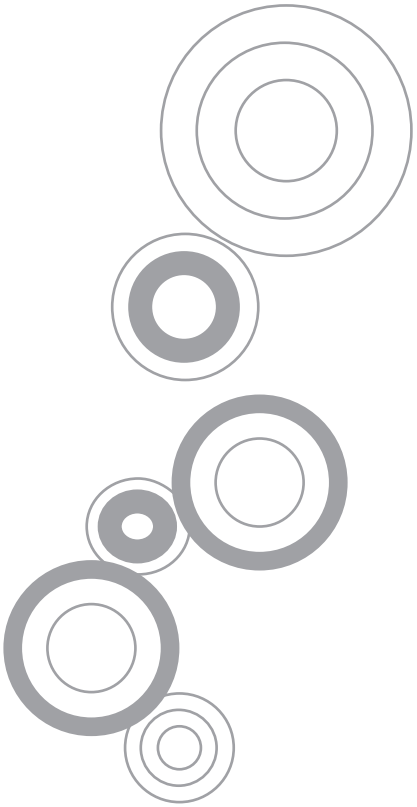
TREEPEOPLE

RAIN BARREL PROJECT TOOLKIT



TreePeople's School Greening Program

Rain Barrel Project Toolkit

Who We Are

TreePeople

TreePeople is an environmental nonprofit that unites the power of trees, people and technology to grow a sustainable future for Los Angeles. Simply put, our work is about helping nature heal our cities. TreePeople's mission is to inspire, engage and support people to take personal responsibility for the urban environment, making it safe, healthy, fun and sustainable and to share the process as a model for the world.

Shifting Los Angeles From Grey to Green

TreePeople is helping to shift Los Angeles from using grey and polluting ways of handling our energy and water to using green nature-based solutions. We provide tools, programs, and education to empower Angelinos of all ages to participate in growing an ample tree canopy that cools hot urban neighborhoods and in retrofitting our landscapes to harvest rain and conserve and clean precious water. The result? A more secure local water supply, cleaner air, reduced carbon emissions, more habitat for birds, bees and animals, and a greener, healthier and more sustainable future for us all.

Founded by a Teenager!

TreePeople's founder, Andy Lipkis, was a teenager when he started the organization in the early 1970's. Since then, nearly two million trees have been planted in wilderness areas, neighborhoods and school campuses in Southern California by volunteers. We've continued to place young people at the center of our work by developing one of the largest environmental education programs in the United States. Our programs for youth create opportunities for leadership, community service and fun.

TreePeople's Project Toolkits for Groups

TreePeople's Project Toolkits are designed to assist teens, youth groups, youth group leaders, and teachers by providing instructions, tools, and support materials that not only teach about critical environmental issues in their community but provide the tools to take action to address them.

Rain Barrel Project Toolkit

This tool kit explores the growing water need in Los Angeles and the importance of collecting and infiltrating what little rainfall we get. This exploration will help determine how your group can help both the quality and quantity of our water by installing a rain barrel to collect rain fall and directing overflow into a garden space.

How it works

STEP 1: LEARN

Conduct the Instant Expert activity.

- Use the Instant Expert Activity sheets for a fun and informative, hands-on activity to explore the topic of water.

STEP 2: ASSESS

Map your site and assess the needs of the project.

- Use the *Project Assessment Tool* to map and explore your site.
- Use your map, and the *Rain Barrel Project Readiness Survey* to determine what is needed to complete the project.

STEP 3: INSTALL A RAIN BARREL

- Follow the guidelines to install a rain barrel at your site.
  - Finalize Your Plans & Get Permission
  - Prepare For Your Event
  - Install Your Rain Barrel
  - Maintain Your Rain Barrel

STEP 4: MAKE IT COUNT

Make your rain barrel count by mapping it on TreeMapLA.org. This also allows your group to measure the environmental benefits of your rain barrel.

STEP 5: SHARE WHAT YOU DID

Share your project through TreePeople's various social media sites (see page 3) including the Project Toolkit Facebook Group and completing a final report.

HOW TO GET SUPPORT

If your group is planning to use this or another TreePeople Project Toolkit, and would like support, send an email to education@treepeople.org

TreePeople Support

TreePeople staff are available to support groups working on projects in the following ways:

- **Visit your group.**
  Once your group has completed Step 2, a TreePeople staff person can make a site visit to help launch your project.
- **Answer questions.**
  If your group has questions that are not answered in the Toolkit, TreePeople staff can help.
- **Stay connected.**
  We encourage your group to join us on Facebook and other social media (see instructions below) and stay connected. Share your group's process and learn what other groups are doing.
- **Event day support and acknowledgement.**
  Depending on your project, TreePeople staff can help provide event day support, tools, acknowledgement and more.

