WHAT DO I NEED TO KNOW ABOUT WASTE MANAGEMENT IN MY WINERY?

CHECKLIST OF QUESTIONS TO ANSWER

1.0 ESTABLISHING A SOLID WASTE MANAGEMENT PROGRAM

1.1 Do you have a waste management program in place at your winery?
   - Is there executive level commitment to a successful waste management program?
   - Is someone assigned to oversee solid waste management at your winery?
   - Do you strategically plan and set annual goals to improve solid waste management?
   - Are costs and benefits of solid waste management tracked?

1.2 Does your winery comply with all federal, state, and local regulations, or other certifications?
   - What are the regulations that apply to your winery and are you in compliance?
   - Are you in compliance with the certifications you seek? (LIVE, Salmon Safe, Organic)

1.3 What is the state of your solid waste management program?
   - Do you have a list of all types of solid waste generated at your winery and how generated?
   - Do you use documented methods to monitor and quantify solid waste generated and disposed?
   - Have you identified costs associated with collection, reuse, recycle, or disposal of solid waste?
   - Do you understand the environmental footprint of your suppliers including energy and carbon footprint? (see Preferred Purchasing Chapter)
   - Do you employ documented protocols for handling and disposal of solid waste?
   - Are there contingency plans in place to handle each possible type of solid waste spill?
   - What are your waste reduction practices – reduce, re-use, and recycle?

2.0 ASSESSING THE QUANTITIES OF MATERIALS USED, GENERATED, AND DISCHARGED

2.1 How much solid waste is generated by each operation in your winery?
   - Processing? (crush waste, grape marc, additives & packaging, fermentation lees)
   - Filtration? (lees, pads, cartridges, DE, supply packaging)
• Ageing? (barrels, wood adjuncts)
• Bottling? (bottles, capsules, corks, paper, cardboard, pallets, plastic)
• Lab waste?
• Tasting Room, Lunch Room, Offices, Bathrooms?
• Process waste water system solids?
• Supply packaging wastes?
• Facility maintenance?
• Janitorial maintenance?
• Grounds maintenance?
• Electronic waste?

2.2 How much solid waste is generated per gallon of wine produced?
• How does the quantity of solid waste generated compare to industry standards?

2.3 How much solid waste has been reduced at the source?
• Glass and glass weight reduced?
• Glass color selected for recyclability?
• Package and package weight reduced?
• Packaging selected for recyclability?
• Bulk purchasing to reduce package?
• Are materials sourced locally?
• Is local storage used?
• Optimized inventory control?
• Are alternative technologies and products evaluated to reduce wastes?

2.4 How much solid waste generated at your winery is reused?
• Glass?
• Paper & cardboard?
• Plastic?
• Wood?
• Cork?
• Metals?
• Electronic waste?

2.5 How much solid waste generated at your winery is recycled?
• Biomass? (destemmer waste, grape marc, lees, landscape clippings, sanitary waste)
• Glass?
• Paper & cardboard?
• Plastics?
• Wood?
• Cork?
• Alternative closures?
• Metals?
• Tartrates?
• Electronic waste?

2.6 How much solid waste generated at your winery goes to land fill?
• DE (diatomaceous earth)
• Bentonite
• Biomass? (destemmer waste, grape marc, lees, landscape clippings)
• Glass?
• Paper & cardboard?
• Plastics?
• Wood?
• Cork?
• Alternative closures?
• Metals?
• Tartrates?
• Electronic waste?

2.7 How much solid waste generated at your winery goes to the process wastewater system?
• Process chemicals? (See Material Handling Chapter)
• Lab chemicals? (See Material Handling Chapter)
• DE (diatomaceous earth)?
• Bentonite?
• Grape solids?
• Tartrates?

2.8 Have you assessed the implications of each solid waste type on your energy use and carbon footprint?
• WRI based green house gas protocol – International Wine Carbon Calculator? WRI
• LIVE closure CO2 calculator and energy use summary? LIVE
• Bio-mass conversion practices?

3.0 EMPLOYEE TRAINING AND WASTE MANAGEMENT INCENTIVES
• Does your winery employ standard operating procedures specific to solid waste management?
• Are employees trained in these SOP’s for solid waste management?
• Are changes to the solid waste management SOP’s communicated to employees when they occur?
• Are employees regularly informed about the status of your solid waste management program?
• Do you use employee incentives to motivate active participation in solid waste management?
• Is there a forum for employee input to the solid waste management plan?
4.0 IMPROVING YOUR SOLID WASTE MANAGEMENT PROGRAM

4.1 Do you review your facility water management program and planning annually?
   - Do you segregate storm water for use in irrigation?

4.1 Do you review your facility waste management program and planning annually?
   - Does your winery have a protocol for evaluating, auditing, and monitoring results?
   - Do you set goals annually to reduce the solid waste generated per ton of grapes processed?
   - Does commitment from executive through all levels to improve solid waste management remain strong?
   - Is a continuous improvement system imbedded in your solid waste management program?

4.2 What opportunities are available to improve your waste management program?
   - Do you practice environmentally preferred purchasing? (see Preferred Purchasing Chapter)
   - Are you doing all you can to reduce solid waste generated?
   - Are you doing all you can to reuse, or sell for reuse, solid waste items?
   - Are you doing all you can with recyclable solid waste?
   - Are you practicing bio-mass conversion?

4.3 Have you sought out industry forums in a cooperative effort to solve waste management issues?
RESOURCES:
Washington State Department of Ecology TREE team
Washington State Department of Ecology Beyond Waste
(WRI) The World Resources Institute GHG protocol
The Wine Institute wine greenhouse gas protocol
Winemakers Federation of Australia
Environmental Protection Agency
Leopold Center for Sustainable Ag.
Integrated Production of Wines in South Africa
BioEnergy Washington
The American Vineyard Foundation
Kennedy/Jenks Consultants
National Grape and Wine Initiative (LIVE) Low Input Viticulture & Enology
Salmon Safe
World Resource Institute
Rock Tenn Recycling

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