitting fees as a means to recover the financial costs associated with the administration and delivery of an environmental management system emerged in the 1990s. Governments of all levels continue to evolve permitting fee structures to support a "full-cost recovery" model. This ensures that their functions – approvals, monitoring and enforcement and site closures – are sustainably funded.

Many governments throughout North America and Europe now utilize the approval and permitting process as a means to recover some, or all of, the costs associated with delivering their environmental management system. Some notable examples include:

The 1990 US Environmental Protection Agency's (EPA) Clean Air Act Amendments

The Clean Air Act Amendment of 1990 instituted a requirement upon all states to impose a permit fee structure to recover the administrative costs of the Agency's permit-based programs. Specifically, this is a onetime permit fee that is set to a minimum level of $25 per ton[14] for air toxic emissions and criteria air contaminants.[15] Each state is then required to provide detailed evidence that the associated revenues are sufficient to cover the costs of operating that state's permitting program costs.

California Air Pollution Control and Air Quality Management Districts

The State of California is divided into Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMD) most often referred to as air districts. The air districts are county or regional governing authorities that are responsible for regulating and controlling air pollution from stationary sources.

14 Note- 1 ton is equal to 0.907 tonnes.

15 US EPA (2001). The United States Experience with Economic Incentives for Protecting the Environment. National Center for Environmental Economics, Office of Policy, Economics and Innovation. Page 37

The South Coast Air Quality Management District (SCAQMD) located in Southern California, is the largest air management district in the State of California. The SCAQMD is responsible for regulatory approvals, air quality monitoring and supporting clean air outreach programs and initiatives in the Los Angeles area and surrounding counties that are representative of the South Coast Air Basin.

SCAQMD is forecasted to generate approximately $130 million ($US) in revenues, for its fiscal year (2010-2011). A significant source of the District's revenue comes from the fees paid by large industries and businesses that release significant quantities of air emissions. For example, approximately 12.4% ($20,000,000) of the forecasted revenue is to be sourced from one time and annual permit fees imposed upon stationary sources of large quantities of air emissions. The one time permit fee is set at $684.57. Each permit holder must also pay an annual renewal fee. For facilities which emit less than four tons per year of criteria air contaminants, the annual fee is set at a rate of $1,111.29 per permit. If a facility's emissions are greater than four tons per year additional annual fees are imposed.

Another critical source of funding for the SCAQMD is a vehicle registration fee (technically equivalent to a permitting fee). This fee was implemented because approximately 70% of the District's air emissions, and thus air quality issues, are a result of automobile emissions. Specifically a fee of $4 is imposed upon each vehicle registration of which $1 goes directly to the SCAQMD and $3 to the California Air Resources Board to support other functions. In 2010-2011, vehicle emission fees are expected to generate approximately $21.5 million in revenues.[16]

9.1.4 The Alberta Context

Currently, Alberta Environment's fee structure is based on: a charge system for each new approval, approval renewal (typically based on a 10 year renewal schedule), amendments, the associated complexity of the activity, and the effort required to review and process the application.[17] Given that the fees are payable to the Minister of Finance, the revenues associated with Alberta Environment's approval and permitting system are deposited in the Province's general revenue fund. Therefore, if there is significant interest in using approval and permitting fees as a means to fund WPACs and AZs, a dedicated fund (discussed in more detail below) will need to be created.

This approach requires Alberta Environment to facilitate the collection of revenues and does not directly enable WPACs and AZs to generate their own revenues. It requires the reallocation of revenues from Alberta Environment to partnership groups and is likely to require the use of grants.

16 For more details on the forecasted revenues of the SCAQMD, their latest budget forecast is available at: http://www.aqmd.gov/finn/PDF/drftbdgt10-11.pdf

17 Alberta Environment (2010). Alberta Environment's Approval Processes. Available at: http://environment.alberta.ca/01531.html

Table 9.1: Environmental Approval and Permitting Fees Summary Table

Does the tool offer a predictable revenue stream?	Potentially, as the number of new approval applications to Alberta Environment is likely to be relatively consistent from year to year. Note: Volumes of approval renewals under the Environmental Protection and Enhancement Act show significant variation due to the 10 year approval renewal process.
Does the tool diversify the current revenue stream of WPACs/AZs?	This approach does not offer a new revenue stream to Alberta Environment. It simply increases a pre-existing revenue mechanism.
Can the tool be used to enhance environmental performance?	Low. This approach is not likely to incent change in a regulated party's environmental performance.
Does the tool support the Polluter Pays Principle?	It supports the polluter pays principle when there is a direct relationship between the management issue at hand and the activities of regulated parties. This approach does not support the principle for issues related to non-regulated parties in Alberta.
Is the tool better suited to manage point source or non-point source impacts?	This tool is most often applied to point source environmental impacts, such as air emissions, water effluents and land disturbance.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	A permit fee schedule must be developed and administered. Further, this approach requires a mechanism to be developed to reallocate the funds collected from the permitting process to partnership groups.

9.2 Environmental Fees, Levies and Charges

9.2.1 Funding Mechanism Overview

Unlike environmental approval and permitting fees, environmental fees, levies and charges are imposed upon parties based on their environmental performance. These mechanisms are primarily used to provide a continuous incentive to influence environmental performance. They can also be very effective tools to generate significant financial resources to support other environmental initiatives. Environmental fees, levies and charges can be classified into the following sub-categories:

- **Emission/effluent charges**: Direct payments which are levied based on the volume and/or impact of a specific emission or effluent released into the natural environment.
- **Natural resource user fees and charges:** Payments that are applied on the use and extraction of natural resources. They are most often established and levied based on the total volume of resource extracted—for example, water withdrawals and timber cuts.
- **User charges**: Payments to recuperate the cost of providing public and private services and infrastructure. For example, user charges are often applied on the collection and treatment of solid waste, charges on sewage water, road tolls and vehicle registrations. When user charges are used to support natural resource management objectives, they are most often applied to users through permitting and licensing processes. For example, permits to access provincial and national parks, hunting or fishing licenses' and grazing fees.
- **Product charges**: Payments applied to products that have a direct or indirect environmental impact throughout their lifecycle (batteries, fertilizers and pesticides, tires, motor oil). The aim of product charges is to reflect the full environmental management costs associated with a product's lifecycle, including the inputs of the product, and its collection, disposal and treatment.

Fees, levies and charges can be imposed upon many actors within society including regulated private sector industries (for example, oil and gas, pulp and paper, power generation) as well as non-regulated actors, such as households, vehicles, and fuels.

Fees, levies and charges can provide a very powerful incentive to reduce an individual's or a company's impact upon the natural environment. More importantly, they offer government agencies a potentially significant revenue stream to support environmental programs and initiatives. Note: fees, levies and charges have long been the key tools used by governments to generate

revenues to fund the delivery of government services. Examples include personal and corporate income tax, sales taxes, and alcohol and tobacco taxes.

In the context of environmental management, fees, levies and charges are often managed outside of a government's general accounting system, through a dedicated fund. For example, Alberta's *Climate Change and Emissions Management Fund* is used to collect and redistribute compliance payments under Alberta's *Specified Gas Emitters Regulation*. A dedicated fund (once established) can enable specific programs and initiatives from an environmental fee, levy or charge.

9.2.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Fees, levies and charges can generate significant revenues for government agencies.
- They can offer a very effective and efficient tool to encourage behaviour changes and investment in environmental initiatives.
- They are extremely versatile as they can be applied to many environmental media including water, air, land use and waste management.
- They can be applied to both point and non-point source environmental impacts.
- They support the polluter pays principle, as fees are determined by the quantity and/or impact of a specific emission or effluent.
- They are very flexible and can be designed to capture revenues from a large number of non-point sources or a select few point-sources.
- The use of a delegated administrative organization offers the Government of Alberta greater flexibility the governance model used to collect and redistribute environmental fees, levies and charges.

The weaknesses:

- The application of new fees, levies and charges is often perceived to be undesirable—especially if they are designed with the sole purpose of generating revenue, rather than supporting better environmental performance.
- If fees, charges and levies are set too high, the competitiveness of an economic sector could be reduced.
- If environmental performance significantly improves due to an environmental fee, levy or charge, revenues collected would decline.

9.2.3 Applicable Trends and Experiences from Other Jurisdictions

The use of environmental fees, charges and levies became prevalent in the 1980's and their popularity continues to grow.[18] In many applications, governments set the value of environmental fees, charges and levies, as a form of payment for environmental services i.e. as a means to price environmental externalities. As a result, they have become a critical environmental tool for governments around the world. Their popularity in many jurisdictions can, in part, be attributed to their effectiveness and economic efficiency in achieving environmental outcomes.

Some notable applications of environmental fees, levies and charges that are used to support the achievement of environmental outcomes and support program administration are:

British Columbia's Carbon Tax

In 2009 the Government of British Columbia implemented a revenue neutral carbon tax. This broad-based carbon fee is imposed upon the purchase and use of fossil fuels, namely gasoline, diesel, natural gas, heating fuel, propane and coal. Currently, the tax rate is set at $20 per tonne of carbon dioxide equivalent released. It is expected that this tax alone will generate approximately $542 million in revenues for the Government of British Columbia in 2009/2010.[19]

While much of the analytical focus of this tax has been directed to understanding the benefits and costs upon the citizens of the Province, many municipal governments view the carbon tax as a critical source of funding to support community-based environmental management programs and initiatives. Specifically, if a municipality in British Columbia voluntarily commits to the *Climate Action Charter*, the Government of British Columbia will redirect funds equal to the total carbon tax payments made by the municipality through the *Climate Action Revenue Incentive Program*. In 2010, the Province returned nearly $2.9 million in carbon tax dollars to local governments.[20] These monies are then re-allocated by each local government to a diversity of local programs aimed at supporting emission reductions and environmental sustainability.

Sweden's Nitrogen Oxides (NO_x) charge-rebate system

In 1992, a NO_x charge-rebate was developed and implemented to influence the emissions profiles of energy producers, pulp and paper mills, metal and other manufacturing facilities with a generating capacity greater than 10 megawatt and production over 50 gigawatt hours annually. The charge is

18 Bernstein, Steven (2002) Liberal Environmentalism and Global Environmental Governance, in Global Environmental Politics. Vol 2:3, August 2002.

19 Government of British Columbia (2010). Budget and Fiscal Plan 2010/11 – 2012/13. Available at: http://www.bcbudget.gov.bc.ca/2010/bfp/2010_Budget_Fiscal_Plan.pdf

20 Government of British Columbia (2010). $2.9M in Carbon Taxes Returned to Green Communities. News Release. Available at: http://www2.news.gov.bc.ca/news_releases_2009-2013/2010CD0016-000486.htm

set at approximately $5,000 per tonne. Unlike many charges, this approach sees the majority of the funds collected recycled back to high-performing facilities. For example, approximately 15,300 metric tonnes of NO_x emissions were subject to the charge generating about $90 million in revenue in the first year of the program's implementation. As a result of the revenue and rebate calculations, over $15 million was transferred from high-emitting to low-emitting facilities.

While this structure provides an excellent example of how to reward emission reduction investments, this system is designed to self-fund the emissions monitoring requirements of the program as well as all of its administrative costs. The costs are covered by a small portion of the charge being allocated to the Swedish Environmental Protection Agency. According to the Swedish Environmental Protection Agency, the annual administrative costs of the charge are approximately $290,000. The Swedish NOx charge has proven to be a cost-effective program to deliver, with its administration directly and fully funded, through the charge based system. [21]

Delegated Administrative Organizations

The Government of Alberta has long utilized Delegated Administrative Organizations (DAOs) as a means to ensure public services are delivered in an effective and efficient manner. DAOs are designed to operate at arm's length from Government and are designed to be financially sustainable.

Within the context of environmental management, Alberta DAOs are responsible for the administration of key waste management services including electronic recycling, used oil recycling, the bottle deposit and refund system and tire recycling.

While these organizations are offer an administratively efficient governance model for the Government of Alberta, their financial success is linked to a secure source of revenue. These revenues are directly linked to an environmental fee, levy or charge.

As Alberta Environment explores the use of an environmental fee, levy or charge, it is worthy of exploring a transformation of partnership groups to a delegated authority governance model.

9.2.4 The Alberta Context

Alberta has traditionally relied on regulatory approaches to meet environmental objectives. As a result, the utilization of environmental charges, levies and fees in Alberta has been minimal. Nevertheless, there are examples of environmental fees, charges and levies being used in Alberta to achieve environmental outcomes. One such example is the *Specified Gas Emitters Regulation*. This regulation is structured to be an environmental charge system that prices the greenhouse gas

21 Swedish Environmental Protection Agency (1997). Environmental taxes in Sweden - economic instruments of environmental policy, Report 4745. Stockholm, Sweden and Swedish Environmental Protection Agency (2006). The Swedish Charge on Nitrogen Oxides—Cost Effective Emission Reduction. Stockholm, Sweden.

emissions released from Alberta's large industrial[22] facilities at $15/tonne. Other examples include the many programs administered by Alberta's Delegated Administrative Organizations, such as Alberta's electronic recycling fee program, and tire recycling program.

This approach also requires Alberta Environment to facilitate the collection of revenues and does not directly enable WPACs and AZs to generate their own revenues. As a result, it may still require the use of grants.

As Alberta explores the application of environmental charges, levies and fees to support the achievement of its key policy priorities and outcomes, it would be opportunistic to assess the appropriateness of these tools to also support the funding objectives of WPACs and AZs.

Table 9.2: Environmental Fees, Levies and Charges Summary Table

Does the tool offer a predictable revenue stream?	Yes. Most environmental fee, levy and charge programs offer a predictable revenue stream.
Does the tool diversify the current revenue stream of WPACs/AZs?	If Alberta Environment were to implement a new charge, fee or levy, the Department's revenue streams would likely be diversified.
Can the tool be used to enhance environmental performance?	The environmental effectiveness is dependent on the value of the fee, levy or charge.
Does the tool support the polluter pays principle?	Yes. This approach, relative to other funding options, aligns best with the polluter pays principle.
Is the tool better suited to manage point source or non-point source impacts?	Environmental fees, levies and charges can be applied to both point source and non-point source impacts.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	Moderately. Alberta Environment will need to develop internal capacity to facilitate the collection and redistribution of funds.

22 Currently there are approximately 100 facilities covered by the Regulation. To be covered by the regulation, the facility must have an emissions profile of 100,000 tonnes of CO2e per year or greater.

9.3 Environmental Penalties

9.3.1 Funding Mechanisms Overview

Environmental penalties are monetary fines that can be imposed upon regulated parties and facilities when they fail to comply with an environmental law or the conditions of their environmental approval. In Canada, environmental penalties are most often imposed by provincial ministries of the environment and/or federal agencies such as the Department of Fisheries and Oceans and Environment Canada. Penalties can be proportional to selected variables such as the damage caused by non-compliance, profits linked to non-compliance costs, or set at a pre-determined amount that is specified within a regulation.

Traditionally, revenues collected from environmental penalties are deposited in a government's general revenue account. However, many jurisdictions are using "creative sentencing" approaches to penalize regulated parties who are found to be non-compliant. Often the use of creative sentencing sees penalties allocated to a special account, or fund, which is then reallocated to support environmental initiatives. In the context of Alberta, creative sentencing approaches are used when environmental penalties are imposed to support special projects and research. The concept of creative sentencing is based on the idea that a positive impact can be made after an environmental incident.

9.3.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Environmental penalties can be a very effective deterrent to impacts on the natural environment. The incentive to comply with environmental regulations increases proportionately with the value of the penalties.
- The use of environmental penalties does not levy any additional burden upon industry. It only adds costs to those regulated parties who have failed to meet the conditions of their approval(s) and regulations.
- The monetary value of environmental penalties can always be evolved; however, increasing the value of a penalty will require justification.
- Using Environmental penalties as a means to fund partnership groups may provide a greater incentive to Alberta Environment to increase its compliance and enforcement capacity.