Stay Connected!

Facebook
Join our Project Toolkit Facebook Group to share experiences, post photos, ask questions, and find inspiration. This is a closed and private group. TreePeople will invite you to join. We also encourage setting up your own Facebook group and inviting your mentor to join. Registered TreePeople EcoClubs get an official badge for their profile.

Twitter
Follow us @tpyouthprojects for the latest news, upcoming workshops, events, tips, suggestions, nursery sales and more!

Pinterest
As you transform your school or community site check out our Pinterest page for inspirational photos of campus greening, rain gardens, native plants and more! pinterest.com/tpgreytogreen

Instagram
Along the way share your photos on Instagram. Be sure to tag #TreePeoplela

TreePeople Blog
Visit our TreePeople blog to stay connected with the TreePeople community and if you'd like, share your club's story for publication. blog.treepeople.org

TreePeople YouTube
Check out our How to Videos and more at youtube.com/user/TreePeople1

INSTANT EXPERT ACTIVITY
Learn the Value of a Rain Barrel

It's Water Quality *and* Quantity!

Procedure

1. Divide up into four working groups.

2. Each group has 15 minutes to do the following:
   - Receive one *It's Quality and Quantity!* topic sheet with instructions and information on a water-related issue.
   - Read the information on the topic sheet. Learn about and discuss the specific topic related to water.
   - Using poster paper, answer and illustrate the answers to the questions listed on the topic sheet to create an infographic.

3. Once complete, each group presents their infographic, sharing what they have learned.

4. As a whole group, discuss the need to restore the watershed and how they will work with TreePeople and the Administration and Maintenance staff of their site to complete a project.

Other Options

- Read each *Topic Sheet* as a group and discuss.

MATERIALS

- It's Quality *and* Quantity! topic sheets (copy pages 5 – 8)
- Poster paper – 1 per group
- Markers – 1 set per group

WORDS TO EXPLORE

Definitions for these and other words can be found in the glossary on page 43.

- absorption
- asphalt
- berm
- climate-appropriate
- compaction
- debris
- dependent
- dormant
- hardscape
- impervious
- import
- irrigation
- landscape
- mulch
- native
- non-native
- permeate
- percolation
- runoff
- semi-arid
- sustainability
- watershed

START HERE!

Rainfall is scarce in Los Angeles and the city's need for water is growing. Unfortunately, the city is covered in concrete and asphalt that leave few places where rain can soak into the ground. Instead, water flows across hard surfaces, picking up oil, trash and pesticides. This polluted runoff flows through streets into storm drains and concrete rivers that lead to the ocean. As a result, rainfall – a natural resource that could be used to add to local water supplies – is wasted, while our rivers and ocean get polluted. The need to capture rainwater is a matter of both water quantity *and* quality.

Your Instructions:

1. As a group, read and discuss the information on the right.

2. Use a large sheet of paper and markers to create an infographic that answers the following:
   - What should we know about the land area of schools?
   - Why are these areas a problem when it rains?
   - What is an action we can take at school to help?

It's Quality *and* Quantity!

SCHOOL FLOODING

- School campuses are part of the urban water cycle. The land area of the school directs water from sprinklers, faucets and garden hoses across the campus almost every day.
- On most schools, the land area consists mainly of concrete and asphalt, as well as lawn/ dirt areas that are so compacted from being walked upon, they no longer absorb water.
- When it rains, these areas receive a lot of water with nowhere to go, accumulating into large pools around the campus. This creates muddy or flooded areas, and sometimes causes water to flow across concrete into classrooms.
- Sculpting the land to create a swale – a shallow trench, like a creek – can help reduce or eliminate flooded areas. Water is redirected into the swale where it can be absorbed.
- Lined with rocks and native plants, these areas are lovely native plant gardens when it is sunny, and functional rain gardens when it is not.

START HERE!

Rainfall is scarce in Los Angeles and the city's need for water is growing. Unfortunately, the city is covered in concrete and asphalt that leave few places where rain can soak into the ground. Instead, water flows across hard surfaces, picking up oil, trash and pesticides. This polluted runoff flows through streets into storm drains and concrete rivers that lead to the ocean. As a result, rainfall – a natural resource that could be used to add to local water supplies – is wasted, while our rivers and ocean get polluted. The need to capture rainwater is a matter of both water quantity *and* quality.

