CITY OF NAPA
LANDSCAPING STANDARDS
Adopted Resolution No. 86-76

1. Purpose

(a) Promote an attractive visual environment.
(b) Provide a transition between land uses.
(c) Encourage visual harmony between the natural and created environments.
(d) Reduce air, noise and visual pollution.
(e) Control the microclimate to help reduce energy use for heating and cooling.

2. Submission of Landscaping Plans

Landscaping plans shall be submitted to the Planning Director or Design Review Board for review and approval pursuant to the Napa Municipal Code. The Planning Director or Design Review Board may permit deviations from these standards when in their judgement, the purposes of these Standards would be better served by an acceptable alternative. An incomplete or inaccurate landscaping plan shall not be accepted for review and approval.

3. Landscaping Plan

A landscaping plan shall contain the information indicated on a form provided by the Planning Department.

4. Irrigation System

An irrigation system shall be required for all areas to be landscaped with vegetation. Approval of a landscaping plan shall not constitute any approval of the design or functioning of the irrigation system.

5. Amendment of an Approved Landscaping Plan

Any significant change of plant material or design from that contained in an approved landscaping plan shall require the approval of a revised landscaping plan by the original approving authority.

6. Final Inspection Approval

Final inspection approval by the Napa Building Department shall not be given for any building permit issued that was contingent on the submission and implementation of a landscaping plan until such plan has been implemented. A certificate of occupancy may be granted when in the judgement of the Planning Director landscaping work has been delayed because of adverse weather.

7. Existing Landscaping

Landscaping presently existing on parcels having structures that would have been subject to the provisions of these Standards if building permits for such structures had been issued after the effective date of these Standards shall be maintained according to the maintenance standards described below.

8. Maintenance

All required planting shall be permanently maintained in good condition and, whenever necessary, replaced with new plant material to ensure continued compliance with these Standards. For the purposes of enforcement, the property owner shall be responsible for maintenance. Maintenance shall include watering, weeding, pruning and spraying. All required fences and wall shall be maintained and, whenever necessary, repaired or replaced.

9. Performance Bond

A performance bond shall be posted based on a value (to be determined by the Planning Department) equal to the labor and materials necessary to implement the landscaping plan.

10. Standards

(a) The following standards shall be observed in all projects subject to the Landscaping Standards or landscaping requirements generally:

(1) Vegetation shall cover no less than eighty per cent (80%) of the required landscaped area at maturity.

(2) A planting area shall have a minimum width of three (3) feet exclusive of curbs, retaining walls or similar enclosing structures.

(3) Landscaping materials shall be contained so as not to spill or intrude into the public right-of-way.

(4) All trees shall be staked and all planting areas shall be mulched with material approved by the Planning Department.

(5) All non-paved areas within the public right-of-way adjacent to the property lines or public sidewalk of a project shall be landscaped.

(6) No landscaped area visible from the public right-of-way shall utilize non-vegetative ground cover (e.g. rock, plastic, bark, etc.) as a substitute for plant materials.

(7) The use of synthetic vegetation including, but not limited to, artificial turf and plastic plant shall not be allowed for any required landscaping.

(8) The landscaping plan and selection of plant materials shall reflect the policies of the Safety/Seismic Safety, Conservation and Open Space Elements of the General Plan.

(9) The minimum size for a shrub shall be five (5) gallon and the minimum size for a tree shall be fifteen (15) gallon. (Note: as per policy of the Design Review Commission.)

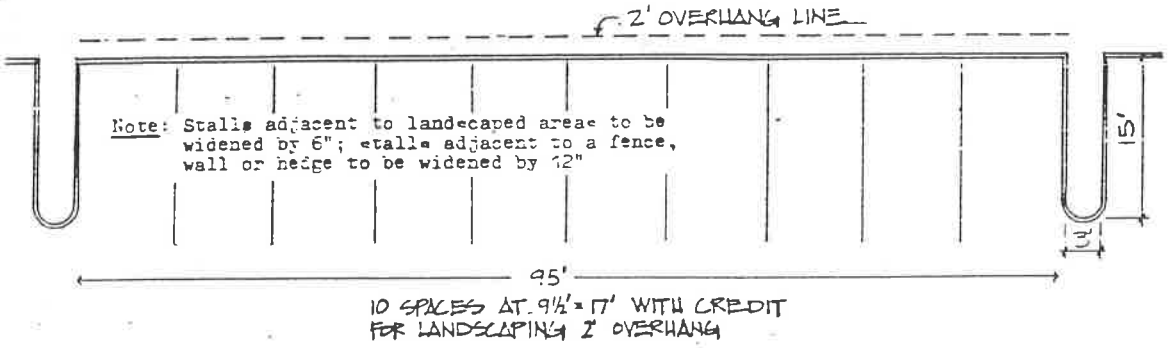
(10) In general, a tree of significant size or importance to be removed shall be replaced by a tree with a minimum size of thirty-six inch (36") box. (Note: as per policy of the City Council.)

