4 Summary of Bay-Friendly Landscaping Benefits

"Conscientious landscape professionals are seeking ways to balance environmentally sound practices with business demands. Many successful companies have adopted win-win sustainable landscaping strategies for the benefit of their business, their employees and the environment.

SOURCE: SAN FRANCISCO BAY CHAPTER OF THE CALIFORNIA LANDSCAPE CONTRACOR'S ASSOCIATION, FROM: INTRODUCTION TO, "PRESERVING THE ENVIRONMENT AND GROWING YOUR BUSINESS" SEMINAR, 2002.

Summary of Bay-Friendly Landscaping Benefits

1. LANDSCAPE LOCALLY: CONSIDER THE CONTEXT OF THE SF BAY AREA	Design	Construct	Maintain	Benefits
1. Evaluate climate, exposure and topography	■	■	■	This knowledge is critical to all other Bay-Friendly landscaping practices – particularly being able to select plant materials that match the site. It places the landscape in the context of the San Francisco Bay area. In the long run, it can save your business time and money as it allows you to collaborate with nature, thus avoiding problems and reducing callbacks.
2. Assess the soil and test drainage	■	■	■	Understanding the soil is also critical to landscaping in an environmentally friendly manner. Plants are more likely to be placed appropriately and fertilizers used only as needed.
3. Survey and protect flora & fauna	■	■	■	Conserving or restoring local flora, fauna and habitat provides your clients with a sense of place. Native plants can make the job easier for the landscape professional.
4. Consider the potential for fire	■		■	Landscapes can be designed and maintained to reduce the fire hazard, with a clearer understanding of the risks, proper design and choice of plants.
5. Use local, natural plant communities as models	■		□	Using the local, natural plant communities as a model allows you to work with nature to create spectacular landscapes that can help replace what's so often been degraded or lost.
2. LANDSCAPE FOR LESS TO THE LANDFILL	**Design**	**Construct**	**Maintain**	**Benefits**
1A. Select appropriate plants: Choose plants to match the microclimate & soil conditions	■		□	Plants are more likely to thrive, which reduces their susceptibility to disease and other pests and their need for fertilizers and pesticides. Water can be conserved. Callbacks and plant replacements are often reduced. Debris is not generated in the first place.
1B. Select appropriate plants: Choose plants that can grow to their natural size in the space allotted them	■		□	Labor, fuel and waste are likely to be reduced, cutting your costs. Plant health and resistance to disease is fostered.
1C. Select appropriate plants: Replace sheared hedges with plants that can grow to their natural shape & size	■		□	Your cost for the labor to regularly shear the hedges is lowered and at the same time, fuel load can be decreased, waste will likely be reduced and your disposal bills lowered.
1D. Select appropriate plants: Do not plant invasive species	■		□	The cost of later pulling these species out of the landscape, neighboring sites and wild lands is avoided. Waste is reduced and ecosystem diversity is protected.
2A. Keep Plant Debris on Site: Grasscycle	□		■	Leaving the clippings on the lawn after mowing reduces green waste, saves time and money, and contributes to a vigorous lawn.
2B. Keep Plant Debris on Site: Produce mulch from plant debris	□		■	Nutrients are recycled, habitat is created, waste is reduced and the beneficial soil life that feeds on the organic matter jumpstarts other natural processes.
2C. Keep Plant Debris on Site: Compost	□		■	Composting on site returns valuable nutrients and organic matter to the soil and reduces pollution associated with transporting waste, as well as disposal costs.
3. Prune selectively and properly	□	□	■	Trees and shrubs are stronger and more likely to resist pests. Waste is minimized.
4. Water and fertilize judiciously	□	□	■	Plants are not pushed into growth over drive. Water damage to fences and hardscapes is minimized. Waste is prevented and disposal bills are decreased.
5. Use goats for controlling weeds and creating firebreaks	□		■	As the goats graze they reduce the fuel load, return nutrients to the soil and eliminate the need to haul off plant debris.
6. Use salvaged items & recycled content materials	■	□	□	Lower maintenance costs can recover the added cost of plastic or composite lumber within a year. Waste can be reduced, natural resources conserved, markets for recycled products strengthened.
7. Reduce and recycle construction waste	□	■		Waste can be reduced and disposal fees minimized.
8. Separate plant debris for clean green discounts	□		■	Your disposal costs are trimmed and in most cases, the material is processed into mulch or compost.

■ Indicates a practice that is a primary issue in the design, construction or maintenance phase.
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□ Indicates that a practice is not often as relevant in the design, construction or maintenance phase.

