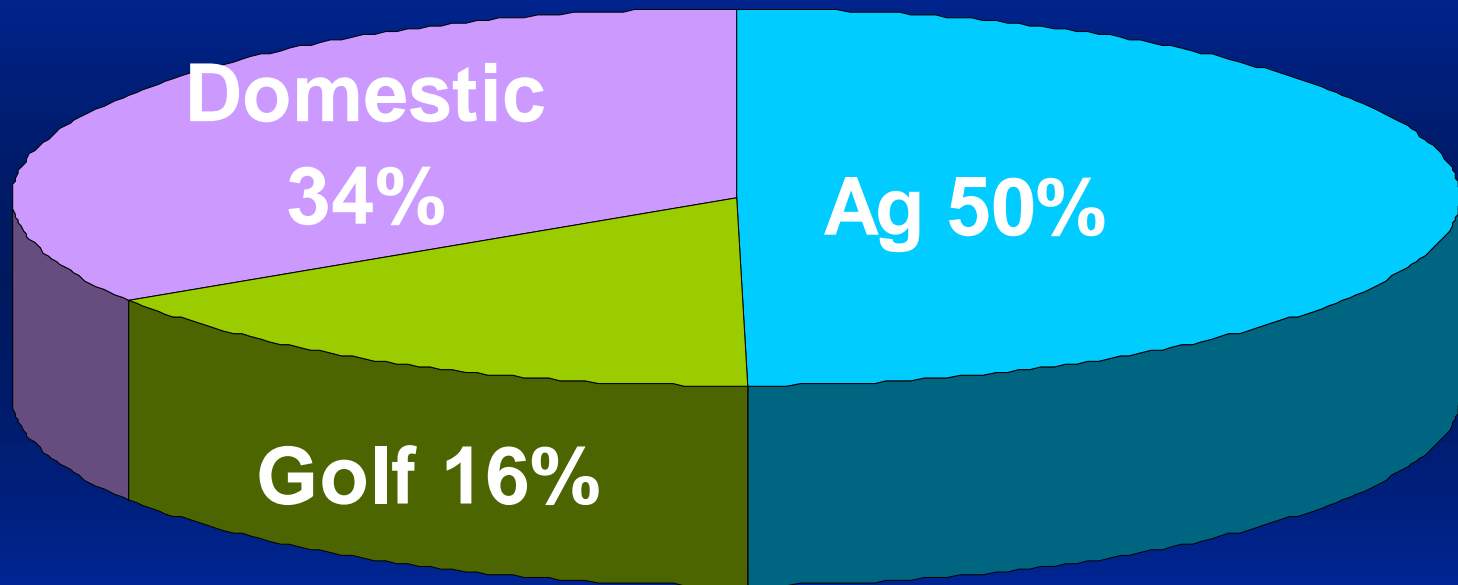


# Tiered Rates

Cathedral City  
City Council Study Session  
Oct. 22, 2008



# Coachella Valley water demands 668,900 acre-feet



■ Agriculture

■ Golf

■ Domestic

\* Valleywide demands on all sources of water

# Water Management Plan goals



Agriculture – 7% reduction  
by 2015 ✓

Golf – 5% by 2010 ✓

Domestic – 10% by 2010  
(currently at 6%)

Why adopt tiered rates?

