

ASLA
SAN DIEGO
CHAPTER

American Society of Landscape Architects - San Diego Chapter

REGIONAL POSITION PAPERS

INTRODUCTION

The San Diego Chapter of the American Society of Landscape Architects (SDASLA) has brought together a group of professionals to serve as a technical committee to prepare a series of regional position papers. These position papers are available and will be distributed to local policy makers, the media, and the public to raise awareness of our Chapter's position on these issues and to help encourage the adoption of local policies and practices affecting our regional landscapes.

The following position papers are available for download:

- Water Conservation
- Fire Safety and Landscaping
- Golf Course Water Conservation
- Gray Water and Rainwater Use for Irrigation
- Home Owner Association Water Conservation
- Reclaimed, Recycled and Re-Purified Water
- Regionally Appropriate Landscapes
- Revegetation/ Restoration
- The Value of Native Plants
- The Value of Parks
- The Value of Trees
- Use of Turf Grass in the San Diego Region
- Vegetative Erosion Control
- Water Quality

For more information on the SDASLA Position papers, please email ASLASD@sbcglobal.net



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WATER CONSERVATION

American Society of Landscape Architects - San Diego Chapter
Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects recognizes that potable water is in finite supply, water conservation is a regional, as well as a global issue, and that our region relies heavily on imported water. San Diego ASLA encourages a regional approach to water conservation through the design/ retrofit, specification, installation and maintenance of highly efficient irrigation systems that utilize state-of-the-art irrigation technology, the use of automatically adjusting weather or soil moisture sensing “smart controllers”, and by utilizing regionally appropriate landscape plant species and inert groundcovers/ mulches. San Diego ASLA also encourages the creation of landscapes that have zero irrigation runoff, the use of recycled or rain harvested water, and the recharging of groundwater as a means to conserve finite potable water resources and reduce the demand for imported water.

BACKGROUND

Potable water is a finite resource. Water is part of the hydrologic cycle and is the only molecule that can be found in three phases at the same time (vapor, water and ice). Yet, the supply is finite even though it cycles between the three phases in our environment. Pollution also continues to affect the supply of potable water.

The earth’s water supply is only 2.8% fresh water. (0.16% is groundwater, 0.01% is lakes and streams, 2.2% is glaciers and icecaps, and 0.01% is water vapor.) The remainder, 97.2%, is salt water. (Source: Global Water Supply Statistics from the Water Education Foundation www.watereducation.org)

As of 2009, The San Diego region imports as much as 90% of its potable water from distant origins in northern California and the Colorado River. (Source: San Diego County Water Authority.) A significant amount of potable water is lost to over-irrigation and water usage approximately doubles during the summer months. The San Diego County Water Authority continues to pursue opportunities to diversify its water supply and reduce regional independence on imported water. However, growing populations in California and other western states have resulted in greater competition for finite water resources. (Source: The City of San Diego Water Department’s Commercial Landscape & Residential Survey Programs, 4th Annual Report, Fiscal Year 2006.)

Conserving water saves money. The cost to purchase imported water has increased regularly and the trend is towards a continued increase in water rates. Water conservation programs effectively and significantly reduce expenditures for imported water and extend local supplies. Reduction of consumption is important because rainfall alone will not solve the problems of supply, due to aging infrastructure, court-ordered pumping restrictions and other problems that affect the sources of our imported water supply. (Source: The City of San Diego Water Department’s Commercial Landscape & Residential Survey Programs, 4th Annual Report, Fiscal Year 2006.)





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WATER CONSERVATION

Continued

LANDSCAPE WATER CONSERVATIONS STRATEGIES:

- Conserve 20% - 40% of irrigation water annually by using a “smart” irrigation controller (automatically adjusts run times based on actual weather or soil moisture conditions). (Source: Irrigation Association).
- Conserve by using high irrigation efficiency application methods and proper pressure regulation (i.e. high efficiency verses spray irrigation).
- Conserve by using low water use plant species.
- Conserve by using warm season turf instead of cool season turf.
- Conserve through proper hydrozoning. (Separation of irrigation zones/ stations/ run times according to areas of the landscape with similar water needs based on plant species water requirements, slope/aspect, soil conditions, exposure (sun/ shade), wind, or other microclimate factors.)
- Conserve by applying a 2”-3” layer of mulch.
- Conserve by using areas of non-irrigated inert groundcovers/ mulches.
- Conserve by testing soils and designing, amending the soil, and setting the controller (i.e. cycle/soak) accordingly.
- Conserve through proper design of irrigation systems.
- Conserve through proper maintenance of irrigation systems.
- Conserve by irrigating during hours with the least evaporation (evening or early morning).

For information regarding the water use requirements of landscape plants species refer to: WUCOLS III (<http://www.owue.water.ca.gov/docs/wucols00.pdf>).

For information regarding irrigation technologies refer to: the Irrigation Association (<http://www.irrigation.org/default.aspx>)

For more information on water resource issues refer to: www.watereducation.org.

Also see the following related position papers:

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FIRE SAFETY AND LANDSCAPING

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 30, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages the creation and maintenance of defensible space in landscapes as a precaution for fire safety through design. The occurrence of fire in our region, including the burn cycles of the native chaparral, is a natural process that should be respected. San Diego ASLA encourages routine landscape maintenance and preventive design as a precaution for a fire safe landscape.

