



**WINE INSTITUTE**  
THE VOICE FOR CALIFORNIA WINE



# **THE CODE OF SUSTAINABLE WINEGROWING WORKBOOK**

**SECOND EDITION**

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**A PROJECT OF**

**CALIFORNIA SUSTAINABLE WINEGROWING ALLIANCE**

**WINE INSTITUTE**

**AND**

**CALIFORNIA ASSOCIATION OF WINEGRAPE GROWERS**

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## **SUSTAINABLE WINEGROWING JOINT COMMITTEE**

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The Sustainable Winegrowing Joint Committee was brought together by Wine Institute and California Association of Winegrape Growers to provide leadership and guidance for the development of the Code of Sustainable Winegrowing Practices Workbook. The committee includes more than 50 members from Wine Institute and CAWG, along with representatives from the California Environmental Protection Agency and independent consultants. This advisory group continues to provide input to the Sustainable Winegrowing Program. For instance, the Joint Committee contributed to the development of the 2004 California Wine Community Sustainability Report and the new Air Quality chapter.

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\*Joint Committee members during drafting of the first edition of the workbook.

## **ABOUT CALIFORNIA SUSTAINABLE WINEGROWING ALLIANCE**

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The California Sustainable Winegrowing Alliance (CSWA) is a San Francisco-based 501(c)(3) nonprofit organization incorporated in 2003 that was created to conduct public outreach on the benefits of widespread adoption of sustainable winegrowing practices, to enlist industry commitment, and to assist in effective implementation.

CSWA's mission is to ensure that the California wine community is recognized as a change leader in the global marketplace. CSWA continues to aggressively develop partnerships for funding education and outreach to advance the adoption of the Sustainable Winegrowing Program. The result of this work will be a healthier environment, stronger communities, and vibrant businesses.

## **ABOUT WINE INSTITUTE**

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Wine Institute is the association of almost 1,000 California wineries and affiliated businesses whose members account for 95 percent of California wine production and 85 percent of US wine production. Established in 1934, the organization is dedicated to initiating and advocating state, federal, and international public policy to enhance the environment for the responsible consumption and enjoyment of wine. Wine Institute seeks to broaden public understanding of the wine industry and its role in the American economy, lifestyle, and culture. Based in San Francisco with offices in Sacramento, Washington, DC, and six regions across the US and with representatives in all states and 10 foreign countries, Wine Institute is the oldest public policy organization representing wine in the US.

To advance the goal of global leadership in sustainable winegrowing, Wine Institute contributes significant staff time and resources to the Sustainable Winegrowing Program. The Wine Institute also publishes and distributes newsletters about the program, which can be downloaded at <http://www.wineinstitute.org>. In addition, the Institute participates in several alliances – including the California Environmental Dialogue and the California Council for Economic and Environmental Balance – that bring together various stakeholders to concentrate on sustainability, land use policy, and other environmental, population, and growth-related issues affecting California.

## **ABOUT CALIFORNIA ASSOCIATION OF WINEGRAPE GROWERS**

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The mission of the California Association of Winegrape Growers (CAWG) is to provide industry leadership to advocate public policies, research and education programs, sustainable practices, and trade positions to improve the viability of winegrape growing as an essential contributor to California's economy, culture, and landscape. CAWG's membership represents the growers of approximately 60 percent of the total annual grape crush.

CAWG co-hosts the annual Unified Wine & Grape Symposium to deliver information and ideas for continual improvement of the state's wine community, and sponsors research and development of publications such as *Growers' Guide to Environmental Regulations & Vineyard Development*, *California Vineyards & Wildlife Habitat*, *Summary of the Labor Law Requirements for Winegrape Growers*, and *The Winegrape Guidebook for Establishing Good Neighbor and Community Relations*. CAWG has also played a leading role in the National Grape & Wine Initiative, a strategic research, education, and outreach plan to stimulate innovation and accelerate best practices adoption to help the wine community increase market share and be a world leader in value and sustainability while contributing to quality of life in rural communities.

## **ACKNOWLEDGEMENTS**

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The Code of Sustainable Winegrowing Practices Workbook, a key component of the Sustainable Winegrowing Program, builds on the impressive work in sustainable practices by many regional winegrowing and vintner associations, wineries and vineyards, individual viticulturists and winemakers, industry professionals, researchers, government agencies, innovative regulators, and environmental organizations involved in the California wine community. Overall leadership and guidance for the program is provided by the California Sustainable Winegrowing Alliance (CSWA) board of directors, comprised of representatives from Wine Institute and CAWG.

