

Lawn Replacement Programs: Three Agency Case Studies



SPEAKERS



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Water Conservation Planning

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(moderator)



MARIN
WATER

John Llaverias
Marin Water



Valley Water
Clean Water • Healthy Environment • Flood Protection

Nicholas Simard
Valley Water



SCV
WATER

Julia Grothe
SCV Water



Marin Water's Lawn Replacement Programs

John Llaverias

Water Use Efficiency Specialist I

June 2nd, 2022



Setting the Scene

Marin Water Overview

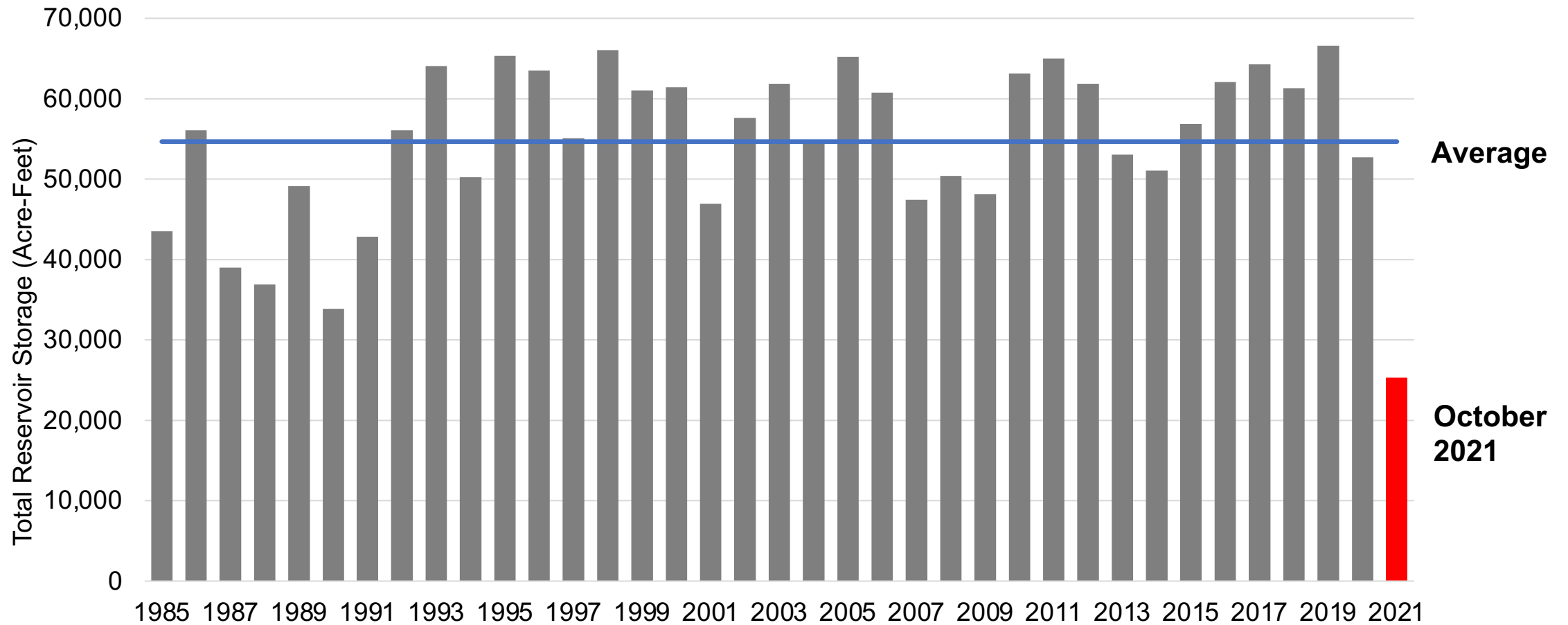
- 100% Locally Sourced Water:
 - 75% from reservoirs on Mt. Tamalpais and in West Marin
 - 25% from Sonoma County's Russian River water system
- Marin County's largest drinking water provider, serving more than 191,000 people in central and southern Marin
 - Majority residential usage, 75% residential
 - 40% of water used outdoors



2021 Drought Emergency

- Lowest rainfall since 1924 with 21 consecutive dry months resulting in reduced reservoir levels
- Drought declared in February 2021 with voluntary conservation
- Drought emergency declared in April 2021 with mandatory conservation
- **New water use efficiency programs launched in May**
- Increasingly prohibitive restrictions introduced throughout the year

Historical Total Reservoir Storage



Drought Emergency Lawn Replacement Programs

- Prior to the drought Marin Water had an existing lawn replacement program that was established in 2020 with minimal participation
- Two options
 1. \$1/SF rebate for lawn replacement with a 50% planting requirement
 2. Free sheet mulching supplies
- In May 2021 these programs were replaced with two new programs, Cash for Grass and Mulch Madness, to promote rapid participation during the drought emergency

Lawn Replacement: Mulch Madness

Mulch Madness

- Partnership expanded with Conservation Corps North Bay
- Replaced program for previous program free sheet mulching materials
- Direct install sheet mulching and irrigation conversion
- Ran from June to October 2021

**CONSERVATION
CORPS NORTH BAY**

A path to a better future.



Mulch Madness Requirements

- Pre Inspection of site with Marin Water staff
- Active lawn area or evidence of recent grass
- Irrigation to be turned off immediately after submitting application
- Site not sloped or too complex
- Minimum 500 sq. ft. maximum 1600 sq. ft.



Mulch Madness Advantages

- Fast turn around rate, directly installed sheet mulching in a single day
- Very high customer interest, exceeding capabilities of the program
- Available work force
- Verification that installation was following all terms and conditions
- Job training for members of the conservation corps in irrigation conversion and water efficiency



Mulch Madness Disadvantages

- Quickly launched program, learning curve for Marin Water and CCNB to work together
- Customer had very little options for materials or design
- A job training program, not professional landscape experts
- High cost, including labor and materials about \$4.30 per SF



Mulch Madness Overall

- Removed 46,000 SF of lawn over 48 projects
- Strong program and customer interest
- Gave homeowners the blank canvas to create more water-conscious landscaping
- Currently not being considered to be reinstated due to complexity and high costs



Lawn Replacement: Cash for Grass

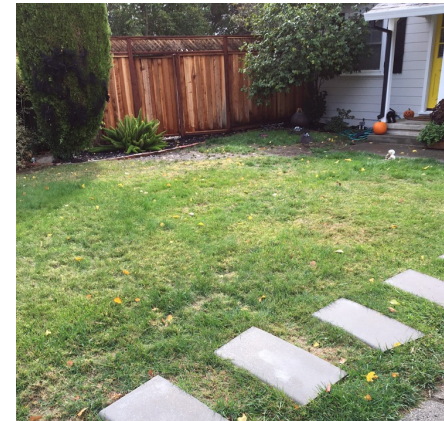
Cash for Grass

- Shift from low incentive with high barriers to a high incentive with low barriers
- Rebate increased from \$1 to \$3/sqft, \$5000 maximum
- Planting requirement removed due to water requirements to establish
- Timeline reduced from 90-days to 45-days



