Home Landscaping in a Changing Climate

Presented by:

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Climate Changes Observed

- McCabe's Nursery began in De Luz, Temecula in 2003
- Through the thousands of plants we grew and cultivated, we were able to observe change what grows successfully here
- What evolutions have we been seeing?
    - Colder seasons with varying low points in long 5+ year cycles
    - Significantly higher highs in the summer that are lasting longer
    - The false second-spring in the early fall has largely disappeared
    - More dramatic weather with less identifiable patterns
    - More fires that are leaving debris on leaves and causing damage
    - Increased prevalence of trees dying of old age in the community
    - Decrease in/loss of bees and other pollinators

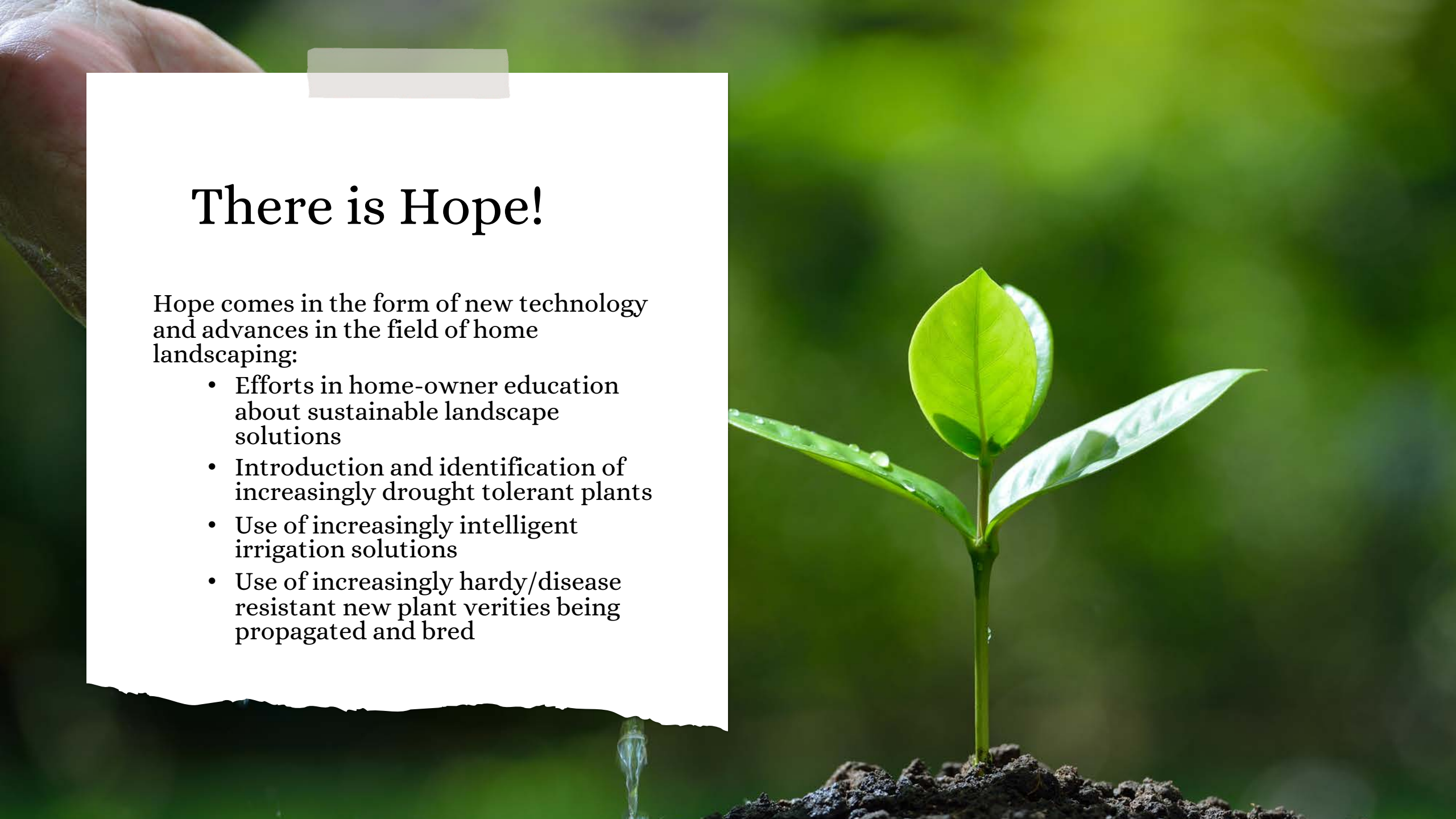
What does that mean for home landscapes?