Your Instructions:

1. As a group, read and discuss the information on the right.

2. Use a large sheet of paper and markers to create an infographic that answers the following:
   - What should we know about the rain water that falls on our roofs?
   - What are downspouts and how do they contribute to runoff?
   - What is an action we can take at home and/or in our community to help redirect rain and why?

It's Quality *and* Quantity!

DOWNSPOUT EXTENSIONS

- Every time it rains, millions of gallons of water hit roof tops all over Los Angeles. Most homes or buildings are designed to direct rain off of the roof - through gutters and downspouts - onto our driveways and streets.
- Downspouts are the vertical pipes along a building that direct water from gutters on the roof and then bend out like a "j" away from the building, directing the rain out onto driveways and streets creating stormwater runoff.
- As this water flows, it picks up pollutants such as automotive fluids, pesticides and trash and carries them to the ocean – where it is our biggest source of pollution!
- To prevent stormwater runoff, we can use a downspout extension (available at home improvement centers). It slides onto the end of the downspout and allows you to redirect the rain into a garden or other planted area.

START HERE!

Rainfall is scarce in Los Angeles and the city's need for water is growing. Unfortunately, the city is covered in concrete and asphalt that leave few places where rain can soak into the ground. Instead, water flows across hard surfaces, picking up oil, trash and pesticides. This polluted runoff flows through streets into storm drains and concrete rivers that lead to the ocean. As a result, rainfall – a natural resource that could be used to add to local water supplies – is wasted, while our rivers and ocean get polluted. The need to capture rainwater is a matter of both water quantity *and* quality.

Your Instructions:

1. As a group, read and discuss the information on the right.

2. Use a large sheet of paper and markers to create an infographic that answers the following:
   - What should we know about collecting rain water?
   - How does rain fall in Los Angeles become a wasted resource?
   - What is an action we can take at home and/or in our community to help and why?

It's Quality *and* Quantity!

RAIN BARRELS

- All around the world, people have collected rainwater for thousands of years. Water falls from the sky for free. When rainwater is captured, it can be used to water gardens instead of using water from Municipal sources that we have to pay for.
- When rain falls on a roof and other hard surfaces it usually flows into a system of gutters, downspouts, streets, storm drains and eventually into the ocean. This rainwater becomes a wasted resource.
- A roof is an ideal area to direct rainwater into a tank – such as a rain barrel. Rain barrels are simply large containers to hold rainwater.
- By installing a rain barrel, rain can be captured for use. For example, if you have a 1000 square foot of roof top, you can collect 600 gallons of water from your roof every time it rains an inch.
- Rainwater collected in a rain barrel can then provide water for gardens and trees at your site - a free resource!

START HERE!

Rainfall is scarce in Los Angeles and the city's need for water is growing. Unfortunately, the city is covered in concrete and asphalt that leave few places where rain can soak into the ground. Instead, water flows across hard surfaces, picking up oil, trash and pesticides. This polluted runoff flows through streets into storm drains and concrete rivers that lead to the ocean. As a result, rainfall – a natural resource that could be used to add to local water supplies – is wasted, while our rivers and ocean get polluted. The need to capture rainwater is a matter of both water quantity *and* quality.

Your Instructions:

1. As a group, read and discuss the information on the right.

2. Use a large sheet of paper and markers to create an infographic that answers the following:
   - What should we know about the rain that falls in Los Angeles?
   - Why is getting rain water into the aquifer so important?
   - What is an action we can take at home and/or in our community to help redirect the rain and why?

It's Quality *and* Quantity!

RAIN GARDENS

- In Los Angeles, when rain falls to the ground most of it hits concrete and asphalt instead of getting into the ground to fill our aquifers (underground stores of water). As a result, we have to bring in water from far away, costing us a lot of money.
- In natural areas, when rain falls to the ground, it slowly seeps down into the soil. This process not only removes harmful pollutants, but also adds water to the aquifer.
- Ideally, we want to recreate this in our landscapes. By directing water into the ground, it helps to increase our local water supply (water quantity) while at the same time, preventing rain from flowing into the street – improving water quality.
- By redirecting rain from rooftops into a basin (a depression in the ground) that is created using a berm (a mounded wall of soil) then adding plants, it creates a "rain garden".
- Rain gardens are a great garden solution that slow the rain, spread it out, and allow it to sink into the ground – adding much needed water to the aquifers below.

