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# PLANTS FOR USE WITH RECYCLED WATER

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PREPARED FOR  
DELTA DIABLO SANITATION DISTRICT  
2500 Pittsburg-Antioch Highway  
Antioch, CA 94509-1373



# PLANTS

FOR USE WITH RECYCLED WATER IN EAST CONTRA COSTA COUNTY

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## PLANTS

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Thirty years of using recycled water in the S.F. Bay Area has produced lists of plants that are tolerant of elevated nutrient levels, and are adapted to many of the environments found around the Bay. Eight years of experience at Delta Diablo Sanitation District has narrowed the list to those plants that also thrive in the windy areas around the Delta, as well as in some of the heavy clay soils found in our region. This list of plants includes some of the best choices for landscapes in the region served by Delta Diablo Sanitation District.

This report includes names and images of plants that are recommended for use in areas that are irrigated with recycled water. Plants are included that have documented high tolerances of sodium, chloride and boron. Not included in the list are plants that have the potential to become invasive weeds, need high or very high amounts of water, harbor serious pests or diseases, fail or break in steady or high winds, or are intolerant of heavy (clay) soils.

### TIPS:

- ☐ Select high quality plants from nursery or supplier.
- ☐ Select plants that are known to be highly tolerant of salinity, sodium, chloride and boron, and match your site's soil texture, drainage and wind conditions.

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## SOIL

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Soils in the region served by Delta Diablo Sanitation District range from sandy to clayey, with many intermediate textures including one called Antioch loam. One of the more interesting soils near the Delta is called Joice Muck, and is derived from centuries of rotting plant material.

The physical properties of soils, such as texture and structure, are extremely important in determining their capacities to hold and release water. Sandy, weakly structured soil, like sand dunes, do not hold enough moisture for most plants to become established. There is a soils type in Antioch called Delhi Sand that has these characteristics. Clay soils that are strongly structured hold their moisture tightly and water drains through them slowly. Clear Lake Clay, Altamont clay and Capay clay series are soil types that have these characteristics.

### TIPS:

- ☐ Find your soil type in the Contra Costa County Soil Survey, available at your local library or through the U.S.D.A Natural Resources Conservation Service, 5552 Clayton Rd., Concord. 925.672.4949.
- ☐ Match your plants to your soils texture and structure.



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## WATER

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Recycled water is high in salts including plant nutrients such as nitrogen, phosphorous and potassium. They also have elevated levels of minerals that plants only need in very small amounts including sodium, chloride, boron and bicarbonate. These salts can cause damage to plants that are not tolerant of elevated salt levels. How water is applied makes a difference in terms of salt damage. Sprinkler irrigation can be manipulated to minimize damage by varying throw and timing. Drip irrigation is very useful for avoiding foliar damage, but does require the use of filters and frequent cleaning.

### TIPS:

- ☐ Irrigate (overhead) during the evening or night to reduce salt absorption by plant leaves.
- ☐ Direct sprinkler heads to minimize water hitting trunks or leaves.
- ☐ Test drip irrigation frequently for clogging, and clean as needed.
- ☐ Apply only the amount of water that your species needs. Use the Water Use Classifications of Landscape Species (WUCOLS) manual, available on-line at <http://www.waterright.org/site2/reference/wucols.asp> to find your plant and its water needs.

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## PLANTS

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*Coast Beefwood ( <i>Casuarina stricta</i> ).....	9
Blackwood acacia ( <i>Acacia melanoxylon</i> )	
Cajeput tree ( <i>Melaleuca quinquenervia</i> )	
Dwarf blue gum ( <i>Eucalyptus globulus</i> ‘ <i>Compacta</i> ’)	
Evergreen ash ( <i>Fraxinus uhdei</i> )	
Flaxleaf paperbark ( <i>Melaleuca linarifolia</i> )	
Heath melaleuca ( <i>Melaleuca ericifolia</i> )	
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Mexican pinon pine ( <i>Pinus cembroides</i> ‘ <i>Edulis</i> ’) .....	15
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Norfolk Island pine ( <i>Araucaria heterophylla</i> )	
▲ Olive ( <i>Olea europaea</i> )	
▲ Dwarf olive ( <i>Olea europaea</i> ‘ <i>Little Ollie</i> ’ & ‘ <i>Montra</i> ’)	
▲ Fruitless olive ( <i>Olea europaea</i> ‘ <i>Wilsonii</i> ’, ‘ <i>Majestic Beauty</i> ’, ‘ <i>Fruitless</i> ’, or others)	
Oriental arborvitae ( <i>Thuja orientalis</i> ‘ <i>Aurea</i> ’)	
Prickly melaleuca ( <i>Melaleuca styphelioides</i> )	
River she oak ( <i>Casuarina cunninghamiana</i> )	
White ironbark ( <i>Eucalyptus leucoxylon</i> ‘ <i>rosea</i> ’)	

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\* Images Included.

▲ Requires good drainage

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## PLANTS

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TREES – *DECIDUOUS*PAGE NO.American ash (*Fraxinus americana*)Chinese tallow tree (*Sapium sebiferum*)Common horsechestnut (*Aesculus hippocastanum*)English oak (*Quercus robur*)Fremont cottonwood (*Populus fremontii*)Idaho locust (*Robinia ambigua* 'Idahoensis')▲ Italian alder (*Alnus cordata*)Norway maple (*Acer platanoides*)\*Paper birch (*Betula papyrifera*) ..... 17\*Purple leaf plum (*Prunus cerasifera*) ..... 20Red oak (*Quercus rubra*)Scotch elm (*Ulmus glabra*)Siberian elm (*Ulmus pumila*)Sycamore maple (*Acer pseudoplatanus*)Texas umbrella tree (*Melia azedarach umbraculiformis*)

## PALMS &amp; PALM-LIKE PLANTS

Bush fan palm (*Chamaerops humilis*)\*Canary Island date palm (*Phoenix canariensis*) ..... 23CA fan palm (*Washingtonia filifera*)Sonoran fan palm (*Washingtonia robusta*)

\* Images Included.

▲ Requires good drainage

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*▲ Coyote brush ( <i>Baccharis pilularis</i> ) .....	30
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▲ Hollywood juniper ( <i>Juniperus chinensis</i> )	
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\* Images Included.

▲ Requires      good      drainage

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 Turf grasses	
○ Buffalograss ( <i>Buchloe dactyloides</i> )	
○ Hybrid bermudagrass ( <i>Cynodon spp.</i> )	
○ Perennial ryegrass ( <i>Lolium perenne</i> )	
○ Salty alkaligrass ( <i>Puccinellia distans</i> )	
○ Tall fescue dwarf varieties ( <i>Festuca arundinacea</i> )	

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