BACKGROUND

Recently, and throughout history, portions of San Diego and the Southern California region have been devastated by wildfires. The 2003 and 2007 San Diego Wildfires have burned countless acres, cost the state billions of dollars to fight, and have destroyed millions of dollars worth of property leaving businesses and families homeless. San Diego residents should take steps toward fire defense through landscape practices to reduce the flammability of the fuel surrounding their property. Brush management zones in the landscape surrounding homes and structures should be created for fire safety and defensible tactics. Vegetative arrangement, removal of combustible materials, and maintenance should be practiced to create a defensible space.

Brush Management

Proper tree pruning and spacing can help diminish the speed and spread of fires. Trees typically should be planted away from structures and existing trees should be trimmed away from the roof especially near chimneys. Trees and shrubs should also be pruned to prevent the spread of fires.

Landscape Design

Drought tolerant, low water, fire resistant plantings should be incorporated throughout the design of property. Hardscape such as decorative stones, masonry, gravel beds, and fire resistant mulch can also be incorporated within the landscape to provide a defensible space.

Maintenance

Continual maintenance is crucial towards fire safety within the landscape. Plant material trimmings and other highly flammable debris should be periodically removed from brush management zones and the area surrounding structures, as well as porches, decks, and roofs. Removal of dead trees, shrubs, dry leaves, and needles are very important in protecting homes and structures from fires.

Please check with your local jurisdiction for fire safety requirements and standards.



Photo by John Gibbons / Union-Tribune



Post recovery photo by Linnea Spears



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FIRE SAFETY AND LANDSCAPING

Continued

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GOLF COURSE WATER CONSERVATION

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects supports the regional golf industry and encourages the responsible design, operation, and maintenance of golf course facilities. Golf courses should be designed or retrofitted to provide a sustainable, regionally appropriate landscape using low water use plants, efficient irrigation systems, and effective soil management. Golf courses should be operated and maintained to conserve water and to avoid or mitigate negative impacts to the environment.

BACKGROUND

Golf provides a significant recreational, commercial and economic value to the San Diego region. Golf provides an important and widely enjoyed opportunity for active recreation, relaxation, skill building, friendly competition, social interaction, business networking, and enjoyment of the outdoors. Golf is a significant contributor to the San Diego region's reputation and economy with courses and tournaments attracting tourists from all over North America and the world. Golf courses provide a cooling effect from the large planted areas, carbon sequestration, oxygen production, and reservation of open space.

Golf course water conservation is critical since fresh water is a limited resource in the southwest United States. As traditionally designed, golf courses require large amounts of water to maintain the greens, fairways, and perimeter rough areas while supporting a limited numbers of users. Through careful planning and water conservation measures, water used on golf courses may be reduced. It is recommended that all golf courses maximize water conservation using water saving techniques, including:

- Require recycled water for golf courses.
- Encourage links-style designed courses where appropriate.
- Plant regionally appropriate grasses and other species with low water use requirements.
- Employ soil management techniques to maximize water retention, and minimize run-off.
- Design irrigation equipment and controllers, and retrofit existing systems to provide consistent water applications in direct proportion to the water needed to sustain the plants.
- Where well water is used for golf course irrigation, minimize the impacts to wells and water tables downstream and return moisture to the ground water table.
- Minimize water quality impacts to groundwater and areas downstream.
- Consider planting trees, where possible, to provide environmental benefits such as shading, and carbon-dioxide sequestration.





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GOLF COURSE WATER CONSERVATION

Continued

Golf courses also represent a potential impact to the environment, including pollution from pesticides, fertilizers, pollution from maintenance equipment, green waste generation, displacement of natural resources, high water use, and the introduction of invasive species. Golf courses should be designed, operated, and maintained with sustainable and environmental objectives and practices.

Also see the following related position papers:

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GRAY WATER & RAINWATER USE

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 30, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects recognizes water conservation and savings by the use of gray water and rainwater capture/harvesting systems within our landscapes. San Diego ASLA encourages municipalities, new and existing homes, and appropriate commercial projects to integrate gray water and rainwater capture into their irrigation systems. We strongly urge government agencies to promote and implement practical standards and regulations for the use of these systems.

BACKGROUND

As the availability of water in San Diego, California is reduced, irrigation water for ornamental landscape will become a restrictive commodity. The State of California is currently issuing the Model Water Efficient Landscape Ordinance, which will mandate water reductions for ornamental landscapes.

Gray water is the water that can be collected from sinks, tubs, dishwashers, clothing washers, etc. and reused within the landscape. The reusable water is collected by connecting the drain lines to pipes that flow to a sealed filtering tank instead of the sewage system. This tank has an overflow connection to the sewer system with a backflow prevention device, which protects the reusable water. In case the reusable water is not produced in a sufficient quantity, potable water is added to the system to maintain the required water needs of the landscape.

Using a properly designed and installed gray water and rainwater capture/harvesting system can utilize up to half of the water used from a home. According to numerous studies on gray water usage, including the renowned American Water Works Association's 1999 National [Residential End Uses of Water](#) report, a typical person produces 39.1 gallons of gray water per day. An average home contains 3.2 people, which results in the production of approximately 125 gallons of gray water per day or 45,625 gallons of gray water per year.

Waste water will be reduced. If half the water from inside a residence, or some commercial types of buildings, is reused to irrigate ornamental landscape, the same volume of water will be reduced from flowing to the sewage treatment plant. This would reduce the sewage plant's cost of operations, mainly by reducing energy demands, and decreasing chemical discharges into the environment. If a home is on a septic system, the reduced impacts to the precious leach fields would be up to 50%. This would be accomplished by not only removing the sheer volume of water and placing it at the root zones for plant usage, but also by introducing gray water's inherent solids, which are almost exclusively organic, into the upper layer of the soil, which has a high degree of microbial activity. There, the indigenous microbes in the soil would ingest those solids, producing mainly fulvic and humic acids, which are literally plant food.