Leadership and guidance for the development of this workbook was provided by Wine Institute, CAWG, and the Sustainable Winegrowing Joint Committee. The Joint Committee members dedicated a remarkable amount of expertise, experience, and time to the development and revision of this workbook, demonstrating a commitment to ensuring that California is the global leader in defining, implementing and documenting adoption of sustainable winegrowing.

Robert P. Koch, President, Wine Institute, Karen Ross, President, CAWG, and John De Luca, former President of Wine Institute, have shown extraordinary leadership through their vision, expertise, passion, and commitment to the program. These individuals, along with CSWA, Wine Institute, and CAWG board of directors, have demonstrated what can be accomplished through meaningful collaboration among the state's winegrape growers and vintners.

The expertise and dedication provided by the staff at Wine Institute and CAWG, and more recently by CSWA staff, have also been outstanding. In particular, Gladys Horiuchi, Wine Institute Communications Manager, Lisa Francioni, Wine Institute Communications & Research Coordinator, and Joe Browde, CSWA Project Manager, were instrumental in the production of the workbooks.

### **SureHarvest**

Wine Institute and CAWG contracted SureHarvest (formerly *RealToolbox*), a sustainability professional services and information technology firm, to help staff the Sustainable Winegrowing Joint Committee, coordinate the authoring and editing of this workbook, design the implementation program, and design and build the software system used to manage the self-assessment data and generate benchmark reports for individual winegrowers, wineries, regional groups, and statewide reporting.

SureHarvest provides sustainability professional services and information technology to projects dedicated to the environmental, economic, and social sustainability of managed and natural ecosystems. The staff and consultants at SureHarvest possess broad expertise, knowledge, and relationships in sustainable agriculture, environmental issues, and software engineering. Project teams have solid field experience as well as broad academic scholarship that provides rigor and credibility to their approaches and outcomes. The company works with clients to define desired outcomes, select or develop appropriate natural and social science methods and software tools, and collaboratively achieve results.

## **Regional Participation**

The first five self-assessment chapters (Viticulture, Soil Management, Water Management, Pest Management, and Wine Quality) were adapted from Lodi-Woodbridge Winegrape Commission's *Lodi Winegrower's Workbook* (Ohmart and Matthiasson, 2000). The Lodi-Woodbridge Winegrape Commission combined elements of the Central Coast Vineyard Team's *Positive Points System*<sup>5</sup> (Central Coast Vineyard Team, 1996 and 1998), new winegrowing content, and a four-category self-assessment format developed by Farm\*A\*Syst<sup>6</sup> to produce the *Lodi Winegrower's Workbook*. We thank the Central Coast Vineyard Team for their pioneering work on vineyard self-assessment and their willingness to share information contained in their *Positive Points System*.

We are especially thankful to the Lodi-Woodbridge Winegrape Commission for allowing the Sustainable Winegrowing Joint Committee to directly adapt the chapter style and content from the *Lodi Winegrower's Workbook* for this workbook. This generous act demonstrates the Commission's commitment to cooperation with the California wine community and desire to see widespread adoption of sustainable winegrowing.

The process of adapting the Viticulture, Soil Management, Water Management, Pest Management, and Wine Quality chapters from the *Lodi Winegrower's Workbook* included extensive input from the Sustainable Winegrowing Joint Committee and regional grower and vintner associations and review groups. The regional grower and vintner groups and the individuals involved in the adaptation process are presented below. Many of these groups are also current partners in the program.

**Sonoma County Grape Growers Association** (now Sonoma County Winegrape Commission) – Nick Frey, Executive Director; Laura Breyer, vineyard consultant; Rhonda Smith, Viticulture Farm Advisor, Sonoma County; Duff Bevill, Owner, Bevill Vineyard Management; and Keith Horn, Vineyard Manager, Clos Du Bois. **Santa Cruz Mountains Winegrowers Association** – anonymous comments. **Lake County Winegrape Commission** – Shannon Gunier, Executive Director; Rick Gunier, Marketing Director; Frank Anderson, General Manager, Beckstoffer Vineyards; Eric Seely, Vineyard Manager, Amber Knolls Vineyard; Brian Greer, Owner, Rolling Knolls; and Glenn McGourty, Farm Advisor, Mendocino and Lake Counties. **Calaveras Grape Growers Association** – Steve Collum, Gerber Vineyards.