The weaknesses:

- Revenues are dependent on the performance of regulated parties. If there are no incidents or penalties imposed, the funds available to support WPACs and AZs would be limited.
- Environmental penalties must be reasonable for a given offence.
- Environmental enforcement and the associated legal costs can prove expensive for government. Often, the penalties collected are less than the administrative costs associated of collecting penalties.
- Managing the revenues collected through environmental penalties outside of a government's general accounts can be administratively challenging and potentially costly.
- Often a judge or tribunal determines how penalties are reallocated when a creative sentencing approach is used. Therefore institutionalizing a dedicated pathway for penalty revenues may be limited.
- Most creative sentences are directed towards initiatives that aim to prevent an incident of non-compliance happening again. This may limit funds directed to AZs and WPACs.

9.3.3 Applicable Trends and Experiences from Other Jurisdictions

Most government environmental agencies have long used environmental financial penalties as a key tool within their enforcement and compliance branches to incent compliance with their respective environmental laws and regulations.

As noted above, traditionally, environmental penalties are put into a government's general revenue stream and are, therefore, not specifically reallocated to environmental management programs. However, creative sentencing has become popular and governments are exploring creative and novel practices on how they reallocate the penalties. Some notable examples of creative sentencing that are relevant to this project include:

The Ontario Creative Sentencing Program

The Province of Ontario has embraced the concept of "creative sentencing". In 2005, the Province established the *Ontario Community Environment Fund* to generate revenues from the Province's environmental penalties system. More specifically, revenues are generated from penalties imposed on regulated parties that are found to be in violation of their regulatory requirements. 2008 was the first year environmental penalty orders were issued and reallocated to the *Ontario Community Environment Fund*; fines were paid by five facilities, totalling approximately $70,000.

The fines are used to support a diversity of community-based projects under the Ontario Stewardship Program and the Province's 46 Community Stewardship Councils. The Councils lead and support community-based environmental research, monitoring, environmental restoration, and remediation projects.[23]

The U.S. Supplemental Environmental Project Program

The U.S. Environmental Protection Agency has long utilized environmental penalties as a means to fund a variety of environmentally related initiatives and projects. Specifically, the Supplemental Environmental Project Program enables the funding of environmentally beneficial projects by a regulated party who is non-compliant with an environmental statute. In order to avoid lengthy and costly court challenges, the violator, often voluntarily agrees to an "out of court" cash settlement. The dollars are then redirected to environmental projects approved by the Agency. This program has demonstrably reduced legal costs, supported environmentally beneficial programs and ensured appropriate consequences for non-compliance. In 2010, the Environmental Protection Agency collected and reinvested approximately $24,000,000 through the Supplemental Environmental Project program.[24]

The success of the Federal program has led to many State governments implementing similar Supplemental Environmental Project programs; including the states of Texas, Oregon, Arkansas, Ohio, Colorado and Illinois.

9.3.4 The Alberta Context

Alberta has long used environmental penalties to deter regulated parties from violating the Province's environmental regulations.

The Province of Alberta's experience with creative sentencing is of long standing and is imposed through the courts. The practice began with the proclamation of the *Environmental Protection and Enhancement Act* in 1993, and has since become a significant feature of many environmental penalties imposed through prosecution for non-compliance with the *Environmental Protection and Enhancement Act* and its regulations. In 2010, Alberta imposed its most significant creative sentence in response to the water fowl incident at the Syncrude bitumen extraction facility's tailings pond. Approximately $2.5 million in environmental penalties were earmarked for a variety of programs and projects aimed to support initiatives to reduce the environmental footprint of the oil sands sector.

23 Government of Ontario (2010). Ontario Community Environment Fund. Available at: http://www.ene.gov.on.ca/en/about/penalties/ocef/index.php

24 U.S. Environmental Protection Agency (2010). Enforcement and Compliance Numbers at a Glance. Available at: http://www.epa.gov/compliance/resources/reports/endofyear/eoy2010/numbers.html

There are provisions within the Environmental Protection and Enhancement Act that must be satisfied for creative sentencing to be used in Alberta. These provisions limit the number of opportunities where environmental penalties can be employed as an effective and efficient means to fund the roles of WPACs and AZs.

Alberta Environment can also impose administrative penalties, which are monetary penalties assessed by a Compliance Manager when a party contravenes the provisions of the Environmental Protection and Enhancement Act or its associated regulations. A maximum penalty of $5000 per day can be imposed for each contravention. The revenues collected from these penalties are directed to the Environmental Protection and Enhancement Fund to support emergency response and reclamation work.

This approach also requires Alberta Environment to facilitate the collection of revenues and does not directly enable WPACs and AZs to generate their own revenues. Monies collected through environmental penalties would need to be reallocated from Alberta Environment to support partnership groups.

Table 9.3: Environmental Penalties Summary Table

Does the tool offer a predictable revenue stream?	Low. Revenues are dependent upon the frequency and severity of incidents of non-compliance.
Does the tool diversify the current revenue stream of WPACs/AZs?	No. This approach would simply see more money collected from penalties on environmental incidents, a pre-existing revenue stream.
Can the tool be used to enhance environmental performance?	Moderate. Regulated parties typically strive to comply with environmental regulations and standards.
Does the tool support polluter pays principle?	Yes. This approach directly supports the polluter pays principle.
Is the tool better suited for managing point source or non-point source impacts	Most often, environmental penalties are applied to point source impacts, such as a spill or upset. However, if environmental statutes regulate non-point source impact, penalties could likely be imposed for non-compliance.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	It is likely to require more resources to support compliance and enforcement efforts. This approach still requires the reallocation of funds from Alberta Environment to partnership groups.

9.4 Municipal Levies

9.4.1 Funding Mechanism Overview

Unlike environmental charges, levies and fees, municipal levies are not valued or imposed upon an individual or regulated party based on environmental performance. Rather, they are based on the assumption that all parties subject to the levy will equally benefit from the services funded by the collected revenues.

Given that most municipalities in Canada have limited authority to generate revenues, municipalities have long utilized levies as a means to generate revenues. They are most often used as a tool to recover the cost of special services, programs and projects.

Municipal levies are most often imposed upon residents and/or local industries and businesses. They are typically set based on the assessed values established through property tax assessments.

9.4.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Levies can be used to support a predictable and secure source of revenues for municipalities or third party agents.
- Well-designed levies can be applied broadly. This limits the impact of the levy on the finances of an industry stakeholder, municipality or citizen.

The weaknesses:

- Requires municipalities to administer the collection and redistribution of the levy.
- Municipal levies do not directly support the polluter pays principal.
- Municipal levies are regressive and do not support equity amongst those subject to the levy.

9.4.3 Applicable Trends and Experiences from Other Jurisdictions

Instances of the use of municipal levies as a tool to fund environmental management services appear to be rare. Nevertheless, municipal levies have created an extremely secure and stable source of revenues for two partnership groups in Canada.

Okanagan Basin Water Board

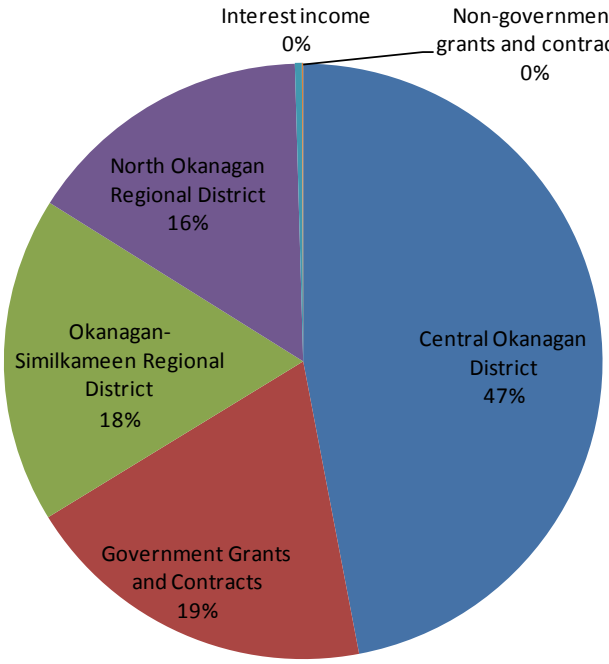
The Okanagan Basin Water Board (the Board) was established in 1968 as a watershed-based governance body. Its core function is to identify water management issues and support the development and implementation of effective and science-based water management programs.

The Board is primarily funded through a municipal property tax levy system for regional districts governments within the Okanagan Basin. Each participating government member contributes at the same rate (approximately $6/$100,000 on each taxed property).[25] The costs associated with the Board are apportioned amongst participating regional districts and municipalities based on a simple ratio: contributions are set equal to the taxable values of a municipality or regional district relative to the cumulative value of all municipalities and districts within the Basin. For example, if the assessed taxable values in a regional district are 25% of the total assessed values within the Basin, that regional district contributes 25% of the Board finances. Thus, this model is based on the equal sharing of the costs and benefits of the Board. The financial structure allows the regional districts to pool resources and direct them to shared problems.

For unique programs and initiatives that fall outside of the Board's primary functions or that present significant costs, such as their Eurasian Watermilfoil Control Program, the Board requires members who will directly benefit from a program to equally share the costs of the program. Under some circumstances, the Board receives grants from senior government agencies.

25 Okanagan Basin Water Board (2010). Growing Partnerships. Bringing Home Results. Available at: http://www.obwb.ca/annual_reports/

Figure 9.1: Revenue sources for the Okanagan Basin Water Board – 2009/2010



Ontario Conservation Authorities

Conservation Ontario is a network of Conservation Authorities who work to manage, conserve and protect Ontario's natural resources on a watershed basis. Currently there are 36 Conservation Authorities in Ontario, who manage approximately 143,000 hectares of green space and park area, provide educational and stewardship services, support planning and regulatory initiatives, flood management strategies, source water protection and monitoring at over 421 sites.

The Authorities are funded through four primary avenues, which include:

- Self generated revenues — derived from park entrance and camping fees, membership and user-fees and donations from private citizens and corporations. This represents approximately 37% of the Authorities' revenues;
- Municipal levies – raised under the authority vested in the Authorities by the *Conservation Authority Act* and the *Municipal Act*. Municipal levies provide approximately 36% of total revenues;
- Provincial grants special projects – provided by the Government of Ontario for unique projects that aim to support watershed health. Provincial grants represent 18% of total revenues;

- Federal grants and/or contracts – used to support unique projects that aim to support watershed health. These grants and contracts represent 2% of their total revenues.

The Conservation Authority funding model appears to be a robust and sustainable means of supporting the role of a partnership group. This can be attributed to the fact that Conservation Authorities have the land base and natural resources to support outdoor eco-recreational and learning enterprises, which offers a strong incentive to manage their assets in an environmentally sustainably fashion and to attract visitors to their facilities. In addition, a significant source of the funding received by Conservation Authorities is backed through legislation. Further, under the *Conservation Authority Act* the collective municipalities within the boundaries of an Authority must follow specific apportionment rules, whereby each municipality contributes funds based on the benefit accruing to it.

As a result of this institutionalized structure, a sustainable and predictable funding base is guaranteed to each Conservation Authority.

Manitoba Conservation Districts

Conservation Districts are partnership-based organizations that bring together neighbouring municipal authorities to manage local land and water resources, and lead the delivery of localized watershed management programs. Conservation Districts are established via an Order in Council. The boundary of responsibility for each Conservation Districts is defined by the natural boundaries of the province's local watersheds and not the politically defined boundaries.

There are currently 18 Conservation Districts, which represent 154 municipal governments throughout Manitoba. The Conservation Districts program is a cost-shared program with provincial and municipal government partners providing sustained annual funding. While the Province provides substantial funding and general guidance, the programs are developed and administered locally.[26]

The cost share formula is 75% provincial – 25% municipal for programs that meet the legislative mandate of the Conservation Districts program. Funding for the Conservation Districts program is dependent on the priorities, decisions and amounts approved through the provincial and municipal budget processes. The Conservation Districts raise funds from member RMs through a levy. The Province funds up to three times the levy raised. In addition, the Conservation Districts also receive funds from external governmental and non-governmental sources, as well as from local ratepayers for specific projects.[27]

26 http://www.gov.mb.ca/waterstewardship/agencies/cd/pdf/framework_future.pdf).

27 (source: http://www.gov.mb.ca/waterstewardship/agencies/cd/index.html).

In 2010, the Province's Conservation Districts had a total program expenditure of $9 million, of which $5.3 million was sourced from Provincial Grants, $1.9 million from Municipal Levies, $1.1 million from Provincially-based projects, and $0.7 million from non-governmental organizations and the Federal Government.

The Conservation Districts Act provides the legal framework to support the financing of Conservation Districts with municipal levies. Specifically, the Conservation Districts Act utilizes the following funding formula:

Money to be raised by a municipality = (A / B) x C

where,

A = the value of the part of the total municipal assessment that pertains to rateable land in the municipality and in the district,

B = the value of the part of the total municipal assessment that pertains to rateable land in the district,

C = total cost of the district program.

A board, subject to the limits set out in the schedule, determines the amount of money required in the forthcoming year to carry on a scheme. After determining the amounts required the board decides the amount of money that will be raised by each municipality. The municipality thereupon levies and collects a tax:

- on the value of the part of the total municipal assessment that pertains to all the rateable land or rateable land and buildings in the included area; or
- in accordance with a by-law of the municipality based on the value of the part of the total municipal assessment that pertains to rateable land or rateable land and buildings within the municipality.

9.4.4 The Alberta Context

While it is evident that many municipalities use levies as a means to fund the services they directly provide, there does not appear to be a readily apparent use of municipal levies to support the delivery of environmental management services by third-party organizations in Alberta. The only notable and identified example of the use of municipal levies in Alberta is the North Saskatchewan Watershed Alliance (NSWA).

Table 9.4: Municipal Levies Summary Table

Does the tool offer a predictable revenue stream?	Once a municipal levy system has been enacted it is evident that it can offer a very predictable and secure source of revenue.
Does the tool diversify the current revenue stream of WPACs/AZs?	Municipal levies would diversify the revenues available to support Alberta Environment's partnership groups.
Can the tool be used to enhance environmental performance?	There is likely to be no correlation between a municipal levy system and that of the functions and services of WPACs and AZs.
Does the tool support the polluter pays principle?	Depends. No, if there is no correlation between the value of a property and its environmental footprint. Yes, if there is a correlation between property values and emissions and water use.
Is the tool better suited to manage point source or non-point source impacts?	Assuming a correlation between the municipal levy and environmental impact this approach could be designed to manage non-point source impacts.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	This approach would likely require additional administrative capacity within the Government of Alberta and municipal government stakeholders.

9.5 Natural Resource Royalties

9.5.1 Funding Mechanism Overview

Natural resource royalties provide a means to gather economic rent. They are levied upon private natural resource and energy companies whose income stems from the extraction and production of natural resources that are owned by the public. There are a number of models used to calculate the royalty payments made by private enterprises to ensure that the public receives an appropriate level of compensation for the development of natural resources. In most jurisdictions, the royalties collected from natural resource extraction are deposited in a government's general revenues; for example the majority of oil and gas royalties collected by the Government of Alberta are directed to either general revenue or the Heritage Fund. In most circumstances, royalty regimes are structured to maximize the public rent collected from the extraction of natural resources, while ensuring that producers are able to earn a fair return on their investment.

There is growing interest to enhance the correlation between the direct and indirect environmental impacts of natural resource extraction activities and the royalty regime. In some jurisdictions, policy makers are looking to dedicate a portion of the revenues collected under their royalty system to

support environmental management efforts. The re-allocation of royalty revenues would require the use of a dedicated funding model.

