

TEXAS SMARTSCAPE

ENTER YOUR NAME



SmartScape Overview

1. Water conservation
2. Water pollution and the storm water connection
3. \$\$ savings by using native and adapted perennials, shrubs, grasses and trees
4. Impact of pesticides and fertilizers
5. Creating wildlife habitats that attract butterflies, hummingbirds and other beneficial wildlife
6. Using soil, compost and mulch
7. Planting the right plant in the right place (sun and shade requirements)
8. Planning and designing a garden using six steps outlined
9. Using the searchable garden toolbox database to pick the right plants
10. Resources available in your community

Water Conservation

"At least a third of the water being put on the landscape doesn't need to be there. It's running down the street, or it's being applied in the rain, or it's over watering plants,"

- Marilyn Good, Chairwoman, Texas Water Wise Council

Star Telegram, Jul. 20, 2003



Water Pollution

Runoff pollution is one of the nation's worst water quality problems

40% of our waters are impaired (i.e. too polluted for fishing, swimming, and other uses)



What is the storm water runoff connection?

As rainfall runs off our streets, parking lots, and yards and into drainage ditches, gutters, storm drains, etc. it picks up:

- ☀ Soil
- ☀ Chemicals
- ☀ Garbage
- ☀ and other pollutants

and carries them **untreated** directly into our creeks, lakes, and rivers.



What are a few examples of storm water pollutants?

- Oil and antifreeze washed off driveways
- Grass clippings dumped into storm drains
- Bacteria and organic matter from pet wastes and sewer overflows
- **AND.....**



Too many pesticides and fertilizers used or...



applied improperly or at the wrong time



Graphic courtesy of the City of Tacoma, Washington

SmartScape can help!



- Conserve water and **save \$\$** on your water bills
- **Beautify your home** and raise your property's value
- Switch to a more natural, soothing environment and **help reduce stress**
- Create a **healthier environment** by using less pesticides and fertilizers and **help reduce storm water pollution**

Save \$ on your water bills



- 40 – 60% of water bills are spent on outdoor water use.
- Typically, native and adapted plants, once established, require 80% less water than non-adapted species.
- Even during our hottest, driest periods, these plants will continue to thrive and bloom with only one or two good soakings per month.

Learn about proper watering techniques in the section titled “Design Tools”



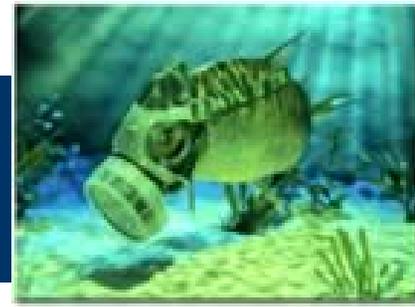
Other \$ savings by SmartScaping

- Save money by buying less fertilizer and pesticides
- Save money on plant replacements caused by droughts and local watering restrictions
- Save money by avoiding future increases to water pollution treatment costs



Learn more in the section titled “Benefits of SmartScape: Economic”

Impact of pesticides and fertilizers



- Water monitoring indicates storm water runoff carries pesticides from residential yards to neighborhood creeks, ponds, lakes and rivers.
- Insecticides end up killing not only the "bad" insects, but also the beneficial ones, such as bees, butterflies, and other pollinators.
- Bioaccumulation in fish.
- Fertilizer nutrients promote algae growth, which can choke out small ponds, tanks and slow-moving streams resulting in depleted oxygen for aquatic animals.
- The best soil amendment to increase growth and health is organic compost.