Photos: ReWater Systems, Inc.



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GRAY WATER & RAINWATER USE

Continued

Rainwater capture or harvesting is typically collected from the roof area. The annual rainfall yield in gallons varies per the roof size and rainfall amounts. For example, in an area where the rainfall is 10 inches per year, a 2000 square foot roof yields approximately 12,400 gallons of water annually. The calculation is: rainfall in inches x square feet of capture area x 0.62. Unfortunately, the cost to provide storage of rainwater to be used when needed may be too expensive for most residences and small commercial projects.

The [LEED point system](#) (Leadership in Energy and Environmental Design) recognizes the value of a gray water irrigation systems and also recognizes the value of rain harvesting/ run-off pollution prevention measures.

Also see the following related position papers:

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HOA WATER CONSERVATION

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages the reduction of irrigation water use in Home Owner Association (HOA) common area landscapes through proper design, retrofitting, and maintenance of landscape plantings and irrigation systems. San Diego ASLA encourages collaboration between HOA management companies, HOA board members, and HOA maintenance contractors to get involved with their part in landscape water conservation.

BACKGROUND

As water in Southern California is becoming a declining precious resource, the State is currently issuing the Model Water Efficient Landscape Ordinance which will mandate water reductions within our landscapes. Also, the trend towards a continued increase in water rates by water purveyors will result in increased HOA dues. San Diego ASLA recognizes that reducing irrigation water in these landscapes will not only help promote water conservation, but will also lower annual landscape maintenance costs.

Our greatest assets within these HOA landscapes are the many canopy trees which provide much needed shade and cooling benefits to our communities. The established shrub and ground cover plantings also provide erosion control and beauty. However, in certain cases, a considerable amount of irrigation water is being expended by non-functional turf grass areas, outdated/ inefficient/ and poorly maintained irrigation systems, and over watering/ improper use of irrigation controllers.

HOA's should require their landscape maintenance companies to strictly monitor and control the irrigation systems they are responsible for. Upgrading irrigations controllers to weather-based or soil moisture sensing "Smart Clocks" will distribute the appropriate amount of irrigation water based on plant requirements, soil type, and actual weather/ soil moisture conditions, thus conserving an estimated 20% - 40% of irrigation water annually compared to standard clocks. (source: Irrigation Association) Inefficient spray nozzles should be retrofitted with high efficiency irrigation systems. Retrofitting non-functional (purely decorative) turf areas with native species, lower water use plantings, newer hybrids of more water efficient turf grasses, or inert materials such as decomposed granite and decorative gravel will provide additional water conservation. Some water agencies have rebate programs for these controller and other retrofitting upgrades.





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HOA WATER CONSERVATION

Continued

With proper preparation, implementation, and management of a water conservation program, landscape irrigation water can be greatly reduced while preserving the aesthetics of the Southern California housing development landscapes.

HOA board members may contact the San Diego Chapter of ASLA (www.asla-sandiego.org) to be put in contact with a local Landscape Architect whom can assist in developing an HOA water conservation program to start saving water and money.

Also see the following related position papers:

- Water Conservation
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RECLAIMED, RECYCLED, REPURIFIED WATER

American Society of Landscape Architects - San Diego Chapter
Board Approved: July 28, 2009

POSITION STATEMENT

The re-use of water as a valuable resource must be acknowledged, expanded and maximized for both potable and non-potable uses in order to lessen the demand on imported potable water and to provide a more abundant water supply for our region. The distribution infrastructure should be expanded to provide reclaimed or recycled water to parks, golf courses, streetscapes, business parks and other large scale water users, and the existing treatment facilities at Miramar and the South Bay should be operated at full capacity to take advantage of the facilities in place. We recommend the implementation of reservoir augmentation or groundwater recharge with repurified water within our region where practical. The investigation of water desalination, and rainfall runoff as additional water resources must also be continued and all sources of water to support the regions' needs should be explored.

BACKGROUND

The water that is used in the San Diego region comes from distant sources. As of 2009, approximately 90% of our water is imported from Northern California and the Colorado River. (Source: San Diego County Water Authority.) The energy expended to transport and treat this water accounts for the majority of the costs associated with this resource and is the largest use of energy in the State of California. Even though we reside in an arid climate and region, a majority of this resource is used once, processed through primary sewage treatment and discharged into the ocean.

The County and City of San Diego, and all other communities in the region rely on a constant supply of imported clean water to support our residential, recreational, agricultural, commercial, business, tourism, manufacturing, and defense activities that have been established here and are continuing to develop here. With the surge in growth of not only the San Diego region, but the entire southwestern United States, the quantity of water available to service the needs of all areas and users is being impacted. Additionally, because of the cumulative impacts on natural ecosystems, the variations of seasonal rainfall, the current drought pattern that has persisted for several years, and the reality that water is a finite resource, monitoring of water use and exploration of water re-use is going to be required to assure the availability in the future for the regions' continued standard of living.

The discussion of water reclamation, treatment and re-use for large scale landscape irrigation, recharge reservoirs and groundwater aquifers needs to be elevated to an urgent status. The process of water re-purification as an additional method of treating and recharging the regions' reservoirs is another process to leverage the water resources that have been imported to the County.



Also see the following related position papers:

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REGIONALLY APPROPRIATE LANDSCAPES

American Society of Landscape Architects - San Diego Chapter

Board Approved: February 24, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages landscape compatibility within its regional setting. Landscape compatibility includes selecting appropriate plant materials based on regional microclimates, proximity to natural open spaces, and urban context. San Diego ASLA encourages a San Diego “style” for urban landscapes. The San Diego style landscape should be primarily composed of plant species native to the region and/or species from similar climates. Turf grass should be used minimally with the exception of functional active and passive recreation areas. Water conservation is a primary objective. Non-irrigated landscapes are also encouraged where appropriate.