9.5.2 The strengths and weaknesses of the funding option

The strengths:

- Natural resource royalty regimes can generate significant financial resources for governments.
- If there is a correlation between the natural resource sectors paying a royalty and the environmental management challenges faced by the government, dedicating revenues to a specific program/activity may be deemed appropriate.

The weaknesses:

- Generally, natural resource royalty programs are not intended to be used as a tool to influence environmental performance.
- Adjusting royalty rates can significantly affect economic competitiveness.

9.5.3 Applicable Trends and Experiences from Other Jurisdictions

Generally, most natural resource royalty systems are administered to fulfill their traditional role as a source of income to fund government services. While in most jurisdictions natural resource royalties do, in fact, indirectly fund environmental management programs, as monies within a government's general revenue accounts reallocated to finance the delivery of environmental programs, some jurisdictions have utilized a portion of natural resource royalty revenues to directly fund environmental management programs. Some examples of jurisdictions using natural resource royalties to support environmental management initiatives include:

Land and Water Conservation Fund

The Land and Water Conservation fund was established in 1964 by the United States Congress to provide the financial resources required to support the purchase of highly valued ecological landscape and water licenses, for the well-being of the American population.

Annually, this program offers up to $900 million per year to support the conservation and protection of valued landscapes within the United States. Monies can also be allocated to support the maintenance and protection of national parks, forests, recreational areas and wildlife refuges. For example, the fund has helped State agencies and local communities purchase and protect nearly seven million acres (28,000 km²) of land and easements.

Royalty payments made by companies drilling and producing offshore oil and gas resources in Federal water, constitute the primary source of income for the fund.[28] Since the fund is replenished on a year-to-year basis and does not have provisions on minimum contributions, it is often not fully funded. As a result, only twice in the Fund's history has it allocated the full $900 million to land conservation and park programs.[29]

Alabama Department of Conservation and Natural Resources

The Alabama Department of Conservation and Natural Resources is the primary state agency responsible for the administration and management of State Parks, inland fisheries, and state wildlife management programs. Unlike many other government agencies, this Department receives no funding from the Alabama State General Fund. Rather the Department is dependent on oil and gas revenues for approximately 10% of its annual operating budget.[30] The other sources of revenue include user and registration fees, dispositions and investments.

9.5.4 The Alberta Context

Alberta's royalty framework has been designed to support an investment landscape that attracts and retains capital to support an economically competitive natural resource and energy sector. With respect to the current royalty framework, all revenues collected are managed under the Government of Alberta's general revenues with a portion then reallocated into the Heritage Fund and other government programs. Alberta has not traditionally reallocated monies directly from the royalty system to support specific environmental programs and or policy objectives.

28 U.S. Forest Service. (2010) The Land and Water Conservation Fund. Available at: http://www.fs.fed.us/land/staff/LWCF/about.shtml

29 The Trust for Public Land (2007). Land and Water Conservation Fund. Available at: http://www.tpl.org/tier3_cd.cfm?content_item_id=10566&folder_id=191

30 See page 27, http://www.outdooralabama.com/about/08-09_Annual_Report.pdf

Table 9.5: Natural Resource Royalties Summary Table

Does the tool offer a predictable revenue stream?	Even with significant fluctuations in natural resource commodity prices, governments can forecast royalty revenues.
Does the tool diversify the current revenue stream of WPACs/AZs?	This approach would require Alberta Environment and the Government of the Alberta to re-allocate revenues from a pre-existing revenue stream.
Can the tool be used to enhance environmental performance?	This approach would not incent changes in environmental performance.
Does the tool support the polluter pays principle?	No. Royalty programs provide a means to collect rent associated with the extraction of natural resources.
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	This approach would require minimal additional administrative demands.

9.6 Environmental Bonds

9.6.1 Funding Mechanism Overview

An environmental bond is a tool that governments can utilize to raise significant quantities of money which can then be used to support environmental programs and services. Environmental bonds work like most other government-issued bonds. Governments issue a bond paper to the bond holder, who then retains the bond for a pre-defined period of time (to the maturity date) and is then returned the principle in full, plus a fixed interest. The key difference between an environmental bond and traditional government bonds is that the revenues collected from their sale are directed to support the delivery of environmental management programs and services.

Environmental bonds differ from Environmental Performance Bonds, which are used to guarantee compliance with environmental rules and regulations. Performance bonds are used to reduce government liabilities that may indirectly be imposed upon governments and ensure regulated parties or users are held financially accountable. The performance bond is refunded when the compliance is achieved.

9.6.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Government can raise significant amounts of money through environmental bonds.
- Environmental bonds provide a source of revenue without having to raise taxes in the short term. However, bonds are a form of debt financing and thus may require a government to raise revenues (such as through taxes) to repay debt.
- Bonds do not necessarily require budget reductions in other government programs and services.
- Environmental bonds offer an investment vehicle for the public that yields a return—financially and environmentally.

The weaknesses:

- Relying on debt to finance government services is not a sustainable practice in the long-term.
- Governments have to buy back the bonds paying both the principal and interest. Therefore, this approach costs the government more to deliver services in the long-run.
- An environmental bond program may not be politically acceptable in many jurisdictions.

9.6.3 Applicable Trends and Experiences from Other Jurisdictions

As many governments struggle to support a healthy and balanced budget, governments are likely to consider environmental bonds as a tool to ensure that environmental programs and initiatives remain funded during economic declines and short-term budgetary shortfalls.[31] More specifically, environmental bonds are seen as a potentially powerful tool to generate the cash flows required to support large scale capital investments in greenhouse gas emission reduction projects such as carbon capture and storage and renewable energy projects.[32]

The State of Massachusetts

One of the first and largest uses of an environmental bond program was undertaken in the State of Massachusetts. In 2008, under the leadership of Governor Deval Patrick approximately $1.6 billion in bonds were sold to the public. The funds generated by this sale were used to preserve a variety of

31 Most often, during a recession fiscal policy priorities shift and in many circumstances spending on environmental programs and initiatives are scaled back.

32 See for example, Kanter, James (2009). From War Bonds to Environment Bonds. The New York Times. Available at: http://green.blogs.nytimes.com/2009/04/20/from-war-bonds-to-environment-bonds/

government land management programs and enable the creation of new initiatives in energy conservation and efficiency.[33] These programs are likely to not have been funded if the bonds were not issued due to reduced government revenues and budgetary shortfalls.

9.6.4 The Alberta Context

The Government of Alberta recently held a bond sale for "Alberta Capital Bonds", which raised $74.5 million to support the construction of residential housing accommodations for Alberta seniors. This was the first time the Province issued bonds or Savings Certificates since 1997.

Table 9.6: Environmental Bonds Summary Table

Does the tool offer a predictable revenue stream?	Government bond sales typically offer a predictable, yet temporary revenue stream. While predictable, they should not be viewed as a sustainable revenue source unless a government indefinitely issues bonds annually.
Does the tool diversify the current revenue stream of WPACs/AZs	This approach would require Alberta Environment and the Government of Alberta to reallocate revenues from the sale of environmental bonds to partnership groups
Can the tool be used to enhance environmental performance?	Low. This approach would not incent change in environmental performance.
Does the tool support the polluter pays principle?	No. Revenues would be collected from investors in environmental bonds.
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	This approach is likely to require significant administrative resources. Revenues from bonds would need to be reallocated to partnership groups.

33 Governor of Massachusetts, (2008) Governor Patrick Signs Historic Investment Bill Targeting Energy and Environment. Available at: http://www.mass.gov/?pageID=gov3pressrelease&L=1&L0=Home&sid=Agov3&b=pressrelease&f=080814_energy_environmental_bond_bill&csid=Agov3

This section provides an overview of the revenue reallocation tools available to secure additional financial resources to support a more resilient financial model for WPACs and AZs.

10.1Grants

10.1.1 Funding Mechanism Overview

By definition, a grant is a form of financial aid that is given to enable a party to undertake an activity or project. Relative to the other funding options explored thus far in this report, grants do not generate additional revenues for government. Rather they offer a tool to reallocate revenues that have been collected through other means.

Generally, grants are made by government bodies or agencies, private enterprises and other financially endowed institutions to a variety of parties, including individuals, municipalities, non-government agencies and businesses. Funds for government administered grants are collected through traditional government revenue generation steams i.e. taxation, user fees and natural resource royalties.

The most common use of a grant is to enable a specific project or initiative that is "out of the ordinary", which requires additional financial resources to enable the receiving party to proceed. For example, grants are often used to support research into innovative environmental technologies that are not yet financially viable.

Another type of grant is an operational grant. Operational grants are aimed at providing entities with limited financial resources the funds required to ensure that they can operate and deliver their services on a day to day basis.

Most grant programs require the receiving party to go through an application processes. The administrative requirements and complexity of the application process is typically dependent on the granting agency and the value of the grant. Receiving parties generally do not have to repay the collected funds, and in many circumstances are not accountable to the granting agency. However, typically, conditions are placed on grants to ensure goal alignment.

10.1.2 The Strengths and Weakness of the Funding Option

The strengths:

- Grants provide an effective tool to enable activities and practices that would otherwise not be undertaken, on account of being prohibitively expensive without a financial grant.
- They support the development of new and innovative environmental technologies.
- Grants are best suited to support short to medium term projects and capital investments.

The weaknesses:

- The application and approval processes can be administratively demanding for both funding and receiving parties.
- Generally grants are not used to fund an organization's operations and functions in perpetuity; they are primarily used to fund their inception.
- They do not offer an effective tool to enable long-term planning by both applicants and receiving parties.

10.1.3 Applicable Trend and Experiences from Other Jurisdictions

The use of grants to support environmental initiatives in Alberta and Canada is widespread. The use of grants by other jurisdictions to support environmental management activities and programs is also long-standing. For example, the U.S. Environmental Protection Agency has historically allocated approximately half of its annual budget (approximately $4 billion) in grants to state and local governments, First Nation communities and non-profit partners. With the passing of the United States *Recovery Act*, in 2009 the US Environmental Protection Agency administrated more than $7.2 billion in grants to support brownfield redevelopment, environmental education, water and waste water infrastructure, environmental technologies and pollution prevention.[34] Likewise, the use of grants to support environmental projects and activities throughout Europe is also widespread.[35] A prominent grant-based model very similar to the WPAC and AZ funding model in Alberta, is employed in the State of Washington.

34 U.S. Environmental Protection Agency. (2009). Grants Management Plan: 2009-2013. Available at: http://www.epa.gov/ogd/EO/finalreport.pdf

35 It is important to note that the use of operating grants — similar to that of the grants allocated to WPACs and AZs by Alberta Environment — does not appear to be widespread.

Watershed Planning Operating Budget Grants, Washington

In 2009, the Department of Ecology of the State of Washington allocated $7 million dollars to 29 watershed planning groups to support the development and implementation of local water management plans. The funding was earmarked to provide operational funds for planning groups, support the preparation of implementation plans, and enable watershed specific projects such as aquifer studies, policy analysis of in-stream flow rules, water demand and supply analysis, and protecting water quality.

The allocation of monies under this grant program was determined based on each watershed's need and priority. Prior to grant applications being submitted, reviewed and awarded, watersheds funded through the *Washington Watershed Planning Act* were categorized as high, medium and low priority basins. Watersheds placed in the high priority category were given greater consideration and priority for available funding. If funding was available after meeting high priority basin needs, grants for medium or low priority basins were to be considered for grant funding.[36]

10.1.4 The Alberta Context

There are many grant programs in Alberta that aim to support environmental management and stewardship efforts. For example, Alberta Environment has long utilized grants as a tool to fund environment-related projects. Aside from the funds granted by Alberta Environment to partnership groups such as WPACs and AZs, grants have long been utilized by the Department. Some notable examples include grants to support:

- The Climate Change and Emissions Management Corporation;
- Oil sands environmental research at the University of Alberta;
- The Young Environmental Stewards Grant Program;
- First Nations community programs; and
- Municipal governments and the Alberta Urban Municipalities Association.

36 Department of Ecology, State of Washington (2009). Grant awards keep watershed management on track. 2009-2011 Watershed Planning Operating Budget Grants. Available at: http://www.ecy.wa.gov/watershed/09_11wsog.html

Table 10.1: Grants Summary Table

Does the tool offer a predictable revenue stream?	The financial resources available to fund grant programs often vary from year to year depending on the funding agency's financial situation.
Does the tool diversify the current revenue stream of WPACs/AZs	This approach would not diversify current revenue streams for WPACs and AZs, since a significant portion of their revenues is sourced from grants.
Can the tool be used to enhance environmental performance?	Low. This approach would not incent improved environmental performance, but rather support additional capacity within the management system.
Does the tool support the polluter pays principle?	Not applicable.
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	The administrative requirements for supporting grant application processes is often significant for both the applicant and grantee.

10.2Dedicated Funding

10.2.1 Funding Mechanism Overview

Governments collect revenues through a variety of avenues, such as corporate and personal income taxes, sales taxes, fees and government transfers. The majority of collected revenues are pooled into "general revenues", and then used to finance a variety of government services including health care, educational services, public infrastructure and the government's operations and ministries.

How a government expends its revenues is defined by a government's annual budget, which is ultimately defined by the public policy priorities of the day. In most circumstances, essential public services are adequately funded year-to-year to ensure that the public receives a sufficient level of service (such as health care and education). However, many programs and services do not receive consistent annual budgets, creating an unpredictable financial environment for many publicly funded service providers.

Like grants, dedicated funding offers governments a framework to support the reallocation of monies collected through revenue generation tools (such as those discussed above). More specifically, dedicated funding offers governments a means to create a more predictable financial

environment by legislating or regulating the reallocation of a certain portion of their collected revenues to specific services and programs. In summary, dedicated funding is the allocation of general revenue funds to a specific program or policy in perpetuity to remove funding uncertainties from a government's budgeting cycles.

In the context of environmental management, dedicated funding programs are often developed and paired with economic instruments such as environmental charges, user-fees and penalties for non-compliance, wherein the revenues collected are re-allocated through a dedicated fund to support environmental best-practices and innovations. An example of this pairing is Alberta's *Specified Gas Emitters Regulation* which offers regulated facilities a means of compliance through payments into the *Climate Change and Emissions Management Fund* at $15 per tonne of carbon dioxide equivalents (CO_2e). Monies collected in the fund are then reallocated into emission reduction projects that support Alberta's key priorities pertaining to climate change and emissions management. The administration of the reallocation of funds is under the *Climate Change and Emissions Management Corporation*.

10.2.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Dedicated funding approaches can be designed to eliminate some of the traditional administrative processes that are associated with grants and other non-traditional funding mechanisms.
- Dedicated funding provides recipients greater assurance that they will have a predictable source of revenue.
- Dedicated funding can help reduce programs and services from the vagaries of government that stem from evolving economic conditions, policy priorities, and government elections and turn-over.

The weaknesses:

- Often, dedicated funding approaches must be complemented with dedicated revenue streams, such as an environmental charge, levy and fee.
- Multiple dedicated funds ultimately lower the amount of funds available collected and expended through general revenues. This can reduce a government's ability to respond to short-term financing needs.

10.2.3 Experiences from Other Jurisdictions

The use of dedicated funds by governments is longstanding. Governments have long used them as a tool to insulate a program or service from the cycles and changes of government. For example dedicated funds are often used to finance public services like:

- Libraries
- Public transit
- Post-secondary education
- Parks

The use of dedicated funds as a means to support environmental initiatives appears to be limited. However, the State of Minnesota has developed a dedicated funding model that appears to offer a significant source of capital to support the State's environmental management programs.

