

RESOLUTION NO. 92-161

**A RESOLUTION OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF NAPA, STATE OF CALIFORNIA,
ESTABLISHING WATER CONSERVATION IN LANDSCAPE GUIDELINES
WHICH OUTLINE THE ELEMENTS REQUIRED FOR THE
WATER CONSERVATION REGULATIONS**

WHEREAS, the Board of Supervisors is considering establishing a water efficient landscape program and the adoption of a water conservation ordinance; and

WHEREAS, the State Department of Water Resources has adopted a model water efficient landscape ordinance for adoption by local agencies which provides definitions, sample documents, and technical information for the development of water efficient landscapes; and

WHEREAS, absent a locally-adopted ordinance, the State Model Ordinance will go into effect on January 1, 1993; and

WHEREAS, circumstances of Napa County suggest that a locally-designed ordinance would provide greater benefit to the public of Napa County than a generic ordinance designed for all situations in the state;

WHEREAS, the water conservation ordinance specifically outlines a water conservation program;

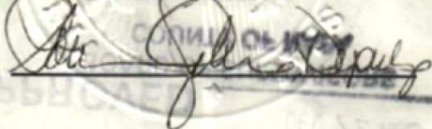
NOW, THEREFORE, BE IT RESOLVED, it is the intent of the Board of Supervisors that following document of landscape guidelines outlined in Exhibit B, be incorporated by reference into the proposed ordinance;

The foregoing resolution was duly and regularly adopted at a regular meeting of the Conservation, Development and Planning Commission of the County of Napa, State of California, held on the 2nd day of December, 1992, by the following vote:

AYES:	Supervisors	<u>BATTISTI, FERRIOLE, NEGRI, MIKOLAJCIK, and VARRELMAN</u>
NOES:	Supervisors	<u>NONE</u>
ABSENT:	Supervisors	<u>NONE</u>

ATTEST:

MARY JEAN MCLAUGHLIN
Clerk of the Commission

By: 

APPROVED AS TO FORM

Office of County Counsel

By: 

Date: December 17, 1992



EXHIBIT B

NAPA COUNTY WATER CONSERVATION IN LANDSCAPE GUIDELINES

Prior to the issuance of building permits for projects subject to the Water Conservation Regulations, four (4) copies of a Landscape Documentation Package prepared by a licensed or certified landscape professional (licensed landscape architect, licensed landscape contractor, certified irrigation designer, or other licensed or certified professional in a related field) shall be submitted to the Director or his designee for review and approval.

The following guidelines have been prepared to outline the elements required for compliance with the Water Conservation Regulations.

LANDSCAPE DOCUMENTATION PACKAGE

Each landscape documentation package shall include the following elements:

1. Water Conservation Concept Statement

Each landscape documentation package shall include a cover sheet, referred to as the Water Conservation Concept Statement which will include the following information:

- A. Project Name
- B. Project File Number
- C. Project Site Location
- D. Project Designer
- E. Narrative summary of the project
- F. A check list for verification that all elements of the landscape documentation package for the project have been completed.

A sample of the Water Conservation Concept Statement is included with these guidelines.

2. The Maximum Applied Water Allowance

- A. A project's Maximum Applied Water Allowance shall be calculated using the following formula:

MAWA = (ETo) (0.8) (LA) (0.62) where:

MAWA	= Maximum Applied Water Allowance (gallons per year)
ETo	= Reference Evapotranspiration (inches per year)
0.8	= ET adjustment Factor
LA	= Landscaped Area (square feet)
0.62	= Conversion factor (to gallons per square foot)

- B. Two example calculations of the Maximum Applied Water Allowance are:

PROJECT SITE ONE: Landscaped area of 50,000 sq. ft in St. Helena.

MAWA = (ETo) (.8) (LA) (.62)
= (44 inches) (.8) (50,000 square feet) (.62)

Maximum Applied Water Allowance = 1,091,200 gallons per year
(or 1,691 hundred-cubic-feet per year: $1,091,200/748=1,459$)

PROJECT SITE TWO: Landscaped area of 50,000 sq. ft. in Yountville

MAWA = (ETo) (.8) (LA) (.62)
= (44.3 inches)(.8)(50,000)(.62)

Maximum Applied Water Allowance = 1,098,640 gallons per year
(or 1,469 hundred-cubic feet per year)

- C. 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 are considered recreation areas and may require water in addition to the Maximum Applied Water Allowance. A statement shall be included with the landscape design plan, designating recreational areas to be used for such purposes and specifying any needed amount of additional water above the Maximum Applied Water Allowance.

