



CITY OF
HAYWARD
HEART OF THE BAY

**HAYWARD ENVIRONMENTALLY FRIENDLY LANDSCAPE
GUIDELINES AND CHECKLIST
FOR SINGLE-FAMILY DEVELOPMENT**

March, 2009

✓ ***Applicability of these Guidelines and Checklist***

These guidelines and checklist are intended for use by a non-landscape professional and are to be used for developments comprising one to three single-family units, including duplexes, and for residential remodels and additions that entail an increase of at least 50 percent of existing building footprint area. Although not required, the use of these guidelines and checklist for smaller remodels and additions is encouraged to promote water conservation and sustainable landscaping.

For other more substantial projects, the City's Environmentally Friendly Landscape Guidelines and Checklist for Landscape Professionals are to be used.

✓ ***Purpose of Guidelines and Checklist***

The guidelines and checklist are provided to assist the homeowner to plan and develop an attractive, San Francisco Bay friendly, energy-conserving, water efficient, and wildlife-friendly garden. They incorporate the principles of Bay-Friendly Landscaping by StopWaste.Org*, and the water efficient landscape goals of the California Department of Water Resources.

These guidelines and checklist are derived from the City's adopted policies, standards and guidelines, which include the Water Efficient Landscape Ordinance, Tree Preservation Ordinance, and the Hillside Design and Urban/Wildland Interface Guidelines, and StopWaste.org's Bay-Friendly Gardening guidelines*.

Reference websites:

- ❖ www.hayward-ca.gov/municipal/ for City of Hayward Municipal Codes
- ❖ www.StopWaste.org *
- ❖ www.bawsca.org/res_outdoor.html for water wise gardening guides
- ❖ www.ourwaterourworld.org for guides to pest control and more
- ❖ www.cal-ipc.org for California invasive plant material list and recommendations
- ❖ www.arborday.org/ for information regarding benefits of trees
- ❖ www.livingsystemslandmangement.com for grazing for controlling weeds and firebreaks

* Bay-Friendly Landscape Guidelines are established by StopWaste.Org, a program funded by the Alameda County Waste Management Authority and the Alameda County Source Reduction and Recycling Board.



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Reference Books:

- ❖ EBMUD's latest publication: Plants and Landscapes for Summer-Dry Climate of the San Francisco Bay Region
- ❖ Sunset Western Garden Book

✓ ***What is required at completion of landscaping?***

Submittal of a completed *Verification of Landscaping Installation* form (copy attached) is required upon completion of required landscape installation prior to issuance of a Certificate of Occupancy.

LANDSCAPE GUIDELINES

Planting:

- ✓ Any tree removed for new development or remodels and additions must be replaced in accordance with Tree Preservation Ordinance (HMC Chapter 10, Article 15). The minimum replacement tree size is 24"-box.
- ✓ In addition to replacement trees, additional new trees shall be planted, in accordance with standards indicated in following pages.
- ✓ Recycle minimum 50% of green waste.
- ✓ Stockpile topsoil and reuse.
- ✓ Group plants by similar water use requirements.
- ✓ Plant large trees whenever possible to lower the home, air and soil temperature.
- ✓ Soil preparation and staking for tree planting: Prepare planting holes, to be two times the size of the tree root ball. Backfill mix shall be 1 part organic compost and 2 parts native soil. Use City Standard Street Tree Staking Detail SD-122 for tree planting.
- ✓ Trees shall be planted a minimum of 5 feet from sewer, water, gas, cable, and electrical lateral services lines as well as from any paving and structures. Trees shall also be located

a minimum of 7 feet from utility boxes, 15 feet from a light pole, and a minimum of 30 feet from the face of a traffic signal, or as otherwise specified by the City.

