

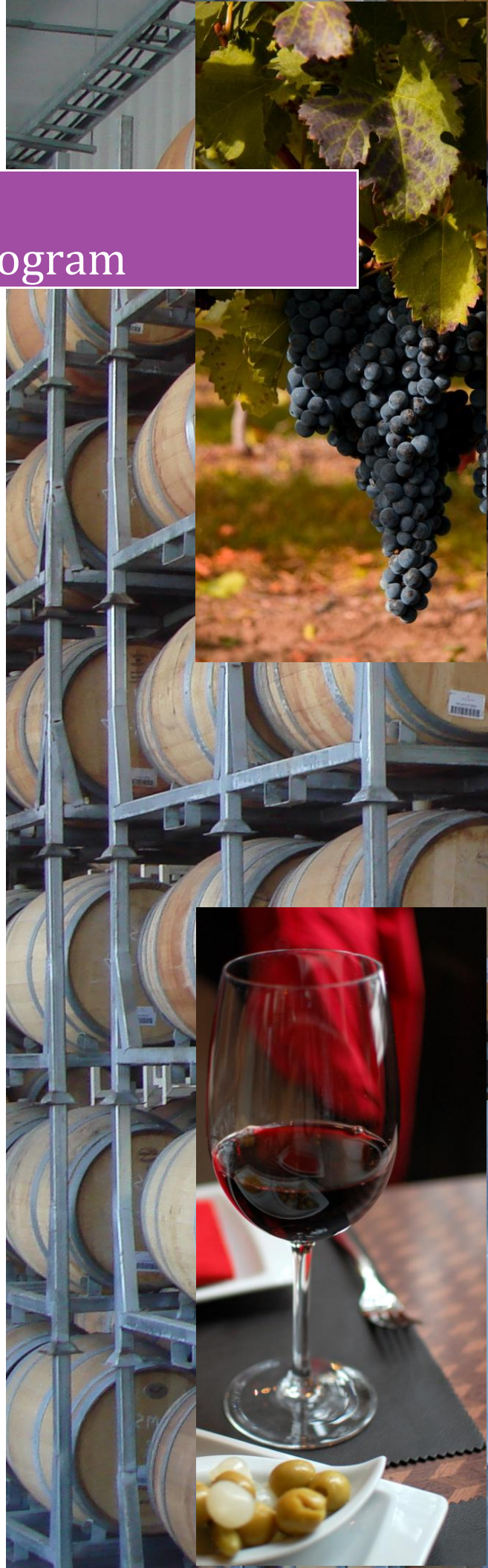
# British Columbia Sustainable Winegrowing Program

## 2011 PROGRESS REPORT

Prepared by  
Insight Environmental Consulting Ltd.

Prepared for  
BC Wine Grape Council Sustainable  
Practices Committee

July 2012



# Acknowledgements

## Program Participants

Kudos to the seven Okanagan vineyards and wineries who were the first to submit online assessments and therefore officially participate in the program:

- **Blasted Church Vineyards** (vineyard, winery and winery hospitality assessments)
- **Mission Hill Family Estate** (2 vineyard assessments)
- **Nk'Mip Cellars** (winery assessment )
- **Quails' Gate Winery** (vineyard and winery assessments)
- **St. Hubertus Estate Winery** (winery assessment)
- **Tantalus Vineyards** (winery assessment)
- **Tinhorn Creek Vineyards** (vineyard and winery assessments)

## Funders

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## Introduction

In early 2008, the British Columbia Wine Grape Council (BCWGC) identified through its members that a “made-in-BC” sustainable practices program was desired by the wine grape industry. The BCWGC Sustainable Practices Committee commissioned Insight Environmental Consulting to review existing sustainable practices programs from around the world. The BC Sustainable Winegrowing Program (BC SWP) was then developed using a number of compatible programs as a guide and with extensive research conducted by Insight and considerable input from committee members and external reviewers. The program was launched in July 2011.

The BC SWP consists of three self-assessments and reference guides that outline sustainable practices for vineyards, wineries, and winery hospitality services. The assessment results are used by each participant to create an action plan that contains practices they need to improve on, steps that can be reasonably taken to achieve the practices, when the actions can be taken, and how progress will be measured.

The goals of the program are to:

- provide a format for continual improvement to ensure a viable industry
- provide tools for measurement, analysis, feedback and reporting to allow the industry to continuously benchmark its performance
- establish high and verifiable standards for sustainability and communicate industry achievements to the public
- be an excellent resource

Contributors consistently expressed the desire to develop a program with substance that provides a concrete set of practices for grape growers, winemakers, and hospitality service providers to adopt at their discretion. Program participation is voluntary to start, with the eventual objective to introduce a certification and auditing system for formal recognition of achievement of the program standards.

Annual progress reporting is an important component of the program. The purpose of the progress report is to provide an inventory of program activities and participants and to give a brief overview of assessment results for that year.

Sustainability reports will be prepared every 3 to 5 years, depending on the level of participation. Sustainability reports will provide an in depth look at the assessment data, including identification of trends,

# Measures of Progress

## Communications and outreach

Communication and outreach activities for 2011 included:

- 2 workshops and 2 presentations held at the Enology and Viticulture Conference
- 3 workshops, held in Penticton, Langley, and Shawnigan Lake
- Press release issued in July 2011
- Articles in Orchard & Vine, BC Fruit Growers Magazine, Penticton Herald, and BCWGC newsletter and mention on CBC Radio
- Email correspondence with those listed on program distribution list (195 contacts)
- Meetings with industry groups

## Distribution of guidebooks

243 guidebooks were purchased:

- 172 vineyard
- 40 winery
- 31 winery hospitality

According to the 2011 BC Wine Grape Acreage Report, there are 864 vineyards and 210 wineries in BC. Therefore, 20% of vineyards and 19% of wineries purchased a guidebook.

## Registering of online assessment accounts

77 online assessment accounts were opened:

- 33 vineyard
- 26 winery
- 18 winery hospitality

## Submitted self-assessments

12 assessments were submitted:

- 5 vineyard
- 6 winery
- 1 winery hospitality

15% of vineyard, 23% of winery, and 6% of winery hospitality accounts opened actually submitted an assessment.