- The rules have changed
- The rules will keep changing
- We can make educated recommendations, but it is best to remember…
- Mother Nature always wins

There is Hope!

Hope comes in the form of new technology and advances in the field of home landscaping:

- Efforts in home-owner education about sustainable landscape solutions
- Introduction and identification of increasingly drought tolerant plants
- Use of increasingly intelligent irrigation solutions
- Use of increasingly hardy/disease resistant new plant verities being propagated and bred



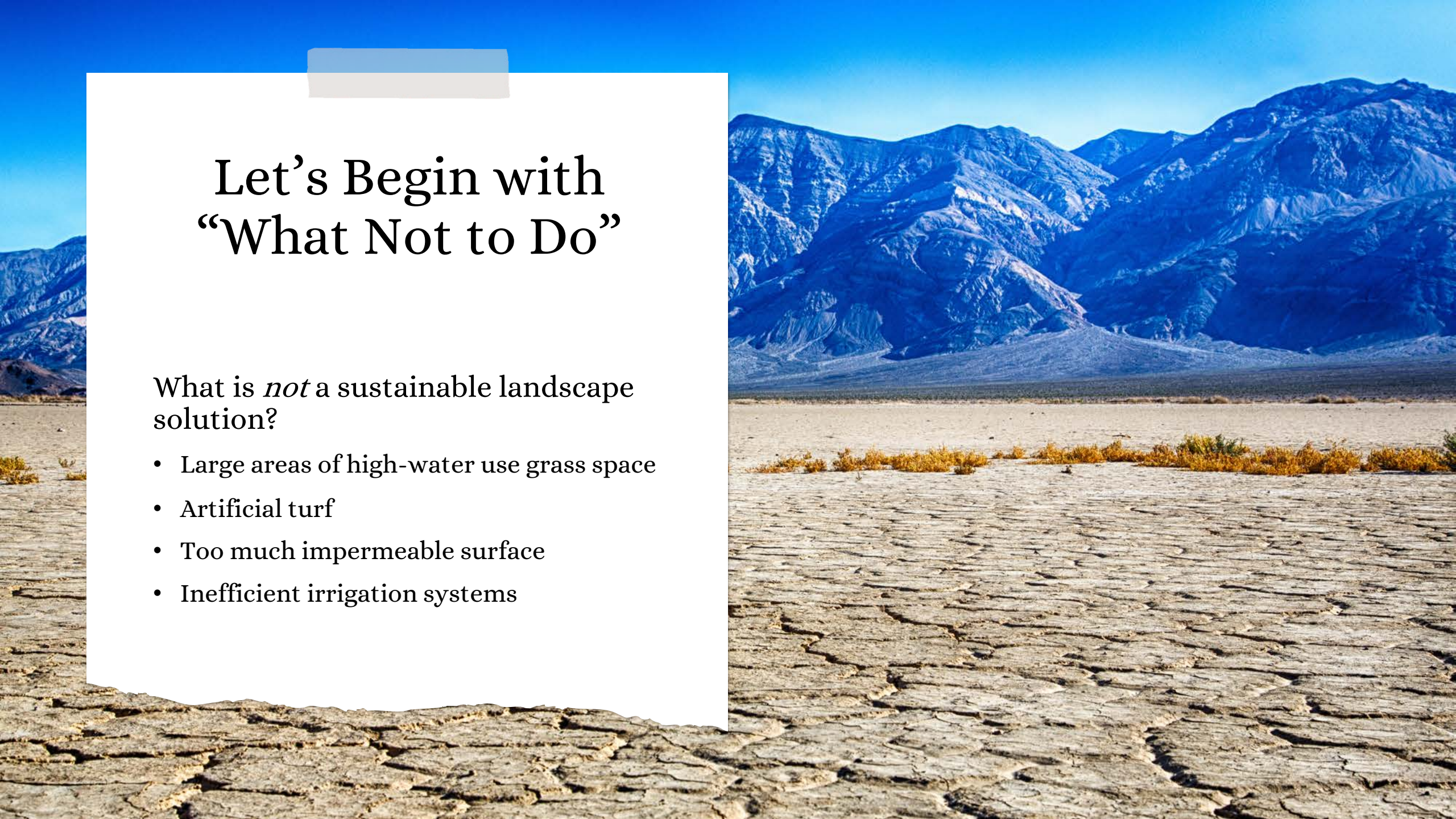
Homeowner Education

- That is what we are doing here today!
- Regardless of who designs or builds your landscape (remodel, refresh or restart) there are some basic principles we will teach you today, so you can ensure your contractor guides you down the right (garden) path.
- Additional resources:
  - Rancho Water District – website + demonstration gardens
  - Western Garden by Sunset
  - The McCabe's Landscape Blog
  - John McCabe's TED Talk (on our website or on YouTube)

Let’s Begin with “What Not to Do”

What is *not* a sustainable landscape solution?

- Large areas of high-water use grass space
- Artificial turf
- Too much impermeable surface
- Inefficient irrigation systems



High Water Use Lawns

- Fescue grass is evergreen but can use double the water of Bermuda
- Lawn mowers (traditional gas), edgers and blowers create emissions that contribute to global warming
- Lawns are very fertilizer dependent which has environmental and geo-political implications

Artificial Turf

- Common things we hear:
  - But it looks perfect all the time
  - I love green but I don't want to mow anymore (or pay a gardener)
  - My pets needs grass
  - My grandkids need grass