BACKGROUND

Regional context:

San Diego County covers 4,225 square miles with varied terrain, soils, extensive elevation differences, and coastal influences. These factors create varied weather conditions throughout the region and are known as microclimates. The four regional microclimates within the County are as follows: Coastal, Inland Valleys, Mountains, and Deserts. These regional microclimates have vastly different temperatures and rainfall. Landscape plant species should be selected based on the appropriate regional and local microclimate.

Proximity to natural areas

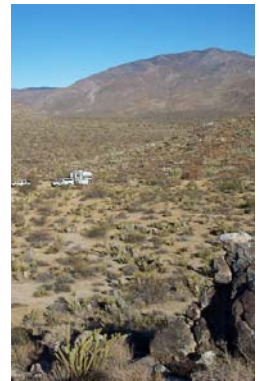
San Diego County contains over 200 plant and animal species that are federally and/or state listed endangered, threatened, rare, proposed candidates for listing, or sensitive. Invasive plant materials threaten the integrity of these diverse ecosystems.

Landscape plants in, adjacent to, and within proximity to natural open spaces should be selected based on their compatibility with natural open space (non-invasive/ non-regenerative and genetically compatible). Irrigation water from developed areas should not migrate via overspray, runoff, or other means, to natural areas.

Urban context

San Diego may be characterized by the diversity of its developed areas. Regional zones or “villages” vary in architecture, culture, ethnicity, overall demographics, and natural features. The landscape plays an important role in creating the distinction of these places.

Plant materials should be selected to support and strengthen the character of their proposed locale. The regional goal of creating a “San Diego style” with minimal turf grass should always be a consideration in designing urban landscapes within the region.





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REGIONALLY APPROPRIATE LANDSCAPES

Continued

Also see the following related position papers:

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REVEGETATION/ RESTORATION

American Society of Landscape Architects - San Diego Chapter
Board Approved: September 29, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages the restoration and revegetation of existing native habitats and the extension and creation of native habitats within appropriate public and private areas throughout the San Diego County region. San Diego ASLA recommends that revegetation and restoration efforts are consistent with the type of native plant communities naturally occurring within the respective microclimates of these restorations. San Diego ASLA also recommends the removal of non-native plant species which threaten the native habitats in our region. As existing laws protect and/or encourage the preservation of San Diego's native habitats, a clear need exists to also restore these habitats to native conditions.

BACKGROUND

Habitat restoration and creation is important to ensure that these habitats remain viable to native wildlife and plant species that are dependent on their continuing functionality.

Habitat disturbance occurs naturally as a result of such events as floods and wildfire. Disturbance of native vegetation communities also occurs due to human activities that range from large-scale activities such as grading, infrastructure development, canyon maintenance, over enthusiastic brush clearance for fire safety, overgrazing or other causes to smaller-scale activities such as spreading of exotic, non-native plant materials from landscaped areas. Some of the San Diego Region's canyons, waterways and uplands have become infested with invasive non-native vegetation. Non-native plants often out compete native species, which results in degradation and even loss of habitat for native wildlife species.

Some native habitats recovery naturally, such as after a wildfire or flood event, however, if the native seed bank is compromised by soil erosion or continued disturbance, the success of the native recovery process may be significantly reduced. If invasive non-native vegetation becomes established during this critical recovery period, reestablishment of pre-disturbance conditions may never occur without active restoration efforts. Such efforts may include aggressive treatment of non-native vegetation (e.g., herbicide treatment and/or mechanical removal), the replenishment of the seed bank through reseeding efforts, and/or planting the disturbed area with native container stock.

Revegetation/restoration of heavily disturbed areas caused by natural or human activities can greatly improve the recovery of these degraded habitats. Removal of invasive non-native vegetation, replenishment of the native seed bank, and replanting with native container stock will speed the natural habitat recovery process and reduce soil erosion. Active restoration can also limit further invasion by non-native species by increasing native cover and reducing opportunities for encroachment.





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REVEGETATION/ RESTORATION

Continued

Important Restoration Strategies. Disturbance activities that expose bare slopes should require restoration that may include such practices as: top soil salvage and replacement; soil decompaction in temporary work areas; and the use of mulching, netting, hydroseeding, or erosion control blankets to assist in the germination and establishment of native seeds and container stock. For activities that involve removal of topsoil that contains plant propagules, or even whole plants, restoration efforts should include topsoil and/or vegetation salvage operations. Such salvage operations where topsoil-containing plant propagules or whole plants are removed, set aside, and replaced following construction reestablish necessary soil microbes along with the native seed bank, which facilitates more rapid restoration of the native communities.

Areas disturbed by wildfire may also require active restoration techniques to quickly establish the native herbaceous species that guard against erosion. This will be especially important in cases involving successive or multiple burns in the same area where the native seed bank has been depleted.

Temporary irrigation can also be used to facilitate effective restoration by providing the necessary moisture for quicker germination and establishment of native vegetation. Temporary irrigation systems are a valuable tool in the initial establishment period both wetland and upland restoration sites. After the initial plant establishment period, irrigation should be used to increase the duration of rain events. Although use of supplemental irrigation is often critical in establishing native species, irrigation will also encourage non-native vegetation growth. Therefore, a good maintenance program is necessary to monitor soil moisture, plant material establishment of native seedlings and container stock. The removal of any non-natives prior setting native seeds or container stock is as imperative as the continued maintenance and elimination of non-natives or exotics.