- ✓ Use diverse plant palettes of different sizes, shapes, texture and seasonal color (see attached plant list for guidance).
- ✓ Choose plants and allow enough spacing for plants to grow to their natural, mature shape and size.
- ✓ Do not use plants listed by Cal-IPC (California Invasive Plant Council) as invasive in the San Francisco Bay Area: www.cal-ipc.org.
- ✓ Use turf for functional purposes such as play areas. Avoid using turf in irregular shape area or steep slope that would be difficult to irrigate properly. Where turf is proposed, use a drought tolerant Tall Fescue or variety with similar water requirements.
- ✓ Minimize use of pesticides and herbicides.
- ✓ Use minimum three(3) inches of mulch in planting area except for turf areas. Use recycled chipped wood mulch.
- ✓ Use recycled landscape construction material as much as possible such as mulch, header boards. etc.
- ✓ Recommended soil amendments: Do not use nitrified soil conditioner and commercial fertilizer. Use approximately three inches of organic compost and rototill thoroughly into minimum top nine inches of native soil.

Irrigation:

- ✓ Check static water pressure (psi) at the point of connection. (Information on water pressure at City main available from Utilities Division of City Public Works Department at 583-4727.)
- ✓ Each valve shall irrigate a planting area with similar water use requirements, sun exposure and slope.
- ✓ Recycled or rain harvested water for irrigation is encouraged.
- ✓ Be sure to provide a gate valve and a vacuum breaker or anti-siphon valve.
- ✓ Drip and sprinkler system shall be on separate valves.
- ✓ Consider using low volume drip irrigation.
- ✓ Sprinklers should be spaced at maximum 1.0 times radius of head for square area and maximum 1.2 times radius of head for triangular area.

- ✓ Stream rotating nozzles (e.g., stream rotors, matched precipitation(MP) rotators) are recommended where spray sprinklers are considered for highly efficient and uniform water delivery.
- ✓ Rain shut-off device and rain sensor are recommended.
- ✓ All irrigation lines need to be underground, including drip systems, except for temporary installations.
- ✓ Adapt watering schedule to the weather, time of day and the season.
- ✓ Schedule overhead irrigation between 10:00 p.m. and 8:00 a.m. unless weather conditions prevent it.

LANDSCAPE CHECKLIST FOR SINGLE-FAMILY DEVELOPMENT

Single-Family Home(s): new (number of units: _____)
 remodel/addition exceeding 50% of existing building footprint

Project Applicant: _____

Project Applicant's Address and E-mail: _____

Project Name: _____ Building Permit No.: _____

Project Address: _____ Planning Permit No.: _____

LANDSCAPE REQUIREMENTS:

Planting:

- Arborists report required for removing 3 or more trees that measure larger than 8 inches in diameter at 54 inches above the ground UNLESS the trees to be removed are on the Protected Tree list in Tree Preservation Ordinance (HMC Chapter 10, Article 15). Arborists report shall be required for any trees removed from the Protected Tree that are measured a minimum 4 inches in diameter measured 54 inches above the ground. The report must include appraised value of all trees on the property and any tree protection recommendations to be implemented during construction. A tree preservation bond equal to the value of trees to be saved that may be impacted by construction shall be posted at issuance of grading or building permit.
- Limit the use of impervious paving types (e.g., asphalt or concrete), and use permeable paving types, such as natural stones and pavers in sand leveling bed. Any new homes located on more than 3:1 slope must use permeable paving for all proposed paved areas, except for allowed driveway, unless otherwise approved by Planning Division Manager.
- Show and label all existing trees to be removed or retained.
- Show locations of proposed plants on a scaled landscape plan, and provide a plant legend that indicates plants' botanical and common names, quantity, size, spacing, and indicate on the plan watering needs such as high, moderate, low, or no summer watering.
- Plant one 15-gallon tree within the required front and side yard setbacks for every 50 feet of frontage or fraction thereof. Any missing, dead, or dying street trees shall be replaced with minimum 24"-box size tree.
- Limit the use of turf to 25 percent of the total landscaping area. Do not use turf on slopes exceeding 10 percent, or areas narrower than 8 feet.

- ❑ Use drought tolerant plants that require occasional, little or no summer watering (see attached plant list for guidance).
- ❑ Place a minimum three inches of recycled chipped wood mulch in a dark brown color or place greenwaste in all planting areas, except in turf areas, for weed control and water retention.