The results of the submitted vineyard and winery assessments are presented below.

# Overview of Assessment Results

## Data Analysis

Data were exported from the online assessment tool and analysed using Microsoft Excel. The percent scores were lumped into four categories: 0-25%, 26-50%, 51-75%, and 76-100%. Graphs were produced that show the percentage of respondents in each score category. Overall chapter percent scores, maximum, minimum and average chapter percent scores, and percent scores for each chapter section were prepared. This method of data presentation was chosen because it clearly shows what areas of sustainability the majority of participants are excelling in (i.e., score category 76-100%), and what issues need to be addressed (i.e., score category 0-25%).

## Limitations in Interpreting Results

This report has limitations which should be considered when interpreting the results. Firstly, it is not possible to know when responses reflect actual behavior. This disadvantage applies to all survey and assessment studies. Secondly, a relatively small number of vineyards and wineries submitted assessments in 2011. This limitation, coupled with the fact that these results are not drawn from a random sample of growers and winemakers, means that these data are not applicable to the entire British Columbia vineyard and winery community. These data do, however, provide a benchmark that can be built on in future years.

In light of these limitations, the results of the 2011 assessments are presented with minimal interpretation.

Graphs were not produced for winery hospitality services because only one assessment was submitted.

## Vineyard Sustainable Practices

### *Overall Chapter Scores*

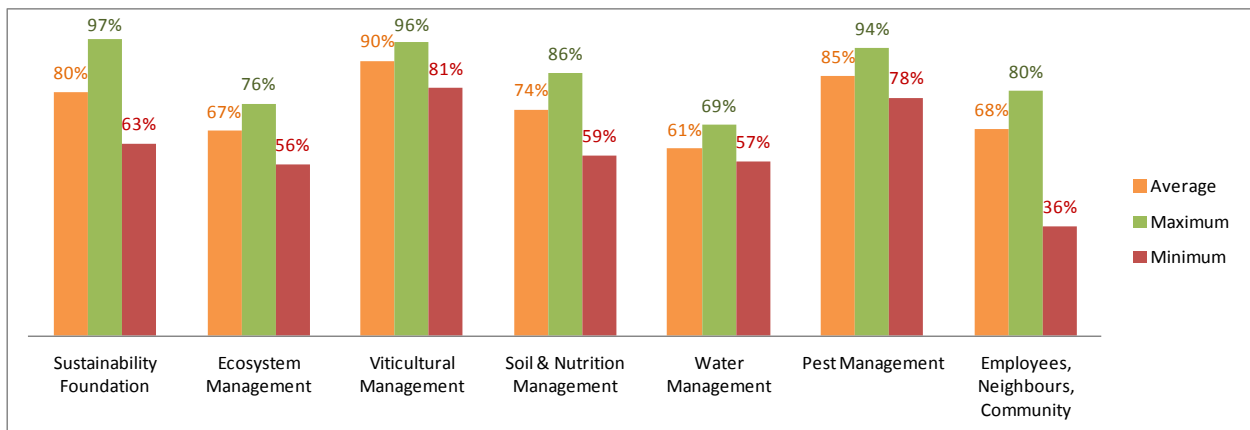
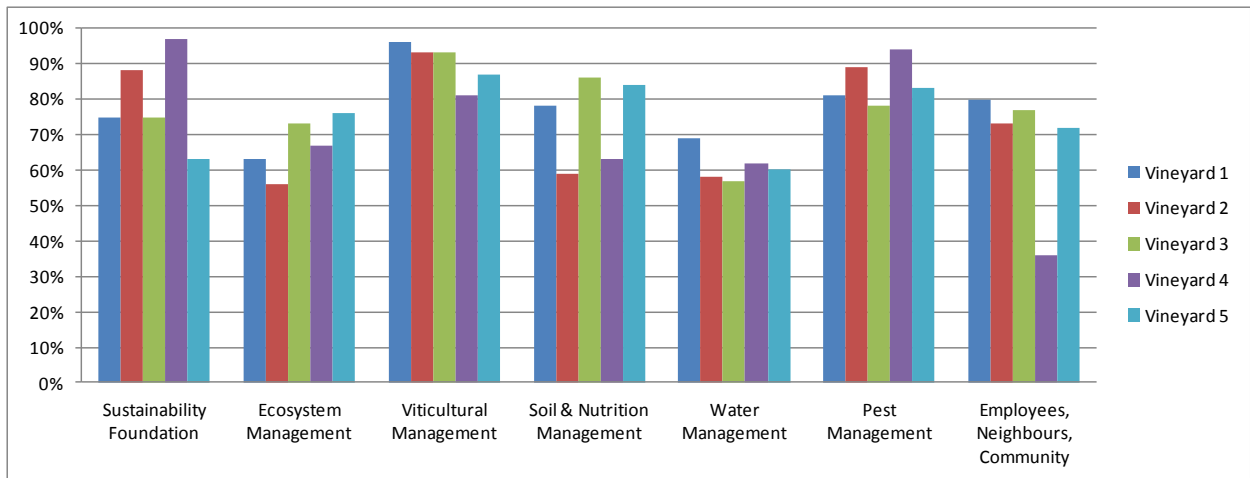
#### **Areas of excellence:**

- Viticultural management and pest management

#### **Opportunities for improvement:**

- Ecosystem management and water management





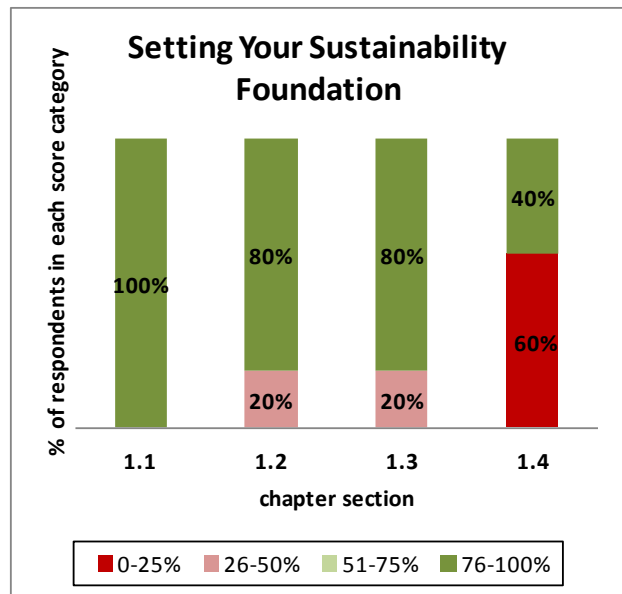
## Chapter 1 Setting Your Sustainability Foundation