Landscape plants in, adjacent to, and within proximity to natural open spaces should be selected based on their compatibility with natural open space (non-invasive/ non-regenerative and genetically compatible). Irrigation water from developed areas should not migrate via overspray, runoff, or other means, to natural areas.

The value added by active restoration activities will help maintain the viability of San Diego's native plant communities and habitats. The integrity of our region's native habitats is dependent on diligent conservation and restoration efforts by all citizens.

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THE VALUE OF NATIVE PLANTS

American Society of Landscape Architects - San Diego Chapter
Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects supports and encourages the use of native plants for erosion control, plant restoration, constructed landscapes, private yards, and all applicable areas within the natural and built/ urban environment. We also strongly encourage the conversion of ornamental slopes to native vegetation where appropriate. For the purposes of this position paper, native plants are considered to be plants that grow naturally within San Diego County, and more specifically, are plants that grow within the same naturally occurring plant community as they are to be planted. San Diego ALSA specifically recommends to:

- Promote planting of species native to San Diego County to increase public knowledge and understanding of native plants and their horticultural requirements and benefits.
- Plant native species for erosion control, for revegetation, in development perimeters, and in areas adjacent to natural open space.
- Incorporate native plants in ornamental landscapes.
- Increase the availability of native plants in nurseries.
- Select native plants compatible with microclimate, sun exposure, soils, slopes, and water availability.
- Perpetuate species diversity, genetic authenticity and local ecotypes.
- Promote local seed harvesting and plant propagation.
- Carefully consider potential for flammability. (Some natives are highly flammable.)
- Protect and respect existing native vegetation.
- Discourage the use of invasive, non-native plant species that may invade or displace native habitats.

BACKGROUND

Native plants typically survive with minimal amounts of supplemental irrigation, are adapted to the climate, and provide habitat for birds and other wildlife species. The planting of native plants where possible and appropriate will contribute to reduction of water use, minimize maintenance, reduce introduced weed species, and provide a regionally appropriate aesthetic compatible with the natural environment.

San Diego County has one of the most diverse varieties of native plant species in North America. Native plants have aesthetic, economic and environmental value and provide many benefits.





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THE VALUE OF NATIVE PLANTS

Continued

Economic Benefits: Native plants thrive in the local climate minimizing expensive maintenance, plant replacement costs and water use. In some locations, a native vegetative cover can be established by a seeding program at the appropriate time of year, saving the cost of container planting and irrigation.

Erosion Control and Revegetation: Native plants used for revegetation of disturbed areas and retrofitted ornamental slopes will typically establish rapidly and adapt to local conditions. When properly designed and installed, areas vegetated with native plants can provide a self-sustaining plant cover with minimal maintenance requirements.

Habitat Enhancement: Increasing the use of native plants will expand habitat for native birds, insects and wildlife. The native plantings will increase the area available to provide for survival of local species.

Minimization of Invasive Weeds: Exotic species planted in landscapes can quickly become weeds in both the built environment and the local natural environment. Landscaping with native plants reduces the introduction of invasive species, protecting natural habitats.

Water Quality Benefits: A self-sustaining native landscape will survive drought and establish itself in perpetuity, intercepting rain in the leaf canopy, increasing water infiltration into soil, slowing surface run-off and reducing flooding and erosion.

Maintenance and Management: A self-sustaining native landscape can self-seed, regenerate and continue to establish which will continually lower maintenance requirements. Native landscapes require little or no supplemental irrigation and require little or no trimming or manicuring.

Also see the following related position papers:

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THE VALUE OF PARKS

American Society of Landscape Architects - San Diego Chapter
Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects supports the development, expansion, refurbishment, preservation, operations, maintenance, programming, and appropriate management of parks within our region. Parks, in regards to this position paper, include the National, State, County, City, regional, community, neighborhood, and “pocket” public and private, active and passive parks, sports complexes, recreation areas, botanical/demonstration gardens and man-made or natural open spaces.

The prioritization of parks as “green” infrastructure within our urban fabric and their role in our society should not be compromised or underestimated. Funding should be considered for parks with similar priority as other infrastructure improvements. Although we encourage the use of all available water conservation techniques in parks, we also believe allocation of water resources shall be given a high priority for parks from a regional perspective.

BACKGROUND

Parks benefit the environment.

Parks have the ability to sequester carbon emissions, offsetting vehicle or other emissions, they filter runoff and stormwater, and they provide flood control, infiltration, groundwater recharge, and low impact development which assists in meeting Regional Water Quality Control Board standards. Parks promote habitat and provide habitat corridor links ensuring species diversity, they conserve our natural resources and plant and animal species, and they also mitigate climate – ambient air temperature within a park can be noticeably cooler (5-10 degrees) than in a surrounding urban environment.

Parks improve the quality of people’s lives by providing opportunities for people of all ages to develop physically, intellectually, socially, emotionally, and economically.

Physical benefits

Exposure to parks promotes health and well being by providing an environment conducive to programmed and non-programmed exercise, fitness, and conditioning such as sports, walking, hiking, biking, and jogging among numerous others. Playgrounds and non-programmed natural play areas provide opportunities for children to develop through activities such as climbing, swinging, sliding, crawling, digging, and exploring. Parks also provide a place to relax and experience fresh air and sunshine. Many studies have identified how exposure to nature and landscapes reduces blood pressure and other physical benefits.