3. Estimated Applied Water Use

- A. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance.
- B. A calculation of the Estimated Applied Water Use shall be submitted with the Landscape Documentation Package. It may be calculated by summing the amount of water recommended in the irrigation schedule.

4. Estimated Total Water Use

- A. A calculation of the Estimated Total Water Use shall be submitted with the Landscape Documentation Package. The Estimated Total Water Use may be calculated by summing the amount of water recommended in the irrigation schedule and adding any amount of water expected from effective precipitation (not to exceed 25 percent of the local annual mean precipitation) or may be calculated from a formula such as the following:

The Estimated Total Water use for the entire landscaped area equals the sum of the Estimated Water Use of all hydrozones in that landscaped area.

$$\text{EWU (hydrozone)} = \frac{(\text{ETo})(\text{PF})(\text{HA})(.62)}{(\text{IE})}$$

EWU (hydrozone) = Estimated Water Use (gallons per year)
ETo = Reference Evapotranspiration (inches per year)
PF = Plant Factor
HA = hydrozone area (square feet)
(.62) = conversion factor
IE = Irrigation efficiency

- B. If the Estimated Total Water Use is greater than the Estimated Applied Water Use due to precipitation being included as a source of water, an Effective Precipitation Disclosure Statement shall be included in the Landscape Documentation Package.

5. Landscape Design Plan

A landscape design plan meeting the following requirements shall be submitted as part of the landscape documentation package:

A. Plant Selection and Grouping:

- i. Any plants may be used in the landscape, providing the Estimated Applied Water Use recommended does not exceed the Maximum Applied Water Allowance and that the plants meet the specifications set forth in (B), (C) and (D).
- ii. Plants having similar water use shall be grouped together in distinct hydrozones.
- iii. Plants shall be selected appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the site. Protection and preservation of native species and natural areas is encouraged. The planting of trees is encouraged wherever it is consistent with other provisions of these guidelines and County Zoning regulations.
- iv. 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 local fire departments or the California Department of Forestry.

B. Water Features:

- i. Recirculating water shall be used for decorative water features.
- ii. Pool and spa covers are encouraged.

C. Landscape Design Plan Specifications:

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

- i. Designation of hydrozones
- ii. Landscape materials, trees, shrubs, groundcover, turf, and other vegetation. Planting symbols shall be clearly drawn and plants labeled by botanical name, common name, container size, spacing, and quantities of each group of plants indicated.

- iii. Property lines and street names.
- iv. Streets, driveways, walkways and other paved areas.
- v. Pools, ponds, water features, fences, and retaining walls.
- vi. Existing and proposed buildings and structures.
- vii. Natural features including but not limited to rock outcroppings, existing trees, and shrubs that will remain.
- viii. Tree staking, plant installation, soil preparation details, and any other applicable planting and installation details.
- ix. A calculation of the total landscaped area.
- x. Designation of recreational areas.

6. Irrigation Design Plan

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

A. Irrigation Design Criteria:

- i. **Runoff and Overspray.** Soil types and infiltration rate shall be considered when designing irrigation systems. All irrigation systems shall be designed to avoid runoff, low head drainage, overspray, 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.

Special attention shall be given to avoid runoff on slopes and to avoid overspray in planting areas with a width less than ten feet, and in median strips.

No overhead sprinkler irrigation systems shall be installed in median strips less than ten feet wide.

- ii. **Irrigation Efficiency.** For the purpose of determining the maximum applied 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.

iii. **Equipment**

Water meters. 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.

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

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

Sprinkler heads. 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.

Rain Sensing Override Devices. Rain Sensing override devices shall be required on all irrigation systems.

Soil Moisture Sensing Devices. It is recommended that soil moisture sensing devices be considered where appropriate.

B. **Recycled Water:**

- i. The installation of dual distribution systems to allow for the current and future use of recycled water, if feasible and if cost effective.
- ii. The recycled water irrigation systems shall be designed and operated in accordance with all local and state codes.

C. **Irrigation Design Plan Specifications:**

- i. Irrigation systems shall be designed to be consistent with hydrozones.
- ii. The irrigation design plan shall be drawn on project base sheets. It shall be separate from, but use the same format as, the landscape design plan. The scale shall be the same as that used for the landscape design plan.