Learn more in the section titled “Benefits of SmartScape: Ecological”

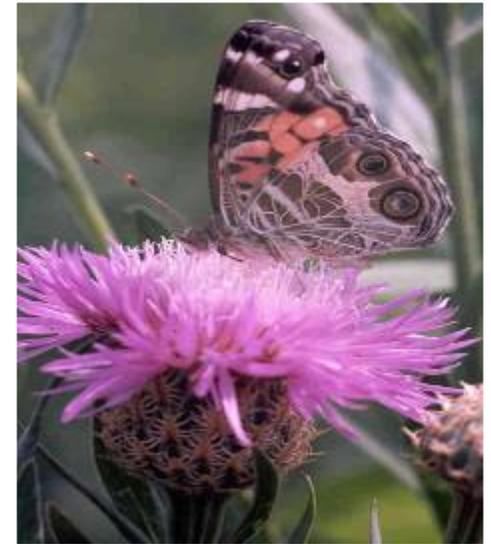


Create wildlife habitats

- SmartScape can help provide three of four critical habitat components for native wildlife:
 - Food
 - Shelter
 - Space
- Plant Diversity = Wildlife Diversity!



Wildlife benefits of each SmartScape plant is listed in the Garden Tool Box section under “Search Plants”



Soil, Mulch and Compost



- Predominant soil type will determine:
 - which plants to select
 - watering techniques to use
 - to what extent soil amendments will be needed
- Compost and mulch are great soil amendments



Learn more in the section titled “Design Tools: Soil and Mulch”

The right plant for the right place



- It is critical to match plants with the correct sun and shade requirements for the exact location where planting is desired
 - Lack of sunlight causes poorly formed plants, lack of blooms and more diseased plants
 - Too much sunlight will cause burned leaves and stress plants to the point of dying
- The plant database can be searched based on sun and shade requirements in your yard

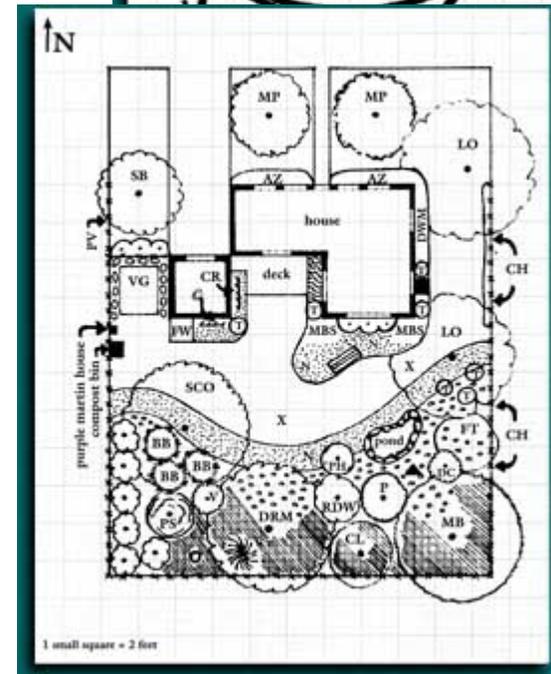
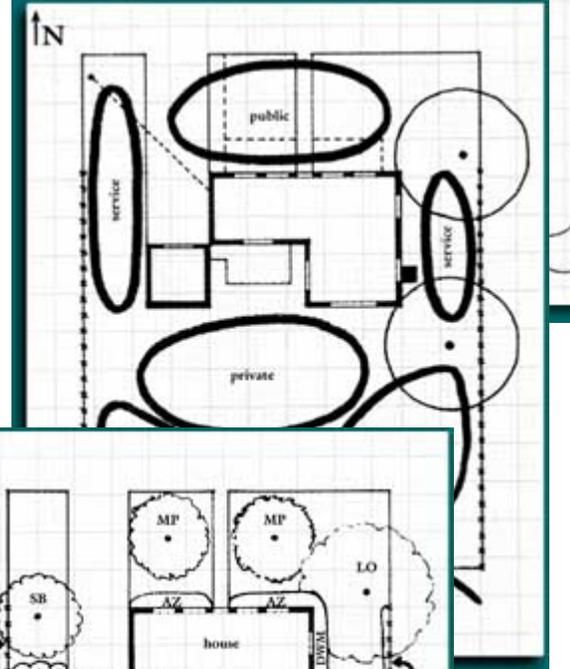


Learn more in the section titled “Design Tools: Sun and Shade”

Plan and design a SmartScape garden

- Six steps to plan and design a garden
 1. Develop a base map
 2. Inventory the property
 3. Develop a current uses map
 4. Develop a future uses map
 5. Develop the function plan
 6. Develop the final plan