Cash For Grass Requirements

- A pre-inspection appointment with Marin Water staff
- Immediately disabling the irrigation to the lawn after applying
- Lawn required to be replaced with either Sheet Mulching or Permeable Hardscape
- No artificial turf, overhead spray irrigation, or inorganic landscape fabrics allowed



Cash for Grass Initial Challenges and Solutions

Initial Challenges

- Rapid launch, application process and terms and conditions could have been more clear
- Lack of initial understanding of the program and the requirements
- High volume of customers interested in program, pre-inspection approvals booked ahead for weeks

Solutions we found

- Revamped our application website showing all terms and conditions when applying to program
- Created a helpful FAQ and project guide for Cash for Grass customers
- Hired and trained necessary temporary field staff able to make multiple site visits a day, and open communication with customers

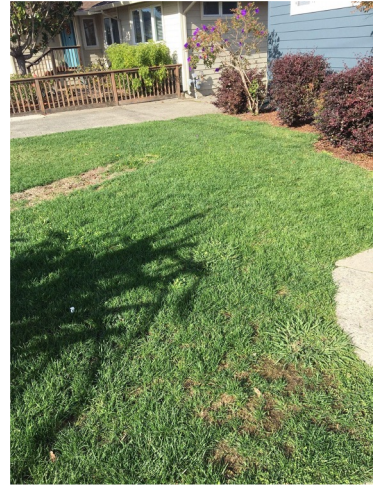
Cash for Grass Overall Challenges

- Verifying grass during pre inspection site visits, irrigation turned off since drought began
- Customers completing projects without pre-inspection or approval
- Fire concerns of mulch, what type of mulch to use and defensible space
- Sloped sites or high graded sites, difficult for mulch installations



Cash for Grass Advantages

- Easily accessible for customers, high rebate amount and relatively low requirements
- High customer interest with over 770 applications received to date
- 370 projects completed, and 336,000 sq. ft. of lawn removed
- Long term water savings as well as short term
- Customers could work with their own landscapers and designers
- High and limited incentive to motivate projects



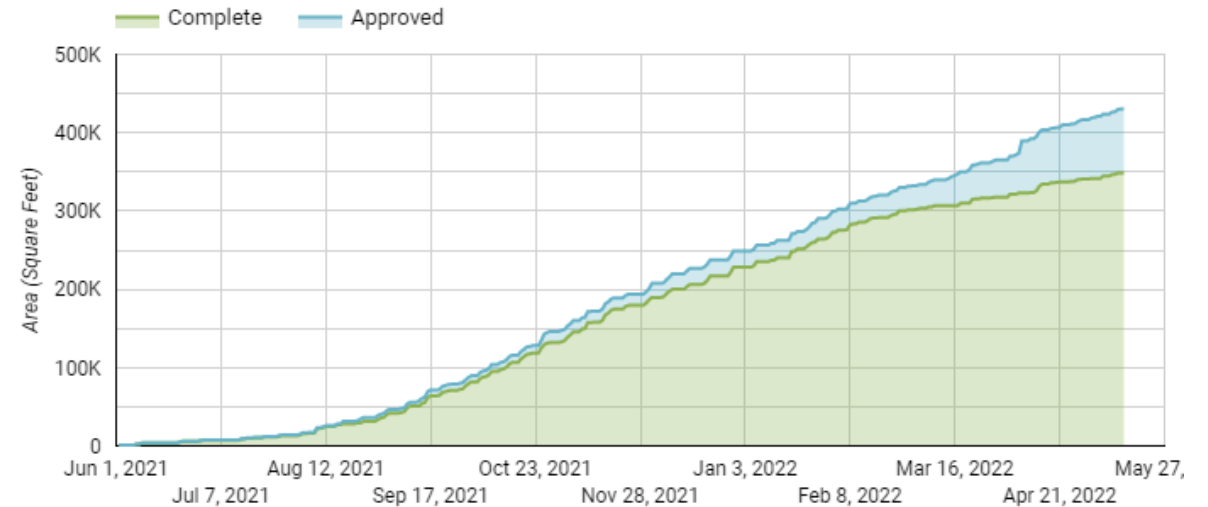
Cash for Grass Disadvantages

- High cost to Marin Water and high amount of staff time
- Customers do not always follow through after being approved
- No planting requirement, cannot verify new planting are drought tolerant
- Short window to complete projects for complex projects



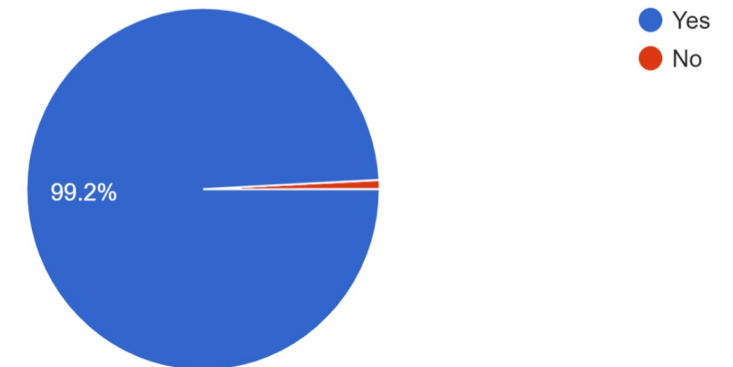
Cash for Grass Overall

- Saved water during the short term of the drought emergency
- Significant long term water savings in the future years
- Participants would often inspire neighbors to participate
- 99% of survey respondents would recommend this program to a friend



Would you recommend the program to a friend?

123 responses



What we're working on now!

- Heavy rains in October restored reservoir levels to normal levels
- Continuing Cash for Grass, possibly reducing the rebate amount to a tiered rebate structure
- Restrictions on irrigation were eased
- Replanting outreach to completed projects
- Focusing on encouraging more commercial customers to remove non-functional turf



John Llaverias

Water Use Efficiency Specialist I

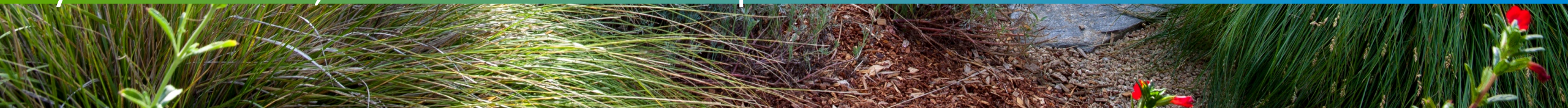
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How to Lose your Lawn with the Valley Water Landscape Rebate Program

By: Nick Simard, Water Conservation Specialist

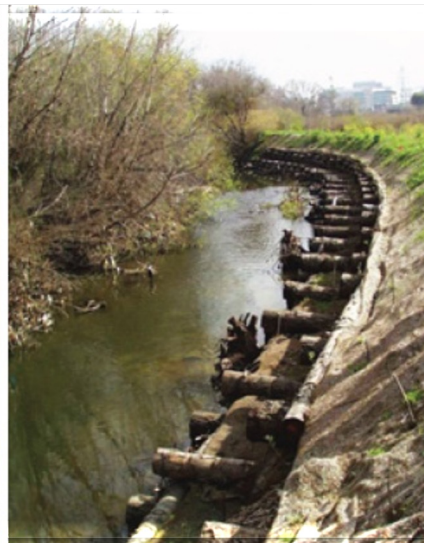


Valley Water provides Santa Clara County:

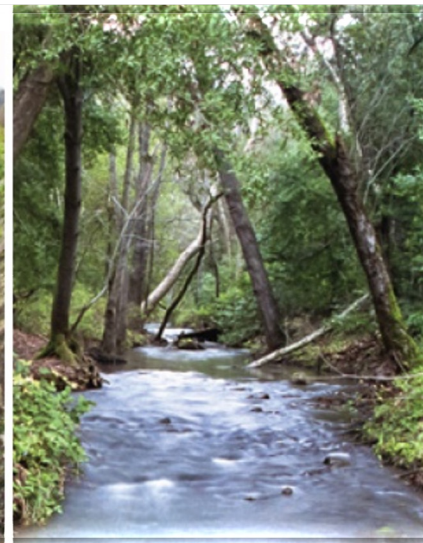
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Clean, reliable
water

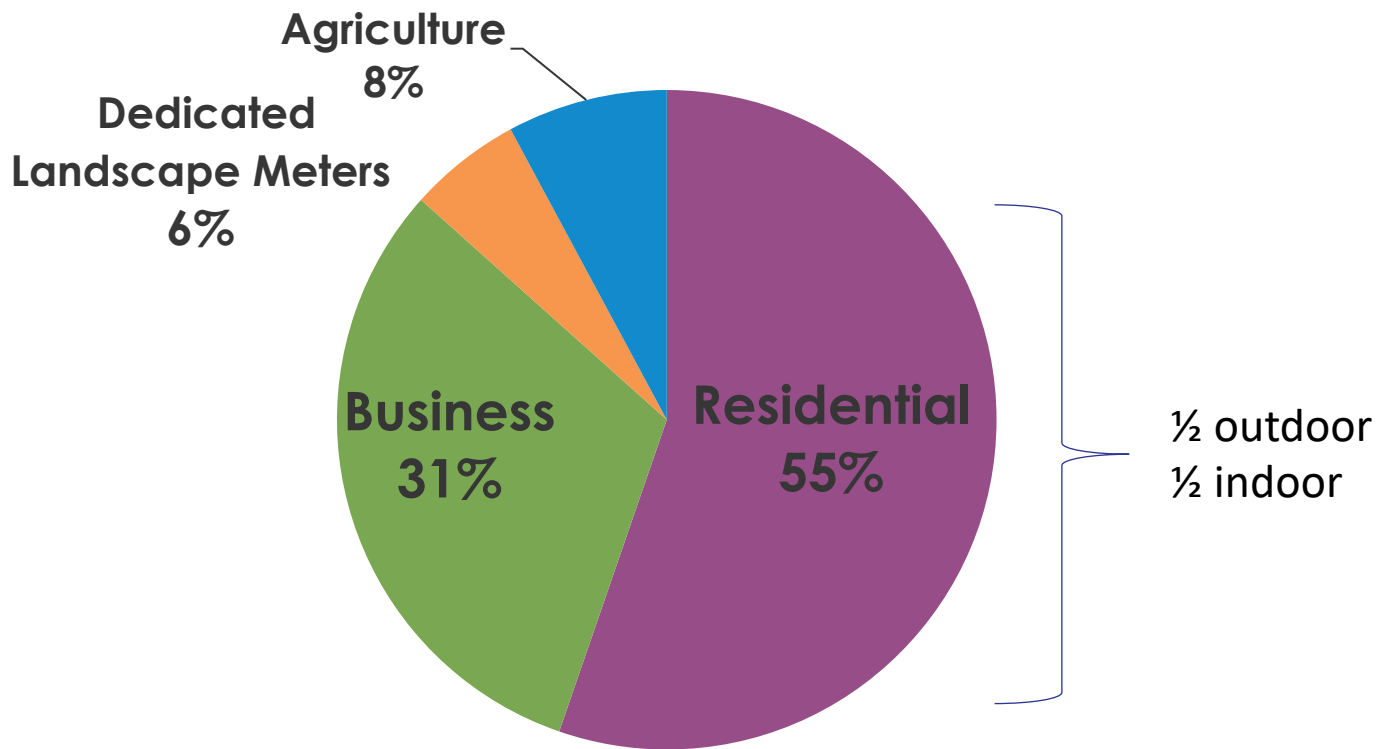


Flood protection

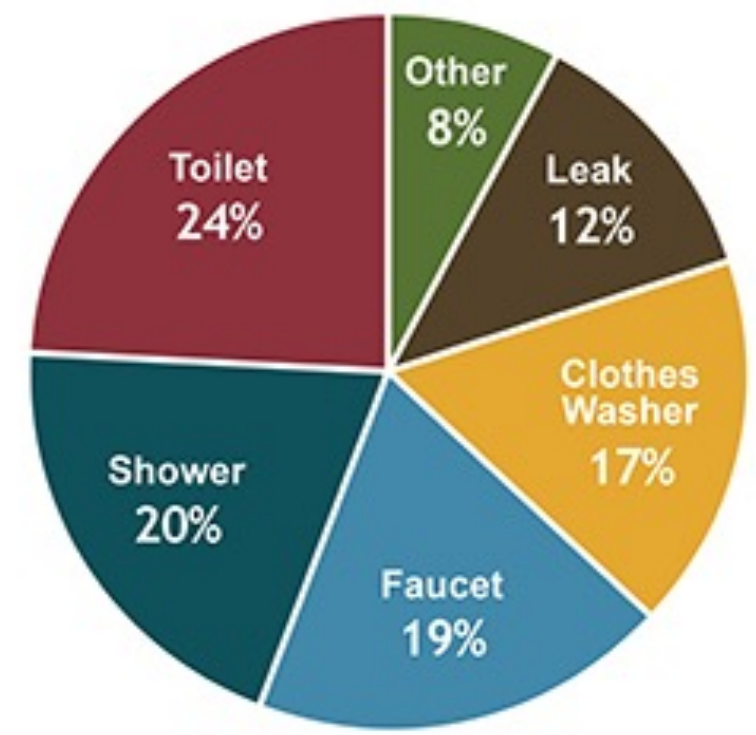


Healthy creeks,
ecosystems

Water Use in our County



Indoor Use – where does it go?