MAP AND ASSESS YOUR SITE

Create a map to find sites for a garden

MATERIALS

- Site Assessment Tool (copy pages 10 – 11)
- Map of the site
- Pencil

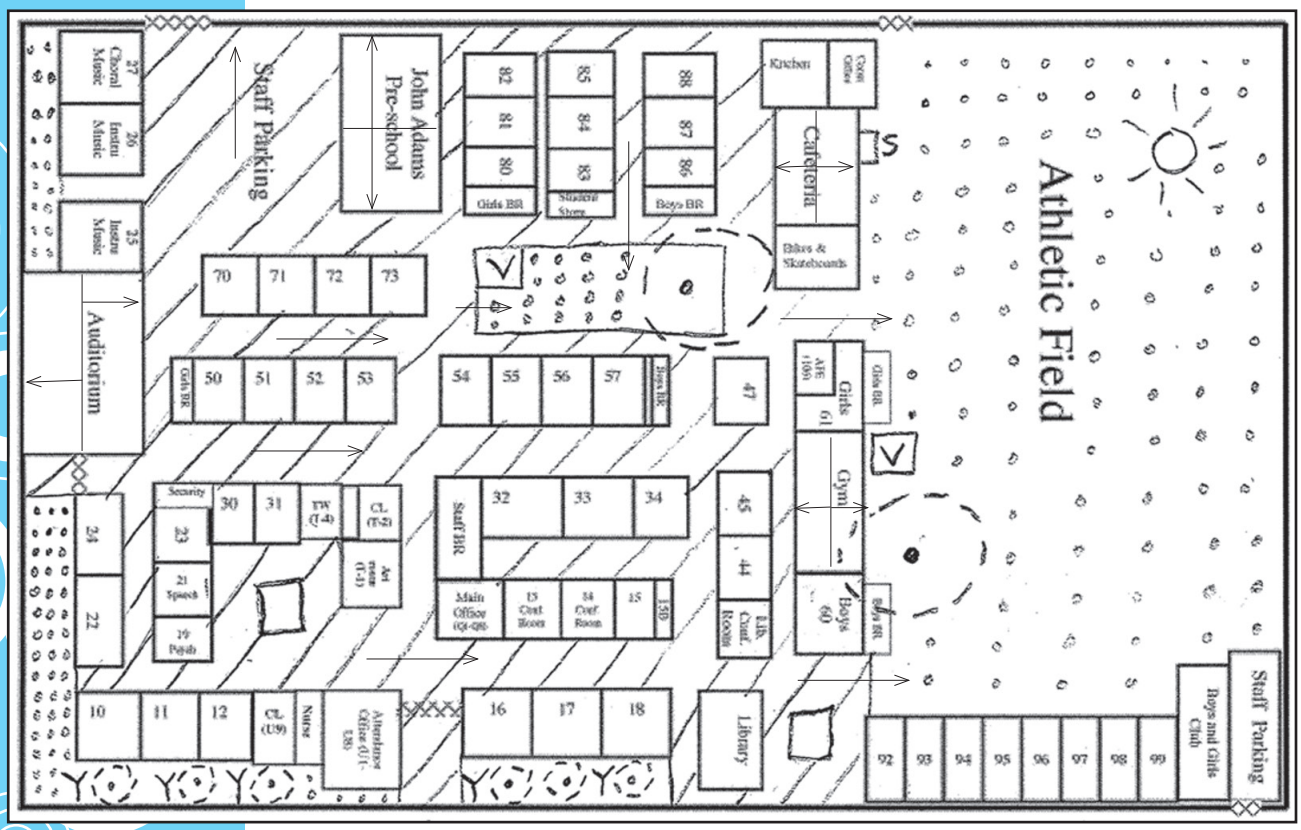
Site Assessment Tool

Procedure

1. Work as one large group or divide up into working groups when assessing and mapping your site.

2. Create a map of the site by doing one of the following:
   - Use an existing map, removing any unnecessary information.
   - Download a map of the site from on-line.
   - Create your own map using a large sheet of paper.

3. Using the *Site Assessment Tool*, follow the instructions to identify specific elements of your site and include them on your map.



Sample Map

TreePeople | Site Assessment Tool

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.

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 sketch or use a Google map.

- Orient and draw the map so that North is at the top of the page and South at the bottom.
- Include the outline of major buildings.

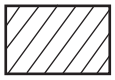
2. Add the following to your map

☐ Hardscape

This will be used for site information and possible places where water is flooding or running off.