### Areas of excellence:

- 1.1 Land base - mapping and description

### Opportunities for improvement:

- 1.4 Creating a sustainability mission statement



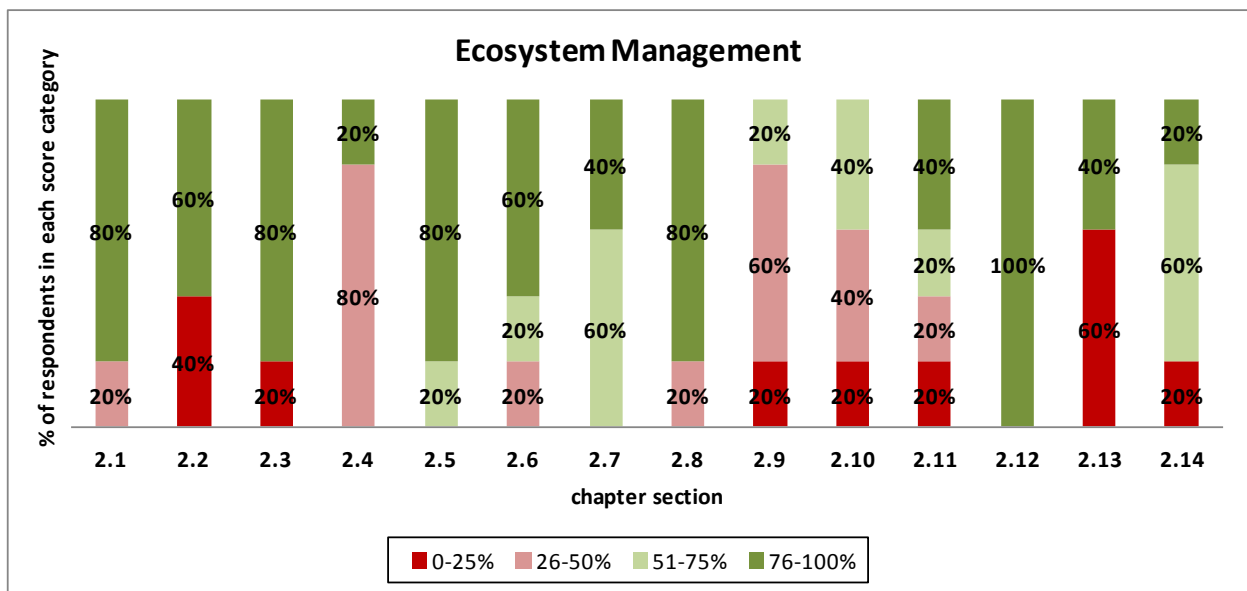
## Chapter 2 Ecosystem Management

### Areas of excellence:

- 2.1 Identifying biogeoclimatic zone
- 2.3 Identifying wildlife
- 2.5 Minimizing land clearing
- 2.8 Protecting wetlands and other aquatic habitat
- 2.12 Preventing pollution

### Opportunities for improvement:

- 2.4 Choosing your site
- 2.9 Connecting your land with neighbouring landscapes
- 2.13 Communicating practices to employees and contractors



## Chapter 3 Viticultural Management

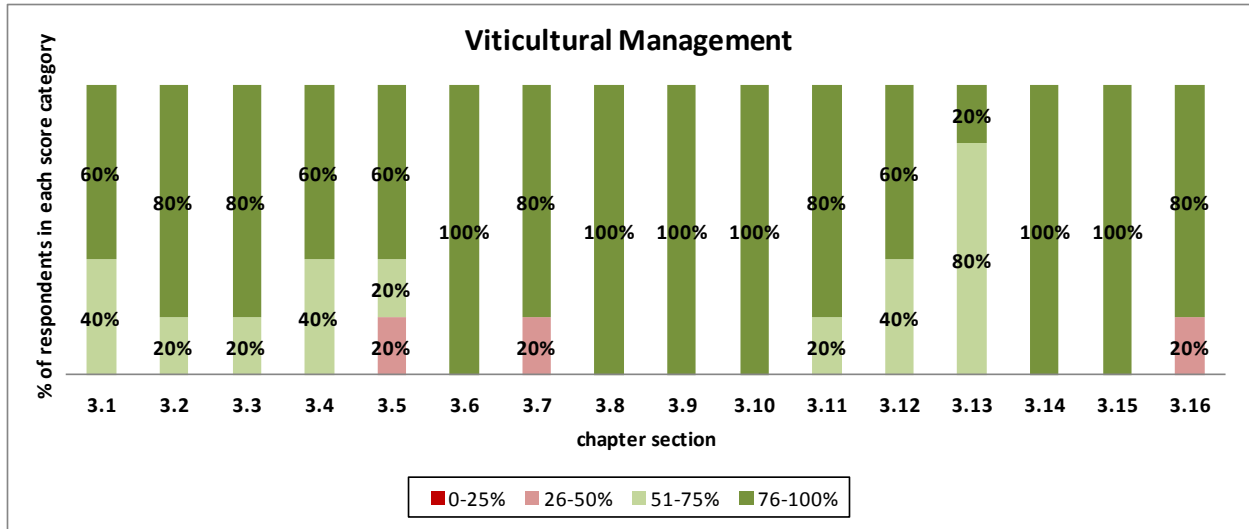
### Areas of excellence:

Good scores in all sections

### Opportunities for improvement:

- 3.5 Water quality and irrigation
- 3.7 Plant certification
- 3.16 Vineyard decommissioning