THE VALUE OF PARKS

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Intellectual benefits

Park and recreation programs provide opportunities for intellectual development through educational programs, interpretive signage and displays, docent tours, and eyewitness experience of various flora and fauna of our world. Playgrounds and non-programmed natural play areas (as mentioned in Richard Louv's "Last Child in the Woods") provide a venue for cognitive problem and development solving through play. The atmosphere of parks also provides a venue for reading and studying. The rules and etiquette of sports are learned through sports leagues, events, clinics, practice, and programmed and non-programmed games.

Social benefits

Parks provide a common venue for public interaction, relationship building and community awareness. Neighborhood, regional and national events, family gatherings, celebrations and holidays such as Fourth of July, Memorial Day and Labor Day draw countless people to our parks. Park and recreation programs and sports programs also develop social and team-building skills.

Emotional benefits

Parks provide a place of escape from the typical surroundings that we live and work in. They can be a place to experience nature as well as fun and entertainment including festivals, concerts, and sports.

Economic benefits

Parks provide a free or affordable form of recreation. They provide the highest and best use of resources to benefit the most people. The California Park and Recreation Society (CPRS) studies and other studies, identify proximity to parks, especially passive parks, increases property values. Parks assist the tourism industry and they improve the leisure-related retail industry. Parks stimulate commercial growth and promote inner-city revitalization. Parks also attract tax-paying and job-creating businesses to regional and local areas.

Also see the following related position papers:

- Water Conservation
- Fire Safety and Landscaping
- Golf Course Water Conservation
- Gray Water and Rainwater Use for Irrigation
- Home Owner Association Water Conservation
- Reclaimed, Recycled and Re-Purified Water
- Regionally Appropriate Landscapes
- Revegetation/ Restoration
- The Value of Native Plants
- The Value of Trees
- Use of Turf Grass in the San Diego Region
- Vegetative Erosion Control
- Water Quality



ASLA
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CHAPTER

THE VALUE OF TREES

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 28, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects emphatically supports the continued planting, nurturing and replacement of trees in San Diego's urban environment and specifically to:

- Promote the maintenance and health of existing trees.
- Plant appropriate trees for San Diego's climate, microclimates, environment, soils, slopes, and water availability.
- Promote replacement of declining or dead trees.
- Discourage invasive, non-native tree species that may invade or displace native tree habitats.
- Support tree survival even in drought emergencies, providing ample water to maintain tree health.
- Protect existing trees, and encourage San Diegans to nurture existing trees and to plant new trees.

San Diego ASLA also encourages local governments to adopt policies and to enforce the review and regulation of tree preservation, removal, and mitigation.

BACKGROUND

Trees are the most important component of urban planting. Trees improve air quality, protect water quality, save energy, reduce global warming, add aesthetic value, improve economic sustainability, improve consumer perceptions and behaviors, increase real estate values, improve neighborhood identity and esteem, and have many positive sociological benefits. Therefore it is critical to support the continued planting and maintenance of these valuable societal assets. Trees represent a long-term investment and have greater value than other components of the landscape.

Trees have outstanding economic, cultural, aesthetic and environmental value as described below.

Economic benefits: Trees increase commercial and residential property values and the perception of value. First impressions of communities are based largely on trees. They enhance community economic stability by attracting businesses and tourists with a corresponding increase in property values. Trees contribute to the success of business districts, apartment complexes, residential properties and offices. Trees conserve energy, and reduce cooling and heating costs.

Air Quality Benefits: Trees and urban forests improve air quality by carbon sequestration (converting CO₂ to oxygen by removing carbon and storing it in woody tissues while releasing oxygen back into the atmosphere). Leaf surfaces trap and absorb gases and particulates to reduce pollutants, including, sulfur dioxide and other chemicals. Trees lower local air temperatures (reduce urban "heat island" effects) by transpiring water, shading surfaces and reducing cooling costs, energy use and the resulting pollution.





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THE VALUE OF TREES

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Water Quality Benefits: Trees and urban forests improve water quality by intercepting rain in the leaf canopy, increasing water infiltration into soil, slowing surface run-off and reducing flooding and erosion. Trees help to remove particulate matter, nutrients such as nitrogen, phosphorus and potassium, pollutants harmful to water quality, and help to protect wetland ecosystems from pollution. Trees help to protect ground water from pollution and increase ground water recharge.

Reduction of the Greenhouse Effect and Global Warming: Trees help prevent re-radiating solar energy, shade pavement, absorb carbon dioxide and transpire water and air, cooling the surrounding air thus reducing urban “heat island” effects. Healthy, actively growing trees are one of the most cost effective ways to draw excess CO₂ from the atmosphere and reduce greenhouse effect by shading homes, roofs, streets and parking areas, reducing cooling needs and consumption of fossil fuels burned to produce electricity.

Social Benefits: Trees provide significant social benefits, including a sense of well-being and comfort. Trees reduce the perception of noise and provide visual and physical buffers between discordant neighbors and land uses. Trees provide an enhanced sense of community and connection to the environment.

Urban Design Benefits: Trees add beauty, grace, fragrance and shade to outdoor spaces. They can visually buffer buildings and relieve harsh visual conditions. Urban trees enhance traffic calming, and protect pedestrians from traffic by providing a physical separation from vehicles. Windbreaks improve comfort in outdoor spaces, and trees provide shading and evaporative cooling. Trees provide habitats for birds and other wildlife in urban areas. Shaded asphalt streets retain their stability and need resurfacing less frequently since the oils do not dry out as fast to release the aggregate.