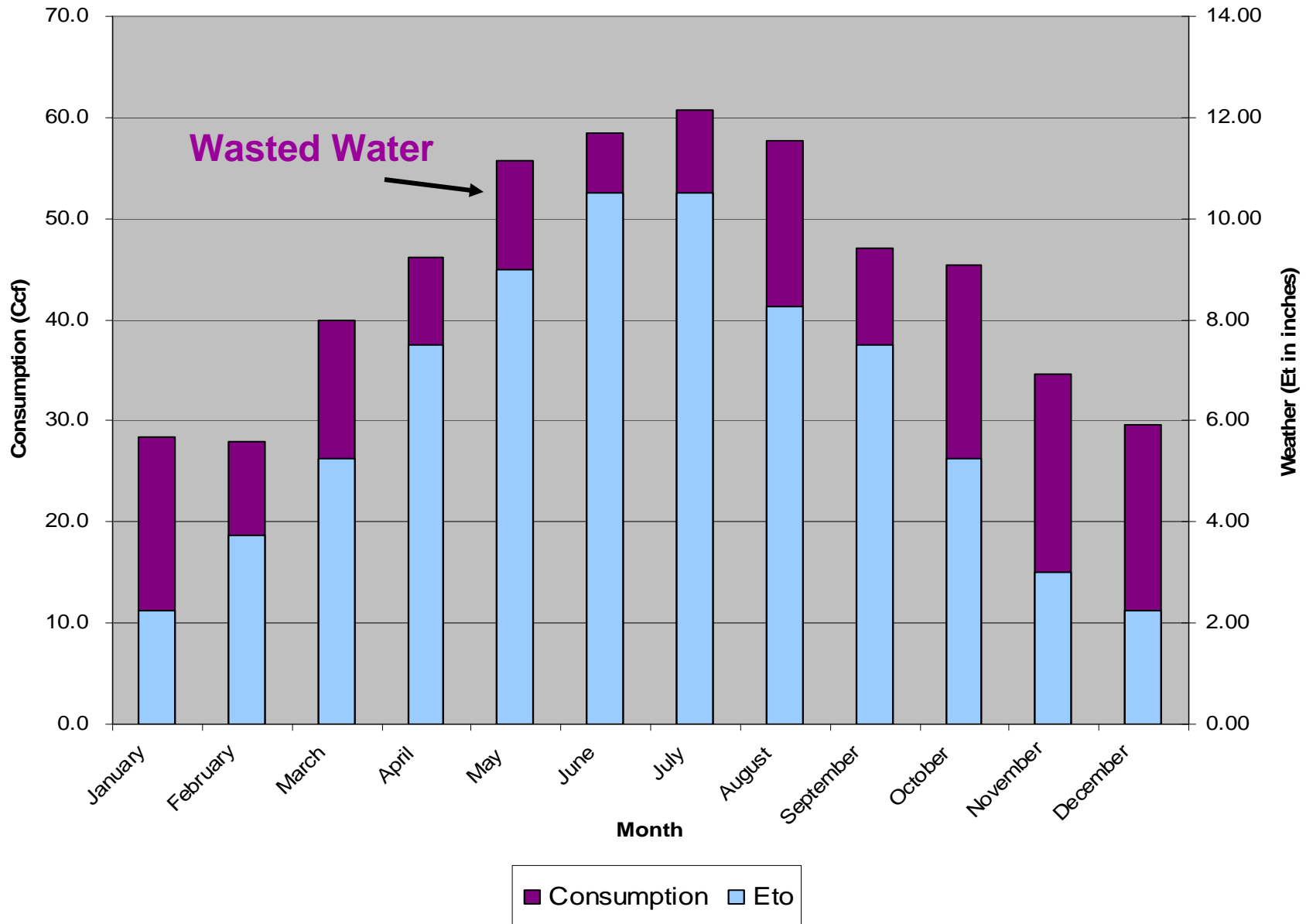
# #1 Reason: Water Conservation

- Proven water savings results 22% ~ 37%
- Increased cost of imported water
- Proposed legislation calls for 20% reduction by 2020
- Reduced water down streets
- Lower maintenance costs
- Keep economy viable
- Ensure long-term viability of the aquifer
- Prevent subsidence
- Improve overall perception of the valley's water use





# Water consumption and efficiency



What are the different  
types of water rates?

# Volumetric rates (like CVWD uses now) are:

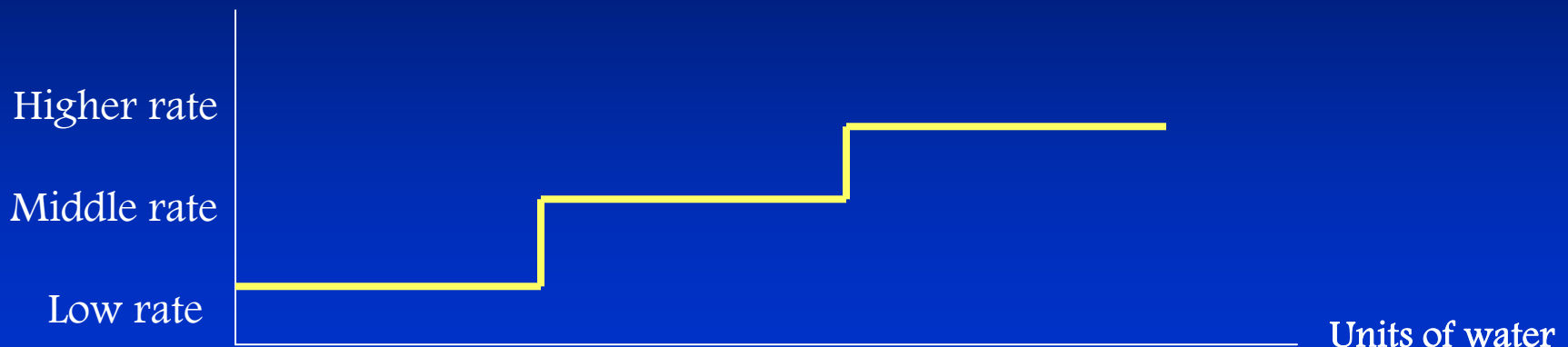
- A rate structure where the unit price of water remains the same regardless of water consumption
- Little economic incentive to conserve