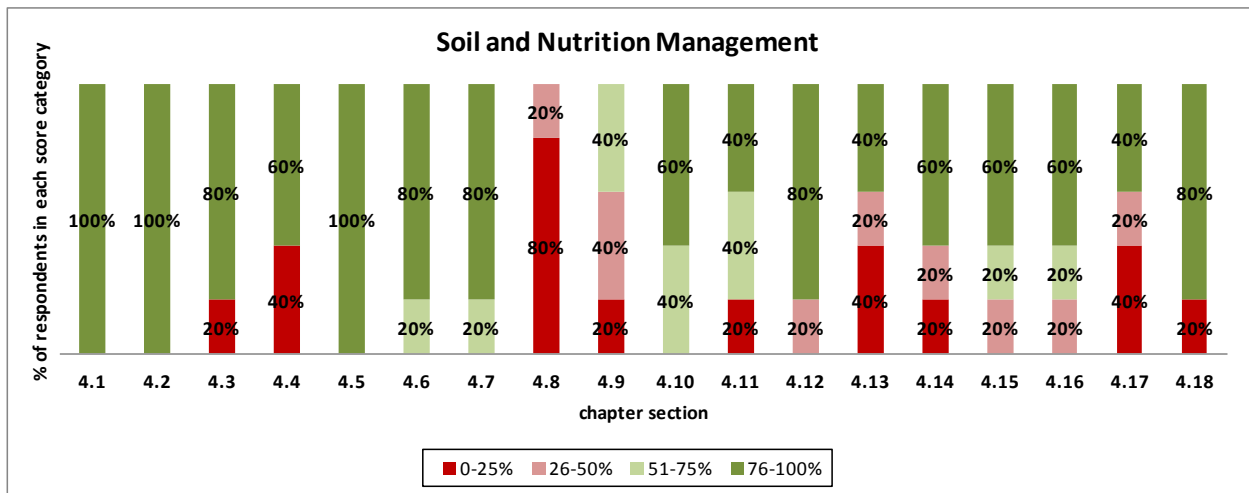
## Chapter 4 Soil and Nutrition Management

### Areas of excellence:

Good scores in most sections

### Opportunities for improvement:

- 4.8 Water sampling and analysis
- 4.13 Review and update of nutrient management plan
- 4.17 Soil compaction



## Chapter 5 Water Management

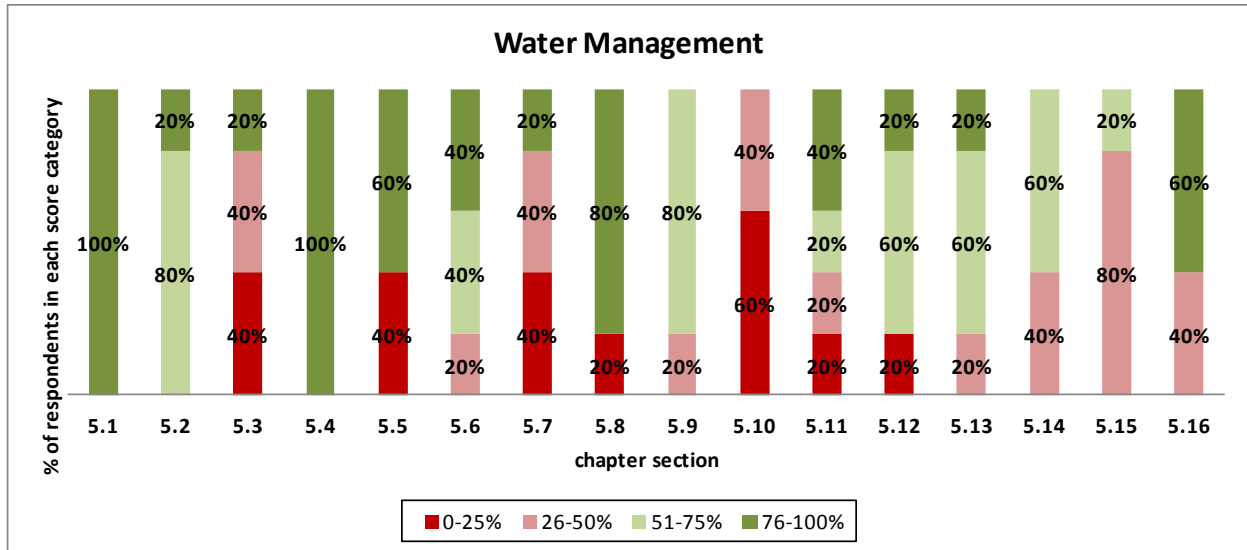
### Areas of excellence:

- 5.1 The water cycle
- 5.4 Backflow prevention

## 5.8 Delineating irrigation zones

### Opportunities for improvement:

- 5.3 Water quality testing and analysis
- 5.7 Flow meters
- 5.10 Pump efficiency
- 5.15 Runoff