Maintenance and Management

Trees and the urban forest are part of the community infrastructure, requiring a long-term commitment to management, maintenance, protection, and replacement. Management should be based on the best research, scientific data, monitoring systems and long-term management practices for these critical natural resources. Practices should include planning for species diversity to minimize the effects of insects and disease on the overall urban forest. Aging trees should be replaced regularly based on health, condition and function. Utility repair and installation procedures should protect tree root zones from trenching, compaction by vehicles, and damage. Protection measures should be based on the tree species, the condition and sensitivity to root cutting of the individual tree. During droughts, water for tree survival can be supplied by bubblers, soaker hoses, or by manually filling watering basins. It is the responsibility of property owners, renters, business people and the general public to encourage, protect and honor trees.

Also see the following related position papers:

- Water Conservation
- Fire Safety and Landscaping
- Golf Course Water Conservation
- Gray Water and Rainwater Use for Irrigation
- Home Owner Association Water Conservation
- Reclaimed, Recycled and Re-Purified Water
- Regionally Appropriate Landscapes
- Revegetation/ Restoration
- The Value of Native Plants
- The Value of Parks
- Use of Turf Grass in the San Diego Region
- Vegetative Erosion Control
- Water Quality



ASLA
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CHAPTER

USE OF TURF GRASS IN THE SAN DIEGO REGION

American Society of Landscape Architects - San Diego Chapter

Board Approved: February 24, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages limiting the use of turf grass (manicured, non-native grasses) to areas with recreational or public benefits. Where the use of turf grass is appropriate, warm season grasses are encouraged, especially the most drought tolerant species. Cool season grasses are typically not well adapted to the region and thus much less appropriate. Turf grass reduction or removal and replacement with alternative vegetative, organic or inorganic materials in non-beneficial areas of existing landscapes is encouraged. As water and environmental issues have become of increasing concern, creative alternative thinking should be applied with regard to existing landscapes to promote landscapes that are attractive, environmentally friendly and which meet sustainability criteria.

BACKGROUND

Turf grass is a positive landscape element, providing many advantages that are not easily reproducible with other vegetative or artificial materials. This is especially true with regard to its use in passive and active recreation areas as well as achieving an aesthetic of a pastoral legacy. Limiting turf grass use to these areas is critically important for maintaining and addressing environmental sustainability and environmental concerns especially regarding water conservation.

Manicured turf grasses have been clearly identified as an element of the landscape with higher environmental costs due to the amount of water, fertilizer/pesticides, and power equipment impacts needed for maintenance. Plant substitution, reduction or elimination is a way to conserve water and reduce other potentially negative environmental impacts in the landscape.

When looking at alternative plant species, all aspects of sustainability should be considered. Plants that have low water use requirements, low fertilizer requirements, low pesticide requirements, non-invasive tendencies, and low maintenance requirements are encouraged. Other alternatives such as organic or inorganic mulch materials may also be used where appropriate. Turf replacement is an opportunity to create dramatic low water-use, low maintenance landscapes that add diversity, interest and color to our outdoor environment.

Artificial turf solutions do exist and may be considered in certain high traffic areas. However, environmental impacts of the material with respect to longevity and sustainability should be considered. Material contaminants, manufacturing processes, disposal, heat reflection, and required cooling methods should all be evaluated.





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USE OF TURF GRASS IN THE SAN DIEGO REGION

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The ultimate goal of turf reduction should be to significantly lower water use and maintenance activities while maintaining high permeability and low heat reflectivity, resulting in an overall positive improvement to the environment.

Also see the following related position papers:

- Water Conservation
- Fire Safety and Landscaping
- Golf Course Water Conservation
- Gray Water and Rainwater Use for Irrigation
- Home Owner Association Water Conservation
- Reclaimed, Recycled and Re-Purified Water
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- The Value of Trees
- Vegetative Erosion Control
- Water Quality



ASLA
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CHAPTER

VEGETATIVE EROSION CONTROL

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 30, 2009

POSITION STATEMENT

The San Diego Chapter of the American Society of Landscape Architects encourages preservation of both natural and built environments by controlling and suppressing unnatural soil erosion within our landscapes through the use of vegetative cover. Preservation of top soil and the soil substrate is also critical to providing a vital soil base for plant material growth and establishment.

BACKGROUND

Erosion can occur naturally in environments due to atmospheric and oceanic influences. This natural erosion is an important process in the replenishment of our natural environments and shall remain intact.

Unnatural soil erosion can occur due to vegetation removal (scarring), mechanical grading, soil compaction, diversion or concentration of natural water flow, excessive irrigation, and concentration of wind influences. Erosion can occur when the soil percolation rate is slower than the water application rate causing runoff. With runoff, soil particles are suspended and carried with the water flow. Erosion can also occur when exposed soil surface particles are loosened and relocated with wind. Any one of these occurrences, once initiated, can quickly expand to a larger soil erosion event.

Soil surfaces affected by unnatural erosion can lead to the decline of our water quality, natural ecosystems and our built environments. The depositing of excess soil silt can disrupt or destroy the natural balance of habitats and ecosystems. Once the sediment within the waterways is deposited, a damming effect can occur causing the potential health and safety issues that come with flooding.

Vegetative cover (plant material) is a natural, ecologically sound solution to control erosion. Trees, shrubs and groundcover provide protective covering of the soil surface by intercepting water drops, easing the drop impact of loosening soil particles on the soil surface. Plant roots also bind the surface and subsurface soil layers which minimizes erosion.





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VEGETATIVE EROSION CONTROL

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Important plant material qualities to minimize soil erosion in developed areas are:

Quick Coverage - It is critical to establish a vegetative cover before rain, wind or irrigation begins the erosion process. By providing temporary fast growing plant material, the soil surface will be stabilized. The temporary plant material should slowly be phased out as longer lived shrubs and trees are established.