3. NURTURE THE SOIL	Design	Construct	Maintain	BENEFITS
1. Remove and store topsoil during construction	■	■		Conserving topsoil can reduce the likelihood of many problems over the long run, including stormwater runoff. It can minimize fertilizer and irrigation requirements and topsoil replacement costs.
2. Protect soil from compaction	■	■	■	Soil structure and the soil's ability to support the microbes that cycle nutrients and filter pollutants are protected. The soil is easier to work.
3. Defend against erosion	■	■	■	The likelihood of erosion is lessened, thereby conserving topsoil and protecting aquatic habitat.
4. Amend the soil with compost before planting	■	▒	■	Compost fosters a diverse, fertile, and disease suppressive soil. It can improve structure, aeration and water holding capacity. You and your clients may see both long and short-term benefits, including faster plant establishment, decreased fertilizer & pesticide use and lower water bills.
5. Grasscycle			■	Nutrients in the grass clippings are made available to plants. Fertilizer requirements can be reduced by as much as 50%, thereby lowering your costs and protecting water quality.
6. Mulch regularly			■	Mulch conserves water, enhances the growth of plants and the appearance of the landscape. It can also simplify your operations- thereby possibly lowering your costs - by suppressing weed growth and reducing the need for trimming around trees and poles.
7. Aerate compacted soils	■	■	■	Aerating and then topdressing with compost relieves compaction, stimulates root growth and disease resistance. Plants are more easily established. Water and fertilizer requirements may be lessened.
8. Feed soils naturally	■		■	A strong soil foodweb, which makes nutrients available to the plants and protects water quality, is nurtured.
9. Avoid synthetic, quick release fertilizers	■		■	Slow release fertilizers make nutrients available to the plants when they are needed, so their efficiency increases and they are therefore often a better value. Flushes of growth that results in pest infestations or plant waste are less likely.
10. Minimize the use of chemical pesticides	■		■	Minimizing pesticides reduces water pollution and helps support soil life, which cycles nutrients and promotes resistance to plant disease. Your costs may then be reduced in the long run.
4. CONSERVE WATER	**Design**	**Construct**	**Maintain**	**BENEFITS**
1. Create drought resistant soils with compost & mulch	■	▒	■	Compost can increase permeability and water-holding capacity, thereby reducing the need for irrigation and lowering water bills.
2. Grow California natives or Mediterranean plants	■		▒	Appropriately sited native or Mediterranean type plants often require less soil preparation, watering, mowing, fertilizing and spraying, which can reduce your operating costs. CA native species are relatively easy and inexpensive to implement on a trial basis. Using local natives reduces the risk of spreading non-local species.
3. Minimize the lawn	■			Water and energy can be conserved. For example, reducing a 1,000 square foot lawn that gets 1 inch of water per week to 500 square feet can save approximately 10,000 gallons of water per dry season. Your clients' water bills and your labor for mowing may also be reduced. Chemical use may be decreased and water quality protected.
4. Implement hydrozoning: group plants by water needs	■		▒	Water use can be more easily matched to the plant requirements. This fosters resistance to pests as well as conserves water. Plant mortality is reduced, saving time and money.
5. Design for on-site rainwater collection, recycled water and/or graywater use	■			The use of treated, drinkable water to irrigate lawns and gardens can be reduced. Groundwater is recharged.

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Conserve Water (cont'd.)