(b) The following standards shall be observed in residential projects subject to the Landscaping Standards or landscaping requirements generally:

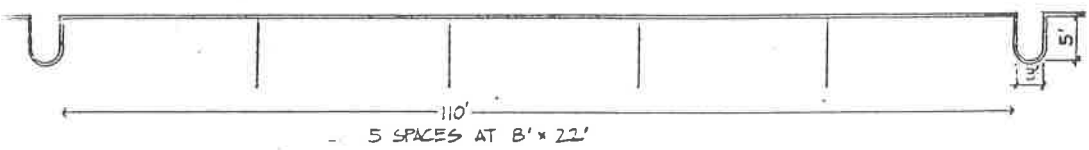
(1) Specimen trees of at least fifteen (15) gallon size shall be selectively sited throughout all common open area and/or at least every thirty (30) feet along any setback depending upon the type and design of the residential project.

(c) The following standards shall to all parking lots and parking areas subject to the Landscaping Standards or landscaping requirements generally:

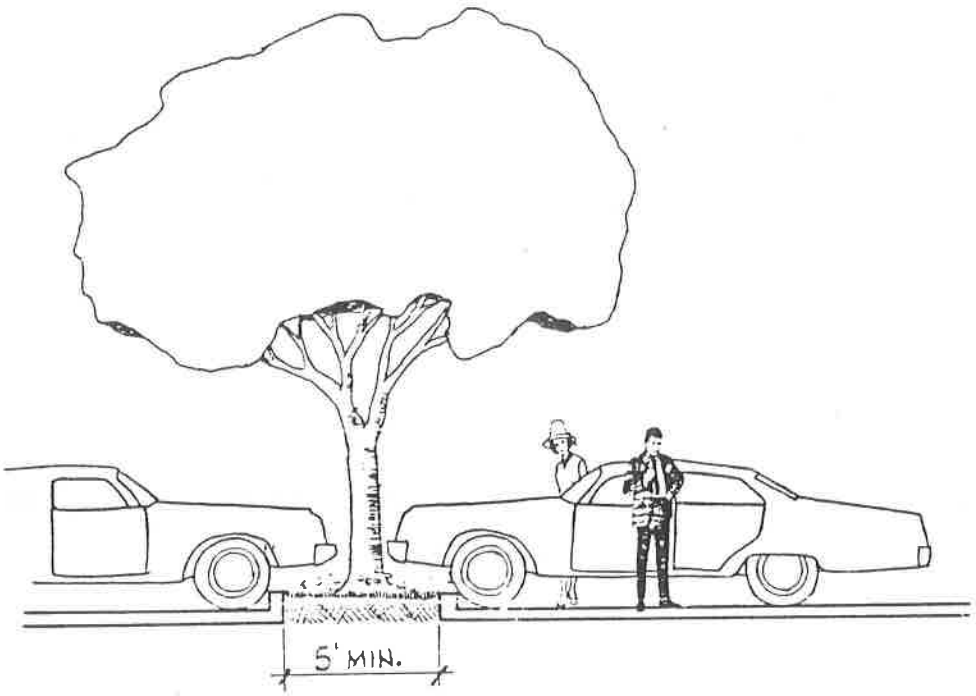
(1) For perpendicular (between 30 and 90 degrees) parking, a minimum of one (1) landscaped area with a minimum size of three (3) feet in width and 15 (fifteen) feet in length (exclusive of curbs) shall be provided for every ten (10) consecutive parking spaces.



(2) For parallel parking, a minimum of one (1) landscaped area with a minimum size of three (3) feet in width and five (5) feet in length (exclusive of curbs) shall be provided for every five (5) consecutive parking spaces.



(3) Where a row of fifteen (15) or more consecutive perpendicular parking spaces abuts another row of consecutive non-parallel parking spaces, the two (2) rows shall be separated by a landscaped area with a minimum width of five (5) feet (exclusive of curbs) and a length equal to the length of the longest of the two (2) rows of parking spaces. Any trees planted in this area shall be planted so that they are aligned with the stall line or striping to provide ample room for growth.



