Firescaping Workshop

Focusing on the:

Palos Verdes Peninsula

April 21, 2021
This Evening’s Speakers

• **Melissa Buendia** – Facilitator

• **Director Harold C. Williams, MSCE, P.E.** – Introduction / Opening Remarks

• **Tammie Myers** (California Water Service) – Opening Remarks

• **Trevor Moore** (Los Angeles County Fire) – Opening Remarks

• **Douglas Kent, MS, MLA** – Class Instructor

• **Gus Meza** – Moderator

• **Jenyffer Vasquez** – Moderator

• **Matthew Veeh** – Moderator
Mission

Provide a safe and reliable supply of high-quality water to the communities we serve.
Board of Directors

Division I
Harold C. Williams
President

Division II
Gloria D. Gray
Immediate Past President

Division III
Desi Alvarez
Secretary

Division IV
Scott Houston
Treasurer

Division V
Donald L. Dear
Vice President
Service Area

**Division I**
Carson, Palos Verdes Estates, Rancho Palos Verdes, Rolling Hills, Rolling Hills Estates, and unincorporated LA County areas of Rancho Dominguez

**Division II**
Inglewood, and unincorporated LA County areas of Lennox, South Ladera Heights, West Athens, and Westmont

**Division III**
Hermosa Beach, Lomita, Manhattan Beach, Redondo Beach, and a portion of Torrance

**Division IV**
Culver City, El Segundo, Malibu, West Hollywood, and unincorporated LA County areas of Del Aire, Lennox, Marina del Rey, North Ladera Heights, Topanga, View Park, Windsor Hills and Wiseburn

**Division V**
Gardena, Hawthorne, Lawndale, and unincorporated LA County area of El Camino Village
California Water Service
Water Efficiency Programs

- Formed in 1926, 92 years of experience
- Service areas across CA, 100 Communities
- Serve 2 million Californians through almost 500,000 service connections
- Over 80 billion gallons of water annually
- More than 400,000 water quality tests per year
Water-Efficiency Programs

• Rebates
  • www.calwater.com/rebate
    • High-efficiency toilets
    • High-efficiency clothes washers
    • Smart irrigation controllers
    • High-efficiency sprinkler nozzles

• Conservation Kits
  • www.calwater.com/kit

• Smart Landscape Tune-Up Program
  • www.calwater.com/conservation/tuneup
Commercial Water-Efficiency Programs

• Rebates
  • www.calwater.com/rebate
    • High-efficiency toilets
    • High-efficiency urinals
    • Smart irrigation controllers
    • Spray bodies w/ pressure regulation
    • Large rotary nozzles
    • High-efficiency sprinkler nozzles

• Customized Incentives

• Smart Landscape Tune-Up Program
Conservation Resources

California has a traditionally dry climate, making it important for us to make water conservation a way of life and use water wisely. Good conservation practices help ensure a reliable water supply into our future.

Cal Water is always here to assist you in your conservation efforts. The links below can help you save water and take advantage of the many water conservation programs and resources we offer.

General information
- Conservation tips
- Drought information
- Drought-resistant plants
- Be water wise and fire wise
- Conservation reports
- Urban water management plans
- City of Hawthorne conservation program
- Instructional and conservation videos
- Useful web sites

Conservation regulations
- Time-of-day watering restrictions
- Prohibited uses of water
- Local conservation ordinances
- Rule 14.1
- Schedule 14.1

Cal Water resources
- Conservation rebates
- Conservation kits
- H2O Challenge

https://www.calwater.com/conservation/resources/
Structures

CREATING FIRE-RESISTANT PROPERTIES AND COMMUNITIES
Structures

Your 1\textsuperscript{st} Priority!

Whether firebrands or direct flame contact, your structure must be maintained to withstand an assault of intense heat and flying burning embers.


Bottom: Woolsey Fire, 2018
Structures: Of Concern to the Peninsula

Topics

Ridgetop Living
Outbuildings
Small Lots
Structures: Ridgetop Living

Problems

- Elongated flames
- Intense heat
- Firebrands propelled by convection

Solutions

- Screens
- Eaves
- Trim
- Siding

Vulcan Vent: Fire and ember safe
Structures: Outbuildings

*Needs Attention*

- Basic maintenance
- Weatherization
- Check screens

Firebrands can ignite these two outbuildings. The overflowing rain gutters (left) and the big gaps in the door (top) create opportunities and fuel for firebrands.
Small Properties

As illustrated by the state’s deadliest and most destructive wildfires, small lot neighborhoods are particularly vulnerable to loss. The reason is because there is not enough distance between the homes to buffer the intense heat and a domino effect is created. Homes burn at about 1,110F.
Structures: Small Lot Design Strategies

See next slides for details
Structures: Small Lot Design Strategies

**The Roof**: Installing and maintaining a fire-retarding roof is possibly the most important aspect to protecting a house on a small lot.

**Off-Street Parking**: Gridlock is common in high-density neighborhoods, but more so during wildfires. Off-street parking and pullouts will greatly speed travel times.

**Escape Routes**: Dense neighborhoods need as many escape routes as possible.

**Fences**: The pursuit of privacy adds an incredible amount of fuel to any property, but it is compounded on small lots. Separate structures with a concrete wall.

**Plant Selection**: Fire retardant and fire-resistant plants only on small lots.

**Shared Vegetation**: Not every property needs a tree. Oftentimes a homeowner can simply let their neighbor’s tree grow over and onto their property.