**Napa Valley Grape Growers Association (NVGGA), Napa Valley Vintners (NVV), and Napa Sustainable Winegrowing Group (NSWG)** in a joint meeting - Sandra Ellis, Executive Director, Napa Valley Farm Bureau; Becky Peterson, Director of Industry and Public Relations, NVV; Jeri Hansen, Public Affairs Manager, NVV; Frank Leeds, Vice President, Frog's Leap; Zack Berkowitz, Consultant; Mitchell Klug, Director of Vineyard Operations, Premier Pacific Vineyards; Astrid C. Bock-Foster, Soil Conservationist, Napa Valley Resource Conservation District; and Volker Eisele, Owner, Volker Eisele Vineyard Estate.

**Central California Review Group** – Jon Holmquist, Constellation Wines US; Bryan Anthony, formerly Gallo Vineyards; Ron Brase, AgQuest Consulting; Robert Wample, Fresno State

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<sup>5</sup> Information about the Central Coast Vineyard Team and the *Positive Point System* can be found at <http://www.vineyardteam.org>.

<sup>6</sup> Information about Farm\*A\*Syst can be found at <http://www.wisc.edu/farmasyst>.

Department of Viticulture and Enology and the Viticulture and Enology Research Center; Carson Smith, Golden State Vintners; Gary Wilson, Wilson Ag; and Steve Schafer, Schafer Ranch, Inc.

**Central Coast Review Group** – Robert LaVine, Fetzer Vineyards; Pebble Smith, James Berry Vineyard; George Donati, Pacific Vineyards; Doug Beck, Hampton Farming Company; Bob Johnson, Kendall-Jackson Wine Estates; Craig MacMillan, formerly MacMillan Wine Company; Matt Heil, Robert Mondavi Winery; John Crossland, Crossland Vineyards; Daryl Salm, Valley Farm Management; and Dan Lompa, Scheid Vineyards.

The remaining initial eight chapters (Ecosystems Management, Energy Efficiency, Winery Water Conservation and Quality, Material Handling, Solid Waste Reduction and Management, Environmentally Preferred Purchasing, Human Resources, and Neighbors and Communities) were developed for the Sustainable Winegrowing Program by gathering input from the Sustainable Winegrowing Joint Committee, conducting an extensive literature review, and drawing upon the expertise of the SureHarvest consulting team. Particularly useful sources of information on sustainable winery operations included the Sonoma County Green Business Program<sup>7</sup>, Winery Eco-Efficiency Assessment Guide (Business for Social Responsibility, 1998), and the California EPA's Environmental Management Systems pilot project<sup>8</sup> on wineries.

### **External Stakeholder Participation**

A draft of the initial 13 chapters was sent to more than 70 individuals representing a wide range of government agencies, academic institutions, nonprofit environmental and social equity organizations, and viticulture and winery owners, managers, and consultants. The Sustainable Winegrowing Joint Committee received comments back from 31 people. These comments have significantly improved the content and style of this workbook and we are very grateful for the time and attention that the reviewers dedicated.

External reviewers from the private sector included Matt Atkinson, Range Manager, Benziger Winery; Lisa Bishop Forbes, Winemaker, Chalk Hill Winery; Ron Brase, Consultant, AgQuest Consulting; and Julie Nord, Owner, Nord Coast Vineyard Services. All of these individuals provided extremely helpful and practical comments that have improved the usefulness of this workbook.

We thank Bill Lyons, former Secretary, California Department of Food and Agriculture (CDFA), for his support of the project and encouragement of senior managers and staff to review this workbook. Valerie Brown, Deputy Secretary, CDFA, provided thoughtful and detailed comments on the entire workbook that improved the quality of information and overall workbook style. Steve Shaffer, Director, Agriculture and Environmental Policy, CDFA, also submitted useful comments.

Cathy Bleier, Special Assistant on Salmon and Watersheds from the office of Mary Nichols, former Secretary of Resources, provided targeted suggestions for improving sections dealing with the protection and conservation of natural resources, particularly aquatic habitats. Similar comments

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<sup>7</sup> For more information, see <http://www.sonoma-county.org/eservice/Cklist.htm>.

<sup>8</sup> For more information, see <http://www.calepa.ca.gov/EMS/Publications/pilots/wine0600.htm>

were received from Scott Gergus, Associate Engineering Geologist, North Coast Regional Water Quality Control Board.