These include:

- Parking lots
- Walkways
- Patios
- Any other areas of concrete and/or asphalt

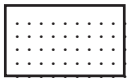
- Mark these with diagonal lines. 

☐ Landscape

This will be used to determine places where water overflow can be diverted if the rain barrel fills up.

These include:

- Turf/Lawn
- Gardens
- Areas of mulched soil

- Mark these with dots. 

☐ Existing Trees

This will be used to determine trees that could use water from the rain barrel.

- 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). 

☐ Water Sources

This will be used to determine where a rain barrel can capture water.

These include:

– Downspouts (these are the vertical pipes that direct water from the roof to the ground)

- Mark downspouts with a "D

Downspout

☐ Water Flow

This will be used to determine where water may be diverted and infiltrated.

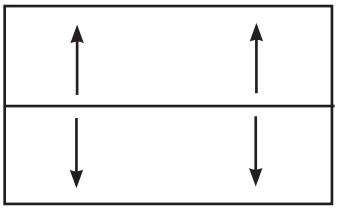
Locate high spots:

- 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 other high areas
  - To ditches or swales
  - To flat areas
  - To areas that puddle or flood
  - To other low areas



Sample roof line with direction of water flow

REVIEW YOUR PROJECT
Do you have what you need?

MATERIALS

- Rain Barrel Project Readiness Survey (copy page 13)
- Map of the site
- Pencil

Rain Barrel Project Readiness Survey

Procedure

1. With your group discuss the project supported by this Project Toolkit:
   - Rain barrel: A rain barrel is to capture rain and prevent it from causing flooding issues or contributing to urban runoff. This free resource can be used to water trees and plants.
2. Using the map of your site and the *Rain Barrel Project Readiness Survey*, thoughtfully answer the questions to determine if you are ready to start the project, and if not, what needs to happen.
3. Consider the following:
   - Location: If you have potential locations for your project mark these on your map and share with appropriate Stakeholders (Principal, Site Maintenance staff, etc.). This also includes your TreePeople Mentor who will give additional recommendations.
   - Available Resources: Do you have the materials or money raised to complete the project? If not, consider raising additional funds or ask for resources from local stakeholders. Discuss this with your TreePeople Mentor.
   - Permission: It is extremely important that the group has permission to do the project.
     – Make sure you have the support of an adult to assist your group through this part of the project.
     – There will be additional permission that must be obtained for projects on Los Angeles Unified School District property. This may also apply to other School Districts as well.
   - Commit To Care: It is important to consider the amount of time and commitment it will take to do basic care on the barrel before the rainy season.
4. Once the group has determined project readiness, you are ready to confirm site appropriateness.

TreePeople Rain Barrel Project Readiness Survey

To determine project readiness, use your assessment map to answer questions about your site and then additional questions to determine its feasibility.

Do You Want to Install a Rain Barrel?

☐ Do You Have A Location?

Look at your map. Are there areas where water can be captured? Look for:

- Areas that can benefit from a rain barrel such as trees and garden areas.

Are any of these areas located:

- Near existing downspouts that can be shortened and directed into a rain barrel?
- Near an area where water can overflow to if the rain barrel gets over full?

☐ Do You Have Available Resources?

You will need the following:

Rainbarrel with mesh top	$100 - $150 depending on type/style
2 Cinderblocks	$2
2 18" square pavers	$10
Earthquake straps, screws and anchors	$16 - $25
Downspout elbow(s)	$5 - $10
Tools (Tin snips, drill, hacksaw, level, needle-nosed pliers, screw driver, safety glasses)	Check for any existing on-site supplies or could cost $40 - $60

☐ Do You Have Permission?

Whether you want to install a rain barrel at a school or a privately owned location you will need to have permission.

– Make sure you have the support of an adult to help your group through this process, and who can insure there is general support for a rain barrel project.

– Guidelines for getting permission are provided in this Toolkit on page 46.

☐ Can You Commit To Care?

A rain barrel requires some care.

– Can you work with school/maintenance staff to put together a maintenance plan for the rain barrel?

– A rain barrel requires the following:

- Regularly checked that no leaves or other debris get caught in the system.
- Unconnect, clean and empty out at the end of the school year.
- Reconnect at the beginning of the school year.

CREATE AN INSTALLATION PLAN
Important Questions To Ask

Where Will The Water Come From and Go?

Catchment Area
Depending on the size of the area where the water is coming from (the catchment area) you will be able to determine if it is appropriate for one rain barrel.