The Clean Water, Land and Legacy Amendment, Minnesota

In 2008, the State of Minnesota passed Bill HF 2285 which increased the state's sales tax by three-eighths of 1 percent over the next 25 years. The additional revenues collected will be dedicated to support a number of environmental programs and initiatives including:

- The Outdoor Heritage Fund, which is expected to receive 33% of revenues (approximately $80 million in the 2010 fiscal year), and which supports the restoration, protection and enhancements of the State's ecologically significant landscapes.
- The Clean Water Fund, which will support the protection and enhancement of the State's water resources and enhance the State's drinking water sources. This Fund will receive 33% of the new revenues and is expected to receive approximately $35 million in the 2010 fiscal year.

Furthermore, the State also created a dedicated Park and Trail Fund that will receive 14.25% of the annual revenues collected by the increase in the sales tax (which is estimated to be $39 million in the 2010-2011 fiscal year). The additional revenues dedicated to supporting Minnesota's parks and trail systems that have regional or state level ecological significance.[37]

37 Minnesota Department of Natural Resources (2008). Clean Water, Land and Legacy Amendment. Available at: http://www.dnr.state.mn.us/news/features/amendment.html

10.2.4 The Alberta Context

Alberta has used dedicated funds to support a variety of initiatives and programs including those related to Alberta Environment's mandate. One such example is Alberta's Paint Recycling Program, which is administered through the Alberta Recycling Management Authority (a delegated authority). Specifically, the Paint Recycling Program is funded through an environmental fee charge on the new sale of paint. The fees are then put into a dedicate fund that can only be used to support the administration of the recycling program.

Table 10.2: Dedicated Funding Summary Table

Does the tool offer a predictable revenue stream?	Dedicated funding approaches do not offer a predictable revenue stream, but rather create a predictable revenue reallocation environment.
Does the tool diversify the current revenue stream of WPACs/AZs	WPAC and AZ's revenues would be sourced from the Government of Alberta.
Can the tool be used to enhance environmental performance?	Low. This approach does not directly incent change in environmental performance.
Does the tool support the polluter pays principle?	No. Dedicated funds do not impose environmental management requirements upon parties, but are tools for reallocating monies.
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	This approach would likely require additional administrative support systems and budgeting processes.

11.1Fundraising and Donations

11.1.1 Funding Mechanisms Overview

When governments face fiscal challenges, often fewer funds are made available to support the administration and delivery of non-government environmental management agencies. As a result of such circumstances, non-government environmental management agencies are often forced to explore innovative approaches to generate the required funds to ensure their survival.

Donations and fundraising have become a popular and effective means of generating revenues to support non-government environmental management agencies. Fundraising and donations work on the premise that an individual and/or corporate entity is willing to offer a voluntary gift (monies and/or services) to a worthy cause.

The effectiveness of fundraising and collecting donations is often dependent on many variables, including but not limited to:

- The broader socio-economic conditions;
- The reputation and profile of the organization seeking funds;
- The profile of the environmental issue being represented by the environmental management agency; and
- The resources available to advertise and profile the fundraising event.

In recent years, the fundraising techniques deployed by organizations to encourage donations have evolved and many innovative practices are being used; especially with online fundraising tools. Some of the more common approaches used to encourage donations include raffles, auctions, fundraising events, corporate apparel and merchandise sales, individual solicitation and themed licence plates. Both WPACs and AZs have undertaken fundraising activities to support their finances.

11.1.2 The Strengths and Weaknesses

The strengths:

- Fundraising and donations can offer non-government environmental management agencies an attractive means to generate revenues needed to complement their base funding supply.

- Significant revenues can be raised through donations and fundraising campaigns.
- Fundraising programs can also provide an avenue to enhance public awareness and generate public excitement towards addressing an environmental challenge.

The weaknesses:

- Large fundraising campaigns require significant financial investment and effort to ensure success.
- Donations are contingent upon the values and personal motivation of the donor(s).
- Charitable donations to environmental programs increase during favourable economic times and decline during periods of economic constraint. Unfortunately, this is likely to correlate with government spending patterns.
- Fundraising and donations may not generate the required funds to meet the financial demands of WPACs and AZs.

11.1.3 Applicable Trends and Experiences from Other Jurisdictions

In the context of environmental management, it is apparent that most fundraising and voluntary donation programs have traditionally been developed and delivered by non-government organizations. While non-government organizations continue to rely on the funds generated by fundraising and donations, it is evident that their use is being explored and pursued by agencies that have traditionally relied on direct government funding. In many circumstances funds are being used to support novel projects and initiatives, as opposed to supporting the operational budgets of groups like WPACs and AZs.

The Fraser Basin Council

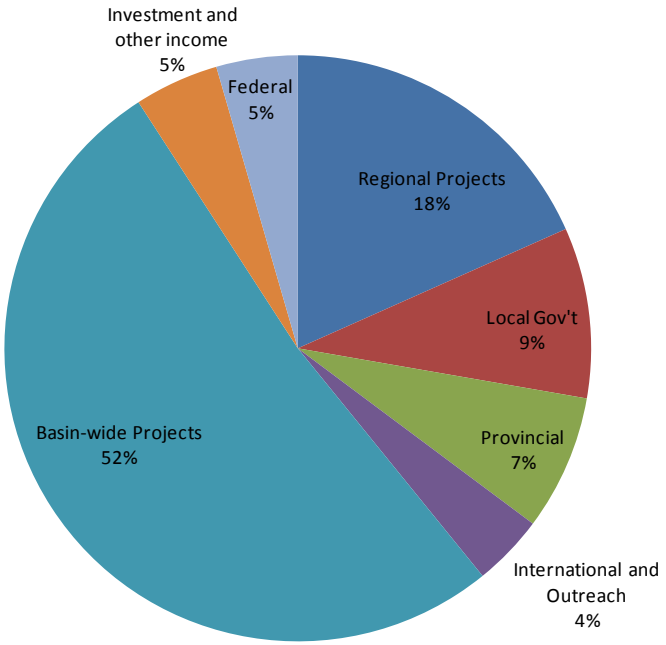
The Fraser Basin Council was established in 1997 as a not-for-profit, non-governmental organization. The Council's mandate is to ensure that decisions regarding how residents live, work and play in British Columbia's Fraser Basin, advance the social, economic, and environmental sustainability of the Basin.

Traditionally, the Fraser Basin Council's funding was sourced exclusively from federal, provincial, and local governments. While the Council continues to receive financial support from government agencies for funding, it is now actively implementing a self-financing model. This model aims to enhance their overall financial resource base and its sustainability, through the diversification of its funding; i.e, by attracting new sources of revenue from both private and public sources. One of the key components of this new self-financing model is a fundraising strategy which aims to collect financial contributions from corporate, individual and foundation donors. The funds collected through voluntary donations and contributions are primarily directed into the Fraser Basin Council's "Sustainability Fund" (an investment endowment

fund) to further capitalize on their cash flow. In 2008, approximately 5% of the Council's income was sourced from their Sustainability Fund investments and fundraising efforts.

Additionally, the Fraser Basin Council has become actively engaged in providing a diversity of services to regional and municipal partners within the Basin. These services and associated projects include, flood control, invasive species management, climate change adaptation, sustainable fish and fisheries strategies, community sustainable development and "State of the Basin" reports. Through their active participation in the Basin's management by the means of project work, the Council have developed a profile of work that provides approximately 52% of their annual revenues.[38]

Figure 11.1: 2008 Fraser Basin Council Revenues



License Plates

Novelty license plates are becoming a very popular and effective means of fundraising to support environmental initiatives. Many jurisdictions offer car owners the opportunity to donate to their favourite charity and cause. While many donations streams are outside the scope of environmental management; some provincial and state governments have environmentally themed license plates for sale. Some notable jurisdictions leading the charge on environmentally themed license plates include:

38 Fraser Basin Council (2007-2008). Annual Report and Financial Statements. Available at: http://www.fraserbasin.bc.ca/publications/documents/Financial_Statements_07-08.pdf

- *Texas "Show What Drives You!" program* — It supports wildlife management projects, public parks, Ducks Unlimited and education and outreach projects. Each plate costs vehicle owners $30, with $22 going directly to support the environmental program.[39]
- *Maine "Loon Licence Plate"*— It generates funds that directly support the State's Bureau of Parks and Lands under the Department of Conservation and the Department of Inland Fisheries and Wildlife. In 2008 this program generated $145,000.
- *Ontario "Graphic Licence Plates"*— Ontario offers an extensive range of charities and programs that can be supported through the purchase of novelty licence plates. However, this program has received few positive reviews as only $2.25 of the $77.75 charged to drivers goes to the respective cause and charity.[40]

11.1.4 The Alberta Context

In Alberta, many non-government organizations utilize a number of fundraising techniques to support their operations. Furthermore, many of Alberta Environment's partnership groups have established fundraising programs in an effort to secure additional revenues. It is evident that some partnership groups, both AZs and WPACs have embraced donations as a means to generate a significant source of revenue, while others have not. For example, in 2009, the Bow River Basin Council collected approximately 30% of its total revenues from donations, while the Battle River Watershed Alliance collected less than one tenth of its revenues from donations in 2010.[41] On the other hand, a perception that the government should be paying for certain partner services can reduce fundraising efforts.

This approach does not necessarily require Alberta Environment and the Government of Alberta to facilitate the collection of revenues as partnership groups are enabled to develop their own fundraising initiatives and donation campaigns. Furthermore, this approach could reduce the dependency of WPACs and AZs on Government of Alberta grants as they would be generating their own income stream.

39 Texas Parks and Wildlife Department. Show Us What Drives You. Available at: http://www.conservationplate.org/index.phtml

40 See for example, The Canadian Press. "Opposition pans "misleading" licence plates honouring troops". Available at: http://news.ca.msn.com/local/toronto/article.aspx?cp-documentid=22586185

41 Note- a more detailed analysis of the revenue sources of partnership groups will be assessed in the Phase 2 report of this project.

Table 11.1: Fundraising and Donations Summary Table

Does the tool offer a predictable revenue stream?	Potentially. Fundraising revenues are likely best suited to be a complimentary to traditional revenue sources.
Does the tool diversify the current revenue stream of WPACs/AZs	Yes. Fundraising would diversify partnership groups' revenue sources.
Can the tool be used to enhance environmental performance?	Potentially. This approach would not directly incent environmental performance enhancements.
Does the tool support the polluter pays principle?	No.
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	Would require partnership groups to facilitate fundraising activities.

11.2 Endowments Funds

11.2.1 Funding Mechanism Overview

Endowment funds are used by many non-profit organizations and public institutions as a source of revenue. An endowment fund is essentially an investment fund with specific restrictions and governing principles. Most endowment funds require that the principal value remains intact in perpetuity (or for a defined period of time) but that the principle be invested in a fashion that creates a predictable source of income for an organization or institution. This income is typically used to fund the functions and operations of the organization.

Endowment funds are usually established either through a government grant(s) and/or philanthropic donations.

11.2.2 The Strengths and Weaknesses of the Mechanism

The strengths:

- Investment income can be generated in perpetuity, and therefore offers a long-term revenue stream to fund the organization's operations.
- Endowment funds eliminate the administrative requirements to support funding and grant applications.

- Endowment funds can diversify an organization's income.

The weaknesses:

- A large principal is typically required to generate income sufficient to sustain the operations of an organization.
- Organizations with large endowments are often criticized for seeking additional revenue streams such as grants, whilst having access to a large pool of money

11.2.3 Applicable Trends and Experiences from Other Jurisdictions

Endowment funds are most often used by non-profit organizations, universities, hospitals and churches. While endowment funds remain popular within their traditional forms, their use as a tool to support environmental initiatives appears to be becoming more common. For example, since 2001, Tides Canada has allocated over $151 million to support grass roots environmental initiatives;[42] the Metcalf Foundation allocates approximately $5.5 million annually to sustainability projects.[43] While Tides Canada and the Metcalf Foundation have been built from private philanthropic donations, the model demonstrates the effectiveness of endowment funds in supporting environmental initiatives. Another prominent example is the Columbia Basin Trust.

The Columbia Basin Trust, British Columbia

The Columbia Basin Trust provides an excellent example of how an organization has utilized the powers of an endowment fund to fulfill its mandate and ensure its presence into the future. The Columbia Basin Treaty between Canada and the United States was signed in 1964, leading to the construction of three large scale hydroelectric facilities and flood control dams. The benefits accruing from these large scale projects were primarily enjoyed by those outside the Columbia Basin of British Columbia, while most of the negative effects were felt by local populations within the Basin.

The Columbia Basin Trust was established in 1995, after many years of negotiation. The Trust was established to benefit the local populations affected by the large projects in the region and promote the social, economic and environmental well-being of Canadian residents within the Basin. Upon the creation of the Columbia Basin Trust, the Government of British Columbia provided an endowment of $321 million to be invested in regional power projects and other investment vehicles.[44]

42 Tides Canada (2009). Annual Reports and Financial Statements. Available at: http://tidescanada.org/about/reports/

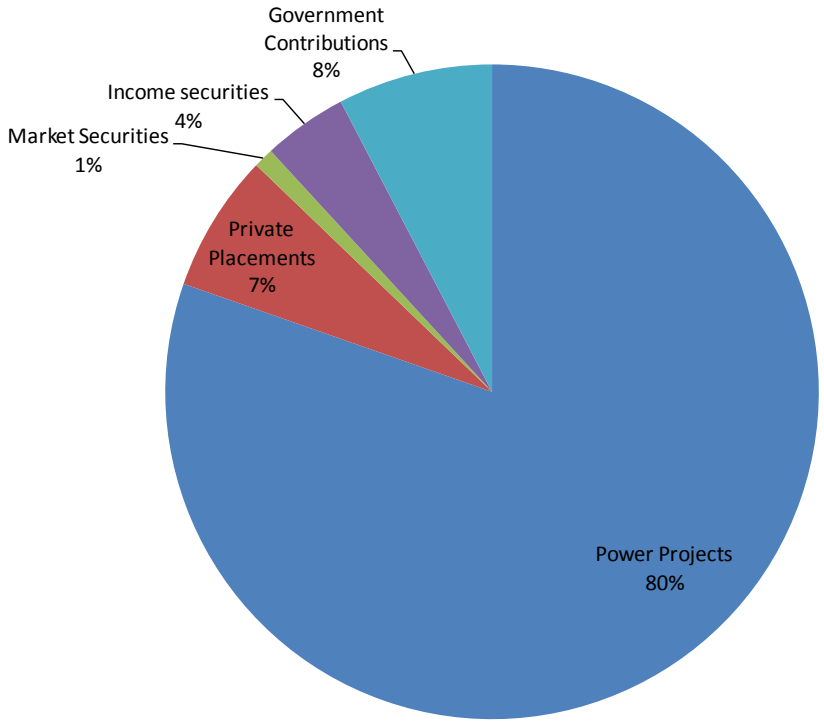
43 The Metcalf Foundation (2009). More About Metcalf. Available at: http://www.metcalffoundation.com/p_about_met.htm

44 Columbia Basin Trust (2010). About Us. Available at: http://www.cbt.org/About_Us/

Endowment funds are managed through the Trust's Investment Program, which is mandated to prudently invest the funds. Through the Trust's Investment program, predictable investment returns have allowed the Trust to confidently forecast the amount of funds available to deliver key services, activities and projects, as well as cover all corporate operating expenses.