- ii. The irrigation design plan shall accurately and clearly identify:

Location and size of separate water meters for the landscape.

Location, type, and 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.

Static water pressure at the point of connection to the public water supply

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

Recycled water irrigation systems.

7. Irrigation Schedules

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

- A. An annual irrigation program with monthly irrigation schedules shall be required for the plant establishment period, for the established landscape, and for any temporarily irrigated areas.
- B. The irrigation schedule shall:
 - i. include run time (in minutes per cycle), suggested number of cycles per day, and frequency of irrigation for each station; and
 - ii. provide the amount of applied water (in hundred cubic feet, gallons, or in whatever billing units the local water supplier uses) recommended on a monthly and annual basis.
- C. The total amount of water for the project shall include water designated in the Estimated Total Water Use calculation plus water needed for any water features, which shall be considered as a high water using hydrozone.
- D. Recreational areas designed in the landscape design plan shall be highlighted and the irrigation schedule shall include if any additional water is needed above the Maximum Applied Water Allowance because of high plan factors (but not due to irrigation inefficiency).

- E. Whenever possible, irrigation scheduling shall incorporate the use of evapotranspiration data such as those from California Irrigation Management Information System (CIMIS) weather stations to apply the appropriate levels of water for different climates.
- F. Whenever possible, landscape irrigation shall be scheduled between 2:00 am and 10:00 a.m. to avoid irrigating during times of high wind or high temperature.

8. Maintenance Schedules

- A. A regular maintenance schedule satisfying the following conditions shall be submitted as part of the Landscape Documentation package:
 - i. 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 landscape areas.
 - ii. Whenever possible, repair of irrigation equipment shall be done with the originally specified materials or their equivalents.

9. Grading Design Plan

Grading design plans satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.

- A. A grading design plan shall be drawn on project base sheets. It shall be separate from but use the same format as the landscape design plan.
- B. The grading design plan shall indicate finished configurations and elevations of the landscaped area, including the height of graded slopes, drainage patterns, pad elevations, and finished grade.

10. Soil Analysis

- A. A soils analysis satisfying the following conditions shall be submitted as part of the Landscape Documentation Package.
 - i. Determination of soil texture, indicating the percentage of organic matter.

- ii. An approximate soil infiltration rate (either measured or derived from soil texture/infiltration rate tables.) A range of infiltration rates shall be noted where appropriate.
 - iii. Measure of pH, and total soluble salts.
- B. A mulch of at least three inches shall be applied to all planting areas except turf.

CERTIFICATE OF SUBSTANTIAL COMPLETION

A Certificate of Substantial Completion shall be completed on the form provided by the County.

A sample of the Certificate of Substantial Completion is included with these guidelines.

DEFINITIONS

For purposes of these guidelines, the following definitions shall apply:

- A. "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.
- B. "Application rate" means the depth of water applied to a given area, usually measured inches per hour.
- C. "Applied water" means the portion of water supplied by the irrigation system to the landscape.
- D. "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.
- E. "Back-flow prevention device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.
- F. "Conversion factor (0.62)" means a number that converts the maximum applied water allowance from acre-inches per acre per year to gallons per square foot per year. The conversion factor is calculated as follows:

$$(325,851 \text{ gallons} / 43,560 \text{ square feet}) / 12 \text{ inches} = (0.62)$$

325,851 gallons = one acre foot

43,560 square feet = one acre

12 inches = one foot.

To convert gallons per year to 100-cubic feet per year, another common billing unit for water, divide gallons per year by 748. (748 gallons = 100 cubic feet).

- G. "Ecological restoration project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.
- H. "Effective precipitation" or "usable rainfall" means the portion of total precipitation that is used by the plants. Precipitation is not a reliable source of water, but can contribute to some degree toward the water needs of the landscape.
- I. "Emitter" means drip irrigation fittings that deliver water slowly from the system to the soil.

- J. "Established landscape" means the point at which plants in the landscape have developed roots into the soil adjacent to the root ball.
- K. "Establishment period" means the first year after installing the plant in the landscape.
- L. "Estimated Applied Water Use" means the portion of the Estimated Total Water Use that is derived from applied water. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance. The Estimated Applied Water Use may be the sum of the water recommended through the irrigation schedule.
- M. "Estimated Total Water Use" means the annual total amount of water estimated to be needed to keep the plants in the landscaped area healthy. It is based upon such factors as the local evapotranspiration rate, the size of the landscaped area, the types of plants, and the efficiency of the irrigation system.
- N. "ET adjustment factor" means a factor of 0.8, that, when applied to referenced evapotranspiration, adjust for plant factors and irrigation efficiency, two major influences upon the amount of 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 calculations. The irrigation efficiency for purposes of the ET Adjustment Factor is 0.625.