Tom Lanphar, former Senior Hazardous Substance Scientist, from Cal/EPA Environmental Management and Sustainability Program, offered comments to increase the sustainability content of several sections. Mike Noggle, Winery Account Manager, PG&E, reviewed the Energy Efficiency chapter. Andy Parsons, Department of Emergency Services, Sonoma County, reviewed the Material Handling Chapter and provided additional material handling resources. JoAnne Dlott, Vice President of Human Resources, Seaside Company, reviewed and provided constructive comments on the Human Resources chapter.

At the federal level, Lori Ann Thrupp, former Senior Scientist, Agricultural Initiative, US EPA Region 9, reviewed the entire workbook and submitted an excellent set of constructive comments. In 2005, Ann Thrupp became the Managing Director of CSWA. Kendra Baumgartner, Researcher, USDA ARS, offered many helpful comments and updated the section on *Armillaria* root disease.

From the environmental nonprofit community, we were very fortunate to receive excellent technical comments, particularly on the ecosystem management chapter, from Mark Reynolds, Senior Project Ecologist, Emerging Projects, and Bill Leahy, Director, Monterey Office, of The Nature Conservancy. Gretchen LeBuhn, Assistant Professor, San Francisco State University, also contributed to this set of comments. Luis Arteaga, Associate Director, Latino Issues Forum, provided meaningful comments on the Environmentally Preferred Purchasing, Human Resources, and Neighbors and Community chapters.

We thank the University of California for their longstanding research and extension contributions to generating and extending knowledge on winegrowing and natural resource management. These contributions serve as the scientific foundation upon which much of the sustainable practices presented in this workbook are based. We are also very grateful for the excellent technical and editorial comments received from UC faculty, specialists, and farm advisors during the production of this workbook. These comments have strengthened the quality and rigor of this undertaking. In particular, we would like to thank Mark Battany, Viticulture Farm Advisor, San Luis Obispo County; Larry Bettiga, Viticulture Farm Advisor, Monterey/San Benito/Santa Cruz Counties; Jenny Broome, former Associate Director UC Sustainable Agriculture Research and Extension Program; Nick Dokoozlian, former Associate Viticulture Specialist and Chair of the UC Integrated Viticulture Production Workgroup now with Gallo Family Vineyards; Mary Louise Flint, Director, UC IPM Education and Publications; Kurt Hembre, Farm Advisor, Fresno County; George Leavitt, former Farm Advisor, Madera County; Jim Lyons, Interim Director, UC Statewide IPM Program; Glenn McGourty, Farm Advisor, Mendocino and Lake Counties; Steven Nations, Executive Director, Government and External Affairs, Division of Agriculture and Natural Resources; Rhonda Smith, Viticulture Farm Advisor, Sonoma County; Ed Weber, Viticulture Farm Advisor, Napa County; and other members of the UC Integrated Viticulture Production Workgroup that provided comments.

We would also like to thank W.R. Gomes, Vice President, UC Division of Agriculture and Natural Resources for his steadfast support of this program.

Faculty from the California State University system have provided excellent comments at several stages of the workbook development. In particular, we would like to thank Robert Wample, Director, Viticulture and Enology Research Center (VERC) and Chair, Department of Viticulture and Enology at CSU- Fresno. Sanliang Gu, Ricchiuti Chair of Viticulture Research and Ken Fugelsang, Associate Professor and Winemaker at VERC, also provided valuable comments.

As a key addition to the second edition of the workbook, a draft of the new Air Quality chapter was sent to 44 individuals and comments were received back from 22 people. We would like to thank the following organizations and individuals for their useful comments on improving this chapter. Faculty from the University of California include Tom Cahill, Professor Emeritus, Air Quality Group, UC Davis; Steve Vasquez, Farm Advisor, UC Cooperative Extension, Fresno County; Maxwell Norton, Farm Advisor, UC Cooperative Extension, Merced County; Larry Bettiga, Farm Advisor, UC Cooperative Extension, Monterey/San Benito/Santa Cruz Counties; Mark Battany, Farm Advisor, UC Cooperative Extension, Santa Barbara and San Luis Obispo Counties; Glenn McGourty, Farm Advisor, UC Cooperative Extension, Mendocino and Lake Counties; and Rhonda Smith, Farm Advisor, UC Cooperative Extension, Sonoma County.