(4) Landscaping contiguous to a parking lot shall be enclosed by a curb or similar containing structure with a minimum height of six (6) inches. Where such curb serves as a wheel stop in a perpendicular parking space, the length of the parking space may be reduced by two (2) feet to allow for the front overhang of a parked car. This two (2) foot credit shall be allowed only if the overhang area is landscaped, and if such landscaping does not interfere with or discourage parked cars from using the overhang area or if the overhang area is a portion of a walkway. In the latter case, the walkway shall be widened commensurate with the amount of overhang.

(5) Shade trees of at least fifteen (15) gallon size shall be provided for all parking lots so that at maturity, such trees shall shade a minimum of fifteen percent (15%) of the non-landscaped area of a parking lot at noon when the trees have full foliage.

(d) The following standards shall apply to the screening of parking lots, parking areas and open storage areas subject to the Landscaping Standards or landscaping requirements generally:

(1) Parking lots and parking areas shall be screened from public streets, alleys, paths and private streets by dense landscaping having a minimum height of three (3) feet. An earth berm may be credited toward the prescribed height of any required screening. At all intersections and driveways, screening shall be restricted to a maximum height of two (2) feet, and trees shall be maintained to a clearance of seven (7) feet above ground as per the Visibility Requirements (S-23) contained in Standard Specifications for Public Improvements. A copy of the most current Standard is attached to these Standards for reference.

(2) Parking lots and parking areas shall be screened from abutting lots by a fence, wall and/or dense landscaping having a minimum height of six (6) feet. An earth berm may be credited toward the prescribed height of any required screening. At all intersections and driveways, screening shall be restricted to a maximum height of two (2) feet, and trees shall be maintained to a clearance of seven (7) feet above ground as per the Visibility Requirements (S-23) contained in Standard Specifications for Public Improvements. A copy of the most current Standard is attached to these Standards for reference.

(3) Equipment and open storage areas shall be screened from public streets, alleys, paths, private streets and abutting lots by a fence, wall or dense landscaping to a height of not less than six (6) feet.

RESOLUTION NO. 92-286

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF NAPA ADOPTING PROCEDURES AND STANDARDS FOR WATER EFFICIENT LANDSCAPE REVIEW

WHEREAS, the California State Water Conservation in Landscaping Act (Government Code Section 6559 et seq.) requires the City to adopt procedures and standards for the review of water efficient landscapes; and

WHEREAS, on December 15, 1992 Ordinance No.092-010 (hereinafter referred to as the Water Efficient Landscape Ordinance) was read and adopted.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Napa, State of California as follows:

Section 1. The City Council hereby finds that the adoption of procedures and standards for the implementation of the Water Efficient Landscape Ordinance is exempt from CEQA pursuant to Section 15307 of the CEQA Guidelines which exempts actions taken by the City as authorized by state law to assure the protection of natural resources where the regulatory process involves procedures for protection of the environment.

Section 2. The procedures and standards of the City of Napa for the review of projects subject to the Water Efficient Landscape Ordinance shall be those set forth in "Exhibit A" to this Resolution, "Water Efficient Landscape Guidelines" by title, incorporated herein by this reference.

I HEREBY CERTIFY that the foregoing Resolution was duly and regularly adopted by the City Council of the City of Napa at a regular meeting of said City Council held on the 15th day of December, 1992, by the following roll call vote:

AYES: Wagenknecht, Watter, Luce, Huber and Solomon

NOES: None

ABSENT: None

ATTEST: Pamela Mears
City Clerk of the City of Napa

RES92286/RESOLUTION/TXTLIB1

EXHIBIT A

WATER EFFICIENT LANDSCAPE GUIDELINES

REVIEW PROCEDURES

Prior to the issuance of building permits or grading permits for any project subject to the Water Efficient Landscape Ordinance, three copies of a Landscape Documentation Package, prepared by an architect, a landscape architect or landscape professional, and conforming with the following requirements shall be submitted to the Planning Department for architectural review of the site design. The documents are then forwarded to a water conservation consultant, who reviews the package for conformance with the City's standards. After approval, one copy of the approved Landscape Documentation Package shall be returned to the applicant for use as the job site copy, one copy is placed in the City's project file and one copy is retained by the water conservation consultant.

