Summers are getting hotter
Is your home ready?
May 2021
Today’s Agenda

Introductions

Getting your home and family ready for Summer and hot weather
  Changing weather patterns
  Improvements and Indoor Air Quality (IAQ)
    Shell
    Equipment upgrades
    Other ideas
  General maintenance
  Preparedness

Valley Water - Palo Alto’s regional water partner
  Water Wise Survey Program
    Water Wise Outdoor Survey
    Do-it-Yourself Indoor Survey Kit
What Does Hot Weather Mean to You?

I have hot rooms
I want a comfortable home!
My child’s asthma gets worse
I can’t sleep upstairs
I can smell smoke from outside
My electricity bill goes way up...
Hot Weather – Typical Solutions for Our Area

• When there are cool evenings
  • Open windows and skylights
  • Close windows and draw shade in morning
  • Whole House Fan

• Use a fan to circulate the air
  • Forced air convection cooling
    • Works until temp reach mid-80s

• Staying hydrated
Hot Weather – Challenges We are Seeing Today

• May have limited outside options
  • Pandemic, working from home

• Periods when warm both day and night
  • Unable to take advantage of cool night air to pre-cool home

• Wildfire smoke events
  • Can’t open windows because outside air quality is poor

• How can I improve Indoor Air Quality (IAQ)
  • Year round
  • During wildfire smoke events
Improvements & IAQ Solutions
Improvements: Building Shell – Air Seal

- Sealing the home can help improve IAQ
- Attic and crawlspace are important to address
- Reduces moisture, particulates, and radon
- Foam or dense pack wall insulation can help
- Lowers heating and cooling costs
Improvements: Building Shell – Insulation

- How does it help in the summer?
- Keep heat out and cold air in (e.g. Your refrigerator)
- Eichler and flat roofs – Add rigid foam at next re-roof
Improvements – Which Direction?

• Furnace is old > 20 years
• My heating system is less than 15 years old
• I have a radiant system
• I want to add cooling
  • What are my options
Improvements: Heating Ventilation and Air Conditioning

Central Heating Systems

- Seal your ducts
- Consider electrification
  - Heat pumps to heat and cool
- If staying with gas, choose efficient sealed combustion equipment
  - Minimize safety hazards
- Better filtration at the furnace can improve air quality, consult an HVAC professional
Improvements: Adding Cooling

- New heating system - What can I do?

- Add HP to existing central furnace – get optimal electric heating and cooling

- Add mini-split heat pump
  - Ducted or ductless

- Radiant or baseboard
  - Mini-split heat pump
  - Zoned rooms
Improvements: Shading

- South windows (and walls)
- West windows
- Natural shading (tree)
- Awnings – fixed, retractable
- Retractable exterior window covering
Improvements: Window Coverings

- Interior storm windows
  - Good at air sealing
- Exterior solar screens
- Window coverings
  - Cellular shades
  - Top-down or bottom-up shades gives options to block light
- Window film

https://efficientwindowcoverings.org/understanding-window-coverings
Healthy Air – Fire Season Prep
Strategies to Improve IAQ

Source Control
• Source reduction or elimination
• Keep unwanted pollutants out
  • Air sealing
  • Duct sealing
• Source ventilation

Ventilation
• Bring in fresh air from outside

Filtration
• Clean the air via filters

Indoor Environment
• Maintain comfortable temperatures and relative humidity
Improvements: Ventilation for IAQ

- Passive ventilation
  - Natural ventilation of a home
  - Open windows
  - Limited control
- Active ventilation
  - Spot ventilation
    - Bath fan
    - Range hood
  - Balanced ventilation
    - ERV/HRV
- For wildfire events
  - Turn off
  - Filter incoming air from ERV/HRV
Pollen/Particle Pollution

Causes
- Pollen, traffic, smog, natural gas, cooking, woodsmoke
- Seasonal **wildfires** and flowering plants
- Secondhand smoke contains chemicals from tobacco processing

Affects
- Can irritate lungs and increase asthma

Solutions
- Air sealing and air filters can help reduce issues
Improvements: Filtration options

- Central forced air systems
  - 4-inch, MERV 13 air filters
  - Change regularly
- Portable units – limited area
  - EnergySTAR rating
  - Follow suggested room size
  - California Air Resources Board (CARB) certified for safety (not effectiveness)
- Filter types
  - HEPA for particles
  - Activated Carbon for gaseous pollutants, odor
General Safety

- Smoke and carbon monoxide (CO) alarms
  - Change battery at least once a year –
    - Sealed battery newer model
    - Direct powered, back up battery
  - Check age of alarm – when manufactured
    - Replace if past warranty
Water Heater

• Check water heater tank
  • Any rust?
  • Look at nameplate
    • Note age of water heater
    • Last 10-15 years

• Flush tank or descale tankless

• Time replace?
  • Ready to electrify your home?
  • Heat Pump Water Heater Rebate up to $1,500
  • Talk with advisor
Disaster Preparedness