  - It can't get that hot

- Downsides that must be considered:
  - Pet smells are overwhelming with artificial turf since there's no mowing/watering involved
  - The turf gets so hot that it can and will burn pets and children
  - It really does get "that hot"

Too Much Impermeable Surface

- We know that concrete is easy and (practically) lasts forever
- We understand the desire for low water and maintenance that comes from using a lot of paving, but…
- When it rains, if all the water that comes into a landscape goes out to the street via drains, our community isn't getting the soil saturation needed to keep it healthy
- Concrete and other forms of paving raise the ambient temperature of a community (like artificial turf does)
- Our landscapes can be negatively contributing to global warming

Inefficient Irrigation

- Hand watering (a far cry from precision irrigation)
  - Note: this includes raised veggie gardens and pottery
- Old spray heads with old tech
- Gear drive heads for hillsides
- Irrigation clocks that don't turn off when it rains
- Use of any spray irrigation for flowers, shrubs and trees

Let’s dig into Best Practices

- Importance of soil composition
- Plant selection
- Intelligent Irrigation
- (And what if we still miss grass?!)

Soil Composition

- Our community soil is typically a blend of
  - Clay
  - Decomposed granite
  - Sand
  - Nutrient deprived “dirt”
- Introducing compost is a game changer
- Adding air to the overly-compacted soil with a rototiller will help keep irrigation needs low
- Use of natural mulches that break down and amend the soil is critical

It’s Time to Talk About Plants

- Succulents
- Regions to consider: NZ, South Africa, the Mediterranean
- Why deciduous trees?
- What about tropical plants (and Palms)?