6. Design and install high efficiency irrigation systems				High efficiency systems not only limit evaporation and runoff, but also prevent disease and minimize weed growth. Water bills can be lower, runoff reduced and water quality protected.
7. Install a dedicated meter to monitor landscape water use				Monitoring the landscape water use more precisely can demonstrate and support water conservation. A separate meter can also reduce your client's sewage bill since it is based on water use in buildings.
8. Manage irrigation according to need				Appropriate watering moderates plant growth, promotes plant health and reduces replacement costs, as well as the need for pesticides and pruning. Your costs and your clients' water bills can be reduced.
9. Maintain the irrigation system so that every drop counts				Evaporation or over spray is decreased or eliminated all together. Properly maintained irrigation systems can decrease watering bills, avoid unnecessary plant, fencing and asphalt replacement costs, and increase property values.
10. Request an irrigation audit				Additional practices for conserving water may be identified. You can then demonstrate to the clients how your skills can save them money on their water bills. Customer satisfaction will be increased.
5. CONSERVE ENERGY	**Design**	**Construct**	**Maintain**	**BENEFITS**
1. Plant and protect trees to moderate building temperatures				When properly placed, mature trees can reduce the interior temperature of a building by as much as 20 degrees, reducing summer cooling costs by 25-40%.
2. Reduce the heat island effect: shade paved areas				Patios & cars can be much more comfortable in the summer. Air quality can be improved. Costs of cooling adjacent buildings may be lowered.
3. Shade air conditioners				The air conditioner runs more efficiently, which will reduce your client's utility bill.
4. Design lighting carefully				Power and energy use can be decreased. Lower operating costs can often recover higher initial purchase costs of newer more efficient lamps.
5. Choose and maintain equipment for fuel conservation				Manual labor may make the most economic sense for many landscape operations. You can cut the cost of fuel while protecting the health of your staff, and local air and water quality.
6. Specify local products & suppliers				Buying locally produced and low embodied energy products often reduces the cost of an item, as well as the hidden environmental costs –such as pollution- of transporting materials.
6. PROTECT WATER & AIR QUALITY	**Design**	**Construct**	**Maintain**	**BENEFITS**
1A. Use Integrated Pest Management (IPM): Prevent pest problems				A healthy, diverse landscape that prevents pests in the first place is critical to eliminating the need for pesticides, thereby reducing pollution and protecting the health of the San Francisco Bay.
1B. Use IPM: Train your staff to identify and monitor pest & beneficial populations				Your staff enjoys greater job satisfaction as they learn additional, valuable skills. Beneficial organisms are given the opportunity to control pests. If a problem does develop, you can catch it just as it is reaching a level that needs control.
1C. Use IPM: Educate your clients				Insects and other pests can be accepted as an integral component of any ecosystem, in which case they are not controlled until they cause an unacceptable level of damage. The need for pesticides may be reduced or eliminated.
1D. Use IPM: Control pest problems with physical & mechanical methods				Pests can be kept at acceptable levels thereby reducing the need for pesticides. Pollutants are kept out of stormwater in the first place.
1E. Use IPM: Control pests problems with biological controls				Beneficial organisms feed on or parasitize pests, potentially reducing the cost of purchasing and applying pesticides.
1F. Use IPM: Control pest problems with the least toxic pesticide as a last resort				Using the least amount of the least toxic pesticide helps to protect water quality and demonstrates your commitment to the health of your staff, the community and the Bay.

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Protect Water & Air Quality (cont'd.)

2. Eliminate high input decorative lawns	■			The need for irrigation, synthetic fertilizers and pesticides can be reduced or eliminated, thus protecting water quality.
3. Keep soil covered	■	■	■	Erosion is prevented. Sediment does not clog our waterways.
4. Choose and maintain your materials, equipment & vehicles carefully		■	■	Fuel consumption is minimized. Air, water and noise pollution can often be reduced. Worker and community health will be protected.
5. Keep organic matter where it belongs	▒	▒	■	Organic matter does not become a pollutant but rather, increases the soil's ability to remove pollutants, thereby protecting our watershed.
6. Minimize impervious surfaces	■			Increasing porous surfaces decreases runoff, protects the biology of our San Francisco Bay watershed and contributes to the restoration of our streams, creeks and wetlands.
7. Plant trees	■		▒	Appropriately planting trees decreases runoff and protects water quality. Trees also absorb air pollutants, thus protecting air quality. Dollar for dollar, larger trees deliver eight times the benefits of smaller trees.
8. Manage and maintain the irrigation system carefully		▒	■	Water will be conserved, runoff reduced and your customer may save money on water bills, while protecting the San Francisco Bay watershed.
9. Design a system to capture and treat water	■			Stormwater runoff is reduced while water recycled on site fosters the removal of pollutants and encourages biodiversity. Downstream engineering costs are decreased. Property values can be increased.
7. CREATE & PROTECT WILDLIFE HABITAT	**Design**	**Construct**	**Maintain**	**BENEFITS**
1. Diversify	■		▒	Biodiversity is fostered. A diverse landscape may resist disease and insect pests better than those with little variety. A single insect or disease infestation is less likely to be devastating.
2. Choose California native plants first	■		▒	Many natives flourish in the SF Bay area, often with less water, fertilizers and maintenance. Local wildlife is fostered.
3. Provide water & shelter	■		■	Water and shelter supports wildlife and adds interesting elements to the landscape.
4. Eliminate the use of pesticides	■	■	■	Beneficial organisms, which can keep pests under control, are not harmed. The need for pesticides is thereby reduced.
6. Conserve or restore natural areas & wildlife corridors	■			The San Francisco Bay Area's open space, plant and animal diversity are protected.

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