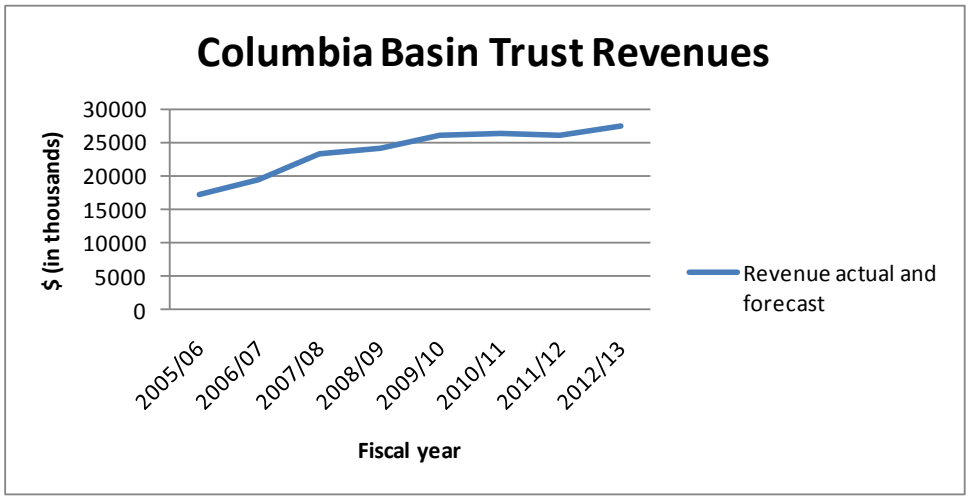
The Investment Program appreciates that investment returns are required to offset the effects of inflation, as well as to grow services and ensure that the Trust retains a prominent role in the future. The initial endowment to the Columbia Basin Trust has grown significantly and is now valued at approximately $436 million. In 2009/10 annual revenues generated from the Trust's investments were approximately $26 million annually, which could be broken down into regionally-based power projects (80%), private placements (7%) and income and market securities (5%). The Trust also receives contributions from government agencies, which are valued at approximately 8% of the total annual revenues.

Figure 11.2: Columbia Basin Trust Annual Revenue – 2008



Significantly, investments made by the Trust have a track record of producing yields that average 6% annually, as illustrated in Figure 5.3.

Figure 11.3: Actual and Forecasted Revenues of the Columbia Basin Trust[45]



The U.S. Environmental Protection Agency—Superfund

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), more commonly known as the Superfund, was enacted by the American Congress in 1980. This Act imposed a charge on the chemical and petroleum industries to address the additional costs required to handle releases of hazardous substances that posed a threat to the public and the environment. Further, this charge was also used to cover the additional costs imposed by issues related to spills and contaminated sites.

Since its inception the CERCLA has seen from $1.5 to $2 billion ($U.S) collected annually. These monies are then managed under the auspices of the Superfund, which currently holds approximately $8.5 billion. Subject to the funding needs for site remediation projects, monies within the fund are allocated to a series of investments to raise revenues upon the principle value of the fund.

11.2.4 The Alberta Context

Alberta has long utilized funds, in particular the Heritage Fund and Sustainability Fund, as a means to support key public policy priorities.

In the context of this project, it is important to note the commonly accepted "best practices" with regard to endowment funds. Generally speaking, approximately 50% of the annual interest generated from investments is allocated to support the operations and activities of the organization. The remainder is used to protect the value of the endowment principal of the fund against inflation.

45 Figures derived from the Columbia Basin Trust 2007/08-2009/10 Service Plan and 2010/11-2012/13 Service Plan. Available at http://www.cbt.org/

Assuming that Alberta follows a best-practices model, it is probable that for every million dollars held by the endowment fund, $50,000 are available to support the functions and activities of the Department's partners. Thus for a partnership with an operating cost to the government of $300,000 annually, a principal of approximately $6 million would be required. Therefore, taking a conservative approach, an endowment fund of $100 million would be required to support the functions of Alberta Environment's partnership groups.

Table 11.2: Endowment Funds Summary Table

Does the tool offer a predictable revenue stream?	Yes. It is possible to establish and operate an endowment fund that provides relatively predictable revenues.
Does the tool diversify the current revenue stream of WPACs/AZs	Yes, this approach could create a new revenue stream for Alberta Environment's partnership groups.
Can the tool be used to enhance environmental performance?	Not likely. This approach would not incent change in a regulated party's environmental performance. However, if linked to other environmental tools, such as a user fees and charges.
Does the tool support the polluter pays principle?	No. This model is based on the practice of "money making money".
Is the tool better suited to manage point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	Moderate. This approach would require a fund manager.

11.3Membership Fees, Professional Services and Events

11.3.1 Funding Mechanisms Overview

Many non-government organizations utilize a variety of tools to generate additional revenues to support the delivery of their services and programs. The most prominent tools appear to be:

- **Membership fees.** Membership fees offer an opportunity for groups, both not-for-profit and for-profit, to generate revenues to support the delivery of their mandated and associated services. Membership fees work on the premise that an individual or entity is interested in becoming a member of an organization or group, and is willing to pay a fee to join. By becoming a member of an organization or group, an individual is able to access the privileged benefits and services

associated with that group. Depending on the organization, membership fees can vary temporally—for example there are life-time membership fees, one-time initiation fees, annual membership frees, etc.

- **Trade shows and conferences.** Trade shows and conferences offer a potentially significant source of revenues. Given the returns possible, many organizations use trade shows and conferences as a means to generate revenues to support other areas of their service offerings. While the costs associated with hosting trade shows and conferences can be significant, the revenues from conference registrations and sponsorships can result in profitable events.
- **Professional services.** Providing professional services such as consulting offers many organizations a source of income. In most circumstances, professional services are provided to governments and their agencies under contracts and service agreements.
- **Publications.** Publications, such as trade magazines and journals can offer an organization a significant source of income. Income is generated through the sale of the publication and advertisement revenues.

The use of the above mentioned revenue generation tools have long been utilized by both for-profit and non-profit organizations as a means to generate revenues.

11.3.2 The Strengths and Weaknesses of the Funding Option

The strengths:

- Membership fees, professional services and events can offer a significant source of revenues to partnership groups.
- These tools are likely to provide more incentive for partnership groups to offer their value-added services to a broader audience.

The weaknesses:

- The number of individuals willing to support partnership groups through a fee structure might be limited.
- Partnership groups would become beholden to the needs and wants of its members, which might limit the value-added services they provide to Alberta Environment.
- Hosting conferences and events requires significant investments (financial and human) to ensure success.

11.3.3 Applicable Trends and Experiences from Other Jurisdictions

American Water Works Association

The American Water Works Association (AWWA) was established in 1881 in an effort to enhance the exchange of information amongst water infrastructure managers throughout the Midwestern United States. Today, it is an international association dedicated to enhancing water supply and quantity. With a membership of 56,000 people worldwide, it is the largest organization of water professionals in the world.

The AWWA generates revenues through a variety of avenues. Based on its 2008 and 2009 financial statements, it is evident that its revenue is secured through membership fees (40%), conference hosting (23%), publication sales (13%) and advertisement (11%), with an additional 23% from other sources. It is important to note that less than 0.5% of the Association's funding is sourced from Government grants.[46]

The British Columbia Sustainable Energy Association

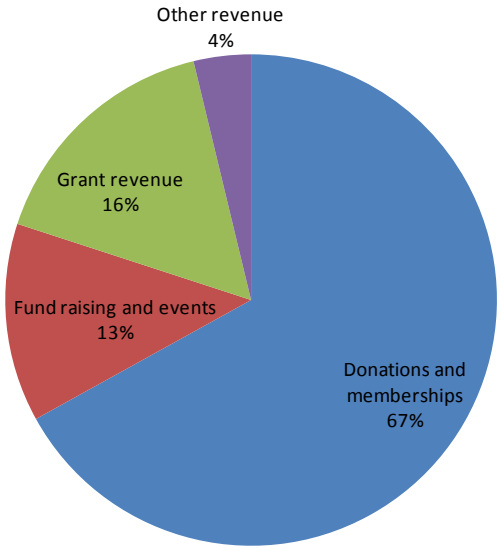
The BC Sustainable Energy Association is an independent, non-partisan, non-profit society registered in the province of British Columbia. Its charitable status is pending approval. The mission of the BC Sustainable Energy Association is to facilitate transition to a sustainable energy future in British Columbia through education, advocacy and tangible community projects.

The BCSEA relies on donations, membership fees, grants and other forms of revenue to maintain its core operations and to deliver its programs. According to the financial statements of the Association, approximately 67% of its revenue is generated through donations and membership fees, with an additional 13% coming from fundraising efforts and events.[47]

46 American Water Works Association (2010). Financial Statements and Supplementary Information. Years Ended December 31, 2009 and 2008. Available at:
http://www.awwa.org/files/about/OandC/officialdocs/2009FinancialStatements.pdf

47 British Columbia Sustainable Energy Association (2009). Financial Statements, Year Ended December 31, 2008. Available at: http://www.bcsea.org/sites/default/files/BCSEA_Financial_Statements_2008_-_Notice_to_Reader.pdf

Figure 11.4: BC Sustainable Energy Association Revenues – 2008



11.3.4 The Alberta Context

Many of Alberta Environment's partnership groups currently utilize tools that can support self-generated revenues. Nevertheless, it is evident that partnership groups could enhance the utilization of funding options such as membership fees, providing professional services and hosting events and conferences.

Table 11.3: Membership Fees, Professional Services and Events Summary Table

Does the tool offer a predictable revenue stream?	The revenues associated with membership fees, professional services and events are likely to fluctuate significantly.
Does the tool diversify the current revenue stream of WPACs/AZs	Yes, this approach could create new revenue streams for WPACs and AZs.
Can the tool be used to enhance environmental performance?	This approach would not incent changes in environmental performance.
Does the tool support the polluter pays principle?	No. It is likely that there is no correlation between the facility or actor that pollutes and the potential revenues collected through these funding options.
Is the tool better suited for managing point source or non-point source impacts?	Not applicable.
Will the tool increase the administrative resources of Alberta Environment and partnership groups?	This approach is likely to require significant investment to support the administration and delivery of these services.

12.1 Overview of Assessment Framework

Alberta Environment can employ a wide range of funding mechanisms to support the roles of WPACs and AZs. Some funding mechanisms will be more appropriate to support the objectives of this project, than others.

It is therefore critical to systematically assess each mechanism to ensure that the impacts and benefits associated with each funding mechanism are well understood. This will help Alberta Environment to select the right funding mechanism for implementation. In support of this objective, a structured decision-making process, specifically a multi-criteria analysis, has been identified as a means to help Alberta Environment evaluate the funding options described within this report. Alberta Environment currently endorses this assessment approach to support the development and implementation of an environmental tool, as described in the *Environmental Tools Guide*.

The key strength of this approach is that it enables Alberta Environment to better appreciate how each mechanism could potentially contribute to achieving the defined funding requirements of their key partners, while understanding the potential consequences associated with imposing a new cost upon another actor. Furthermore, it offers a means to initiate structured dialogue amongst the policy makers within the Department and support a shared understanding of the potential benefits and unintended consequences associated with each funding mechanism.

12.2 Assessment Criteria

In support of meeting the objectives of this project several key criteria and associated questions have been identified to meet the objectives of this project. These criteria (listed below) have been incorporated into Table 6 (on page 65 of this report) to offer a framework for Alberta Environment to assess each mechanism.

The following criteria have been identified:

- ***Ability to generate the required revenues*** – The ability of a mechanism to effectively generate revenues is of critical importance to the defined objectives of this project.

  Key Questions:

  1 Can the funding mechanism generate sufficient revenue to support the requirements of Alberta Environment's partnership groups?

2 Is the potential revenue generated sufficient to cover the administrative costs associated with the development and implementation of the funding mechanism?

- ***Predictability of revenues*** –Each funding mechanism offers a different degree of certainty and regularity in its ability to generate revenues. Understanding the predictability of each mechanism will help Alberta Environment develop a funding mechanism that helps facilitate the financial planning of AZs and WPACs.

  Key Questions

  1 Does the funding mechanism offer Alberta Environment and its partnership groups a predictable source of revenue?

  2 Does the funding mechanism diversify the current revenue sources of AZs and WPACs?

  3 Can the funding mechanism be paired with other options to reduce potential variability in revenues?

- ***Legislative and regulatory authority*** –Understanding the legal and regulatory frameworks for implementing a new funding mechanism is critical. It will be important for Alberta Environment to assess its current legal authority under the *Environmental Protection and Enhancement Act* and *Water Act* (or other applicable Provincial legislation) to implement a new funding mechanism. Some funding mechanisms may require legislative and regulatory changes.

  Key Questions:

  1 Does Alberta Environment have the legislative authority to implement the funding mechanism?

  2 If no, can Alberta Environment amend the legislation and regulations to enable the implementation of the funding mechanism?

  3 If the funding mechanism is a "self-financing" mechanism, can Alberta Environment support its partnership groups in its development and implementation to support revenue generation targets?

- ***Integration with other environmental management objectives and policy outcomes***. If a new funding mechanism is developed and implemented, the onus of funding will potentially fall on another actor within Alberta. As a result, Alberta Environment could very well send a policy or regulatory signal to an actor, which may ultimately lead to changes in environmental performance.

  Key Questions:

  1 Does the funding mechanism align with the principles and environmental objectives of the CEMS?

2 Does the funding mechanism offer Alberta Environment an opportunity to achieve multiple policy outcomes? For example, does it meet the objectives of this project and a specific water quantity/quality or air quality outcome?

3 Does the funding mechanism align with and support the defined environmental outcomes of the existing environmental management system of Alberta Environment?

4 Can the funding mechanism be integrated (i.e. "piggy backed") with Alberta Environment and the Government of Alberta's current policy and regulatory development and amendment initiatives? See for example, legislative planning documents and/or the annual business plan.

- ***Fairness*** –Placing a new cost upon an actor can potentially result in a range of impacts. Therefore, it will be critical to understand if a mechanism creates winners and losers disproportionately.

  Key Questions:

  1 Does the funding mechanism unduly impact a particular sector or group of stakeholders?

  2 Does the funding mechanism unduly benefit a particular sector or group of stakeholders?

  3 Does the funding mechanism support the polluter pays principle?

  4 Does the funding mechanism collect revenues from sectors and/or groups of stakeholders that contribute to the environmental management efforts of AZs and WPACs?

- ***Administrative requirements*** –Collecting revenue streams from actors within society can be a very resource intensive exercise. It is fundamental to understand how the benefits of the collected revenues compare to the administrative costs associated with its collection and funding requirements for WPACs and AZs.

  Key Questions:

  1 Are additional administrative resources required to administer the funding mechanism?

  2 Does Alberta Environment have the internal resources to design, implement and administer the funding mechanism?

  3 Are there alternative agencies outside of Alberta Environment and the Government of Alberta available to support the administration of the funding mechanism?

- ***Adaptability*** – to what degree can the mechanism adapt to changing contexts to ensure a long term and sustainable revenue stream.

  Key Questions:

  1 Can the funding mechanism be modified if it does not meet the funding requirements of AZs and WPACs?

2 Will the administrative requirements (time, labour, etc) needed to modify the mechanism be significant?

- ***Unintended consequences*** –When significant financial resources are being collected and redistributed in an economy, there are likely to be unintended consequences. An explicit effort to identify the unintended consequences (both positive and negative) will help Alberta Environment deliver a more robust funding program.

  Key Questions:

  1 Does Alberta Environment foresee any unintended consequences from the implementation of the funding mechanism?

  2 Do Alberta Environment's stakeholders foresee any unintended consequences from the implementation of the funding mechanism?

  3 Do Alberta Environment's partnership groups foresee any unintended consequences from the implementation of the funding mechanism?

To rank each funding mechanism, the Environmental Tools Guide recommends that a numerical ranking system should be developed and applied. Alternatively, a scale of "low, medium and high" could be applied. The importance of each criterion listed above is likely to vary based upon the priorities of Alberta Environment. Therefore, it is recommended that specific criteria be weighted so as to reflect the priorities associated with the development of a funding mechanism for AZs and WPACs.