Fan Favorites

- Westringia Small Ball
- Butterfly Bush Dwarf
- Variegated Lomandra
- English Lavender
- Indian Hawthorne Clara

Fan Favorites

- Mexican Sage
- Cleveland Sage
- Euryops
- Russian Sage
- Lantana Dallas Red

Fan Favorites

- Purple Smoke Tree
- Gaura Whirling Butterflies
- Spanish Lavender
- Cranesbill Sugar Plum
- Cotton Candy Grass

Fan Favorites

- Lady’s Slipper
- Yellow Yucca
- Golden Barrel Cactus
- Rock Purslane
- Texas Sage

Fan Favorites

- Dianella Blue
- Bearded Iris
- Germander Trailing
- Artemesia
- Ground Cover Roses

Intelligent Irrigation

- Nothing left to be watered by hand (we over or under water by nature)
- Use of a drip system for all plants (even veggies)
- Single source drip type not pre-drilled in-line drip
- Smart irrigation clocks like the Rachio 3
    - Automatically adjusting
    - Seasonal changes
    - Easy to see which zone is which for on the spot adjustments
    - Rain, freeze, wind and saturation skips are a must
- Rainwater collection systems

“But we still want to see green” - Everyone

- Bermuda Grass
- Kurapia ground cover
- Strolling gardens
- Mindful use of artificial turf

Bermuda Grass

USES HALF THE WATER OF FESCUE

LOSES ITS COLOR IN THE WINTER

CAN BE OVER-SEEDED WITH WINTER GRASS

WITHOUT OVERSEED, USES NO WATER IN THE WINTER MONTHS

SELF-HEALS AFTER DAMAGE

No mowing, no problem! –Kurapia Ground Cover

- Low growing green ground cover
- Can handle foot traffic
- Can handle occasional vehicle traffic
- Can be mowed (for those that miss mowing)
- Gets planted as plugs (think hair plugs that fill in over time)
- Can survive on incredibly little water once established

The Moderation Strategy

- We suggest replacing thirsty lawns with a blend of low-water landscape solutions:
  - Strolling gardens that include pathways (DG or gravel) and low-water pollinator plants
  - Modest use of an impermeable paving choice like concrete for seating areas or utility spaces
  - Some artificial turf or putting green spaces for those that can’t part with a grass-look ground covering
  - Bermuda grass on drip irrigation (or highly efficient spray irrigation) with a mindful eye to square footages
  - Recreation spaces that are permeable like Bocce Ball or Horseshoe areas made from DG, sand or gravel

Let’s Get Back to Climate Change

- Increased local and state fires
- Colder winter temperatures
- Hotter summer temperatures
- Tree deaths in the community
- Decreasing pollinators

How to Handle Fire

- Post fire cleanup of soot and debris on plant leaves
- Plants that are fire resistant
  - Redbud
  - Coreopsis
  - Agave
  - Ice Plant
  - Lavender
- Plants that are highly flammable
  - Pampas Grass
  - Italian cypress
  - Rosemary
  - Eucalyptus
  - Ceanothus

How to Handle Cold

- Use of cold tolerant plants
- Emphasis on woody shrubs and trees with hardy ground covers
- Protecting citrus and other vulnerable plants in the winter
- Not removing frost damage until the cold has passed
- Avoiding tropical plants as much as possible
- Using deciduous trees rather than evergreen varities

How to Handle Heat

- Choose plants from Mediterranean, South Africa, New Zealand or Mexico
- Emphasize low-water plants as they are often also heat-tolerant
- Use herbal plants like Sages, Lavenders and climate-appropriate succulents
- Ensure irrigation systems remain functional during heat spells
- Do not cut off heat damage/burns until the heat passes
- Be mindful of sunlight exposure when planting new varieties

Loss of Local Trees

- Some tree varieties are dying through the community:
  - Pine Trees (disease and pests)
  - Leylandi Cypress (disease and pests)
  - Flowering Pear Trees (fire blight)
  - Flowering Plum Trees (old age)
  - Birch Trees (prolonged drought)
- Replacing trees that die is important for our overall eco system
- Shade provided to houses is important for energy consumption
- Consider deciduous trees as a nature-provided efficiency system

Loss of Pollinators

- Plant flowers, shrubs and trees that attract pollinators
- Pollinators are not just bees, but also moths, butterflies, hummingbirds and even bats
- Use hummingbird feeders and other ways of attracting these workers of nature to your landscape
- Plant more than one fruit tree to encourage pollination for you and your neighbors
- Avoiding trapping and killing bees whenever possible

Question and Answer Period

- What didn't we cover?
- What else would you like to know?

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