1. Determine the size of the catchment area.
   – The catchment area is where the water is being directed from: usually a roof top.
     • Look on your map to determine what part of the roof you need to measure. It will be the part that slopes toward the downspout where the rain barrel will be located.
   – Multiply the width by the length of the catchment area.
     • This measurement gives the square footage of the catchment area.
   – Divide the square footage by the number of downspouts that are attached to the catchment area.
     • This gives the approximate square footage of catchment area per downspout.
2. Based on an average 3/4 inch of rain that falls on the catchment area (0.0625 feet), every 100 square feet of catchment produces approximately 60 gallons of rain water.
   — One rain barrel holds approximately 60 gallons of water.
   – If the catchment area produces more rain water than what will fill a rain barrel, then plan to:
     • Direct the rain barrel's overflow hose into an area that can receive the extra water, such as a garden planter or drain
     • Or, attach an additional rain barrel to the first rain barrel to catch more water.

Downspout
Determine how the rain water from a downspout is getting into the rain barrel.

– If the downspout runs along a wall, it will need to be shortened and have an elbow attachment added to extend out to the top of the rain barrel.

FINALIZE YOUR PLAN
Getting Permission

Once you have chosen the location for the barrel and created an installation design that shows where the water is coming from, and where overflow will go, it is time to finalize your plan. Whether you are interested installing a rain barrel at your local school, or at a community site, you will need to obtain permission from the entity responsible for the site before you begin work. In some cases, you will be required to submit your plans and receive a permit.

TREEPEOPLE MENTOR

A TreePeople Mentor is available to assist your group through this process and to help avoid any roadblocks.

Finalize Your Plan

- Using a copy of your site map, indicate where the rain barrel will be located, and where overflow water will be directed.

Property Owner / School Principal Permission

A *Project Information Sheet* is provided in the Resource section on page 24. Make a copy, fill in your specific information, and use it as a tool for providing the property owner or school principal with information about TreePeople and the proposed project.

PERMIT TIMING

Take into consideration that, in some situations, the permit process make take 6 weeks or more. A TreePeople Mentor can help gauge timing.

Permits & Final Approval

In some situations you will need to obtain a permit for your garden project. Work with a TreePeople Mentor, if necessary, to get a packet of instructions, forms, and samplers for obtaining a permit/final approval from the following:

Los Angeles Unified School District

Other than approval from the school's principal, approval must be obtained from the school's Complex Project Manager (CPM). This includes a site visit, site plan and project scope of work. Depending on the location and how much soil will be removed, will determine whether there are additional tests and/or permissions needed.

PREPARE FOR YOUR EVENT
Timeline and Supplies

Once you have permission, then it is time to prepare for your event. This involves creating a plan for event day and ensuring you have all the supplies you need.

Create a Timeline

Create a timeline for the event and assign tasks as necessary. The following are some event guidelines:

Before the rain barrel installation
- Unload tools and supplies
- Set out water and refreshments
- Set up sign-in table and name tags

During the rain barrel installation
- Conduct an opening ceremony
- Conduct a demonstration as necessary, before each step of installation

After the rain barrel installation
- Gather up and load the tools
- Clean the area
- Eat and celebrate!

Gather Your Supplies

Tools
- If your group needs to get a rain barrel or borrow tools, check the Resource section on page 22 for how to check out tools from TreePeople.
- Check the list on the sidebar on page 17 for the tools needed for a rain barrel installation.

EVENT PLANNING

Things to consider:
- **Volunteers:** Do you need extra help?
- **Publicity:** Who should know about your event?
- **Refreshments:** It is also nice to celebrate afterwards with food.
- **Opening Ceremony:** An important way to start the event, recognize and thank people, and share why you are installing a rainbarrel.
- **Documentation:** before, during and after the event and share what you have done on our Facebook site, and more.

INSTALL YOUR RAIN BARREL
Installation Steps

MATERIALS

- Rain barrel with fine mesh screen on top
- 2 cinder blocks
- 2 18" square pavers
- Downspout elbow
- Sheet metal screws
- Earthquake straps
- Bracket
- Hacksaw
- Pencil
- Needle-nose pliers
- Screw driver
- Level