Source: Water Research Foundation, Residential End Uses of Water, Version 2. 2016

Qualifications for the Landscape Conversion Rebate

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- For sites (residential, commercial, etc.) in Santa Clara County
- Applicant must be the property owner or authorized representative (such as a property management company)
- Existing lawn and/or pool must be in place



Application Process

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- Application Part 2:
 - Proposed Plant List
 - Project plan or description
- Notice to Proceed Issued
 - 90 days to complete project
- Main Requirements
 - 50% plant coverage
 - Cover all bare soil
 - Efficient irrigation

50% Plant Coverage

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- 50% of the converted area, at the time of plant maturity, must be covered with qualifying plants
- Qualifying Plant List
 - https://scvwd.dropletportal.com/public/pdf/plant_list/full/
- For design ideas, visit:
 - SouthBayGreenGardens.org
 - Calscape.org

Project Requirements

Lawn Removed: 1,158 square feet
Coverage Required: 579 square feet

Current Coverage: 623 square feet
Still Needed: 0

[Back to Application](#)

Plant List

Status: Approved

[Update Plant List](#)

| | Botanical Name | Common Name | Quantity | Coverage | Extended |
|---|---|---------------------|---|----------|----------|
| ✕ | Achillea X 'Moonshine' | Moonshine Yarrow | <input type="text" value="3"/> Update | 3 | 9.00 |
| ✕ | Arctostaphylos Densiflora 'sentinel' | Vine Hill Manzanita | <input type="text" value="1"/> Update | 79 | 79.00 |
| ✕ | Ceanothus 'Centennial' | Wild Lilac | <input type="text" value="2"/> Update | 28 | 56.00 |
| ✕ | Ceanothus Griseus Horizontalis 'Yankee Point' | Carmel Creeper | <input type="text" value="1"/> Update | 79 | 79.00 |
| ✕ | Cotinus Coggygria | Smoke Tree | <input type="text" value="1"/> Update | 113 | 113.00 |
| ✕ | Erigeron Glaucus | Beach Aster | <input type="text" value="2"/> Update | 2 | 4.00 |
| ✕ | Eriogonum Grande Rubescens | Rosy Buckwheat | <input type="text" value="3"/> Update | 3 | 9.00 |
| ✕ | Eriogonum Umbellatum 'Excellent Yellow' | Sulfur Buckwheat | <input type="text" value="3"/> Update | 3 | 9.00 |

Cover All Bare Soil

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valleywater.org

Efficient Irrigation

- Existing overhead sprinklers must be capped or removed
- Use Low Volume Drip Irrigation or hand watering



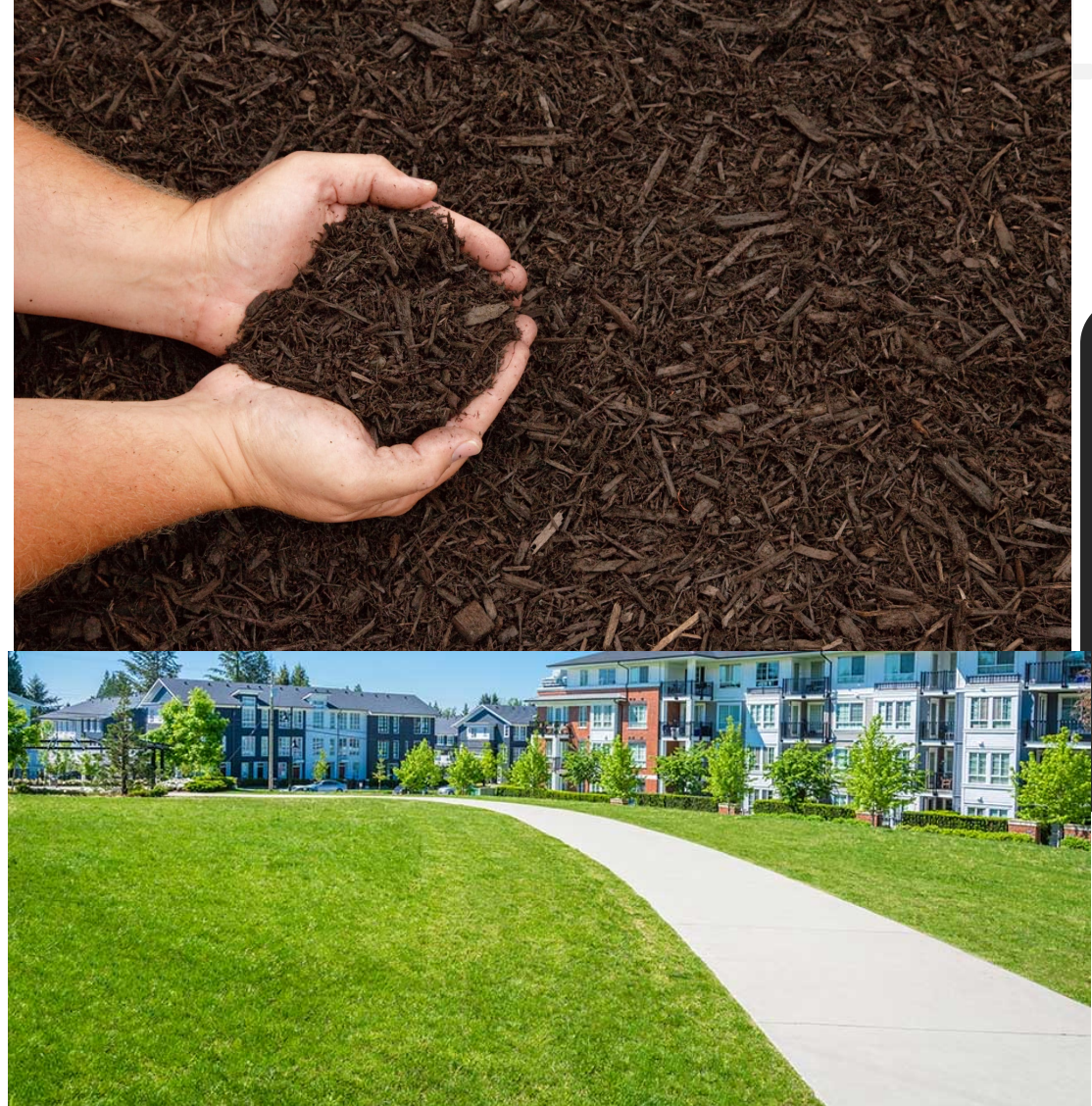
Project Completion

- Final Post Inspection
 - Submit photos of the completed project
- Updated Plant List
- Non-qualifying areas subtracted
 - Vegetable gardens
 - Artificial turf
 - Impermeable surfaces
 - Remaining lawn
- Rebate check issued in 4-6 weeks



Upcoming Developments

- Evolving drought regulations
- New commercial rebates
- Mulch only
- Increasing the cap
- Golf Course updates



CHALLENGES FACED

35

- Increase in Conversion Rebate
- Increase in program interest 170%
- Addressing the backlog
- 75% increase in full time staff
150% increase in support staff
- Covid Restrictions
- Field Safety
- Brought in a new vendor



PROJECT RESOURCES

- Landscaping Resources
- Webinars
- Hotline
- Office Hours
- Designs and Plants
- Lawn Busters



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Thank You!