Upon completing the installation of the landscaping and the irrigation system, an irrigation audit shall be conducted by a certified landscape irrigation auditor. Then a final field observation shall be conducted by a licensed landscape architect, landscape contractor, or other suitably licensed or certified professional who shall provide copies of a Certificate of Substantial Completion to the Planning Department, the Water Department and the property owner or manager. This certificate shall specifically include reference to the landscaping, automatic irrigation system, and the irrigation audit, along with a list of any observed deficiencies. Upon the City's satisfaction that the installation has been completed according to the approved plans and in conformance with the City's standards any surety bonds held in relation to the installation may be released.

LANDSCAPE DOCUMENTATION PACKAGE

Each Landscape Documentation Package shall include the following elements:

(1) Water Efficient Landscape Concept Statement

Each landscape documentation package shall include a cover sheet, referred to as the Water Efficient Landscape Concept Statement, which serves as a check list to verify that the required elements have been included in the submittal and to serve as a summary of the project. The following information shall be included:

(a) Project Name

(b) City File Number

(c) Project Location

(d) Project Designer

(e) Maximum Water Allowance Calculation

A project's maximum water allowance shall be calculated using the following formula:

MAXIMUM WATER ALLOWANCE (in gallons per year) = 22* × LANDSCAPED AREA (in square feet)

*22 = Reference Evapotranspiration × ET Adjustment Factor × Units Conversion Factor

Portions of landscaped areas in public and private projects such as parks, playgrounds, sports fields, golf courses or school yards where turf provides a playing surface or serves other recreational purposes may require water in addition to the Maximum Water Allowance. A statement shall be included with the landscape design plan, designating areas to be used for such purposes and specifying any needed amount of additional water above the Maximum Water Allowance.

(f) Estimated Annual Water Use

(g) A checklist indicating completion of the following required items:
Landscape Design Plan, Grading Design Plan, Soil Analysis, Irrigation Design Plan, Irrigation Schedules, and Maintenance Schedule

(i) Description of Project

(2) Landscape Design Plan

A landscape design plan meeting the following conditions shall be submitted as part of the landscape documentation package.

(a) Plants shall be selected which are best suited to the climate of the region and to the geologic and topographic conditions of the site. Protection and preservation of native species and natural areas is encouraged.

(b) Plants having similar water requirements shall be grouped together in distinct hydrozones. A small percentage of the planted area may be used for annual color plants that are not water conserving. These water intensive landscape elements should be located in areas of high visibility and, in combination with lawn/turf, shall not exceed 25 percent of the

total landscaped area.

(c) Fire prevention needs shall be addressed in areas that are fire prone. [Information about fire prone areas and appropriate landscaping for fire safety is available from the Fire Department.]

(d) Decorative water features shall use recirculating water.

(e) Covers are required for swimming pools and spas.

The landscape design plan shall be drawn on project base sheets, showing pavement and utilities locations, at a scale that accurately and clearly identifies:

(a) designation of hydrozones;

(b) landscape materials, trees, shrubs, ground cover, turf and other vegetation (planting symbols shall be drawn clearly and plants labeled by botanical name, common name, container size, spacing and quantities of each group of plants indicated);

(c) property lines and street names;

(d) streets, driveways, walkways and other paved areas;

(e) pools, ponds, water features, lighting fixtures, fences and retaining walls;

(f) existing and proposed buildings and structures, including elevation if applicable;

(g) natural features including but not limited to rock outcroppings, existing trees and shrubs that will remain;

(h) tree staking, plant installation, soil preparation details and any other applicable planting and installation details;

(i) a calculation of the total landscaped area; and

(j) a designation of recreational areas.

(3) Grading Design Plan

A grading design plan satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

(a) A grading design plan shall be drawn on the project base

sheets. It should be separate from but use the same format as the landscape design plan.

(b) The grading design plan shall be designed to promote healthy plant growth and to prevent excessive erosion and runoff, and the use of mulches in shrub areas, garden beds, and landscaped areas where appropriate, and shall indicate finished configurations and elevations of the landscaped area, including the height of graded slopes, drainage patterns, pad elevations, and finish grade.

(4) Soils Analysis

A soils analysis satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

(a) A soils analysis shall include a laboratory report consisting of: a determination of soil texture, indicating the percentage of organic matter; a recommendation of the amount of additional organic matter to be incorporated into the soil; an approximate soil infiltration rate or range of infiltration rates (either measured or derived from soil texture/infiltration rate tables); a measure of pH and total soluble salts.

(b) Soil treatment shall include a minimum of three inches of organic mulch added to all planted areas except turf, to reduce evaporation, moderate soil temperatures, and discourage weeds. Visqueen, sheet plastic or other non-porous material shall not be placed under the mulch.