Table 12.1: Assessment Framework Table

	Approval and Permitting Fees	Frees, Levies and Charges	Environmental Penalties	Municipal Levies	Natural Resource Royalties	Environmental Bonds	Grants	Dedicated Funding	Fundraising and Donations	Endowment Funds	Membership fees, professional services and events
Revenue Generation											
Predictability of Revenues											
Legislative and regulatory authority											
Integration with other environmental management priorities											
Fairness											
Administrative Requirements											
Adaptability											
Unintended Consequences											
Total Ranking											

13.0 Potential Steps for the Future

Prior to the implementation of a sustainable funding mechanism to support WPACs and AZs, Alberta Environment must strive to appreciate the qualitative and quantitative benefits and impacts of each funding option fully. Table 13.1 offers a general overview of the potential outcomes associated with a detailed qualitative and quantitative assessment.

Table 13.1: Associated Benefits for Detailed Qualitative & Quantitative Assessment of Funding Options

Qualitative Assessment	Quantitative Assessment
A qualitative assessment will help Alberta Environment understand, in detail, each option as it relates to: • Its alignment with the CEMS governance model; • Potential issues of fairness and equity; • Alignment with key Provincial environmental policy outcomes; • The regulatory and legislative context of Alberta; • Appropriateness within the socio-political context of Alberta.	A quantitative assessment will help Alberta Environment understand, in detail, each option as it relates to: • The financial demand of WPACs and AZs within the CEMS governance model; • The potential revenues to be generated by each option; • The financial implications that may be bestowed upon "paying stakeholders"; • Broader economic impacts

Alberta Environment should develop a funding mechanism that meets both the Department's needs and the needs of WPACs and AZs. Further, it is important to identify opportunities that can be leveraged to meet multiple policy objectives and Departmental priorities. For example, it is evident that there is a mounting need, and thus, an opportunity, to continually enhance the environmental monitoring system in Alberta.

To this end, the following steps are suggested to help facilitate Alberta Environment's efforts to develop a sustainable funding mechanism that will help maximize the value of WPACs and AZs and potentially secure the financial resources required to support the environmental monitoring demands of the province.

13.1.1 Characterization of Each Funding Option

The inventory of funding options have yet to transition from hypothetical "funding options" to detailed Alberta-based mechanisms that could be used to meet specific objectives. For example, while Alberta Environment has considered and discussed several funding options, a robust characterization and

assessment of how each mechanism would work in practice within the Province of Alberta remains to be formulated. It is, therefore, suggested that Alberta Environment characterize and illustrate how each funding option could potentially work within the Alberta context. Doing so will enable a better appreciation of:

- The potential revenue sources (i.e. who pays);
- The potential benefits (i.e. better environmental performance) and consequences (i.e. additional costs) associated with each funding option;
- The potential legislative and regulatory amendments that may be required to implement;
- Alignment with the CEMS
- Etc.

13.1.2 Evaluation of funding mechanisms

Using the developed assessment tool, it is recommended that an assessment be undertaken to explicitly evaluate each of the funding options presented. The purpose of this evaluation is two-fold.

1) First, and foremost, this evaluation will offer a very detailed analysis of each of the identified (and characterized) funding mechanisms. It will focus on understanding each option within the Alberta context. The analysis should aim to highlight both the technical and contextual attributes of each mechanism. In other words, this analysis will serve to ensure that Alberta Environment understands the finer details of each funding option, as well as the socio-economic opportunities and consequences that may arise from a mechanism's implementation.
2) Secondly, the evaluation will serve to identify the best funding mechanisms available to Alberta Environment to meet the needs of WPACs and AZs, as well as the financial demands required to support the Province's evolving approach to environmental monitoring. It would be advisable to identify two to three top-tier options.

13.1.3 Revenue-Cost Analysis

The financial resources required to fund partnership organizations and potentially support the evolution of the Province's environmental monitoring system are likely to be significant. While Alberta Environment has acquired a stronger appreciation of the *current* funding requirements of WPACs and AZs, *future* requirements remain somewhat unclear. It is therefore recommended that Alberta Environment continue to enhance its understanding of their future financial demands through a forecast analysis once the roles and functions of WPACs and AZs have been clarified in CEMS. This will enable Alberta

Environment to appropriately structure its funding options in a manner that ensure that a sufficient revenue supply is generated in the near and long term.

Furthermore, once a cost estimate and forecast have been developed, a cost impact analysis can be undertaken for the top-tier funding options that have been identified. Specifically, this analysis would estimate the impact of the implementation of Alberta Environment's funding system upon regulated parties/stakeholders/Albertans.

13.1.4 Develop draft implementation plans

Based on the assessment process outlined above and the revenue-cost analysis, a draft implementation plan should be developed for each of the top-tier funding mechanisms. Developing a draft implementation plan for each option will help ensure that the right funding option is ultimately selected and implemented by Alberta Environment. Further, it will provide Alberta Environment an opportunity to refine the specific attributes of each funding mechanism, thereby ensuring that costs are minimized and the value of each dollar collected and reallocated is maximized. The goal of each implementation plan will be to offer decision-makers the required information to proceed with the most appropriate funding model for Alberta.

Each plan should:

- Identify the key roles and responsibilities of agencies, including Alberta Environment, Alberta Finance and Enterprise, the Treasury Board, etc.
- Outline an outreach strategy to engage the potentially affected parties providing the new revenue stream, the WPACs and AZs, and other applicable agencies.
- Offer a detailed program structure to ensure that the funding mechanism will sufficiently finance partnership groups in a fair and equitable fashion.
- Identify enabling clauses within Alberta's *Environmental Protection and Enhancement Act*, *Water Act* and other applicable legislative acts; or if required, identify potential legislative changes that will enable Alberta Environment to implement the funding model.
- Articulate timelines and the departmental administrative resources required to enable successful implementation.
- Provide the foundation for the development of Ministerial Reports and briefings as required.

14.0 Chapter Findings

This chapter of the report reviewed a multitude of funding options that are available to the Government of Alberta, and WPACs and AZs, to support their current and potential future roles within the CEMS. The chapter provides a high-level overview of each of the funding options strengths and weaknesses and offers insights on their use within the Alberta context. Further, the chapter has highlighted a number of instances that illustrate the application of each funding option and its associated attributes within various contexts.

While this chapter aims to enhance Alberta Environment's knowledge-base of the available funding options, it is important to recognize that the options should not be considered or assessed in isolation. The options should be assessed form a systems perspective which will support the development of a funding model, rather than a single funding mechanism. Such an approach will help meet the long-term funding objectives of WPACs and AZs. For example, the effectiveness of an environmental levy program in supporting Alberta Environment's policy objectives is very much dependent on whether or not it has been paired with an appropriate reallocation tool, such as a dedicated fund. Assessing, developing and implementing a funding option in isolation may limit the Department's success in building a resilient financial model for WPACs and AZs. Therefore, as Alberta Environment proceeds in its exploration of funding options, it should consider a financial model that comprises the following attributes:

- The revenue and reallocation mechanism(s) offer partnership groups the resources required to fulfill their defined roles, responsibilities and functions within CEMS.
- Partnership groups work under a predictable revenue model – limiting short-term (3 year) budget variability and fluctuations.
- Partnership groups are not dependent solely on the economic circumstances of Alberta and the finances of the Government of Alberta for core funding.
- The funding mechanism enables partnership groups to provide a series of value added services to Alberta Environment.
- Partnership groups maximize the value of their financial resources.

Furthermore, it needs to be explicitly recognized that many of the funding options highlighted within this report should be assessed within the broader policy and regulatory efforts of Alberta Environment. This is due to the fact that these options (such as environmental fees, levies and charges) can have a direct policy impact upon Albertans and the Province's key industries. As such, Alberta Environment may benefit from exploring opportunities that will leverage other water and air regulatory and policy initiatives being led by the Department.

Appendix A

Evaluation Rubric

1. People					
1.1	Partnerships	Level 1 - No partnerships	Level 2 - No defined partnerships but some working relations	Level 3 – Defined and collaborative agreements	
1.2	Volunteers	Level 1 - No use of volunteers and no support activities	Level 2- Some use of volunteers and/or some level of support activities	Level 3 - Significant use of volunteers and/or support activities	
1.3	Key stakeholders	Level 1 - No recognition and/or no engagement	Level 2 - Some recognition and/or some engagement	Level 3 - Thorough recognition and/or engagement	
2. Plans					
2.1	Operational, Business and Strategic Plans	Level 1 – Exist, but not used	Level 2 - Exist, relevant	Level 3 - Exist and referenced to, key deliverables identified	
3. Organizational Health					
3.1	Annual Reports (with financials)	Level 1 - No report publicly available	Level 2 - Publicly available, minimal information shared, key deliverables identified	Level 3 - Publicly available, comprehensive and relevant	
3.2	Budgets	Level 1 - High deviation from budget (More than 30%)	Level 2 - Some deviation from budget (between 10% - 30%)	Level 3 - On budget (within 10%)	
3.3	Leveraging of resources (financial contributions)	Level 1 - 1:0 No matching	Level 2 - 1:0.5 matching	Level 3 - 1:1 matching	Level 4 - 1:2 or greater matching
3.4	Leveraging of resources (Volunteer/in-kind contributions)	Level 1- 1:0 No matching	Level 2 - 1:0.1 matching	Level 3 - 1:0.25 matching	Level 4 - 1:0.5 or greater matching
4. Organizational Activities					
4.1	Community updates	Level 1 - Low frequency (0-2 per year) and/or low accessibility	Level 2 - Medium frequency (3-6)	Level 3 - High frequency (>6) and/or high accessibility	
4.2	State of the Environment (or management like) reports	Level 1 - Low frequency (≤one every 3 years)	Level 2 - Medium frequency (one every 2 years)	Level 3 - High frequency (≥1 per year)	
4.3	Value of Knowledge and influence	Level 1 - Internal sessions and low frequency (≤bi-annually)	Level 2 - External publications and medium frequency (bi-annually-quarterly)	Level 3 - Presentations in wider forum (conferences, etc. high frequency ≥quarterly)	

5. Organizational Alignment with GoA Goals				
5.1	Vision, Mission and objectives	Level 1 - Low alignment with GoA goals	Level 2 - High alignment with GoA goals	
5.2	Monitoring programs	Level 1 - Supports Alberta Environment air or water objectives	Level 2 - Supports Alberta Environment's long-term strategic priorities	Level 3 - Anticipates and prepares for CEMS model

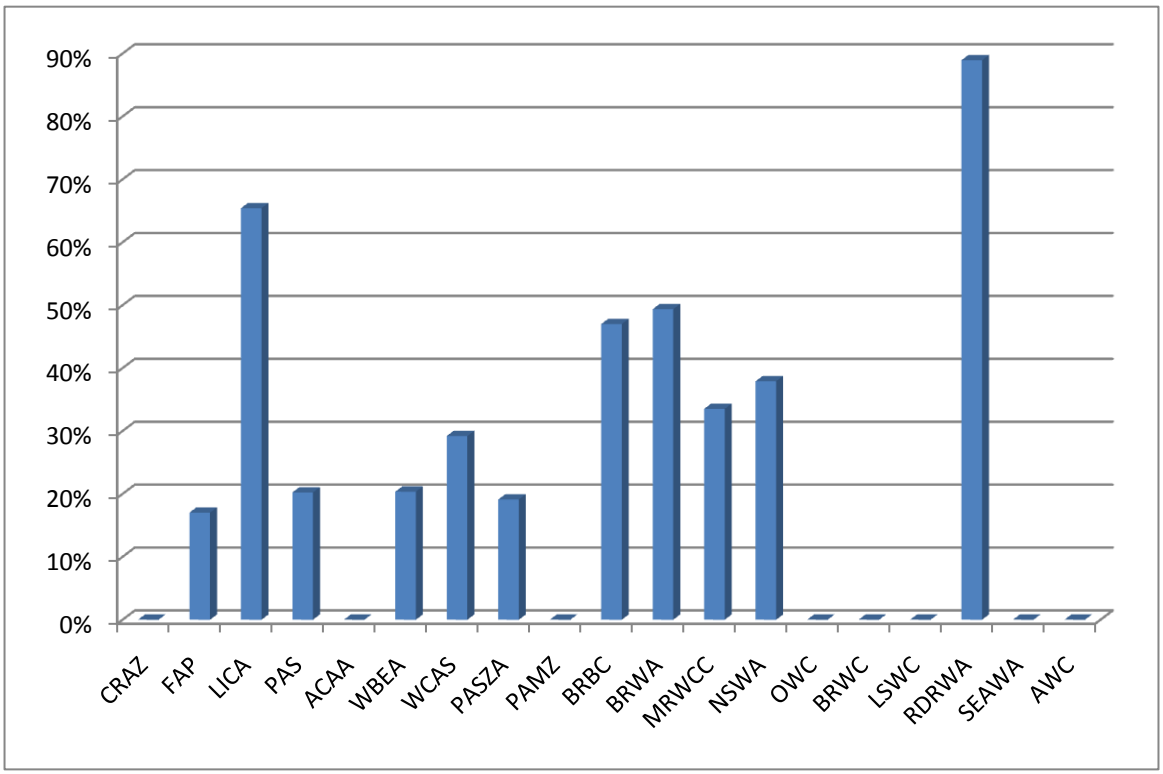
Appendix B

List of WPACs and AZs Analyzed and People Interviewed

Organization Name	Contact Person	Position
Athabasca Watershed Council (AWC)	Connie Simmons	Executive Director
Battle River Watershed Alliance (Battle RWA)	David Samm	General Manager
Beaver River Watershed Alliance (Beaver RWA)	Eleanor Kneffel	Program Manager
Bow River Basin Council (BRBC)	Mark Bennett	Executive Director
Lesser Slave Watershed Council (LSWC)	Meghan Payne	Executive Director
Milk River Watershed Council Canada (MRWCC)	Sandi Riemersma	Executive Director
North Saskatchewan Watershed Alliance (NSWA)	David Trew	Executive Director
Oldman Watershed Council (OWC)	Stephanie Palechek	Executive Director
Red Deer River Watershed Alliance (RDRWA)	Gerard Aldridge	Executive Director
South East Alberta Watershed Alliance (SEAWA)	Bob Phillips	Executive Director
Alberta Capital Airshed Alliance (ACAA)	Kristina Friesen	Executive Director
Calgary Region Airshed Zone (CRAZ)	Jill Bloor	Executive Director
Fort Air Partnership (FAP)	Nadine Blaney	Executive Director
Lakeland Industry & Community Association (LICA)	Michael Bisaga	Program Manager
Palliser Airshed Society (PAS)	Bob Scotten	Executive Director
Parkland Airshed Management Zone (PAMZ)	Kevin Warren	Executive Director
Peace Air Shed Zone Association (PASZA)	Shelly Pruden	Program Manager
West Central Airshed Society (WCAS)	Bob Scotten	Executive Director
Wood Buffalo Environmental Association (WBEA)	Carna MacEachern	Executive Director