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Water Conservation Hotline:
408-630-2554

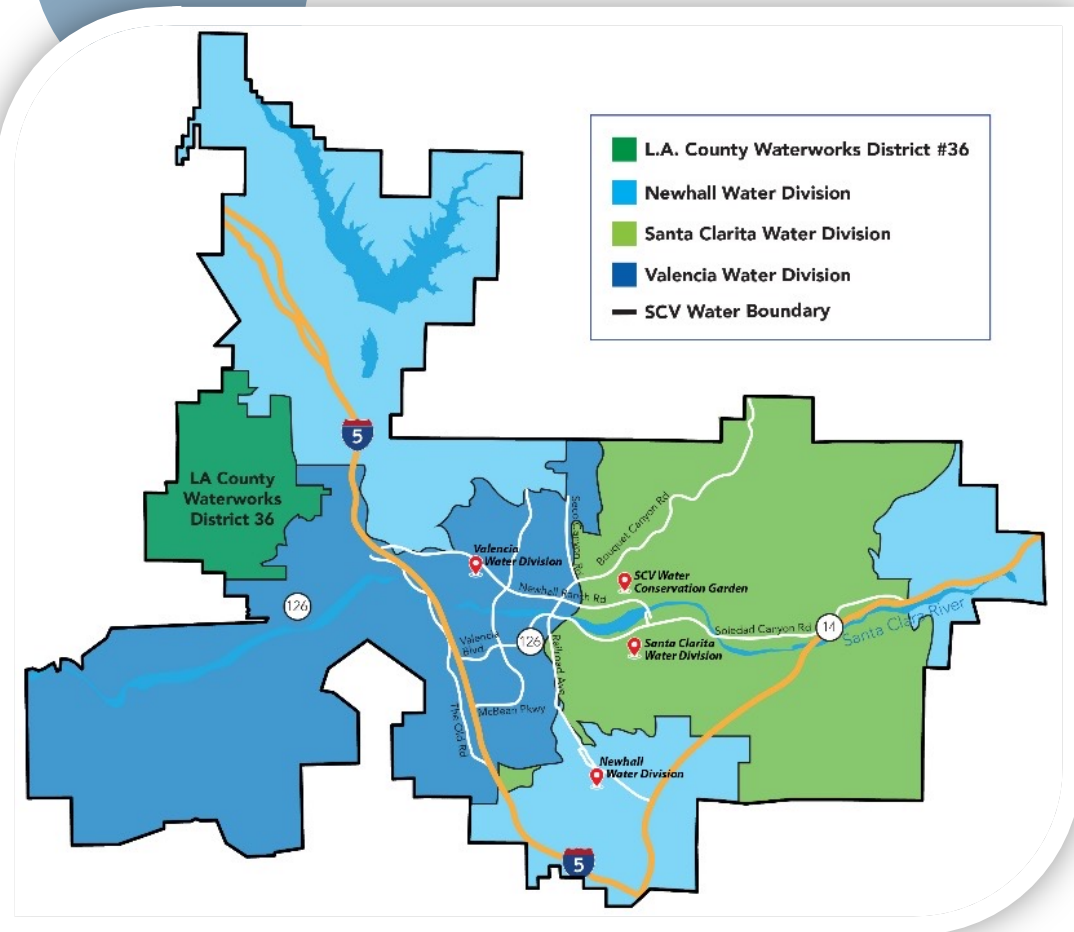




SCV Water Lawn Replacement Program (LRP) 2.0



SCV Water – Who We Are



- A full-service regional water agency located in the Santa Clarita Valley
- Formed on January 1, 2018 by an act of the State Legislature (SB 634)

Mission: Providing responsible water stewardship to ensure the Santa Clarita Valley has reliable supplies of high-quality water at a reasonable cost.





Milestones

1. **Former Lawn Replacement Program**
2. **LRP Evaluation Overview**
3. **LRP 2.0 Implementation**
4. **Current LRP 2.0 Status**

Red Flowering Currant
Ribes sanguineum



1. Former Lawn Replacement Program

Coast Sunflower/Coast Encelia
Encelia californica

Former Residential Lawn Replacement Program

Incentives

- Turf conversion: \$2/sqft (max. \$5,000)
- Drip conversion: \$0.50/sqft (max. \$750)
- Design assistance: \$150

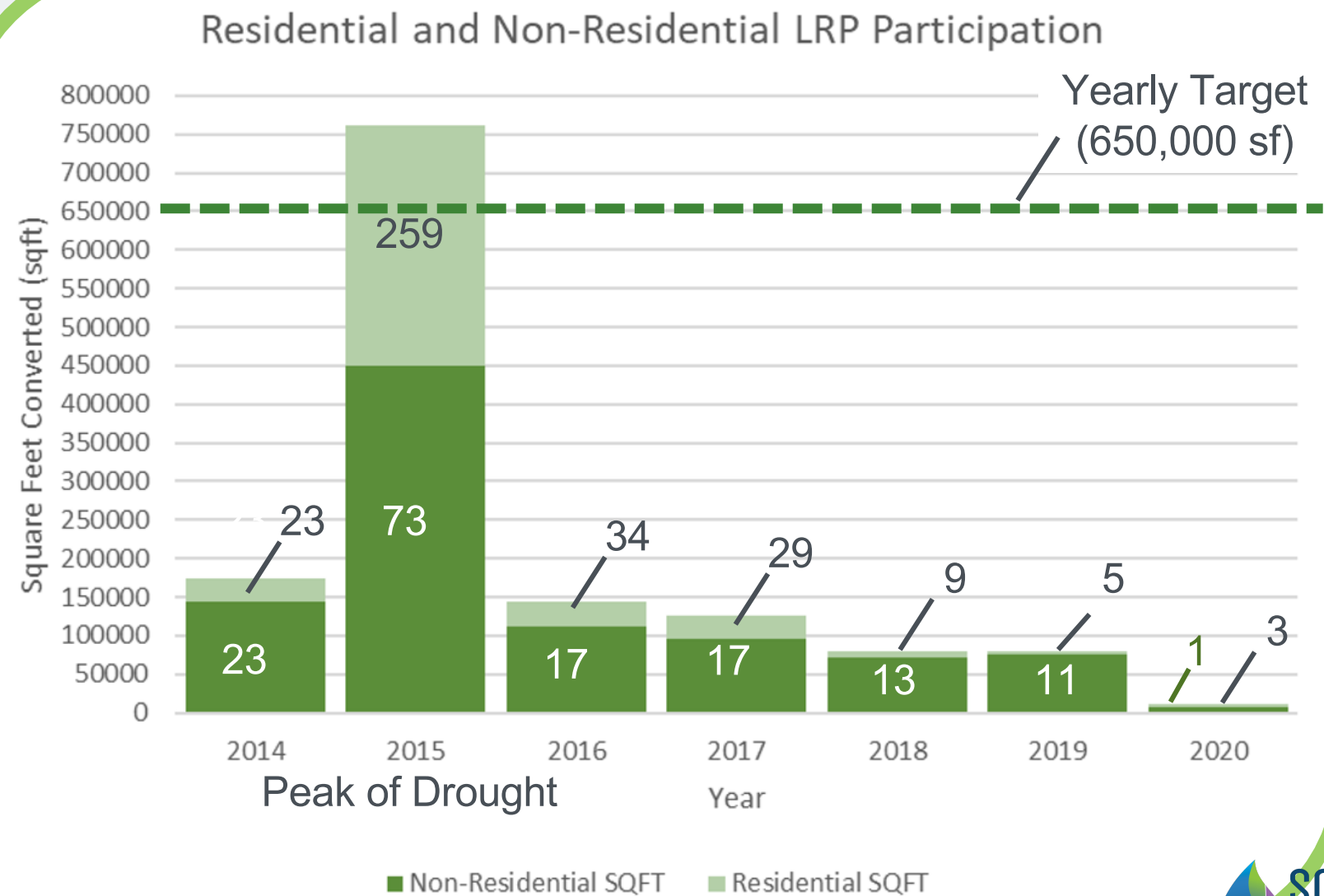
Requirements

- Only front yards
- Must be living grass
- No artificial turf (LL/Com. – funded)
- 50% plant coverage at maturity (LL/Com. – 25%)
- Pre- & post-inspection