Drought Tolerance - Due to the importance of water conservation, plant material that is drought tolerant is highly recommended. With proper management, as plant material matures and acclimates, plants will eventually be sustained with minimal supplemental watering. Where appropriate, native plant species should be used as a vegetative cover. Native plants provide excellent erosion protection, conserve water resources, and expand natural ecological habitats.

Extensive Root Growth - To prevent top soil erosion and substrate soil slippage, plant material with an extensive rooting system is imperative. A combination of deep rooting plant material and surface rooting plant material binds multiple soil layers and protects the soil surface.

Fire Resistance - Plant material species that are not conducive to spreading fire are encouraged to minimize the potential spread of fire to surrounding habitat and built communities within fuel modification zones and high fire probability areas.

Fire, at times a natural rejuvenator of our coastal sage environment, can leave the soil surface exposed after the denuding of the native vegetative cover. In native environments, the natural reestablishment of existing vegetation is encouraged to be the effective soil erosion protection. Native vegetation within our coastal sage environment often thrives after a fire if left to recover naturally. Exotic plant material within this community can often create competition that will be detrimental to its natural life cycle.

Additional temporary erosion control treatments may be necessary until vegetative cover is established.

Ultimately, vegetative soil erosion control is critical to the health and safety of our natural and built environments. With wise stewardship, by adhering to the Federal Clean Water Act and by adhering to the San Diego Regional Water Quality Control Board standards, unnatural soil erosion can be prevented.

Also see the following related position papers:

- Water Conservation
- Fire Safety and Landscaping
- Golf Course Water Conservation
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- Use of Turf Grass in the San Diego Region
- Water Quality



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WATER QUALITY

American Society of Landscape Architects - San Diego Chapter

Board Approved: July 28, 2009

POSITION STATEMENT

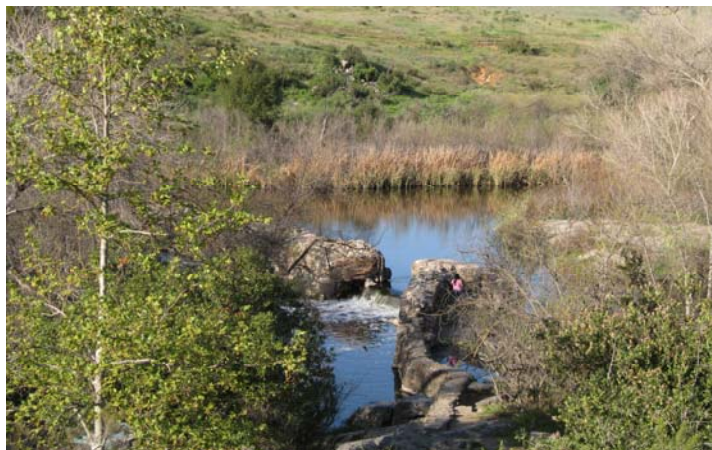
The San Diego Chapter of the American Society of Landscape Architects recognizes the global and regional significance of water quality preservation to our communities, regional ecosystems, recreation areas, and our economy. San Diego ASLA encourages design integration and collaboration that incorporates mechanical and vegetative treatment and infiltration techniques to control sediments and pollutants (low impact development) in order to limit stormwater effluent pollution of our regional water systems (improve water quality), to reduce urban runoff, and to recharge groundwater. San Diego ASLA also encourages creative and aesthetic landscape treatment and infiltration Best Management Practice (BMP) techniques that are committed to a regional context and design.

BACKGROUND

Landscape oriented integration of surface water runoff and compatibility with regional goals for clean water preservation is instrumental to the protection and preservation of our potable water systems, watershed systems, and the natural environment.

Natural watershed system components such as wetlands, estuaries, lakes, ponds, rivers and streams naturally filter and clean water and should be preserved. Irrigation and stormwater runoff contributes significantly to surface water pollution when it runs over hardscape surfaces and into stormdrains. Fertilizers, pesticides and herbicides are also carried in irrigation and stormwater runoff and contribute to water pollution of both groundwater and surface water that ultimately affects our watershed. Nitrates are instrumental in the promotion of algal blooms that promote eutrophication (increase of plant growth and decay resulting in lack of oxygen) and subsequent degradation of natural ecosystems.

Erosion control practices also play a part in water quality preservation. Preservation of topsoil, control of soil erosion, and hydromodification (altering the flow of water) are necessary components of the water quality and environmental protection process. Treatment train components for stormwater management (a series of water quality treatment devices or methods) that include landscape-oriented treatment and infiltration techniques may be combined with mechanical means to capture, screen and separate solids followed by pretreatment filtering and screening of sediments, heavy metals, chemical compounds, bacteria and other pollutants. Landscape bioretention basins, infiltration swales and sand filters should be employed to treat influent water, recharge groundwater and discharge treated water (effluent) into natural water systems.





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WATER QUALITY

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Constructed wetlands for surface or subsurface flow use natural biotreatment processes to treat influent water and remove pollutants and sediments and discharge clean effluent water into natural water bodies. The use of pervious and permeable surfaces and low impact development techniques also provides a means to infiltrate, harvest, recycle, and store treated water. Urban treatment systems may incorporate street trees and streetscapes as an integral part of stormwater treatment trains whether it is via prefabricated modular packaged treatment systems or by landscape architectural design and engineering.

A holistic approach to the protection of our natural environment will help preserve these integrated systems so that they can continue to perform their natural filtration and treatment functions.

Please check with your local jurisdiction for applicable water quality requirements and standards.

Also see the following related position papers:

- Water Conservation
- Fire Safety and Landscaping
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