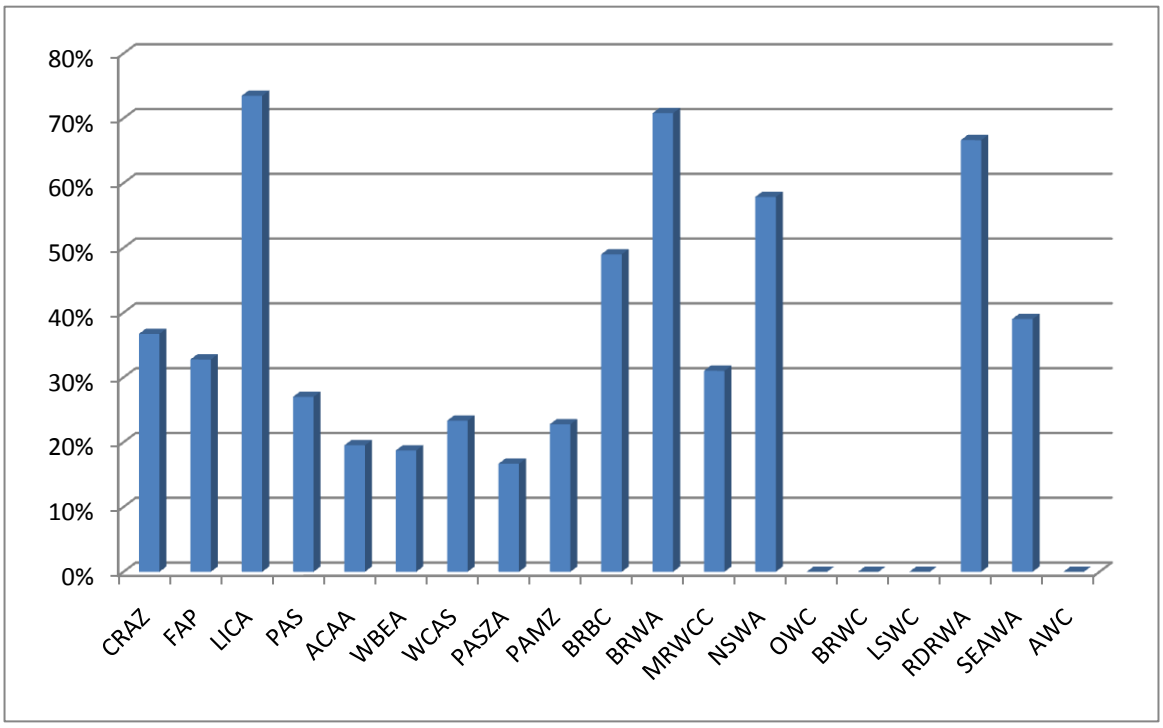
Appendix C

Overhead as a Percentage of Expenses (2007)


90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
CRAZ
FAP
LICA
PAS
ACAA
WBEA
WCAS
PASZA
PAMZ
BRBC
BRWA
MRWCC
NSWA
OWC
BRWC
LSWC
RDRWA
SEAWA
AWC

Appendix D

Overhead as a Percentage of Expenses (2008)


80%
70%
60%
50%
40%
30%
20%
10%
0%
CRAZ
FAP
LICA
PAS
ACAA
WBEA
WCAS
PASZA
PAMZ
BRBC
BRWA
MRWCC
NSWA
OWC
BRWC
LSWC
RDRWA
SEAWA
AWC

Appendix E

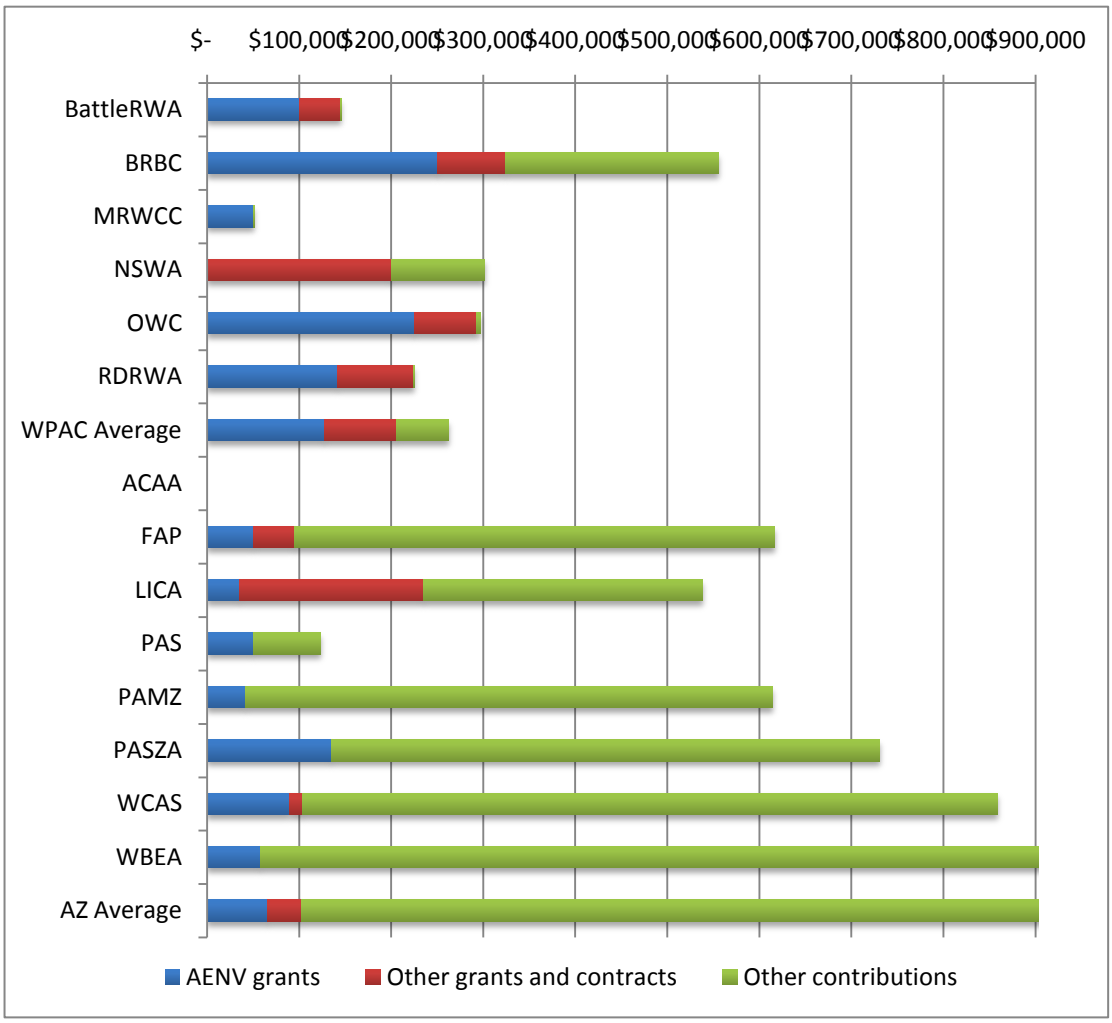
Criteria of Revenue sources for organizations

Notes for the revenue breakdown heads and criteria

1) Alberta Environment includes only grants
2) Other Government grants and contracts include grants from other governmental bodies and directed contracts (including ones from Alberta Environment)
3) Other Contributions include donations (mainly from industry) and membership fees
4) Some organizations operate on a calendar year and others operate on mid-year (e.g., April to March). For the purpose of this study, all are treated as calendar years to avoid any confusion. Thus, 2006 data include funding that an organization received in 2006 and is taken from their 2007 annual report or from their 2006-2007 annual report
5) Where government grants were not broken down, they are assumed to have come from Alberta Environment 6. Interest revenues are excludes from this analysis

Appendix F

Revenue Sources (2006)



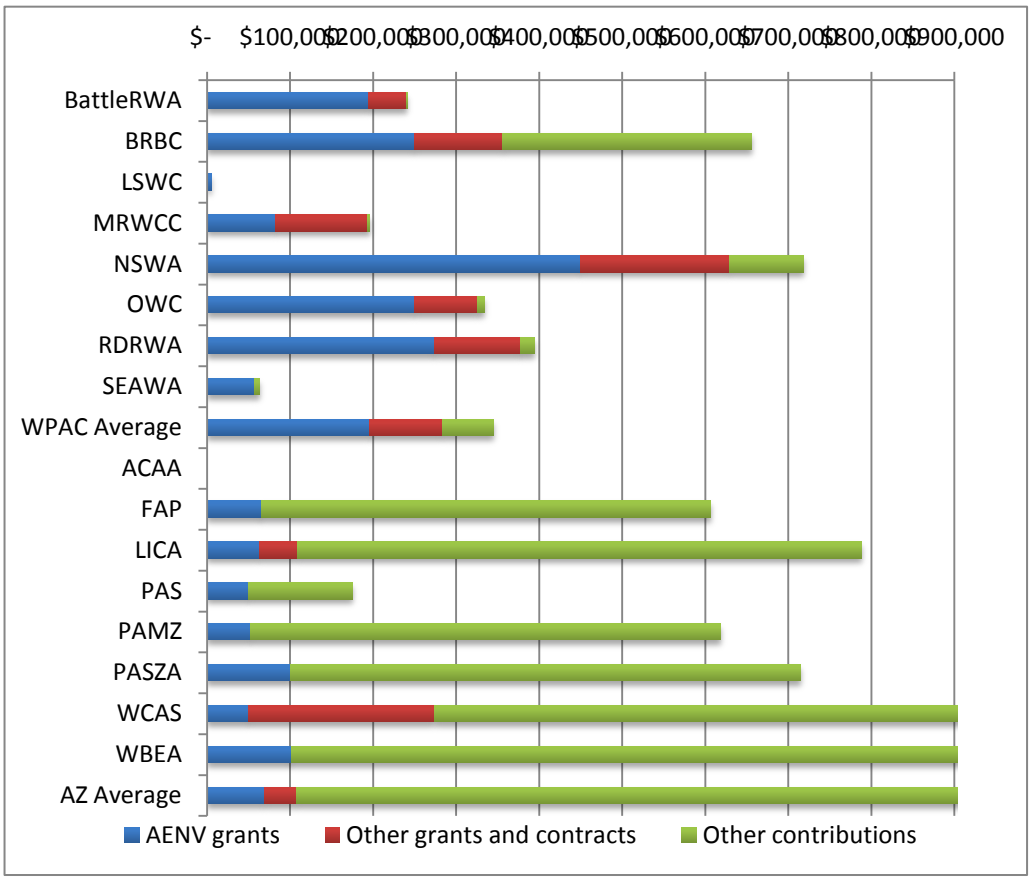
Note: WBEA's other contributions were $3,552,223. It cannot be seen on this chart as its scale is much larger.

	Alberta Environment grants	Other grants and contracts	Other contributions
Battle RWA	$100,000	$45,425	$100
BRBC	$250,000	$74,200	$231,626
MRWCC	$50,900	$-	$400
NSWA	$-	$200,000	$101,593
OWC	$225,000	$67,894	$3,716
RDRWA	$141,980	$82,732	$580
WPAC Average	$127,980	$78,375	$56,336
ACAA	N/Ava	N/Ava	N/Ava
FAP	$50,000	$45,000	$521,200
LICA	$35,627	$199,487	$302,807
PAS	$50,000	$-	$73,531
PAMZ	$42,200	$-	$572,183
PASZA	$135,000	$-	$595,200
WCAS	$90,000	$13,786	$755,171
WBEA	$57,811	$-	$3,552,223
AZ Average	$65,805	$36,896	$910,331
Total	$1,228,518	$728,524	$6,710,330

Notes: AWC, LSWC, SEAWA and CRAZ are not included as they did not exist at that time. Where no numbers are entered, no information was available

Appendix G

Revenue Sources (2007)



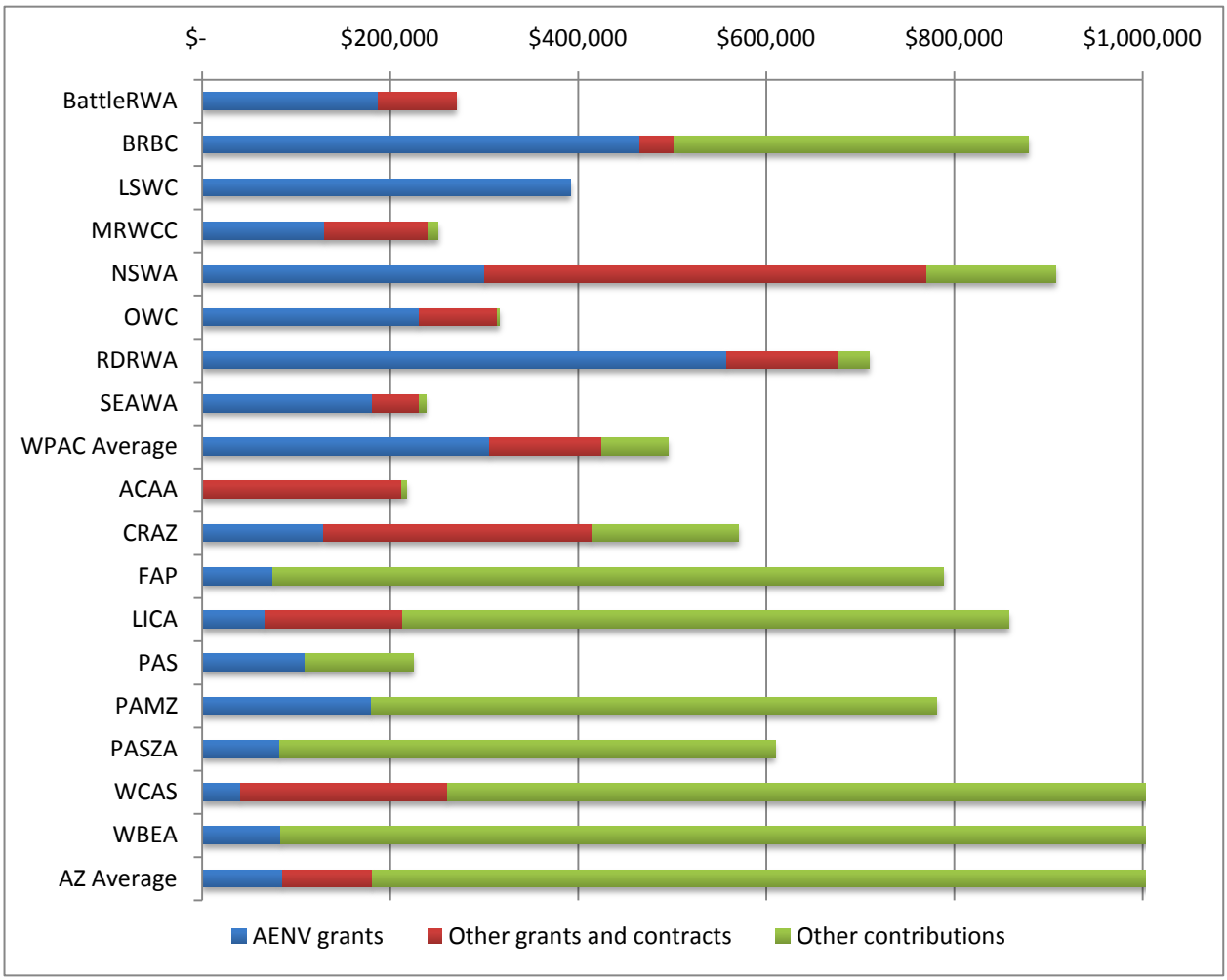
Note: WBEA's other contributions was $2,808,000. It cannot be seen on this chart as its scale is much larger.

2007	Alberta Environment grants	Other grants and contracts	Other contributions
Battle RWA	$195,000	$45,425	$100
BRBC	$250,000	$106,360	$299,790
LSWC	$5,000	N/Ava	N/Ava
MRWCC	$82,671	$110,123	$3,147
NSWA	$450,000	$178,761	$90,088
OWC	$250,000	$75,212	$8,445
RDRWA	$273,870	$103,240	$17,653
SEAWA	$56,549	$-	$6,790
WPAC Average	$195,386	$88,446	$60,859
ACAA	N/Ava	N/Ava	N/Ava
FAP	$65,000	$-	$541,808
LICA	$63,678	$45,563	$679,230
PAS	$50,000	$-	$125,265
PAMZ	$52,100	$-	$565,696
PASZA	$100,000	$-	$614,911
WCAS	$50,000	$224,367	$841,612
WBEA	$102,000	$-	$2,808,000
AZ Average	$68,968	$38,561	$882,360
Total	$2,045,868	$889,051	$6,602,535

Notes: AWC, CRAZ are excluded as they did not exist in 2007. Where no numbers are entered, no information was available

Appendix H

Revenue Sources (2008)



Note: WBEA's other contributions was $8,616,913. It cannot be seen on this chart as its scale is much larger.