**Pools and Spas**: Design your pool or spa so that you or fire fighters have easy access to the water and drain outlets.
Structures: To Do

- Ensure all openings are screened.
- Clean roof and gutters.
- Manage seams and fill gaps.
- Paint, if not sand, all peeling paint.
- Make your address visible.
Questions

Structures

Palos Verdes Peninsula
Firescaping Webinar
CREATING FIRE-RESISTANT PROPERTIES AND COMMUNITIES
First Five Feet: 2nd Priority

The first 5 feet of your home plays a pivotal role in its protection.

- **Avoid storage.** Compost bins, toy boxes, coat and shoe cupboards, and recycle and trash cans should be placed outside of this area.

- **Absolutely no flammable plants.** The most flammable include buckwheat, cypress, eucalyptus, juniper, and any other plant with a brittle nature and fragrance.

- **Absolutely no woody dry organic mulches.** Inorganic mulches, like river rock, are preferred. If organic mulch is needed, then use only humus, the most decomposed.

- **Avoid the use of fabrics,** which includes awnings, cushions and umbrellas.

- **Avoid erecting shading devices with the first 5 feet.** Not only will this help stop a fire from connecting to a structure, it also gives the wind and firebrands an easy exit, instead of trapping them.
First Five Feet: Do you see it?

The wood, containers and tools provide opportunities for ignition and unnecessarily add risk to an otherwise fire-hardened home.
First Five Feet: Shade Structures

Problems

- Poorly maintained
- Attached to structures
First Five Feet: **Shade Structures**

**Solutions**

- Detach from structure
- Slant to allow heat to escape
- Care for the wood
Defensible Space

CREATING FIRE-RESISTANT PROPERTIES AND COMMUNITIES
The Garden Zone / Defensible Space

- **Distance**: Extends 30 ft from house or structure.

- **Primary Goal**: Able to withstand flying embers and intense heat. Only zone that selected plants can be dependent on imports, mainly water and fertilizers.

- **Secondary Goal**: This area has to maintain a high recreational, functional and/or economical value.

---

**Topics**

- Paths
- Fences
- Landscape Features
Defensible Space: **Pathways**

*Pathways are vital for fleeing and fighting*

- They should encircle a structure
- They are 4 feet wide and stable
- There are no obstructions that hinder swift travel
Defensible Space: Fencing
Defensible Space: Fencing
Defensible Space: Landscape Features

**Needs Attention**

- Basic maintenance
- Clean and preserve wood
- Remove flammable items from around landscape feature
Defensible Space: To Do

- Remove all flammable items within the first 5 feet!
- Remove dead, **dying** and diseased vegetation.
- Maintain landscape features, such as fences and tree houses.
Questions
---
Defensible Space

Palos Verdes Peninsula
Firescaping Webinar
Knowing Traits is More Important than Lists

- Broadleaf plants
- Moist and easily bent leaves
- Thick leaves
- Low amount of litter
- Sap that looks more like water
- Plants without fragrance
- Plants with silver or gray leaves
- Plant leaves without hair

Coral bells (*Heuchera*) and *Carex pansa* have many ideal attributes.
Plants: Less Flammable
Plants: Less Flammable

**Fire Retardant**
- Agapanthus
- Cercis – Redbud
- Crape Myrtle
- Fescue
- Flax
- Gazania
- Grape
- Liquidambar
- Philodendron
- Photinia
- Succulents

**Fire Resistant**
- Artemisia ‘Silver King’
- Ceanothus
- Cistus – Rockrose
- Coast Live Oak
- Cotoneaster
- Lemonade Berry
- Mallow
- Native Verbena
- Toyon
- Yarrow
- Yucca
Citrus is notoriously good at resisting the effects of fire and intense heat.
Plants: The Problem with Lists

- Too Old
- Diseased
- Injured
- Pest Infested
- Not Healthy

Maintenance is the Fulcrum of Fire Safety
Plants: To Do

- Remove dead, **dying** and diseased vegetation.
- **Replace** vegetation before it becomes an economic liability and fire risk.
- Do not let your plants **dry** out.
Resources

State Approved Air Vents for Fire Protection
• Brandguard Vents, San Clemente, CA https://www.brandguardvents.com/
• Embers Out LLC, Yorba Linda, CA https://www.embersout.com/
• Vulcan Technologies, San Rafael, CA http://www.vulcan technologies.com/

Flame Retardant Paints
All the companies below provide Class A paints, the most fire retarding and state approved.
• BanFire
• FireTech
• FlameOFF
• INSL-X
• Krylon
• Master Flame
• Zero Flame

Nursery Centers with Experience in Fire Protection
• Armstrong Nurseries, Torrance
• Elwood Nursery, Rolling Hills Estates
• South Coast Botanic Gardens, Palos Verdes Estates

Qualified Landscape Contractors
California Landscape Contractors Association, “Find a Contractor”
https://member-clca.org/max/4DCGI/directory/contractor/index.html

California Department of Forestry, Building Materials Listing

Insurance Institute for Business and Home Safety (IBHS)
https://ibhs.org/risk-research/wildfire/
For more information about fire protection, water conservation and/or West Basin Municipal Water District, please contact one of the individuals listed:

Douglas Kent MS, MLA  
_Firescaping Class Instructor_  
Email: newair@mindspring.com  
Website: www.anfractus.com

Gus Meza  
_Senior Water Policy Resource Analyst_  
Email: gusm@westbasin.org  
Website: www.westbasin.org

Tammie Myers  
_Conservation Coordinator_  
Email: tmyers@calwater.com  
Website: www.calwater.com

Trevor Moore  
_Deputy Forester_  
Email: trevor.moore@fire.lacounty.gov  
Website: www.fire.lacounty.gov