Resources

- Hottest 30 Plant Guide
- Gardening Classes
- WaterSmart Workshop
- santaclaritagardens.com

Former LRP Participation

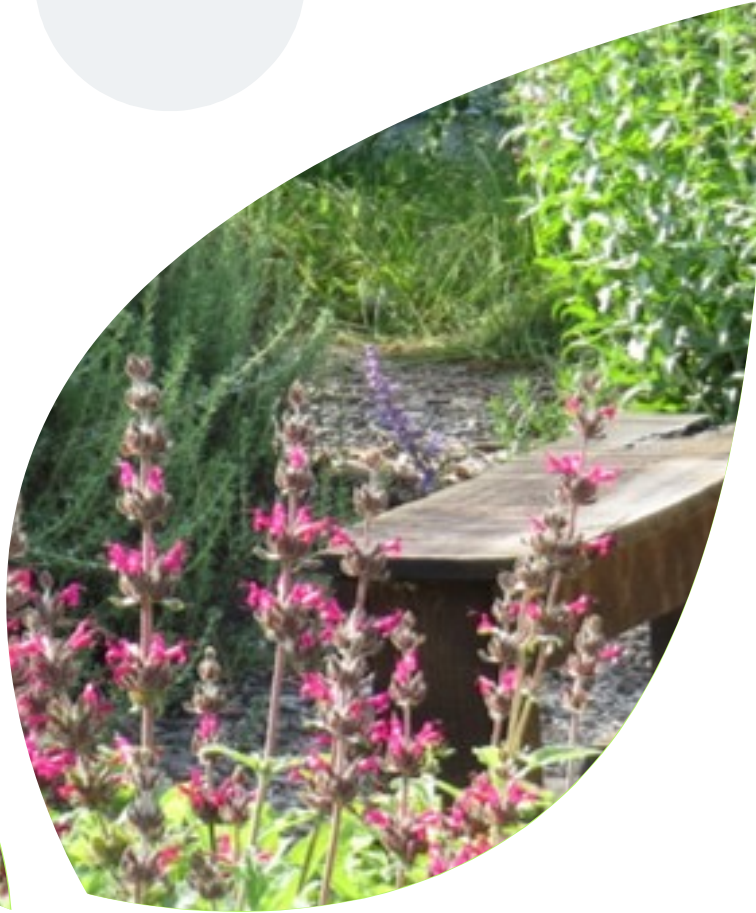


Sticky Monkey Flower
Mimulus aurantiacus



2. LRP Evaluation Overview

Western Redbud
Cercis occidentalis



Hummingbird Sage
45 *Salvia spathacea*

Scope

- External environmental scan
- Supply chain analysis
- Post-LRP checkups
- Customer questionnaires
- Findings report with recommendations

External Environmental Study

Best-in-class programs:

- Balance program requirements
- Provide personalized support
 - specifically design support
- Integrate supply chain
- Use targeted marketing
- Make the process easy
- Offer choices
- Motivate by incentivizing



White Sage
Salvia apiana



Supply Chain Analysis

Contractor Interviews

- Contractors need support tools & marketing resources to sell
- Interested in training
 - Want to be on certified list
- Like option to be paid directly

Local Nursery Interviews

- Native plant availability at local nurseries is an issue
- Plants are not labeled
- Interested in cooperative marketing

Post-LRP Project Check-Ups (Mar. 2021)



- 259 residential & 56 commercial sites

Findings:

- Commercial
 - 100% projects still in place
 - 68% increased converted project area
- Residential
 - 98% projects still in place
 - 98% healthy landscapes
 - 92% had neighbors within eyesight that had low-water use designs
 - cascading effect

Customer Questionnaires

Survey Responses: 1,760

Participants: 19
Interested: 215
Non-participants: 1,526

LANDSCAPE QUALITY (%)



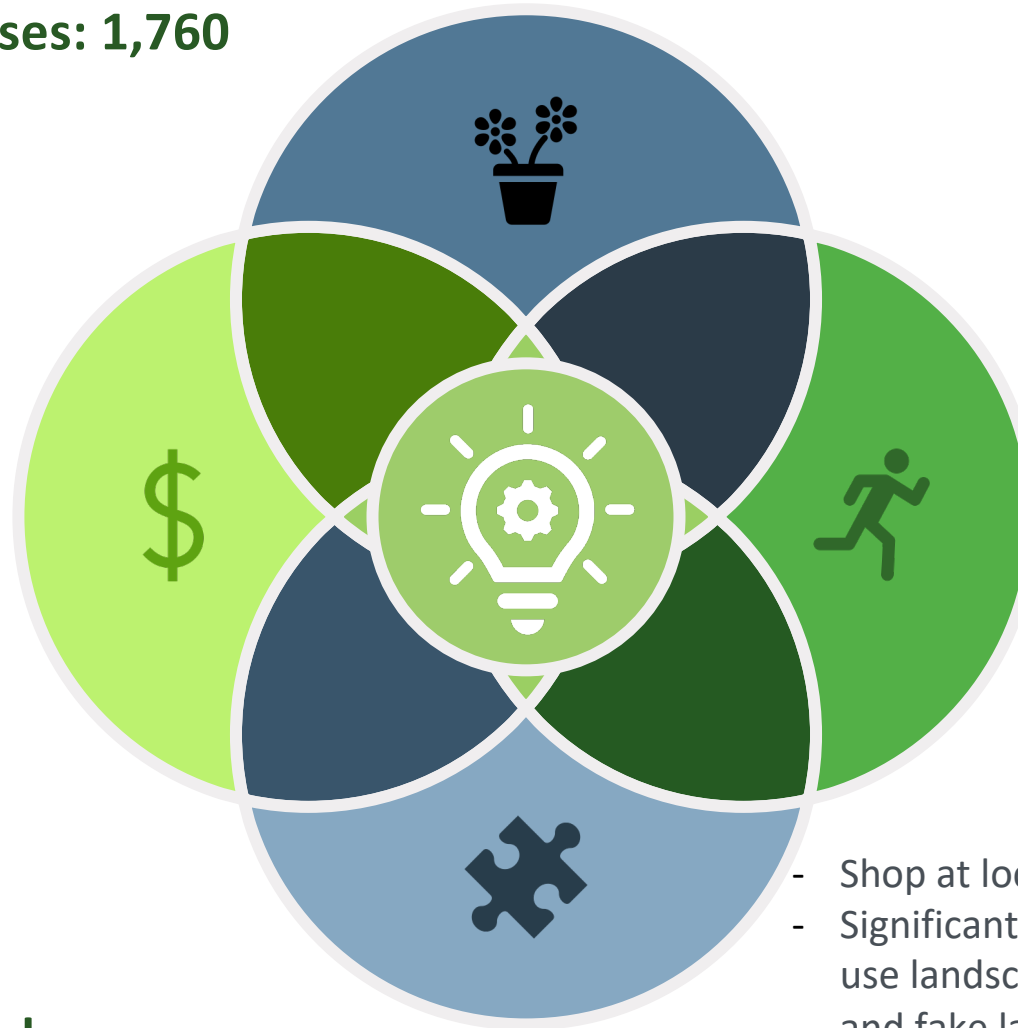
Beauty & appearance = most important



COST

Concerned about high cost

Majority of customers think a low water use landscape can be beautiful!