2008	Alberta Environment grants	Other grants and contracts	Other contributions
BattleRWA	$187,500	$82,500	$-
BRBC	$465,000	$36,432	$377,398
LSWC	$392,000	$-	$-
MRWCC	$130,108	$110,516	$10,476
NSWA	$300,000	$470,657	$137,265
OWC	$231,100	$82,981	$2,273
RDRWA	$557,990	$117,925	$33,784
SEAWA	$181,173	$50,000	$6,624
WPAC Average	$305,609	$118,876	$70,978
ACAA	$-	$211,763	$5,550
CRAZ	$128,700	$286,048	$155,748
FAP	$75,650	$-	$712,383
LICA	$67,192	$145,866	$644,522
PAS	$109,547	$-	$115,491
PAMZ	$180,346	$-	$601,045
PASZA	$82,500	$-	$526,762
WCAS	$41,250	$219,476	$881,389
WBEA	$84,000	$-	$8,616,913
AZ Average	$85,465	$95,906	$1,362,200
Total	$3,214,056	$1,814,164	$12,827,623

Notes: AWC is excluded as it did not exist in 2007. Where no numbers are entered, no information was available

Appendix I

Revenue Sources (2009)

2009	Alberta Environment grants	Other grants and contracts	Other contributions
AWC	$250,000	$-	$-
BattleRWA	$250,000	$103,621	$10,482
BRBC	$359,000	$43,000	$204,032
LSWC	$140,000	$-	$140
MRWCC	$140,000	N/Ava	N/Ava
NSWA	$305,555	$116,013	$160,876
OWC	$144,500	$51,060	$3,458
RDRWA	$270,000	$131,320	$9,305
SEAWA	$158,000	N/Ava	N/Ava
WPAC Average	$224,117	$63,573	$55,470
ACAA	N/Ava	N/Ava	N/Ava
CRAZ	$156,000	$84,048	$100,000
FAP	$182,718	$-	$770,375
LICA	$52,882	$812,239	$788,380
PAS	$55,000	$-	$147,609
PAMZ	$99,196	$-	$654,588
PASZA	$110,000	$-	$642,285
WCAS	$55,000	$179,385	$725,881
WBEA	$112,000	$-	$10,237,767
AZ Average	$102,850	$134,459	$1,758,361
Total	$2,839,851	$1,520,686	$14,455,178

Notes: Where no numbers are entered, no information was available

Appendix J

Determination of Variance in Revenues and Expenses

Variance in revenues as a % of actual total revenues realized	2008	2009
CRAZ	-13%	N/Ava
ACAA	16%	N/Ava
PAMZ	N/Ava	-20%
BRBC	2%	0%
BRWA	N/Ava	11%
WCAS	N/Ava	-20%

Variance in expenses as a % of actual total expenses realized	2008	2009
CRAZ	-19%	7%
ACAA	62%	N/Ava
PAMZ	-10%	-18%
BRBC	10%	-20%
BRWA	0%	6%
WCAS	N/Ava	-59%

Notes:

Positive variance percentage shows that actual value exceeded the budgeted amount. This is good when considering revenues. On the other hand, negative variance in revenues indicates that organizations over-estimated their grants and other contributions.

Positive variance for expenses would indicate an increase in actual expenses compared to budgeted amounts. Negative variance in expenses indicates a decrease in actual expenses compared with budgeted amounts.

Appendix K

Qualitative Assessment for WPACs

		Battle RWA	Beaver RWA	BRBC	LSWC	MRWCC	NSWA	OWC	RDRWA	SEAWA
1. People										
1.1	Partnerships	Level 3	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 3
1.2	Volunteers	Level 2	N/Av a	Level 2	Level 2	Level 3	Level 2	Level 3	Level 2	Level 2
1.3	Key stakeholders	Level 2	Level 2	Level 2	Level 3	Level 3	Level 3	Level 2	Level 2	Level 2
2. Plans										
2.1	Operational, Business and Strategic Plan	Level 3	Level 3	Level 2	Level 3	N/Av a	Level 3	Level 2	Level 3	N/Av a
3. Organizational health										
3.1	Annual Reports (with financials)	Level 2	Level 1	Level 2	Level 2	Level 2	Level 3	Level 2	Level 2	Level 3
3.2	Budgets	N/Av ail	Level 2	Level 3	N/Av a	N/Av a	N/Av a	N/Av a	N/Av a	N/Av a
3.3	Leveraging of resources (financial contributions)	Level 1	Level 2	Level 2	Level 1	Level 1	Level 2	Level 1	Level 1	Level 1
3.4	Leveraging of resources (Volunteer/in-kind contributions)	N/Av a	N/Av a	Level 1	Level 2	Level 4	Level 4	Level 4	N/Av a	N/Av a
4. Organizational activities										
4.1	Community updates	Level 3	Level 1	Level 2	Level 2	Level 1	Level 2	Level 1	Level 2	Level 2
4.2	State of the Environment (or management like) reports	Level 2	Level 2	Level 2	Level 2	Level 2	Level 3	Level 1	Level 1	Level 2
4.3	Knowledge value and influence	Level 3	Level 3	Level 2	Level 2	Level 3	Level 3	Level 2	Level 3	Level 2
5. Organizational alignment with GoA goals										
5.1	Vision, Mission and objectives	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
5.2	Monitoring programs	Level 2	Level 2	Level 2	Level 2	Level 2	Level 3	Level 2	Level 2	Level 2

Appendix L

Qualitative Assessment for AZs

		ACAA	CRAZ	FAP	LICA	PAS	PAMZ	PASZA	WBEA	WCAS
1. People										
1.1	Partnerships	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	N/Ava	Level 2
1.2	Volunteers	Level 2	Level 2	Level 2	N/Ava	Level 2	Level 2	Level 3	N/Ava	Level 2
1.3	Key stakeholders	Level 2	Level 2	Level 2	N/Ava	Level 2	Level 2	Level 2	Level 2	Level 2
2. Plans										
2.1	Operational, Business and Strategic Plan	Level 2	Level 2	Level 3	N/Ava	N/Ava	Level 2	Level 3	N/Ava	N/Ava
3. Organizational health										
3.1	Annual Reports (with financials)	Level 2	Level 2	Level 3	Level 2	Level 3	Level 2	Level 3	Level 3	Level 2
3.2	Budgets	Level 2	Level 2	N/Ava	N/Ava	N/Ava	Level 2	N/Ava	N/Ava	Level 1
3.3	Leveraging of resources (financial contributions)	Level 1	Level 2	Level 4	Level 4	Level 4	Level 4	Level 4	Level 4	Level 4
3.4	Leveraging of resources (Volunteer/in-kind contributions)	Level 3	Level 4	N/Ava	N/Ava	N/Ava	Level 2	Level 2	N/Ava	N/Ava
4. Organizational activities										
4.1	Community updates	Level 1	Level 3	Level 2	Level 2	Level 3	Level 3	Level 3	Level 2	Level 2
4.2	State of the Environment (or management like) reports	Level 2	Level 2	Level 2	Level 2	Level 3	Level 3	Level 1	Level 2	Level 2
4.3	Knowledge value and influence	Level 1	N/Ava	Level 2	Level 2	Level 2	Level 3	Level 2	Level 3	Level 2
5. Organizational alignment with GoA goal										
5.1	Vision, Mission and objectives	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2
5.2	Monitoring programs	Level 2	Leve 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2	Level 2

Appendix M

Strengths of WPACs and AZs - Analysis

	According to ED or Program Manager	From our analysis
WPACs		
Battle RWA	Education, policy research and watershed management planning	Community outreach
Beaver RWA	Diversity of committees, ability of stakeholders to leave individual agenda outside, understanding watershed issues	Variety of monitoring projects
BRBC	Strong support of members, philosophical underpinning (collaborative nature) and positive work environment	Focus on one report/issue at a time resulting in in-depth analysis
LSWC	Multi-stakeholder and non-government model, high quality of staff, commitment of board members	High quality annual plans (operational, strategic and business plans) which are used as close guide for operations
MRWCC	Collaboration of different industries, providing and gathering knowledge and science	Engaging stakeholders and utilizing partnerships resulting in high level of in-kind contributions
NSWA	Intellectual capacity of the organization, dedication and commitment, credibility of the organization	Internally generated knowledge which is conveyed in an efficient manner
OWC	-	High level of volunteer support
RDRWA	Trust by people to share information and belief that the WPAC will take action based on those interests	Bring together various stakeholder groups and volunteers and establish trust
SEAWA	Support and quality of board members and support of members (financial and in-kind)	Innovation and leadership (e.g. SEAWA is currently putting together first web-based State of the Watershed reporting tool and indicators)
AZs		
ACAA	Consensus-based decision-making leading to trust, high level of commitment by members, offer a way for different jurisdictional authorities to work together	Identifying and achieving success factors
CRAZ	Relationship with stakeholders, commitment of people involved, learning organization	Strong relations with key stakeholders and growing organizational culture
FAP	Monitoring (providing quality data), informing and communicating air quality issues to stakeholders, operating in a framework that provides the information needed	Attract strong financial support from industrial associations

LICA	Strong scientific integrity, transparency and inclusiveness, innovation for communication and outreach	Ability to reach various stakeholders in the community
PAS	Governance model (stakeholder engagement), effective communication, building awareness of regional environmental qualities	Ability to engage industry personnel and leverage its credibility to raise funds for the organization
PAMZ	Responsive to issues of concern, credibility with all stakeholders, strong representation from public and ENGO sector	Specialization within organization with committees that have clearly defined goals
PASZA	Information and understanding with high-quality data, process (inclusive, transparent, collaborative, consensus-based), organizational design	Ability to attract large volunteer support and financial contribution from its members
WBEA	Leverage of resources, strong support of members, highly experienced staff	Abundance of resources and ability to leverage the knowledge and network of scientific members
WCAS	Governance model (stakeholder engagement), effective communication, building awareness of regional environmental qualities	Leverage its long history to raise substantial funds

Appendix N

Raw Data sans Open-ended questions

Respondents: 81 total

1. In my association with WPACs and AZs, I most closely associate myself with the following sector, organization or community:

Response	Percent
Alberta Environment	53%
Other GoA Ministry	2%
Industry	28%
Municipality	6%
Non-government organization	6%
Agricultural	2%
Aboriginal	2%
Other, please specify	2%

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2. What best describes your role in your sector, organization or community?

Response	Percent
Executive	11%
Management	36%
Technical	25%
Professional	23%
Volunteer	6%
Other, please specify	0%

---

3. I have currently been involved with this sector / organization / community for:

Response	Percent
Less than 1 year	4%
2 - 5 years	43%
More than 5 years	53%

---

4. Which organization do you work / volunteer with:

Response	Percent
Athabasca Watershed Council (AWC)	8%
Battle River Watershed Alliance (Battle RWA)	4%
Bow River Basin Council (BRBC)	4%
Lesser Slave Watershed Council (LSWC)	2%
Milk River Watershed Council Canada (MRWCC)	0%
North Saskatchewan Watershed Alliance (NSWA)	6%
Oldman Watershed Council (OWC)	2%
Red Deer River Watershed Alliance (RDRWA)	4%
South East Alberta Watershed Alliance (SEAWA)	4%
Alberta Capital Airshed Alliance (ACAA)	8%
Calgary Region Airshed Zone (CRAZ)	2%
Fort Air Partnership (FAP)	13%
Lakeland Industry & Community Association (LICA)	2%
Palliser Airshed Society (PAS)	4%
Parkland Airshed Management Zone (PAMZ)	9%
Peace Air Shed Zone Association (PASZA)	17%
West Central Airshed Society (WCAS)	4%
Wood Buffalo Environmental Association (WBEA)	9%

---

5. Which of the following do you feel most accurately describes your primary functional relationship / role with a WPAC and / or AZ.?

Response	Percent
Policy and strategy	25%
Statistical including data collection or use	6%
Compliance	6%
Assurance	0%
Management	6%
Board member / stakeholder relationships	9%
Other, please specify	9%

---

6. How long have you had a relationship with this WPAC or AZ?

Response	Percent
Less than 1 year	17%
2 - 5 years	51%
More than 5 years	32%

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7. In your opinion, what are the organization's key responsibilities?

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8. In which areas is this organization highly successful?

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9. In which areas can WPAC or AZ improve to add more value to stakeholders?

---

10. What are the tangible and intangible outputs and outcomes that WPAC / AZ provide related to?

---

11. How would you describe the importance of the WPAC or AZ relationship to your sector, community or organization?

Response	Percent
Very important	57%
Helpful and useful	34%
Interesting	9%
No significantly useful	3%
Not applicable	0%
Comments	9%

---

12. Rate your overall satisfaction with the outputs such as information, products and advice generated by WPACs / AZs

	Very satisfied	Satisfied	Neutral	Unsatisfied	Very unsatisfied
Relevance	57.14%	34.29%	5.71%	2.86%	0% (0)
Quality	34.29%	57.14%	8.57%	0%	0% (0)
Timeliness	34.29%	42.86%	17.14%	5.71%	0% (0)
Accessibility	62.86%	31.43%	5.71%	0%	0% (0)

---

13. Rate your agreement with the following statements for the WPAC / AZs in general.

	Strongly agree	Agree	Don' know	Disagree	Strongly disagree
Are aligned with current government policies and directions for air and water management	37.14%	51.43%	5.71%	5.71%	0% (0)
Add value to what our sector / community / organization needs to do	48.57%	40%	8.57%	2.86%	0% (0)
Is an effective way to interact with the community and/or stakeholders?	60%	40%	0% (0)	0% (0)	0% (0)
Are positively impacting management of water and air	25.71%	60%	11.43%	2.86%	0% (0)
Is a positive influence on reducing the footprint on the environment?	22.86%	48.57%	25.71%	2.86%	0% (0)
Should receive additional financial support from my sector / community / organization	31.43%	31.43%	31.43%	2.86%	2.86% (1)

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14. Rate how effective the current governance model used for WPACs / AZs is at:

Excellent	Very good	Good	Poor	Very poor	Don't know

Providing quality knowledge and information

12.12% 66.67% 15.15% 3.03% 0% (0) 3.03%

Influencing decision-making of government and stakeholders

9.09% 21.21% 42.42% 12.12% 0% (0) 15.15%

Delivering efficient monitoring programs

12.12% 39.39% 18.18% 9.09% 6.06% 15.15%

Promoting Government of Alberta air and water management goals and objectives

12.12% 36.36% 36.36% 3.03% 0% (0) 12.12%

Engaging stakeholders

30.3% 36.36% 24.24% 6.06% 0% (0) 3.03%

Creating strategic partnerships

24.24% 36.36% 24.24% 12.12% 0% (0) 3.03%

Involving, training and leveraging of volunteers

0% (0) 45.45% 33.33% 18.18% 0% (0) 3.03%

Providing cost savings to government and/or industry while meeting objectives

15.15% 27.27% 21.21% 15.15% 0% (0) 21.21%

Leveraging additional resources (including financial and in-kind)

6.06% 21.21% 42.42% 12.12% 3.03% (1) 15.15%

Gaining increased acceptance and action towards environmental management decisions

12.12% 30.3% 30.3% 12.12% 0% (0) 15.15%

Gaining increased goodwill and respect for environmental management in Alberta on a provincial, national and international basis

12.12% 36.36% 36.36% 3.03% 0% (0) 12.12%

15. What unique benefits does this current governance model for WPAC / AZs provide that would not be delivered via a different governance model (e.g. delivered by government)?

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16. What changes to the current governance model for WPAC / AZ would further enhance their ability to create greater value?

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17. Other comments or suggestions