



SOLID WASTE MANAGEMENT

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 you 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 green house 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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