LANDSCAPE UTILITY



Place for children & pets to play = 2nd highest priority

KNOWLEDGE & RESOURCES



- Shop at local nurseries
- Significant number think low water use landscape means cactus, gravel, and fake lawn
- Need help with design
- Majority of customers did not know about LRP



LRP Evaluation Recommendations



REBRAND

- Beauty & utility
- Personalized outreach
- Demonstration

INCREASE INCENTIVES

- Increase base \$
- Bonus incentives
- Contractor direct



KNOWLEDGE & RESOURCES

- New website
- Design assistance
- CA-friendly plant guide

PARTNERSHIPS & COLLABORATION

- Integrate supply chain





3. LRP 2.0 Implementation

Yellow Monkey Flower
Mimulus guttatus 'Yellow'

Inputs

Activities

Outputs

Outcomes

Impact

Consumers, green industry, and supply chain support and participation in programs and stakeholder groups.

Sufficient agency efforts (staff, financial, material, technical) to lead, implement, and monitor program.

Sufficient external technical assistance to support program implementation.

Actions to encourage community to seek support and achieve common goals.

Activities to increase awareness, education, and value.

Activities to connect customers, stakeholders, supply chain, and service providers.

Activities to access support, tools, information, and program participation.

Activities to develop evaluation, verification, and performance monitoring and management.

Enact strategic communication and engagement.

Rebrand program and support materials.

Modify program specifications to increase flexibility.

Devise local and regional program support resources.

Increase ease of use and program accessibility.

Develop tools for user access and program management.

Implement performance management system.

Stakeholder partnerships and collaboration to support market transformation.

Builds consumer-centric, credible, and consistent branding.

Increases customer participation and develops supporting industry.

Incorporates best-in-class design practices for resource-efficient sustainable landscapes.

Increases management effectiveness and efficiency.

Achieves agency's goals and state conservation mandates.

Improved Long-Term Community Sustainability for SCV



SCV Water Planned Activity
(Programs, Projects, Leadership)

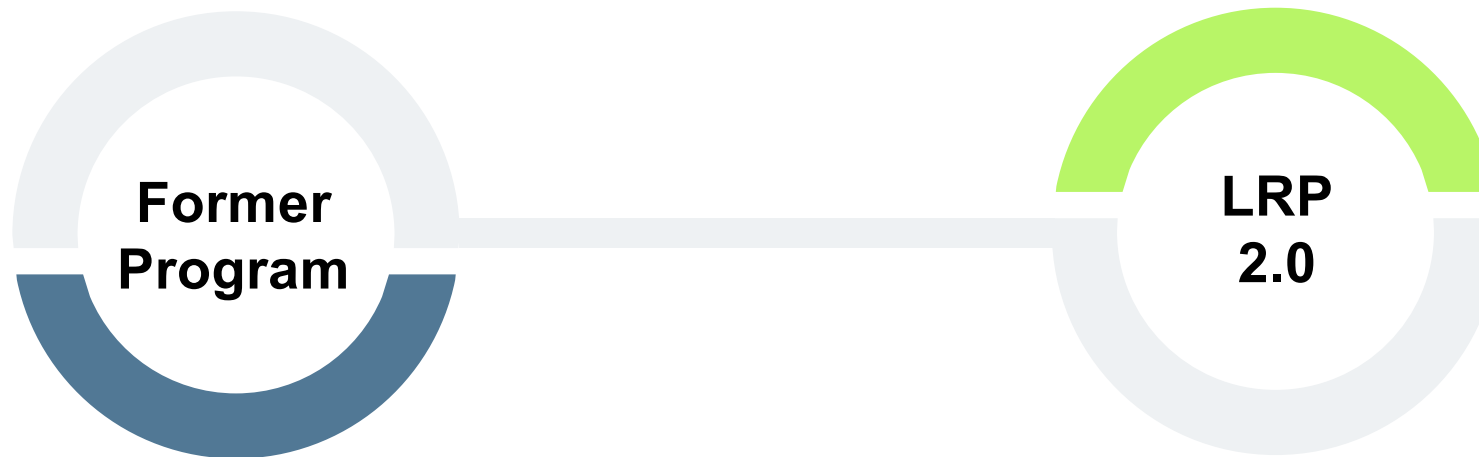
Intended Results
(Community, Consumer, Agency, Industry)

LRP 2.0 Program Requirements



- Must be living grass
- Pre- and post-inspection
- Allow front, side, & backyard projects
- At least 50% plant coverage at maturity (Com/LL – 25%)
- Artificial turf not funded for residential (Com/LL – funded)
- Allow partial lawn removal projects & multiple phases
 - Full zones (at least 50% turf grass)
 - Decrease minimum project size to 100 sf (parkways)
 - Max. project size: 2,500 sf per phase
 - Residential - up to 5,000 sf/yr (max 20,000 sf total)
 - Com/LL – up to 25,000 sf/meter/yr
- Allow HE nozzles (req. smart controller & pressure reg.)
- Rebate Transfer Request (reduces out-of-pocket costs)
- Cannot convert landscape back within 10 years

Updated Rebate Values



| Turf | \$2/sf | \$3/sf |
|--------------------|---------------|--|
| | Max. 2,500 sf | Max. 2,500 sf |
| Drip | \$0.50/sf | \$0.75/sf |
| Design Assistance | \$150 | \$250 (\$150 rebate + \$100 bonus to designer) |
| Bonus Rebate | - | \$0.50/sf - majority CA native plants (\$0.25/sf for Com/LL) |
| Maximum LRP Rebate | \$5,900 | Base: \$9,625 |
| | | With Bonus: \$10,875 |



Additional Pilot Programs

- Water Retention Features (rain garden, bioswale, terracing)
 - \$0.50/sf
 - Sf of feature, Max. 2,500 sf
- Sheet Mulching
 - \$0.50/sf
 - Sf of feature, Max. 2,500 sf
- Bee Hotel & Owl Box
 - Up to \$50/each
 - Limit 1 each per customer
- Rain Barrel
 - Up to \$75 each (not to exceed actual cost)
 - Limit 2 per customer