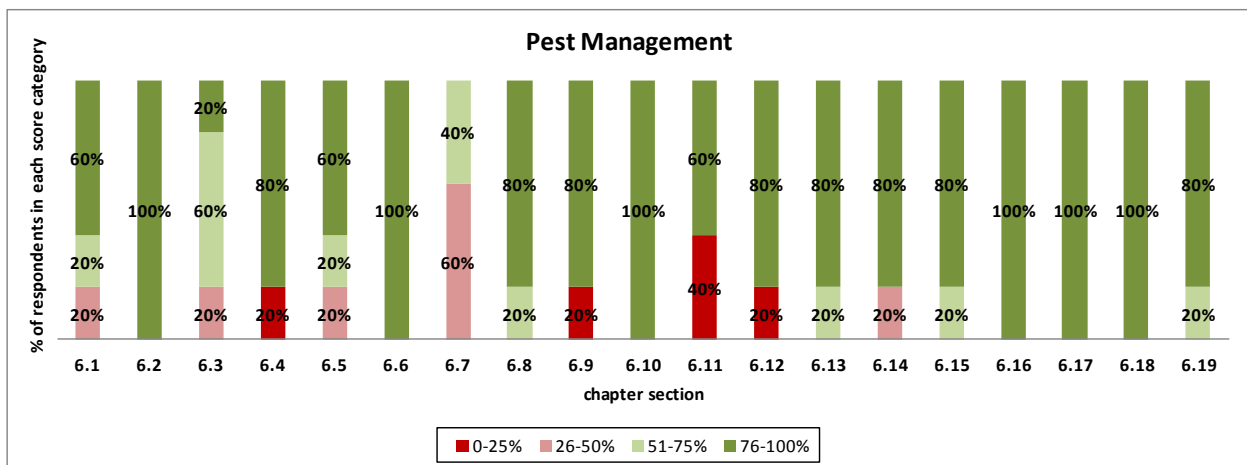
## Chapter 6 Pest Management

### Areas of excellence:

Good scores in most sections

### Opportunities for improvement:

- 6.7 Integrated weed management
- 6.11 Deer and elk



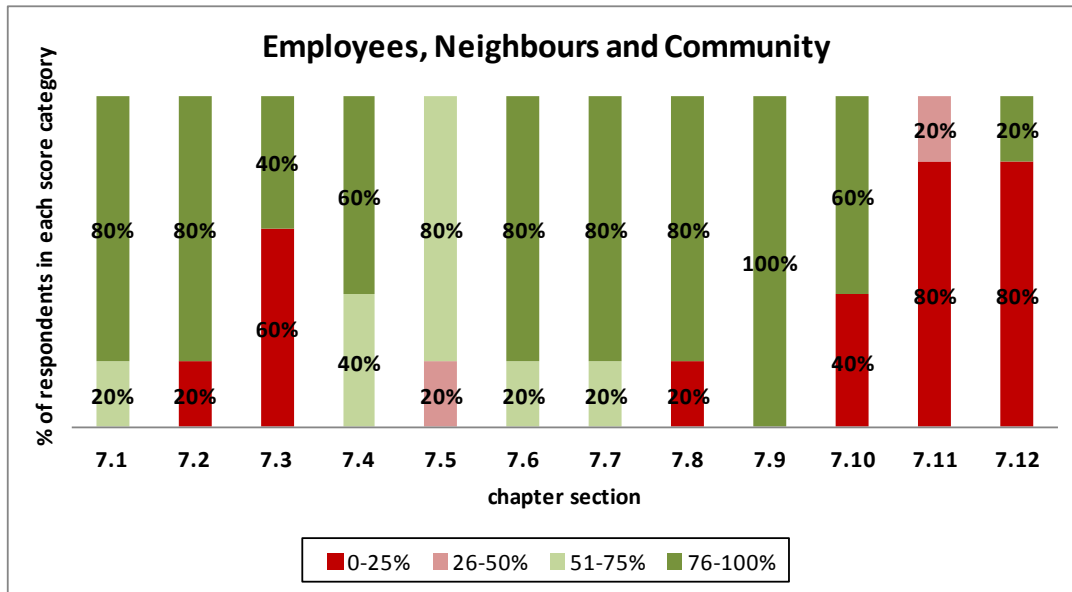
## Chapter 7 Employees, Neighbours and Community

### Areas of excellence:

Good scores in most sections

### Opportunities for improvement:

- 7.3 Employee handbook
- 7.10 Identifying potential concerns
- 7.11 Outreach and communication
- 7.12 Responding to complaints



## Winery Sustainable Practices

### Overall Chapter Scores

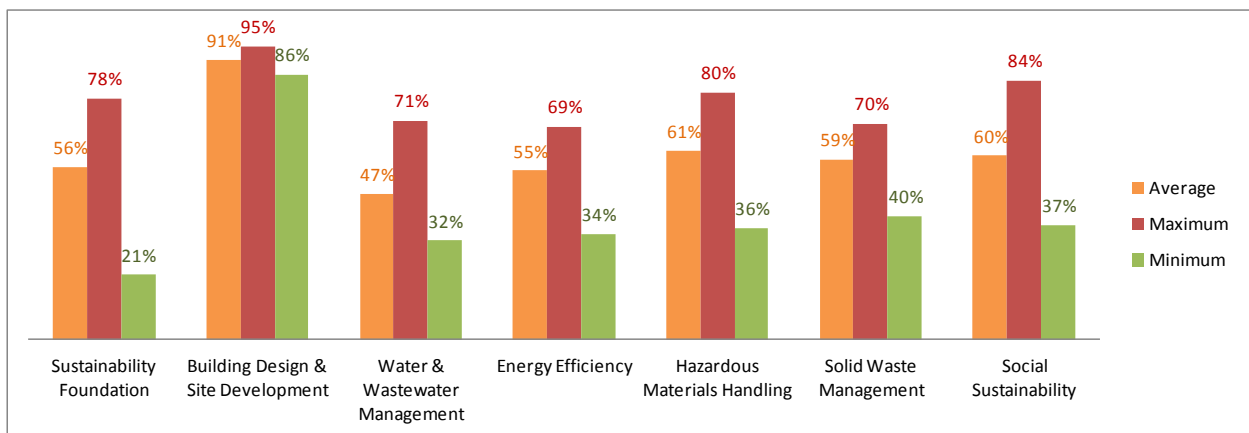
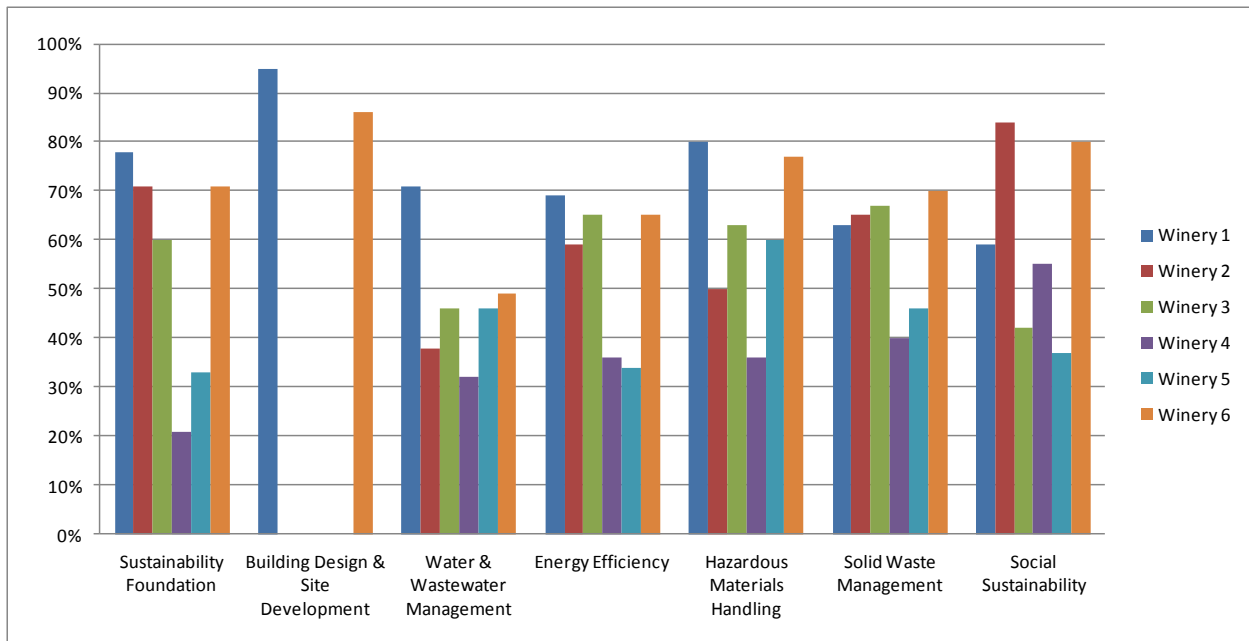
*Note: Chapter 2 is intended to be completed by wineries that are constructing a new winery or renovating an existing winery. Only 2 wineries completed Chapter 2 so it is not included in the data interpretation for 2011*