Therefore the ET Adjustment Factor is $(0.8) = (0.5/0.625)$

- O. "Evapotranspiration" means the quantity of water evaporated from adjacent soil surfaces and transpired by plants during a specific time.
- P. "Flow rate" means the rate at which water flows through pipes and valves (gallons per minute or cubic feet per second).
- Q. "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.
- R. "Infiltration rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

- S. "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 this ordinance is 0.625. Greater irrigation efficiency can be expected from well designed and maintained systems.
- T. "Landscape irrigation audit" means a process to perform site inspections, evaluate irrigation systems, and develop efficient irrigation schedules.
- U. "Landscaped area" means the entire parcel less the building footprint, driveways, non-irrigated portions of parking lots, hardscapes - such as decks and patios, and other non-porous areas. Water features are included in the calculation of the landscaped area. Areas dedicated to edible plants, such as orchards or vegetable gardens are not included.
- V. "Lateral line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the valve.
- W. "Main line" means the pressurized pipeline that delivers water from the water source to the valve or outlet.
- X. "Maximum Applied Water Allowance" means, for design purposes, the upper limit of annual applied water for the established landscaped area. It is based upon the area's reference evapotranspiration, the ET Adjustment Factor, and the size of the landscaped area. The Estimated Applied Water Use shall not exceed the Maximum Applied Water Allowance.
- Y. "Mined-land reclamation projects" means any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975.
- Z. "Mulch" means any material such as leaves, bark, straw or other materials left loose and applied to the soil surface for the beneficial purpose of reducing evaporation.
- AA. "Operating pressure" means the pressure at which a system of sprinklers is designed to operate, usually indicated at the base of a sprinkler.
- BB. "Overhead sprinkler irrigation systems" means those with high flow rates (pop-ups, impulse sprinklers, rotors, etc.
- CC. "Overspray" means the water which is delivered beyond the landscaped area, wetting pavements, walks, structures or other non-landscaped areas.

DEFINITIONS

- DD. "Plant factor" means a factor that, when multiplied by reference evapotranspiration, estimates the amount of water used by plants. For purposes of this ordinance, 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.
- EE. "Rain sensing device" means a system which automatically shuts off the irrigation system when it rains.
- FF. "Record drawing" or "as-built" 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.
- GG. "Recreational area" means areas of active plan or recreation such as sports field, school yards, picnic grounds, or other areas with intense foot traffic.
- HH. "Recycled water," "reclaimed water," or "treated sewage effluent water" means treated or recycled waste water of a quality suitable for non-potable uses such as landscape irrigation; not intended for human consumption.
- II. "Reference evapotranspiration" or "ET_o" means a standard measurement of environmental parameters which affect the water use of plants. ET_o is given in inches per day, month, or year, and 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 Applied Water Allowances so that regional differences in climate can be accommodated.

REFERENCE EVAPOTRANSPIRATION FOR NAPA COUNTY (including Benicia in Solano County)
in inches (Historical Data, extrapolated from 12-Month Normal Year ET_o Maps and U.C. publication 21426)

City	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN ET _o
St. Helena	1.2	1.5	2.8	3.9	5.1	6.1	7.0	6.2	4.8	3.1	1.4	0.9	44.1
Yountville	1.3	1.7	2.8	3.9	5.1	6.0	7.1	6.1	4.8	3.1	1.5	0.9	44.3
Benicia	1.3	1.4	2.7	3.8	4.9	5.0	6.4	5.5	4.4	2.9	1.2	0.7	40.3

- JJ. "Rehabilitated landscape" means any re-landscaping project that requires a permit.
- KK. "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.

- LL. "Soil moisture sensing device" means a device that measures the amount of water in the soil.
- MM. "Soil texture" means the classification of soil based on the percentage of sand, silt, and clay in the soil.
- NN. "Sprinkler head" means a device which sprays water through a nozzle.
- OO. "Static water pressure" means the pipeline or municipal water supply pressure when water is not flowing.
- PP. "Station" means an area served by one valve or by a set of valves that operate simultaneously.
- QQ. "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 cool season grasses. Bermudagrass, Kikuyugrass, Seashore paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.
- RR. "Valve" means a device used to control the flow of water in the irrigation system.
- SS. "Water conservation concept statement" means a one-page checklist and a narrative summary of the project as shown in Section 12653.