Install the Rain Barrel

1. Clear and level the area for the rain barrel.
   - Clear the area around the downspout.
   - Plants and other debris need to be removed to make space for the rain barrel.
   - Level the ground in preparation for the cinderblocks.
2. Create a base to raise the rain barrel approximately 12 - 15".
   - Use the cinderblocks and 18" square pavers to make the base.
   - Use a level to prepare the ground and to align the bottom paver. This will ensure the base for the barrel is stable.
   - From the bottom, lay down one paver, place two cinder blocks (on their sides and beside each other) on top and the second paver on top of the cinder blocks, creating a "sandwich" base for your barrel.
3. Place the rain barrel on top of the base.
4. Reconfigure the downspout.
   - Shorten the end of the downspout.
     - Mark the downspout at the spot that allows enough space for the elbow piece and allows water to flow into the opening at the top of the rain barrel.
     - Cut the downspout at the mark using a hacksaw.
     - Remove the cut piece.
   - Attach the elbow(s) over downspout.
     - Use needle-nose pliers to crimp the ends of the cut downspout and slide it inside the elbow.
     - Attach the elbow to the downspout with screws, or for added stability, consider securing the elbow to the building with a bracket.
5. Do a test run.
   - Use a water hose to run water through the downspout and into the rain barrel. Make any needed changes.
6. Secure the rain barrel with metal/all-weather earthquake straps.
   - Use anchors and screws to secure to side of the building.
7. Make sure the overflow hose is secured and directed in a garden, grass area or drain.

MAINTAIN YOUR RAIN BARREL
Ongoing Care

Ongoing Care

1. Remember to use the water in the barrel to water garden plants or trees.
   -Water from a rain barrel is not for drinking.
2. Clear any leaves and other debris that get caught in the screen.
3. At the end of the school year empty all of the water out of the rain barrel.
   - Allow it to dry out.

MAKE YOUR RAIN BARREL COUNT! Mapping on TreeMapLA.org

To increase the awareness of trees and rainwater harvesting in Los Angeles, TreePeople and a collaboration of nonprofits, local government and businesses has created TreeMapLA. This powerful mapping tool generates specific environmental and economic benefits that will help us manage the well-being of our region's urban forest.

Register on TreeMapLA.org

Choose a User Name and Password for your group. You can do this by either:

- Downloading the free TreeMapLA mobile app for Android or iPhone
- Logging into www.TreeMapLA.org.

Enter Data And Generate Benefits

Input the data into TreeMapLA and generate environmental benefits by doing the following:

- Go to https://www.opentreemap.org/latreemap
  - Log In for the class.
  - Click on "Add A Watershed Solution".
  - Input the sites's address in "Search by Location" in the upper right.
  - Click on "Satellite" in the upper right corner of the map.
  - Check "Rain Barrel".
  - Click "Next" in lower right corner.
  - Input the address and set the location of the rain barrel. Then, click "Next".
  - Move the dots on the blue polygon to define the borders of the roof area (or other) that will drain into your watershed solution. Then, click "Next".
  - Answer the yes/no questions about the site. Then, click "Next".
  - Once complete, check "I'm Done!" and click "Done".
  - To view the benefits, click on the blue dot indicating the rain barrel. The benefits and the economic savings will appear to the right.

SHARE WHAT YOU DID
Let Us Know About Your Project!

Projects like this serve as an inspiration to others, and count toward TreePeople's goal of transforming our city into a safe and sustainable environment! There are a variety of ways to share what you did.

Social Media

Share photos and videos on the Project Toolkit Facebook Group. If your group has not been invited to join, contact youthleadership@treepeople.org. See page 3 for other ways to share.

Final Report

Send an email to youthleadership@treepeople.org and tell us:

1. What is the name of your school/Eco club?
2. What are the names of the students who participated?
3. What project did you complete?
4. Are you interested in another Project Toolkit?

We would love photos and/or videos of the project too!

RESOURCES

Glossary

aquifer: A formation of porous rock, gravel or sand that holds an underground supply of water. The City of Los Angeles takes about 11% of its water from the San Fernando Valley aquifer.

asphalt: A product used in paving, specifically for streets and play grounds.

berm: A raised mound of dirt designed to slow, spread and sink water much like a dam. They can be covered with shrubs, ground covers, turf or mulch.

climate-appropriate: Plants and grasses that are native to Southern California, or are adapted to our semi-arid climate.:

debris: Scattered remains, such as those from trees, that include leaves, branches, bark and twigs.

dependent: Relying on or requiring the aid of another for support.

dormant: In a condition of biological rest or inactivity characterized by cessation of growth or development.

downspout: A vertical pipe for carrying rainwater down from a roof gutter.

downspout extension: an attachment to a downspout that extends its reach.

dry weather runoff: urban runoff that happens when it is not raining, usually from inefficient sprinklers or overspraying.

evaporation: To convert or change into a vapor.

gutter: A channel at the edge of a street or road for carrying off surface water.

hardscape: Refers to hard elements on the land such as those composed of concrete, brick and stone. It includes driveways, patios and sidewalks.

impervious: Presenting a barrier to the passage of stormwater.

import: To bring in from an outside source.

irrigation: To supply with water by means of pipes, sprinklers, etc.

landscape: Garden or planted area.

local water supply: Water that comes from local sources.