- Do you have a plan and kit - earthquake, fire, flood?
  - Water!
- Public Safety Power Shutdown (PSPS) event
  - Flashlight
  - Back up power for essentials
    - Phone (land and cell)
    - Internet
  - Have a plan
    - Food spoilage
    - Cooking
    - Comfort

Disaster Preparedness

- **Wildfires**
  - Being prepared for poor outdoor air quality
    - N95 or equivalent mask
  - Smoke smells indoors?
    - Air sealing your home can help improve IAQ
    - Air purifier (HEPA) – design for long term use
    - Check with heating contractor if your central system can support higher MERV filters
  - Look at CPAU Utilities Newsletter - “Improving Indoor Air Quality”
Valley Water

Palo Alto’s Regional Water Partner
Water Wise Survey Program
Water Wise
Outdoor Survey Program
Water Wise Outdoor Survey Program (WWOS)

The WWOS Program provides a free service to help customers understand their outdoor water use. A trained irrigation professional will assess the landscape and evaluate the efficiency of the irrigation system.

Eligibility:

- Single-family & multi-family sites under 1/2-acre in property size
  - Large Landscape Survey
- Must have at least (1) valve-operated irrigation zone
Should I get a WWOS?

Do you experience any of the following below? If so, you may wish to participate in our WWOS program!

- Abnormal or unusually high water bill
- Visible landscape issues
- Want to learn more about irrigation system
- See if you qualify for irrigation upgrade rebates
WWOS - How to Get Started

Call - (408) 630-2000 // Email - WaterWise@valleywater.org // Website - valleywater.org

Fill out an online survey request form

Water Wise Survey Request Form

- Service Requested:
- Eligibility Questions
- What is the following does your irrigation system include? (Select)
- Water Company:
- Select your water company
- Find my water valve
- Water Account Number or YGI ID (Required to determine eligibility)
- A copy of your water bill will be requested when scheduling your outdoor survey.

- Primary Contact Information
- Name:
- Address:
- City:
- State:
- Zip:

Water Conservation

Saving Water

Water Wise Survey Program

Valley Water offers a free program to help you learn how to use less water in your landscape and home. This includes:

1. Water Wise dyke
2. Water Wise Water Festival survey kits, which may help you to identify:

- Call (408) 630-2000 for outdoor surveys or (408) 630-2014 to request an indoor survey kit.
Do-it-Yourself Indoor Survey Kit
DIY Indoor Survey Kit

The DIY Kit is a free resource that helps customers learn about their indoor water use. The DIY booklet can be accessed online, the complete DIY Kit can be mailed to customers.

Eligibility:
Anyone!
What’s in the DIY Indoor Survey Kit?

The DIY Kit comes with a how-to booklet, a flow rate bag, and toilet dye tablets.

The kit shows you how to:

• Identify the flow rate of faucets and showerheads
• Perform a water meter leak test
• Perform a toilet leak test
• Learn about general indoor leak information
DIY Leak Check Videos

Check out our helpful leak check videos at watersavings.org!
Free Water-Wise Gear

Complete the Home Survey Worksheet to receive free water efficient gear

Based on your own Survey findings, you may receive free:

- Bathroom /Kitchen faucet aerator
- Low-flow showerhead
- Toilet flapper

Valleywater.org/DIYSurvey
DIY Indoor Survey Kit – How to Get Started

**Call - (408) 630-2554 // Email - Conservation@valleywater.org // Website - valleywater.org**

View the DIY guide online today!

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The DIY Water Wise Indoor Survey Kit includes a step-by-step guide to perform your own indoor survey. A worksheet to request free water conservation items, toilet dye tablets, and a simple device to help you measure the flow rates of your sinks and showers.

To begin saving water indoors using the Indoor Survey Kit, follow these 2 steps. Please either:

1. Use the kit’s online step-by-step guide for immediate help. This guide includes the use of dye tablets or the device to measure flow rates.

2. To get dye tablets and a simple flow-rate device along with a physical copy of the step-by-step guide, call our Water Conservation helpline at (408) 630-2554 or fill out the request.

You will not receive free water conservation gear unless you complete either of the 2 steps described immediately below.
Other Water-Wise Resources

- Landscape Rebate Program
- Graywater Laundry to Landscape Rebate
- Additional irrigation information
- Literature and rack cards

valleywater.org/saving-water/resources-gear
Summary

• Getting ready for Summer
  • Understand
  • Shell improvements
  • Equipment upgrading and other solutions

• Water Wise Survey Program
  • Water Wise Outdoor Survey
  • Do-it-Yourself Indoor Survey Kit

• Contact the Home Efficiency Genie advisor with any questions or for advice
Thank you for attending!

- Questions, comments?

- Virtual Assessments
  - Visual evaluation of your home
  - Electrification evaluation

- Next webinar – What would you like to learn about?

- Home Efficiency Genie free phone advising
  - Website: efficiencygenie.com
  - Phone: 650-713-3411
  - Email: Advisor@efficiencygenie.com
  - Email: Paul.Koepke@clearesult.com