(5) Irrigation Design Plan

An irrigation design plan meeting the following conditions shall be submitted as part of the Landscape Documentation Package:

Design Criteria:

(a) Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low head drainage, over-spray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways or structures. Proper irrigation equipment and schedules, including features such as repeat cycles, shall be used to closely match application rates to infiltration rates, therefore minimizing runoff.

(b) Special attention shall be given to avoid runoff on

slopes and to avoid over-spray in planting areas with a width less than ten feet, and in median strips. No overhead sprinkler irrigation systems shall be installed in median and parking strips less than ten feet wide.

(c) For the purpose of determining the maximum water allowance, irrigation efficiency is assumed to be 0.625. Irrigation systems shall be designed, maintained and managed to meet or exceed 0.625 efficiency.

(d) Separate landscape water meters shall be installed for all projects except for single family homes or any project with a landscaped area of less than 5,000 square feet.

(e) Automatic control systems shall be required for all irrigation systems and must be able to accommodate all aspect of the design.

(f) Irrigation systems shall be designed to be consistent with hydrozones. Plants which require different amounts of water shall be irrigated by separate valves. If one valve is used for a given area, only plants with similar water requirements shall be used in that area. Anti-drain (check) valves shall be installed in strategic points to minimize or prevent low-head drainage.

(g) Heads and emitters shall have consistent application rates within each control valve circuit. Sprinkler heads shall be selected for proper area coverage, application rate, operating pressure, adjustment capability, and ease of maintenance.

(h) Rain sensing override devices are encouraged on all irrigation systems and shall be required on all systems with an area greater than 5,000 square feet.

(i) Recycled Water: In the event that recycled water meeting all local, state and federal standards becomes available, the use of recycled water for irrigation shall be required.

Irrigation plan requirements:

The irrigation design plan shall be drawn on project base sheets, showing pavement and utilities locations. It should be separate from, but use the same format and scale as the landscape design plan, and shall accurately and clearly identify:

(a) Location and size of separate water meters for the landscape.

(b) Location, type, size of all components of the irrigation

system, including automatic controllers, main and lateral lines, valves, sprinkler heads, moisture sensing devices, rain switches, quick couplers, and back-flow prevention devices.

(c) Static water pressure at the point of connection to the City water supply.

(d) Flow rate (gallons per minute) application rate (inches per hour) and design operating pressure (psi) for each station.

(e) Recycled water irrigation systems, unless waived by the City (see above).

(6) Irrigation Schedules

Irrigation schedules satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

(a) The estimated water use recommended for the established landscape shall not exceed the project's maximum water allowance.

(b) Irrigation schedules shall be required: for a two year plant establishment period; for the maintenance of the established landscape (spring, summer and fall seasons); and for any temporarily irrigated areas. The irrigation schedule may include usable precipitation as a factor, however, the estimated water use calculation shall not include usable precipitation.

(c) Irrigation schedules shall include run time (in minutes per cycle), suggested number of cycles per day, frequency of irrigation for each station and shall provide the amount of irrigation water (in units of 1,000 gallons) recommended on an annual basis.

(d) The total amount of water for the project shall include water designated in the annual irrigation schedule, plus water needed for any water features, which shall be considered as a high water using hydrozone.

(e) Recreational areas designated in the landscape design plan shall be highlighted and the irrigation schedule shall indicate if any additional water is needed above the Maximum Water Allowance because of high plant factors (but not due to irrigation inefficiency).

(f) Irrigation shall be scheduled between sunset and sunrise to avoid irrigating during times of high wind or high temperatures.

(7) Maintenance Schedule

A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

(a) Landscapes shall be maintained to ensure water efficiency. A regular maintenance schedule shall include, but not be limited to, checking, adjusting and repairing irrigation equipment; resetting the automatic controller; aerating and de-thatching turf areas; replenishing mulch; fertilizing; pruning and weeding in all landscaped areas.

(b) Whenever possible, repair of irrigation equipment shall be done with the originally specified materials or their equivalents.

(c) Landscape irrigation audits shall be conducted by certified landscape irrigation auditors upon completion of the installation to verify conformance with the design specifications. The audit shall be submitted with the Certificate of Substantial Completion, and thereafter at such time as the City deems necessary.

(d) Audit procedures shall be as described in the State of California Landscape Irrigation Auditor Handbook (June 1990), the entire document which is hereby incorporated by reference.

DEFINITIONS

The words used for the purposes of these standards have the meanings set forth below:

"anti-drain valve" or "check valve" means a valve located under a sprinkler head to hold water in the system so it minimizes drainage from the lower elevation sprinkler heads.

