



On January 1, 2010, the Water Conservation in Landscaping Act of 2006 (AB 1881) went into effect.

This Bill is the Model Water Efficient Landscape Ordinance (MWELO). Simply stated, AB 1881 is designed to reduce the amount of water that is used to sustain the landscape. If applied properly, it should increase the supply and reduce the cost of this precious commodity for everyone in California.

What does AB 1881 mean for the planning, design and development community?

All California Cities, Counties and Agencies are now required to implement the MWELO. Permitting and processing requirements for almost all projects will include additional drawings, exhibits, calculations, testing, reports and specifications to be certified by a Landscape Architect.

The implementation of AB 1881 applies to:

- New landscape installations or landscape rehabilitation projects by public agencies or private non-residential developers with a landscape area including pools or other water features but excluding hardscape, equal to or greater than 2500 square feet.
- New landscape installations or landscape rehabilitation projects by developers or property managers of single-family and multi-family residential projects or complexes with a landscape area, including pools or other water features but excluding hardscape, equal to or greater than 2500 square feet equal to or greater than 2,500 square feet.
- New landscape installation projects by individual homeowners on single-family or multi-family residential lots with a project landscape area, including pools or other water features, but excluding hardscape equal to or greater than 5000 square feet.

The exemption to these requirements include the following:

- Registered local, state or federal historical sites
- Ecological restoration projects that do not require a permanent irrigation system
- Mined-land reclamation projects that do not require a permanent irrigation system
- Plant collections, as part of botanical gardens and arboretums open to the public

"The State Legislature has found that landscapes are essential to the quality of life in California by providing areas for active and passive recreation as an enhancement to the environment by cleaning air and water, preventing erosion, offering fire protection, and replacing ecosystems lost to development."



What are the New Requirements of AB 1881?



Reduction of Maximum Water Demand Goal

Most significantly, AB 1881 reduces the maximum water demand goal from 80% to 70% of its referenced evapotranspiration and it now requires the following:

- No overhead spray irrigation within 24" of a non-permeable surface
- Requires the use of drip irrigation or other low volume irrigation on slopes greater than 25%
- The design must incorporate a "smart" ET based irrigation controller
- Planting design must be based on plant group hydrozones of water needs
- Improve landscape design by utilizing more drought tolerant plant material



New Requirements for Details and Provisions

AB 1881 has specific details and provisions as to applicability and content which are to be incorporated into landscape planting and irrigation plans. Some of these provisions are:

- Design to minimize overspray and runoff
- Determine and calculate water budgets that establish the maximum amount of water to be applied through the irrigation system, based on climate, landscape size, irrigation efficiency and plant needs.
- Provide landscape hydrozone exhibits
- Create irrigation schedules for ET based controllers
- Provide soil assessment and soil management plans. This means agricultural soil testing for chemical analysis and soil texture. Specifications for soil preparation, backfill and maintenance will be required.
- Provide landscape maintenance practices that foster long-term landscape water conservation. Additional notes and specifications will be required.
- Encourage the capture and retention of storm water on-site
- Encourage the use of recycled water
- Encourage the use of economic incentives
- Requires the Landscape Architect to stamp and sign a "Certification of Design"



Other Required Calculations for AB 1881



Some other significant factors called out in AB 1881 that will require calculations and inclusion in Landscape Architectural Plans include:

Maximum Allowable Water Allowance (MAWA) This important calculation determines the maximum amount of water that is allowed to be applied to a landscape. This calculated number is based upon the area of landscape and the evapotranspiration (ET_o) factor.

Estimated Total Water Use (ETWU) This calculation estimates the actual water use based upon the types of plant material within hydrozones, used in the landscape design. This cannot exceed MAWA

Evapotranspiration (ET) Evapotranspiration is the sum of water lost from the soil surface and plant foliage (evaporation) and water used by plants (transpiration). There are a number of factors that affect evapotranspiration including plant species, weather factors and quality of water available to the plant. ET is an important reference point for irrigation water use calculations. It represents a specific rate of use in response to local weather conditions.

Weather Based Irrigation Controllers (WBICS) Smart, ET, or weather based irrigation controllers will modify the project's irrigation watering schedule for weather conditions better than any controller of the past. These new Smart controllers factor in the specific geographical ET factors such as

- Solar radiation
- Temperature
- Wind
- Humidity
- Rain
- Soil Type and Texture
- Slope Gradient

Once these factors are known, the ET rate for the projects specific location is adjusted.....daily! The ET controller is wirelessly updated on a daily basis which modifies the base watering schedule (either up or down) depending on local climate conditions.

PDS West

PDS West and it's team are experienced in the latest water saving technologies, sustainable landscaping and meeting the submittal requirements of AB 1881. Whether your project is a Mastered Planned Community, Native American Reservation, Shopping Center, Park, or House of Worship, we are prepared to assist you in assuring that your project complies with the new state regulations. The result will be reduced water consumption resulting in lower water bills.

