

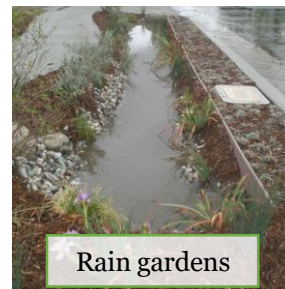
What are sustainable landscapes?

Sustainable landscapes are **in balance with local climate and ecology** and actively **contribute to watershed health**.

Key elements of sustainable landscapes include:

- Building healthy soils
- Preserving vegetative cover
- Using climate-appropriate plants
- Conserving water and other resources

Features of sustainable landscapes may include:



Why do we need them?

How we manage urban landscapes is increasingly important for advancing **water sustainability** and **climate resilience**.

In California, **climate change** is contributing to hotter, longer droughts interspersed with more intense storms. For example, from 2012 to 2016 we experienced the five hottest, driest years on record, and 2017 was the wettest year on record.

Adding to climate change challenges are the pressures of **aging infrastructure**, **population growth**, and **urbanization**.

Commercial and industrial landscapes are disproportionately dominated by grass that requires **heavy irrigation** and impermeable surfaces that contribute to **water pollution** and **local flooding**. We need urban landscapes that use less water and can slow and capture flows during wet periods for later use.



What benefits can they provide?

Sustainable landscapes can provide a range of benefits onsite and to the surrounding community.



Reduce **water use**

Climate-appropriate plants can reduce water use by 70-80% compared to turf grass.

Improve **water quality**

Rain gardens can filter out up to 90% of copper, lead and zinc, 50% of nitrogen, and 65% of phosphorus in water.

Reduce **urban heat island** effect

Sustainable landscapes can lower the average temperature of the parcel by 0.9° F and reduce evening temperatures by 6° F compared to adjacent parcels.

Boost **local water supplies**

Rain gardens and rain tanks can capture 50-100% of water runoff, which can be used onsite or to replenish groundwater.

Reduce **energy use** and **greenhouse gas emissions**

Green roofs can reduce energy use by 10%.

Reduce **operations and maintenance costs**

Climate-appropriate plants require approximately 27% less maintenance labor than high water-use plants.

Improve **workplace satisfaction**

Sustainable landscapes can result in up to 87% of employees reporting an improved mood, 67% feeling more able to cope with work-related stress, and 53% feeling more relaxed, after viewing or spending time in the landscape.

Increased **property values**

Sustainable landscapes have been shown to raise property values by 2-5%.

What is the magnitude of opportunity?

The Santa Ana River Watershed covers three counties and is home to over six million people in Southern California. The average business property there has 5,500 square feet of water-intensive turf and nearly 90,000 square feet of impervious surfaces, like parking lots, that prevent water from recharging groundwater and cause pollution in nearby waterways.

Across the watershed, this adds up to more than **7,000 football fields of irrigated turf** and more than **120,000 football fields covered by impervious surfaces**.

In addition:

- Water supply reliability is a concern across the entire watershed.
- Approximately 70% of these properties are in regions with poor water quality.
- Approximately 29% of these properties are in flood zones.

What are the barriers to widespread adoption?

- Project **benefits are not fully understood** and distributed among multiple parties
- There are **few financial incentives** to install sustainable landscapes on business properties
- The business community is often **unaware of the rebate programs** that do exist
- There is **limited funding** to support efficiency and distributed infrastructure
- **Permitting and regulatory requirements** are complex and varied
- Established **relationships** between water utility staff and businesses are not common
- **Business decision-making processes** are complex and varied
- **Specialized knowledge** is needed to install and maintain landscape improvements

What actions can be taken to overcome those barriers?

- Develop **resources to assist businesses** considering sustainable landscape improvements
- Use **language and examples that resonate** with the business community
- Develop appropriate **incentive programs** and policies
- Develop **targeted financial incentive** programs
- Foster **long-term relationships** between water managers and the business community
- Streamline the approval and **permitting** process
- Explore **alternative funding** sources
- **Coordinate** policies and programs across the watershed