"application rate" means the depth of water applied to a given area, usually measured in inches per hour.

"automatic controller" means a mechanical or solid state timer, capable of operating valve stations to set the days and length of time of a water application.

"backflow prevention device" means a California State approved safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

"conversion factor (0.62)" means a number that converts the maximum water allowance from acre-inches per acre per year to gallons per square foot per year. The conversion factor is calculated as follows:

(325,829 gallons/43,560 square feet)/12 inches = (0.62)
325,829 gallons = one acre foot
43,560 square feet = one acre
12 inches = one foot

"emitter" means irrigation fittings that deliver water slowly from the system to the soil.

"established landscape" means the point at which plants in the landscape have developed roots into the soil adjacent to the root ball.

"establishment period" means the first year after installing the plant in the landscape.

"ET adjustment factor" means a factor of 0.8 that when applied to reference evapotranspiration, adjusts for plant factors and irrigation efficiency, two major influences upon the amount of supplemental water that needs to be applied to the landscape. A combined plant mix with a site-wide average of 0.5 is the basis of the plant factor portion of this calculation. The irrigation efficiency for purposes of the ET Adjustment Factor is 0.625. Therefore, ET Adjustment Factor (0.8) = (0.5/0.625).

"evapotranspiration" means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.

"flow rate" means the rate at which water flows through pipes and valves (gallons or cubic feet per second).

"hydrozone" means a portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule. A hydrozone may be irrigated or non-irrigated. For example, a naturalized area planted with native vegetation that will not need supplemental irrigation once established is a non-irrigated hydrozone.

"infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

"irrigation efficiency" means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum irrigation efficiency for purposes of these standards is 0.625. Greater irrigation efficient can be expected from well designed and maintained system.

"landscape irrigation audit" means a process to perform site inspections, evaluate irrigation systems, and develop efficient irrigation schedules.

"landscaped area" means the entire parcel less the building footprint, driveways, non-irrigated portions of parking lots, hardscapes such as decks, patios and other non-porous areas, and open space left in a natural state. Water features are included in the calculation of the landscaped area.

"lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.

"main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.

"maximum water allowance" means, for design purposes, the upper limit of annual water use for the established landscaped area as specified in these standards. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The amount of water recommended on an annual basis in the irrigation schedule shall not exceed the maximum water allowance.

"mulch" means any material such as leaves, bark, straw or other materials left loose and applied to the soil surface to reduce evaporation.

"operating pressure" means the pressure at which a system of sprinklers is designed to operate, usually indicated at the base of a sprinkler.

"overspray" means the water which is delivered beyond the landscaped area, wetting pavements, walks, structures, or other non-landscaped area.

"plant factor" means a factor that when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of these standards, the average plant factor of low water using plants ranges from 0 to 0.3, for average water using plants the range is 0.4 to 0.6, and for high water using plants the range is 0.7 to 1.0.

"rain sensing device" means a system which automatically shuts off the irrigation system when it rains.

"record drawing" or "as-builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

"recycled water", "reclaimed water", or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for nonpotable uses such as landscape irrigation; not intended for human consumption.

"reference evapotranspiration" or "ETo" means a standard measurement of environmental parameters which affect the water use of plants. ETo is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference evapotranspiration is used as the basis of determining the maximum water allowances so that regional differences in climate can be accommodated. For purposes of these standards, ETo for the City of Napa is 44 inches per year.

"run off" means water which is not absorbed by the soil or landscape to which it is applied and flows from the area. For example, run off may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or when there is a severe slope.

"soil moisture sensing device" means a device that measures the amount of water in the soil.

"soil texture" means the classification of soil based on the percentage of sand, silt, and clay in the soil.

"sprinkler head" means a device which sprays water through a nozzle.

"static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.

"station" means an area served by one valve or by a set of valves that operate simultaneously.

"turf" means a surface layer of earth containing mowed grass with its roots. Annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are examples of cool-season grasses. Bermudagrass, Kikuyugrass, Seashore paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are examples of warm-season grasses.

"usable precipitation" or "effective rainfall" means the amount of precipitation that contributes to the water needs of the plants. Irrigation scheduling should be adjusted to reflect usable precipitation. However, for purposes of calculating the maximum water allowance and estimating water use, usable precipitation is not to be included as a factor.

"valve" means a device used to control the flow of water in the irrigation system.

"water efficient landscape concept statement" means a one-page checklist and a narrative summary of the project.