SAMPLE WATER CONSERVATION CONCEPT STATEMENT

Project Site:

Project Number:

Project Location:

Licensed or Certified Landscape Professional:

Included in this project submittal package are:
(Check to indicate completion)

___ 1. Maximum Applied Water Allowance:
___ gallons or cubic feet/year

___ 2. Estimated Applied Water Use
___ gallons or cubic feet/year

* ___ 2.(a) Estimated Amount of Water Expected from Effective Precipitation:
___ gallons or cubic feet/year

___ 3. Estimated total Water Use:
___ gallons or cubic feet/year

Note: * If the design assumes that a part of the Estimated Total Water Use will be provided by precipitation, the Effective Precipitation Disclosure Statement shall be completed and submitted.

- ___ 4. Landscape Design Plan
- ___ 5. Irrigation Design Plan
- ___ 6. Irrigation Schedules
- ___ 7. Maintenance Schedule
- ___ 8. Grading Design Plan
- ___ 9. Soil Analysis

Description of Project

(Briefly describe the planning and design actions that are intended to achieve conservation and efficiency in water use.)

Date: _____

Prepared by: _____

SAMPLE CERTIFICATE OF SUBSTANTIAL COMPLETION

Project Site: _____ Project Number: _____

Project Location: _____

Preliminary Project Documentation Submitted: (Check indicating submittal)

- ___ 1. **Maximum Applied Water Allowance:**
___ (gallons or cubic feet per year)
- ___ 2. **Estimated Applied Water Use:**
___ (gallons or cubic feet per year)
- * ___ 2a. **Estimated Amount of Water Expected from Effective Precipitation:**
___ (gallons or cubic feet per year)
- ___ 3. **Estimated Total Water Use:**
___ (gallons or cubic feet per year)

Note: * If the design assumes that a part of the Estimated Total Water Use will be provided by precipitation, the Effective Precipitation Disclosure Statement shall be completed and submitted. The Estimated Amount of Water Expected from Effective Precipitation shall not exceed 25 percent of the local annual mean precipitation (average rainfall)

- ___ 4. Landscape Design Plan
- ___ 5. Irrigation Design Plan
- ___ 6. Irrigation Schedules
- ___ 7. Maintenance Schedule
- ___ 8. Grading Design Plan
- ___ 9. Soil Analysis

Post-Installation Inspection: (Check indicating substantial completion)

- ___ A. Plants installed as specified.
- ___ B. Irrigation system installed as designed
 - ___ dual distribution system for recycled water
 - ___ minimal run off or over-spray
- ___ C. Landscape Irrigation Audit Performed.

___ Project submittal package and a copy of this certification has been provided to owner/manager and local water agency.

Comments:

I/we certify that work has been installed in accordance with the contract documents.

Contractor	Signature	Date	State License Number
------------	-----------	------	----------------------

I/we certify that based upon periodic site observations, the work has been substantially completed in accordance with the Water Conservation Ordinance and that the landscape planting and irrigation installation conform with the approved plans and specification.

Licensed or Certified Landscape Professional	Signature	Date	State License #
--	-----------	------	-----------------

I/we certify that I/we have received all of the contract documents and that it is our responsibility to see that the project is maintained in accordance with the contract documents.

Owner	Signature	Date
-------	-----------	------

SAMPLE EFFECTIVE PRECIPITATION DISCLOSURE STATEMENT

I certify that I have informed the project owner and developer that this project depends on _____ (gallons or cubic feet) of effective precipitation of per year. This represents _____ percent of the local mean precipitation of _____ inches per year.

I have based my assumptions about the amount of precipitation that is effective upon: _____

I certify that I have informed the project owner and developer that in times of drought, there may not be enough water available to keep the entire landscape alive.

Licensed or Certified Landscape Professional

I certify that I have been informed by the licensed or certified landscape professional that this project depends upon _____ (gallons or cubic feet) of effective precipitation per year. This represents _____ percent of the local mean precipitation of _____ inches per year.

I certify that I have been informed that in times of drought, there may not be enough water available to keep the entire landscape alive.

Owner

Developer