We thank the many Air Quality chapter external reviewers from multiple government agencies including the US Department of Agriculture-Natural Resources Conservation Service (USDA NRCS), US EPA, California Air Resources Board (CARB) and Air Districts, California Department of Pesticide Regulation (DPR), and CDFA. Specific reviewers include John Beyer, State Air Quality Coordinator, USDA NRCS; John Brenner, Air Quality Specialist, WNTSC, USDA NRCS; Kathy Taylor, Associate Director, Communities & Ecosystems Division, US EPA; Kerry Drake, Associate Director, Air Division, US EPA; Bob Fletcher, Chief, Planning and Technical Support Division, CARB; Lynn Terry, Deputy Executive Officer, CARB; David Crow, Air Pollution Control Officer, San Joaquin Valley Unified Air Pollution Control District; Randy Segawa, Senior Environmental Research Scientist, Environmental Monitoring Branch, DPR; Doug Okumura, Assistant Director, DPR; Steve Shaffer, Director, Office of Agriculture and Environmental Stewardship, CDFA; and John Steggall, Senior Environmental Research Scientist, CDFA.

From the nonprofit community, we would like to thank Cynthia Cory, Director of Environmental Affairs, California Farm Bureau Federation; Cindy Tuck, former General Counsel, California Council for Environmental and Economic Balance; Kimberly Cahill, Graduate Fellow, Stanford University; and Kathryn Phillips, Environmental Defense.

For improving the vineyard water quality and soil management elements of the second edition, we are especially grateful to Carson Cox, Project Manager, Sustainable Conservation and to the Sustainable Winegrowing Joint Committee. A number of reputable external reviewers also contributed to improving these elements including Carol Mandel, Phill Blake, Rich Casale, and Rebecca Challender of USDA NRCS; Glenn McGourty and Ed Weber of UC Cooperative Extension; and Heather Shepherd, Wallace Group.

### **Photo and Illustration Acknowledgements**

We would like to thank the UC Board of Regents, UC Division of Agriculture and Natural Resources, and the UC Statewide Integrated Pest Management Program for granting us the permission to reprint 58 photographs in this workbook. Use of the photographs does not imply endorsement of the materials or recommendations in this workbook.

The UC photographs appear in the Pest Management chapter. The photographs that appear in the other chapters are from Wine Institute, Lodi-Woodbridge Winegrape Commission, or other sources that are often credited next to the individual photographs.

We would also like to thank Lori Ann Thrupp for her six original illustrations that appear in the Ecosystems Management chapter.

### **Disclaimer**

While every effort has been made to provide the most accurate and current information available, CSWA, Wine Institute, and CAWG make no warranties regarding the information contained in this workbook or the applicability of such information to a particular grower or situation. Moreover, while many of the changes in titles and affiliations of individuals involved with the first edition of the workbook have been noted, others may have been missed.

CSWA, Wine Institute, and CAWG specifically disclaim any and all warranties, express or implied, including but not limited to this workbook's fitness for a particular use. CSWA, Wine Institute, and CAWG do not warrant that the information contained in this workbook will be error-free or that defects will be corrected. This workbook is not intended as legal advice and you are advised to seek professional help as needed. Nothing in this workbook is intended to replace your own technical experts or legal advisors, and CSWA, Wine Institute, and CAWG encourage you to consult any professionals you believe are needed. This workbook is not intended, nor should it be interpreted, to create an industry wide standard for winegrape growing or winemaking. CSWA, Wine Institute, and/or CAWG may update the materials in this workbook from time to time but do not accept or undertake any responsibility to update the information provided in this workbook on a regular basis or at all.



# 1. INTRODUCTION

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Welcome to the second edition of the voluntary Code of Sustainable Winegrowing Practices Self-Assessment Workbook. The original workbook was developed as a project of Wine Institute and the California Association of Winegrape Growers (CAWG) under the guidance and leadership of the Sustainable Winegrowing Joint Committee – a group of more than 50 members from the Wine Institute and CAWG, along with representatives from Cal EPA and independent consultants.

This workbook is an integral part of a broader collaborative initiative, the California Sustainable Winegrowing Program, which provides growers and vintners with educational tools to increase adoption of sustainable practices and to measure and demonstrate ongoing improvement. Wine Institute, CAWG and its members developed the program in 2002, and established the California Sustainable Winegrowing Alliance (CSWA) to assist with program implementation.