Mediterranean climate: climate characterized by hot, dry summers and mild, wet winters. Usually located between 30 - 40 degrees latitude and next to a large body of water.

mulch: A ground covering, especially of organic materials, that holds water, slows evaporation, enriches the soil and encourages plant growth.

native: Originating in, or inhabiting, a specific place for many years.

non-native: Not coming from a given locality; synonymous with "exotic."

permeate: To flow through.

percolation: The movement of water downward through the soil.

runoff: Stormwater flowing across the surface of the earth.

semi-arid: A region characterized by very little annual rainfall, usually from 10 to 20 inches.

sustainability: The use of natural resources in a way that avoids depleting them or otherwise damaging the environment.

swale: A u- or v-shaped depression in the land, usually lined with grass or mulch, designed as a channel for moving stormwater from one place to another.

watershed: The land area that drains water to a particular stream, river, lake or ocean.

Rain Barrels

Talk to your TreePeople Mentor about suggested rain barrel vendors and current rebate programs.

Tools

If you plan to borrow tools from TreePeople:

- Please try to schedule 2-3 months in advance.
- TreePeople tools are lent out depending on availability.
- Work with a TreePeople Mentor to reserve and pick-up tools.

For an LAUSD school site: (213) 241-1000

Project Information Sheet

Who We Are

TreePeople is an environmental nonprofit that unites the power of tree, people and technology to grow a sustainable future for Los Angeles. Our mission is to inspire, engage and support people to take personal responsibility for the urban environment, making it safe, healthy, fun and sustainable and to share the process as a model for the world.

TreePeople believes in the power of young people to make change in their communities. In fact, TreePeople was founded by a teenager in 1973. Since then, over 2 million trees have been planted in wilderness areas, neighborhoods and school campuses in Southern California by volunteers. We've continued to place young people at the center of our work by developing one of the largest environmental education programs in the United States. Our programs for youth create opportunities for leadership, community service and fun.

TreePeople's Youth Leadership Program

TreePeople's Youth Leadership Program is designed to assist teens, youth groups and youth group leaders by providing a program that teaches youth about critical environmental issues in their community and how taking action can help to address these issues.

TreePeople Mentor

Groups are assigned a TreePeople Mentor who will provide expertise and work with the group to support the completion of the project. Project guidelines, tools and some supplies are also provided. For sites on LAUSD property, TreePeople has a formal partnership to assist with greening projects and is well-versed in the procedures for obtaining permission at the District level.

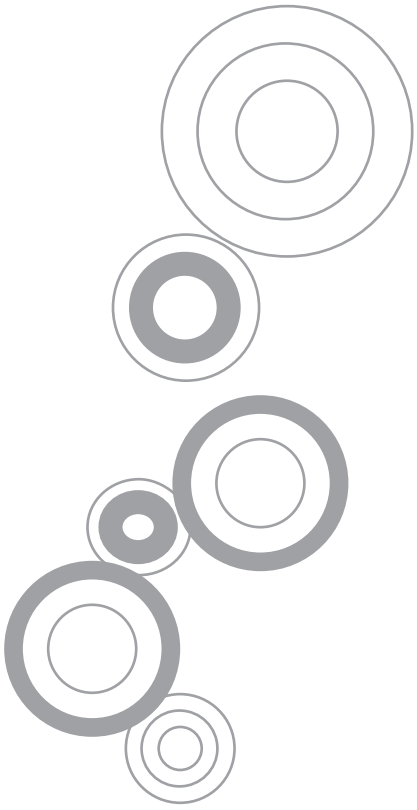
Name of TreePeople Mentor: _____

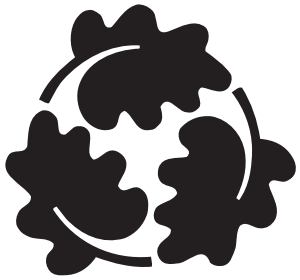
Email: _____ Phone: _____

☐ **Rain Barrel Project**
The group has assessed the site and identified a location to install a rain barrel. A site map is included.

Name of Group: _____

Group Contact: _____





TreePeople

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