Irrigation:

- ❑ Layout irrigation system: water meter, gate valve, vacuum breaker or anti-siphon valve, filter, pressure regulator, valves, main and lateral lines, valves, sprinklers, bubblers, drip emitters, and a controller where applicable.
- ❑ Turf and non-turf areas to be irrigated on separate valves.
- ❑ Provide drip emitters or two flood or pop-up type bubblers for each tree; irrigation for trees shall be on a separate valve.
- ❑ Two aeration tubes per each tree are required: the tube shall be 30 inches long and 4 inches in diameter PVC perforated drainpipe with slotted cover, and drain rocks shall be filled in and around the pipe.

Helpful Gardening Guides to a Healthy Garden:

"Bay-Friendly is a holistic approach to gardening and landscaping that works in harmony with the natural conditions of the San Francisco Bay Watershed. Bay-Friendly practices foster soil health, conserve water and other valuable resources while reducing waste and preventing pollution. Visit www.stopwaste.org."

Healthy Soil - Compost food waste and garden debris and amend soil with compost.

Weed Control and Improve Soil - Lay recycled cardboards (sheet mulching) before placing mulch.

Garden Waste as Mulch - Use leaves, chipped plants, branches and garden clippings as mulch.

Reduce Waste - Don't over plant. Minimize pruning. Allow enough room for each plant to grow.

Grasscycling - Mow lawn less often. Mow when lawn is dry, and leave the clippings on the lawn.

Choose Plants Wisely - Choose plants that are California native and/or drought tolerant, and buy plants from local nurseries.

Less Turf - Minimize or eliminate turf area.

Water Smart - Group plants with similar watering needs.

Pay Smart - Pay only what you use. Install efficient irrigation system with a rain/moisture sensor device. Reduce rain and irrigation run-off.

Rainwater Harvesting - Install a rainwater collection water system.

Plant Diversity - Provide variety of plants with flowers and fruits for birds, butterflies, and other wildlife.

Wildlife-Friendly - Provide bird bath, water dish or a small pond.

Promote Wildlife - Leave some areas in the garden somewhat untidy: let flowers go to seed to provide food for birds, and leave dead leaves and stalks to shelter over-wintering insects.

Protect Children and Protect the Bay - Do not wash synthetic fertilizers or herbicides into the Bay.

Protect the Bay - Minimize impervious paving such as concrete patios and driveways. Allow water to soak back into soil and recharge ground water.

Reduce Run Off - Terrace steep slopes. Prevent erosion and reduce run-off.

Healthy Community - Tolerate pests as much as possible. Grow your own vegetable organically.

Pay Less - Plant deciduous trees on the west side of the house to provide shade. Less energy bill.

Save Energy - Pave less and plant more.

Alternative Energy - Use solar powered or low voltage lighting.