### Areas of excellence:

Average scores were relatively low in all chapters (61% and lower)  
Hazardous materials management had the best score

### Opportunities for improvement:

Water and wastewater management and energy efficiency



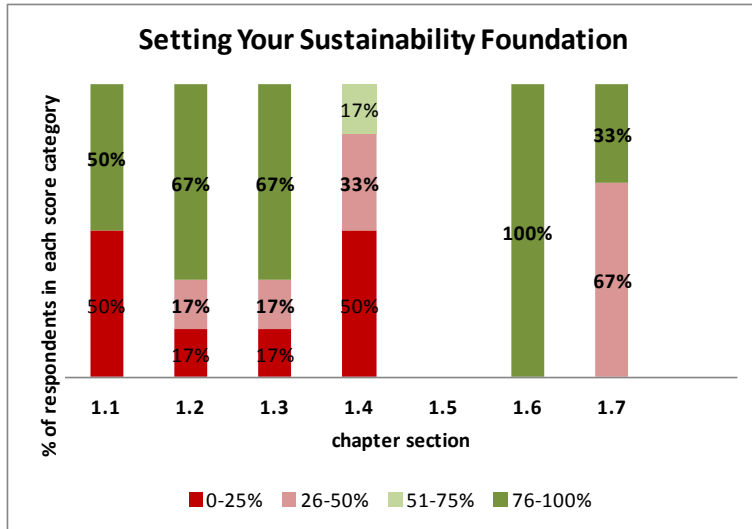
## Chapter 1 Setting Your Sustainability Foundation

### Areas of excellence:

- 1.6 Working with industry associations

### Opportunities for improvement:

- 1.1 Creating a sustainability mission statement
- 1.4 Production process diagrams
- 1.7 Working with consultants and environmental organizations



\*note: due to an entry error, section 1.5 business planning was not included in the 2011 online assessment but will be included in future assessments

## Chapter 2 Building Design and Site Development

Note: Chapter 2 is intended to be completed by wineries that are constructing a new winery or renovating an existing winery. Only 2 wineries completed Chapter 2 in 2011 so it is not included in this report.

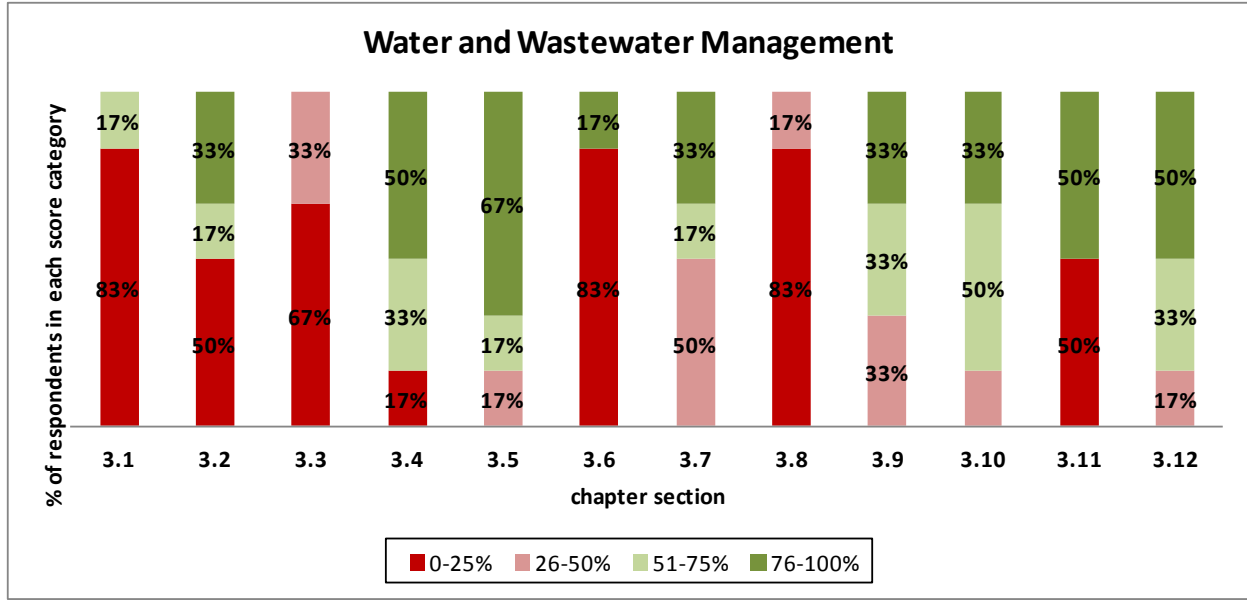
## Chapter 3 Water and Wastewater Management