Learn how to use the six steps in the section titled “Design Tools: Design Layout”



Searching the garden toolbox database

- SmartScape has a searchable database of 200+ plants with photos and easy-to-use plant information
- Interactive database, meaning you select the criteria such as:
 - Plant type (grasses, shrubs, trees, perennials, etc.)
 - Ornamental color (blue, red, purple, pink, etc.)
 - Light requirement (full sun, partial shade, etc.)
 - Water demand (low, medium, high)
 - High water demanding plants are included for areas with poor drainage conditions
 - Plant form (bushy, conical, columnar, etc.)
 - Plant spread and height (inches, feet)
 - Native or adapted
 - Wildlife value (hummingbirds, butterflies, etc.)
 - Blooming (fall, summer, winter, spring)
 - Deciduous or evergreen

Using the SmartScape garden toolbox



SmartScape™ Plant Search - Garden Toolbox

Plant Type: All

Ornamental Color: All

Light Requirement: All

Water Demand: All

Plant Form: All

Plant Spread (ft.): Min. Any Max. Any

Plant Height (ft.): Min. Any Max. Any

Native Texas Plant: All

Wildlife Value: Any

Blooming: All

Deciduous Or Evergreen: All

Enter part or all of plant's common name (e.g. lily)

Search For Plants Clear All Choices Return To Main Menu



Tip on using the database: make reasonable selections or the query will not return plants. For example: a shrub that's 20 ft. high, pink and blooms in winter will not work.

Search Result: Plant Information



SmartScape™ Plant Search - Garden Toolbox

Click on photo to enlarge it.



Photo provided by: Randy Weston,
Weston Gardens Inc.

[Return To
Search Results](#)

[Print Plant Info](#)

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Main Menu](#)

Information On Butterfly Bush

Botanical Name: Buddleia davidii

Plant Type: Perennial

Plant Form: Upright

Light Required: Full Sun

Water Demand: Medium

Plant Height (ft.): 6'

Plant Spread (ft.): 4'

Ornamental Value: White, Pink, Purple, Red

Months Of Bloom: Jun - Sept

Native Texas Plant: Adapted

Deciduous/Evergreen: Deciduous

Wildlife Value: Birds (including Hummingbirds),
Butterflies (nectar source)

Notes: As name implies, this shrub will attract a
myriad of butterflies for much of summer.
Wet feet will rot the root system. Cut
back every year for best bloom and
shape.

Local Resources Available

- Contact your city for information about their programs, such as:
 - Storm water pollution prevention programs
 - Water conservation education programs
 - SmartScape Demonstration Gardens, or others related such as Xeriscape Gardens, Yard Wise Gardens, etc.
 - Recycling
 - Composting
 - Volunteer opportunities
- Cities may have educational resources such as:
 - Curriculum or teaching aids
 - Speakers that can come to your neighborhood, school, etc.
 - Other opportunities to engage the community about protecting water quality
 - Educational events in the community

Local resources available

- EPA has several resources on the web:
 - EPA Greenscapes at <http://www.epa.gov/epaoswer/non-hw/green/>
 - EPA resources for teachers and students at <http://www.epa.gov/epahome/educational.htm>
- The Extension Service has the following programs throughout Texas and are available to make presentations, answer questions etc.:
 - Horticulture education
 - Master Gardeners*** in Tarrant County 817-884-1944
 - Master Composters
 - Master Naturalists On the web at: <http://tce.tamu.edu/> or <http://tarrant.tamu.edu/>

Who Created SmartScape?

- 2001 CD Project Team: Tarrant County Health Department, Texas Extension Service, Tarrant Regional Water District, Texas Parks & Wildlife, Weston Gardens and NCTCOG.
- Gene Rattan, with Tarrant County, served as the project manager



- 2003 Web sponsors: Trinity River Regional Water District, North Texas Municipal Water District, Upper Trinity River Water District, Dallas Water Utility, and the City of Irving



- 2005 West Texas SmartScape Team: City of Lubbock, Lubbock Chamber of Commerce, Texas Tech University



Questions & Comments?



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