Publication of this self-assessment workbook in 2002 earned the California wine community a reputation as a leader in the adoption of sustainable practices. Through Sustainable Winegrowing Program workshops in winegrowing regions throughout the state, hundreds of growers and vintners have evaluated their winery and vineyard operations using the workbook. In 2004, Wine Institute, CAWG and CSWA issued the inaugural “Sustainability” report that summarized participants’ self-evaluation data to measure and document the level of sustainable practices among vintners and growers statewide and to set targets for continual improvement.

CSWA is now using the lessons learned to improve program implementation, build new and existing partnerships, and continue measuring the adoption of best practices. In addition, CSWA is using grant funding from public and private sources to conduct action plan workshops on topics such as integrated pest management, air and water quality, ecosystem management, and energy efficiency to help vintners and growers increase sustainable winegrowing adoption. CSWA continues to collaborate closely with regional winegrower associations, scientists, UC Cooperative Extension, and other partners to undertake these educational events and the self-assessment workshops.

Governor Arnold Schwarzenegger awarded CSWA the state’s top environmental award, the Governor’s Environmental and Economic Leadership Award in 2004. The California Council for Environment and Economic Balance also named Wine Institute, CAWG and CSWA recipients of the 2005 Edmund G. “Pat” Brown Award for the program’s demonstration of the ideals of environmental and economic balance. In addition, in 2003, the California Environmental Protection Agency recognized the program with an Integrated Pest Management Innovator Award.

California winegrowers and vintners are the primary audience for this workbook. The workbook content is also intended to be useful to a wider audience including employees, suppliers, winegrape and wine buyers, neighbors and local community members, members of the environmental and social equity communities, policy makers, regulators, and the media.

A key desired outcome is the widespread development and execution of sustainability strategies in the California winegrowing community. Business strategy is often defined in terms of an operation’s **mission** (the business purpose and fundamental reason for existence), **vision** (future

desire, long-term goals), and **values** (core ideals, beliefs and actions). It is important for all businesses committed to corporate social responsibility, from the small family-operated vineyard and winery to the multinational corporation, to clearly define and implement a sustainability strategy. The following section presents the mission, vision, and values for the Sustainable Winegrowing Program as a whole as well as for the workbook.

## **Sustainability Mission**

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The mission for the development and implementation of this workbook is to provide winegrowers and vintners with a tool to voluntarily:

- Assess the sustainability of current practices;
- Identify areas of excellence and areas where improvements can be made; and
- Develop action plans to increase an operation’s sustainability.

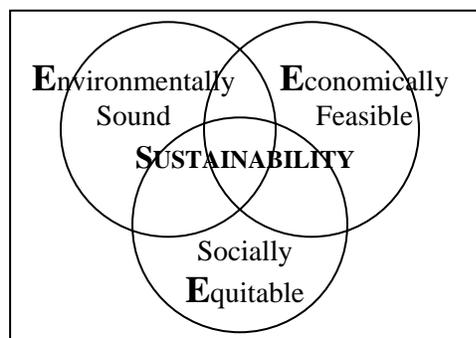
The overall, long-term mission for the Sustainable Winegrowing Program includes:

- Establishing voluntary high standards of sustainable practices to be followed and maintained by the entire wine community;
- Enhancing winegrower-to-winegrower and vintner-to-vintner education on the importance of sustainable practices and how self-governing will enhance the economic viability and future of the wine community; and
- Demonstrating how working closely with neighbors, communities and other stakeholders to maintain an open dialogue can address concerns, enhance mutual respect, and accelerate results.

