The best place to start in growing a more sustainable landscape is by learning how to look at your site. Your goal will be to map and assess your site as the first step in creating a sustainable solutions plan.

Follow the steps to determine the details of your site.

1. Create a map of your site
   Draw a general outline of your site, including any streets. You can make a simple sketch or use a Google map.
   - Include the outline of major buildings.
   - Add a compass rose to the top right corner of your map showing: East (E), the direction the sun rises, west (W), the direction the sun sets, north (N), and south (S).

2. Add the following to your map
   - Hardscape
     This will be used to determine places that may be replaced with permeable surfaces, where water flows, and/or need to be/can be shaded.
     These include:
     - Parking lots
     - Walkways
     - Driveways
     - Patios
     - Any other areas of concrete and/or asphalt
     - Mark these with diagonal lines.

   - Landscape
     This will be used to determine places that may be converted into various gardens (rain, native plant, edible), and/or serve as areas for water diversion and infiltration.
     These include:
     - Turf/Lawn
     - Shrubs
     - Gardens
     - Areas of bare/compact soil
     - Mark these with dots.

   - Existing Trees and Tree Wells
     This will be used to determine shaded areas and potential areas for trees.
     - For existing trees: draw a circle for the trunk and a dashed line for the drip line (the area the branches reach over the landscape).
     - For empty tree wells: draw a square.
Recreational/Unused Areas
This will be used to determine areas that can be converted, used or avoided.
These include:
- Playgrounds and sports fields
- Vegetable gardens
- Picnic areas
- Vacant spaces

Utilities
This will be used to determine where/where not digging can occur, where and the type of trees that can be used.
These include:
- Water meter/underground lines
- Gas meter/underground lines
- Telephone poles and overhead wires
- Air-conditioning units
  - Mark the water meter with “W” and the gas meter with “G”.
  - Mark the air conditioning units with “AC”.
  - Mark the telephone poles with a “T” and show the lines.
* Typically, these lines run in a straight line from the street through the property.
* If you are unsure where the utilities are located, call 811 for the DigAlert in your area.

Water Sources
This will be used to determine where water can be captured, infiltrated and sprinklers that could be converted.
These include:
- Faucets
- Sprinkler lines
- Sprinklers valves and heads
- Downspouts (these are the vertical pipes that direct water from the roof to the ground)
  - Mark faucets with “F”.
  - Mark sprinklers with circles and an “X” in the circle.
  - Mark downspouts with a “D”.

Areas of Sun Exposure
This will be used to determine where trees and plants may be planted.
• Mark these with a sun.

Water Flow
This will be used to determine where water may be captured, diverted, or infiltrated.
Locate high spots:
- Add the roof line of any buildings
- Water flows down from these areas
Locate low spots:
- Water drains to these areas
  - Draw arrows that show the direction water flows
    - From roof tops
    - From downspouts
    - From faucets and sprinkler heads
    - From other high areas
    - To ditches or swales
    - To flat areas
    - To areas that puddle or flood
    - To other low areas

3. Evaluate the Soil
This will be used to determine the type of trees and plants that are appropriate for your site and if the soil will drain properly for a rain garden.

Soil drainage test
- Dig a hole in the identified area – one to two-feet deep.
  - The hole should be wide enough so the level of the water can be seen easily.
- Fill the hole with water and let it completely drain.
- Fill the hole with water again and note the starting time.
- Note how long it takes for the water to completely disappear. (5 minutes, 30 minutes, 1 hour, etc.)
  - If the water is draining slowly, note how much water is draining each 30 minutes. (1/2 inch every 30 minutes, etc.)

Results
- **0 - 4 minutes**: You have fast-draining soil. This area is fine for a swale or rain garden.
- **5 - 15 minutes**: Soil drainage is good. This is an ideal area for rain garden.
- **16 - 60 minutes**: If soil is draining at least 1 inch per hour, the area is fine for a rain garden.
- **Several hours/days**: This is NOT a good area for a rain garden.

4. Determine Climate Zone
This will be used to help determine the type of trees and plants that are appropriate for your site.
- Use a Sunset Western Garden Book or go to: www.sunset.com/garden/climate-zones/sunset-climate-zone-los-angeles-area-00418000067298/ to determine your climate zone.
5. Assess Your Site For Possible Sustainable Solutions

☐ Redirect, Capture and Conserve water
Can water be redirected from flowing into the street or to prevent flooding?
- Look for areas where water flows across hard surfaces from rain, faucets, drains and downspouts. That could be redirected to flow into a permeable surface, bioswale, rain garden, tree well or planter.
- Look for natural depressions or swales that can direct water into a permeable surface, bioswale, rain garden, tree well, or planter.
- Look for areas where water can be directed by building berms to create a retention basin, or rain garden.

Can water be captured for use in a garden area?
- Look for existing downspouts that can be directed into rain barrels.

Can water be conserved?
- Look for sprinkler heads that could be adjusted to water lawn and garden areas only, not overspray onto sidewalks, driveways, parking lots and streets.
- Look for sprinklers that can be converted to a more efficient system such as drip irrigation or the use of rotors.

☐ Replace Hard Surfaces With Green and Permeable Ones
Can hard surfaces be replaced with green and permeable ones that allow water to seep into the ground?
- Look for large areas of bare/compressed soil, especially in gardens or existing tree wells, that can be mulched.
- Look for areas where grass or unnecessary concrete/asphalt could be removed and replaced with mulch, native plants, or permeable paving.

☐ Plant Trees
Are there areas in need of shade to reduce glare and/or heat island effect?
- Look for hot paved areas.

Are there areas in need of shade to decrease energy use?
- Look for unshaded air-conditioning units.
- Look for the south-facing sides of buildings that receive the most sunlight.

Are there recreational areas in need of shade or other places where people walk/gather?
- Look for unprotected sports fields, playgrounds, and walking paths.

Are there areas where water can be diverted into large tree wells?
- Look for low spots.

Are there areas where trees could absorb soot and pollutant gases?
- Look for areas that are exposed to cars, trucks, and busses, such as streets and parking lots.
Use Native and/or Edible Vegetation
Are there areas that can be revitalized by native plants, vegetable gardens and/or fruit trees?
• Look for unused areas.
• Look for thirsty vegetation that can be replaced with native trees and plants.

Create Focal, Natural and/or Educational Areas
Are there areas that can help promote health and exercise?
• Look for areas that can increase walkability and access to nature.
Are there areas that can be used for educational purposes?
• Look for areas where you are using sustainable practices to provide signage and interpretation for the community.
• Look for areas that can provide learning spaces that incorporate school state educational standards through outdoor models, interactive displays, murals and teaching gardens.
Are there areas that can enhance biodiversity?
• Look for areas to create a bird habitat and/or a butterfly garden.
Are there areas that can promote beauty and tranquility?
• Look for walls or fences that can be covered in vines.
• Look for areas that are loud or exposed to traffic.