Reduce Pollution - **Turf less, mow less, compost, and plant more trees.**

Suggested Plant List

Botanical Name	Common Name	evergreen	deciduous	color interests	flowers	water needs
TREES						
Aesculus californica	California Buckeye		x	x	x	moderate
Arbutus 'Marina'	Arbutus	x			x	moderate
Celtis sinensis	Chinese Hackberry		x	x		moderate
Cercis occidentalis	Western Redbud		x	x	x	moderate
Eriobotrya deflexa	Bronze Loquat	x			x	moderate
Ginkgo biloba	Maidenhair Tree		x	x		moderate
Jacaranda	Jacaranda		x		x	infrequent
Koelreuteria paniculata	Goldenrain tree		x	x	x	moderate
Lagerstroemia indica	Crape Myrtle		x	x	x	moderate
Leptospermum	New Zealand Tea Tree	x			x	infrequent
Pistacia chinensis	Pistacia Tree		x	x		occasional
Platanus acerifolia	London Plane Tree		x	x		moderate
Quercus agrifolia	Coastal Live Oak	x				infrequent
Schinus molle	California Pepper	x				infrequent
Sequoia semperviron	Redwood	x				moderate
SHRUBS						
Abelia grandiflora	Abelia	x			x	moderate
Aloe spp.	no common name	x				infrequent
Arbutus	no common name	x			x	occasional
Arctostaphylos spp.	Manzanita	x			x	occasional
Artemisia spp.	no common name	x				occasional
Berberis spp.	Barberry	x	x			moderate
Carpenteria californica	Bush Anemone	x			x	moderate
Ceanothus spp.	Wild Lilac	x			x	infrequent
Cercis occidentalis	Western Redbud		x	x	x	infrequent
Chaenomeles	Flowering Quince		x		x	infrequent
Choisya ternata	Mexican Orange	x			x	moderate
Cistus spp.	Rockrose	x			x	infrequent
Coleonema spp.	Breath of Heaven	x			x	moderate
Correa spp.	Australian Fuschsia	x			x	moderate
Cotinus coggygria	Smoke Tree		x	x	x	infrequent
Cotoneaster spp.	no common name	x			x	infrequent
Dodonaea viscosa	Hop Bush	x		x	x	infrequent
Echium fastuosum	Pride of Madeira	x			x	infrequent
Escallonia spp.	no common name	x			x	moderate
Euonymus japonicus	Evergreen Euonymus	x		x		moderate
Feijoa	Pineapple Guava	x			x	infrequent
Hibiscus huegelii	Blue Hibiscus	x			x	moderate

Lantana	Lantana	x			x	infrequent
Lavandula	Lavender	x			x	infrequent
Lavatera	Tree Mallow	x			x	moderate
Lupinus	Lupine	x			x	infrequent
Nandina	Heavenly Bamboo	x		x		infrequent
Nerium oleander	Oleander	x			x	infrequent
Osmanthus	Osmanthus	x			x	moderate
Philadelphus	Mock Orange	x	x		x	moderate
Photinia fraseri	Photinia	x		x		moderate
Rhaphiolepis	Rhaphiolepis	x			x	infrequent
Ribes	Currant	x	x		x	moderate
Rosa	Rose		x		x	moderate
Salvia spp.	Sage	x			x	occasional
Santolina spp.	Santolina	x			x	occasional
Westringia fruticosa	Coast Rosemary	x			x	occasional
Xylosma congestum	Xylosma	x				occasional
PERENNIALS						
Acanthus Mollis	Bear's Breech				x	occasional
Achillea spp.	Yarrow				x	occasional
Agapanthus spp.	Lily-of-the-Nile				x	occasional
Agave	Agave					occasional
Allium	Allium				x	occasional
Anemone spp.	Windflower				x	moderate
Armeria maritima	Common Thrift				x	moderate
Cosmos	Cosmos				x	moderate
Dietes	Fortnight Lily				x	occasional
Dymondia	Silver Carpet					moderate
Echinacea	Coneflower				x	moderate
Erigeron	Fleabane				x	occasional
Gazania	Gazania				x	moderate
Iris	Iris				x	occasional
Oenothera	Evening Primrose				x	occasional
Phormium	New Zealand Flax					occasional
Stachys byzantina	Lamb's Ears				x	moderate
Thymus	Thyme				x	moderate
Tulbaghia	Society Garlic				x	moderate
Yucca	Yucca				x	infrequent
GRASSES AND GRASSLIKE PLANTS						
Carex	Sedge					moderate
Festuca	Fescue					moderate
Helictotrichon	Oat Grass					moderate
Miscanthus	Miscanthus					moderate
Stipa	Feather Grass					moderate

Single-Family Home(s) (including duplexes)

Check appropriate box:

new (number of units: _____)

remodel / addition

Project Applicant's Name: _____

Project Applicant's Address if different than project address: _____

Project Name: _____ Project Address: _____

City Building Permit Number: _____

I/We hereby certify the following:

The landscape work for the above-referenced project has been completed in compliance with the City approved planting and irrigation plans and specifications.

COMMENTS: _____

Signature of homeowner, contractor or owner's representative
(circle whichever applies)

Date

Print Name

Phone or e-mail address

Signature of homeowner, contractor or owner's representative
(circle whichever applies)

Date

Print Name

Phone or e-mail address