### Areas of excellence:

- 3.4 Knowing your watershed
- 3.5 Incoming water quality
- 3.11 Stormwater runoff
- 3.12 Drainage

### Opportunities for improvement:

- 3.1 Water and wastewater assessment and planning
- 3.2 Training and incentives
- 3.3 Monitoring and record-keeping
- 3.6 Wastewater quality
- 3.8 Recycling and reusing water
- 3.11 Stormwater runoff



## Chapter 4 Energy Efficiency

### Areas of excellence:

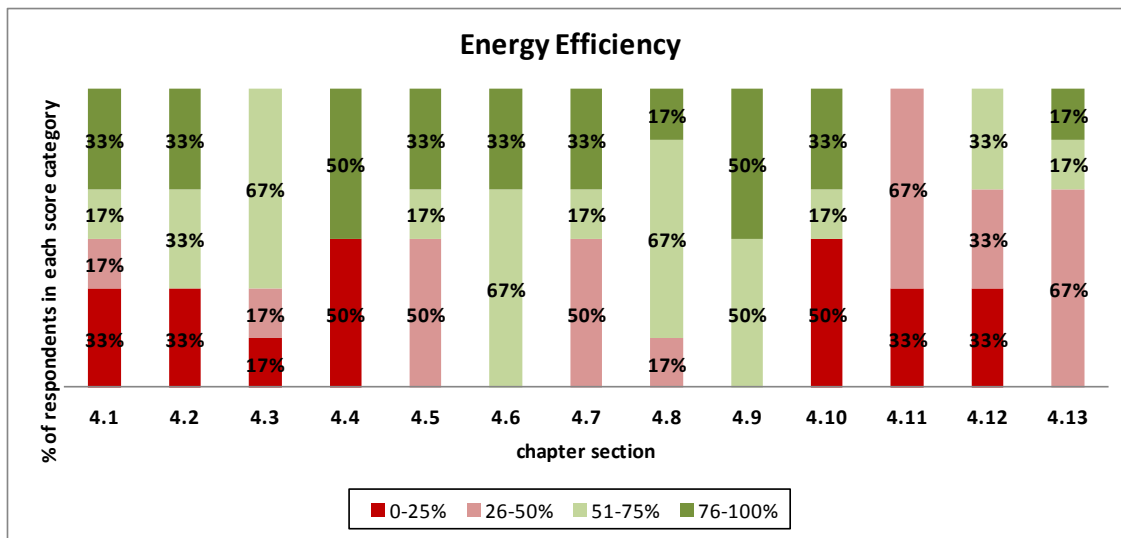
4.9 Refrigeration systems, tanks and lines

### Opportunities for improvement:

4.4 Purchasing

4.10 Renewable energy sources

4.11 Alternative fuels



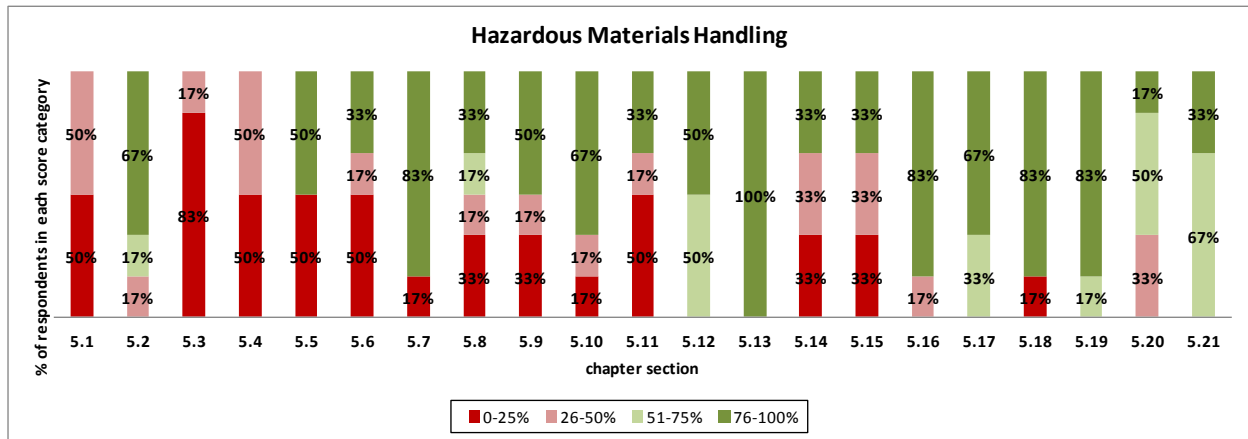
## Chapter 5 Hazardous Materials Handling

### Areas of excellence:

- 5.7 Good operating practices
- 5.13 Electronic waste
- 5.16 Landscaping chemicals
- 5.18 Waste bin area housekeeping
- 5.19 Employee safety

### Opportunities for improvement:

- 5.1 Materials assessment and planning
- 5.3 Monitoring and record-keeping
- 5.4 Product changes
- 5.5 Input material changes
- 5.6 Technology or process changes
- 5.11 Tires, batteries, oils, paints and coatings