## **Sustainability Vision**

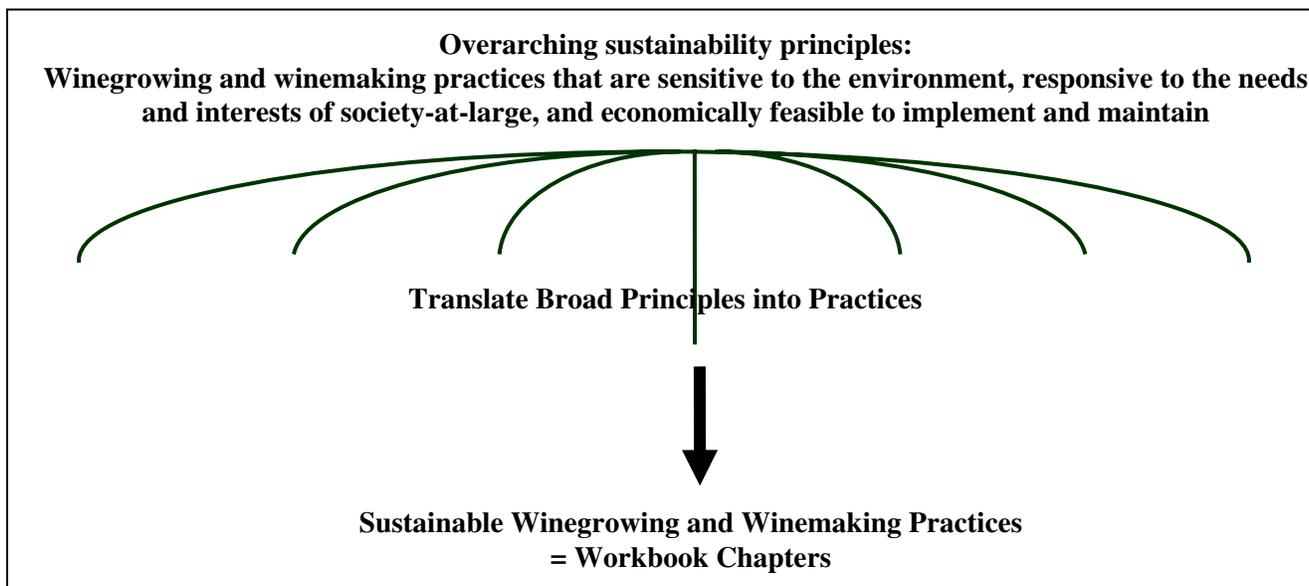
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The vision of the Sustainable Winegrowing Program is the long-term sustainability of the California wine community. To place the concept of sustainability into the context of winegrowing, the project defines sustainable winegrowing as growing and winemaking practices that are sensitive to the environment (**E**nvironmentally Sound), responsive to the needs and interests of society-at-large (**S**ocially **E**quitable), and are economically feasible to implement and maintain (**E**conomically Feasible). The combination of these three principles is often referred to as the three “**E**’s” of sustainability (**Figure 1-1**).



**Figure 1-1.** Sustainability as defined by the three overlapping principles of **E**nvironmentally Sound, **E**conomically Feasible, and **S**ocially **E**quitable.

These three overarching principles provide a general direction to pursue sustainability. However, these important principles are not easily translated into the everyday operations of winegrowing and winemaking. To bridge this gap between general principles and daily decision-making, the workbook's 14 self-assessment chapters translate the sustainability principles into specific winegrowing and winemaking practices (**Figure 1-2**).



**Figure 1-2.** The relationship between the winegrowing sustainability principles and the workbook chapters.

### **Sustainability Values**

This program is guided by the following set of sustainability values:

- Produce the best quality wine and/or grapes possible;
- Provide leadership in protecting the environment and conserving natural resources;
- Maintain the long-term viability of agricultural lands;
- Support the economic and social wellbeing of farm and winery employees;
- Respect and communicate with neighbors and community members; respond to their concerns in a considerate manner;
- Enhance local communities through job creation, supporting local business and actively working on important community issues;
- Honor the California wine community's entrepreneurial spirit;
- Support research and education as well as monitor and evaluate existing practices to expedite continual improvements.

The development and use of the sustainability mission, vision and values is also addressed in the Ecosystem Management (Criteria 8-2), Human Resources (Criteria 14-1) and Neighbors and Communities (Criteria 15-2) chapters.

## What the Workbook Is and Is Not

It is important to note that this workbook is a **voluntary self-assessment tool**. The workbook is **not**:

- A “how to” manual for winegrowing and winemaking;
- A set of “rules” that must be followed; or
- An external rating system to be used by others to judge an operation.

This workbook does provide the opportunity for winegrowers to voluntarily self-assess the relative sustainability of vineyard and/or winery operations. The workbook is not linked to any outside certification system. However, due to the interest by some members of the wine community, the workbook is designed to be easily adapted to international environmental management system (EMS) standards such as the ISO 14000 family<sup>1</sup> and international sustainability reporting efforts such as the Global Reporting Initiative<sup>2</sup>.

The next chapter introduces the 14 self-assessment chapters and presents how to use the workbook.

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<sup>1</sup> For more information on ISO 14000 family see <http://www.iso.ch/iso/en/iso9000-14000/iso14000/iso14000index.html>.

<sup>2</sup> For more information on the Global Reporting Initiative see <http://www.globalreporting.org>.