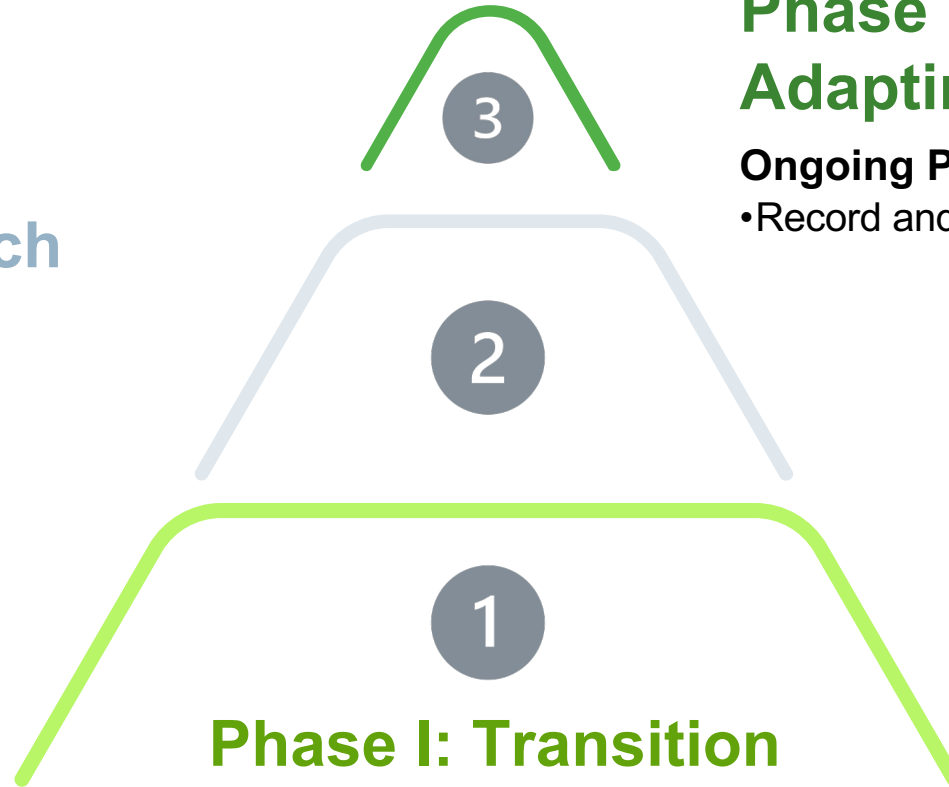


Proposed Implementation Plan

Phase II: Launch

Marketing Push

- Include LRP in Drought messaging



Phase III: Monitoring & Adapting

Ongoing Program Performance Tracking

- Record and consider all participant feedback

Phase I: Transition

Rebrand LRP

- New name & logo
- New program parameters
- Update rebate website & workflow
- Expand plant guide

Engage with the Supply Chain

- Contractors
- Nurseries
- Designers

Compile social proof

- Demonstration Gardens
- Garden Tours





4. Current LRP 2.0 Status

Coast Sunflower/Coast Encelia
Encelia californica

LRP 2.0 Supporting Materials & Resources Status

Maintain:

- Gardening Classes
- WaterSmart Workshop
- santaclaritagardens.com

Expansions:

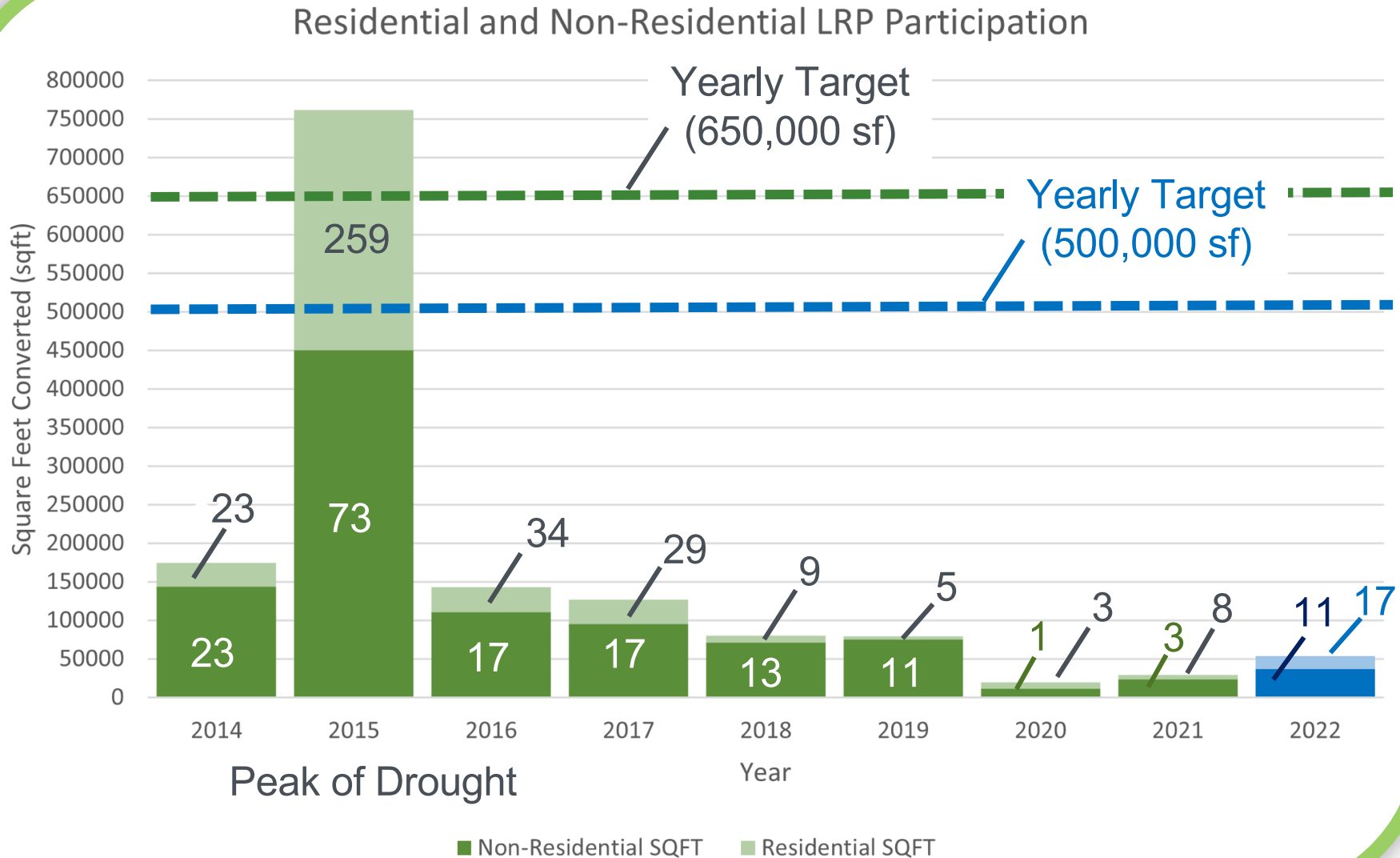
- Online rebate estimator
(<https://yourscvwater.dropletprograms.com/rebate/estimator>)
- Improved plant selection tool on website
- California-friendly plant guide
- Garden design “templates” & customer testimonials (IP)
- List of LRP-trained nurseries, designers, contractors, etc. (IP)
- Care sheet for customers & gardeners with tips for their new landscape (IP)



LRP 2.0 Engagement Efforts

- Board-approved (Oct. 2021)
- Press Release (Mar. 2022)
- Eblast (TBD - late summer)
- Supply Chain Task Forces
 - DIY Task Force
 - Nurseries & landscape designers
 - Landscape Industry Experts Task Force
 - Contractors, irrigation supply houses, & manufacturers
- HOA Outreach
- USC Public Exchange Study – language & branding

LRP 2.0 Participation





Thank You!

Julia Grothe (Water Conservation Specialist I)



Q&A



Thank you!