## Chapter 6 Solid Waste Management

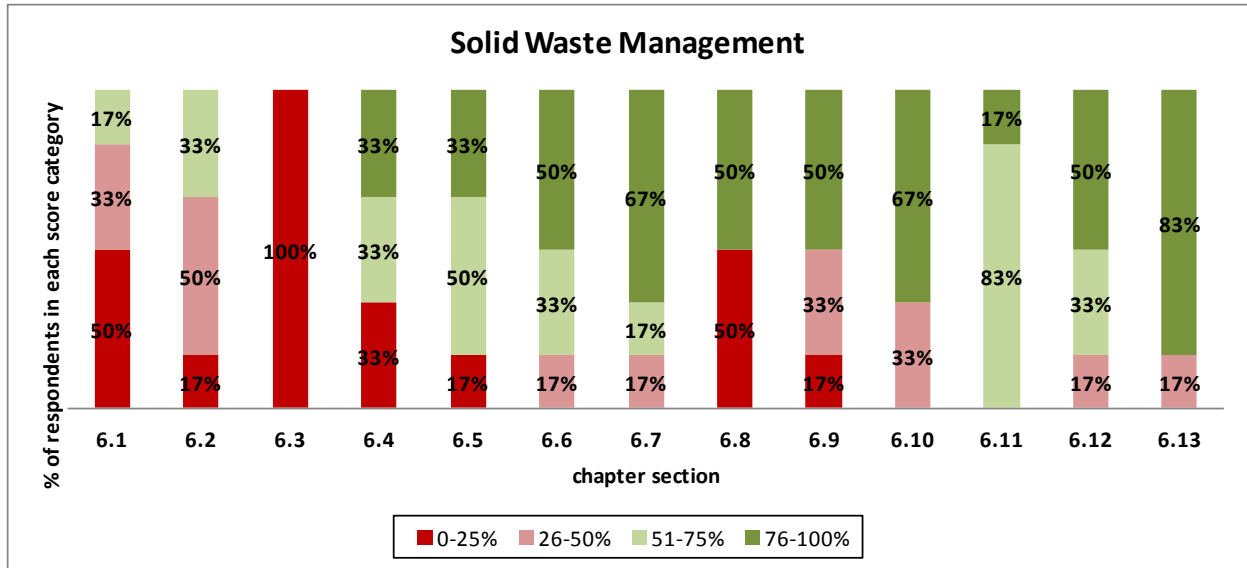
### Areas of excellence:

- 6.7 Barrels
- 6.13 Landscaping waste

### Opportunities for improvement:

- 6.1 Solid waste assessment and planning
- 6.3 Monitoring and record-keeping
- 6.8 Bottles and other glass





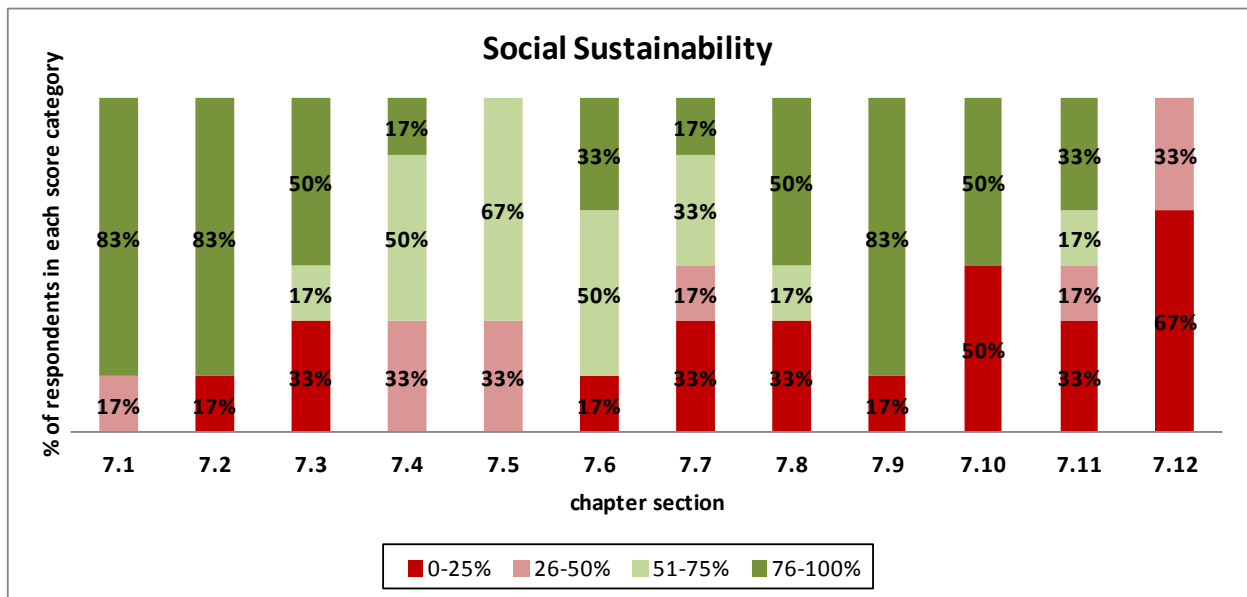
## Chapter 7 Social Sustainability

### Areas of excellence:

- 7.1 Staffing and recruiting
- 7.2 Employee orientation
- 7.9 Documentation and record-keeping

### Opportunities for improvement:

- 7.10 Identifying potential concerns
- 7.12 Responding to complaints



## Praise for the Program

“The current program with its online assessment is a very large step in a positive direction. It gives me hope that the Canadian wine industry can follow and even surpass regions leading the way in sustainability like Oregon and all of New Zealand. I hope that with the success of this program we will be able to progress to sustainable winery certification in the near future.”

- David Paterson, Winemaker, Tantalus Vineyards

"We look upon this program as an important first step in establishing a road map to operating our business in a more environmentally sustainable manner. I was very impressed with the content and presentation of the program. As an industry we are fortunate to have such a professionally developed tool so readily available."

- Randy Picton, Winemaker, Nk'Mip Cellars

“At Mission Hill Family Estate, we have been using bits and pieces of the New Zealand program to guide our grape growing practices. The BC program provides a better framework that will enable us to quantify our current level of sustainability, identify areas where we can improve, and communicate our good work to our customers.”

- Graham O'Rourke, Viticulturist, Mission Hill Family Estate

“Economic viability is an essential aspect of sustainability - the BC program includes important information on business development and outlines practices that will help to increase quality while cutting operating costs.”

- Sandra Oldfield, Winemaker & CEO, Tinhorn Creek Vineyards

## Looking Forward

The following activities are planned or are being considered for the BC SWP:

- Prepare a long-term plan for program administration and funding
- Enhance partnerships with industry organizations, research scientists, educational institutes, and government
- Prepare a marketing and communications plan (include ideas for methods of acknowledging participants such as a program logo to use as desired, plaque to hang in tasting room, etc.)
- Develop a certification and auditing system
- Look into the feasibility of an Online Performance Metrics calculator to measure, manage and track use of natural resources (e.g., water & energy use, greenhouse gas emissions)
- Continue outreach efforts such as workshops and presentations
- Improve program website
- Provide targeted education events based on assessment results
- Offer on-site assistance for implementation of sustainable practices
- Look into sources of funding for sustainable practices and provide information to participants