# Standard tiered rates are:

- A rate structure where the price of water increases with each higher level, or tier, of consumption
- A “one size fits all” solution
- A simple, increasing block rate
- Difficult to attain
- Based on arbitrary tiers



# Water budget-based tiered rates are:

- Individualized, defining the water budget using one or more customer characteristics, including:
  - Number in household
  - Lot size
  - Weather conditions
- An incentive to be efficient
- A means to target inefficient water users



Who else uses a tiered rate  
structure?

## Southern California Agencies:

- Hi-Desert Water Agency
- Mission Springs
- Cucamonga Water District
- Irvine Ranch Water District
- Rancho California
- San Clemente
- Capistrano Valley
- Santa Barbara
- Crescenta Valley
- LA DWP
- Lake Arrowhead

## Northern California Agencies:

- City of Rhonert Park
- Contra Costa Water
- Monterey

## Out of State Agencies:

- Salt Lake City
- Southern Nevada
- Las Vegas
- Albuquerque
- Centennial, Colorado
- Aurora, Colorado
- Castle Rock, Colorado
- Boulder, Colorado
- Morrisville, NC
- Cary, NC
- Marco Island, FL
- Santa Rosa
- Redwood City

# Starting point



- Start with residential (single family homes) and dedicated landscape customers (cities, school, HOAs, etc) only
- Implement in 2009

# Indoor allocation

- Provides generous “indoor needs” allotment based on more than 4 people (10 Ccf or 250 gpd)
- Industry standard for indoor use is 60 gpd per person





# Landscaped area



- Assumes 45% of lot is landscaped



# Promotes irrigation efficiency

- Assume grass landscaping with spray irrigation
- Irrigation efficiency important for meeting water budgets



# Adjusts for weather



- Adjusts for observed weather data
- Five climate zones
- Many people forget to reduce water usage as temperatures cool, which will affect their ability to meet their water budgets

# Appeals process

- Adjusts for appeals, as needed
- Can appeal number in household, lot size, irrigable area, weather zone and special circumstances



# Sample tier structure for residential customers

| Tier                              | Range                                       | Rate multiplier      |
|-----------------------------------|---|----------------------|
| <b>1</b><br><i>(indoor needs)</i> | <b>Up to 10 Ccf</b><br><i>(indoor only)</i> | <b>90% Base Rate</b> |
| <b>2</b>                          | <b>Up to 105% of water budget</b>           | <b>Base Rate</b>     |
| <b>3</b>                          | <b>Up to 200% of water budget</b>           | <b>120%</b>          |
| <b>4</b>                          | <b>Up to 300% of water budget</b>           | <b>200%</b>          |
| <b>5</b>                          | <b>300% or more of water budget</b>         | <b>400%</b>          |

\* Ccf = 100 cubic feet of water

# How residential customers will be affected

| Tier                              | % of accounts in range (Jan.) | % of accounts in range (July) |
|-----------------------------------|-------------------------------|-------------------------------|
| <b>1</b><br><i>(indoor needs)</i> | <b>42.93%</b>                 | <b>33.10%</b>                 |
| <b>2</b>                          | <b>17.77%</b>                 | <b>28.33%</b>                 |
| <b>3</b>                          | <b>26.03%</b>                 | <b>26.16%</b>                 |
| <b>4</b>                          | <b>8.03%</b>                  | <b>8.98%</b>                  |
| <b>5</b>                          | <b>5.25%</b>                  | <b>3.43%</b>                  |

13% of residential customers use 30% of water

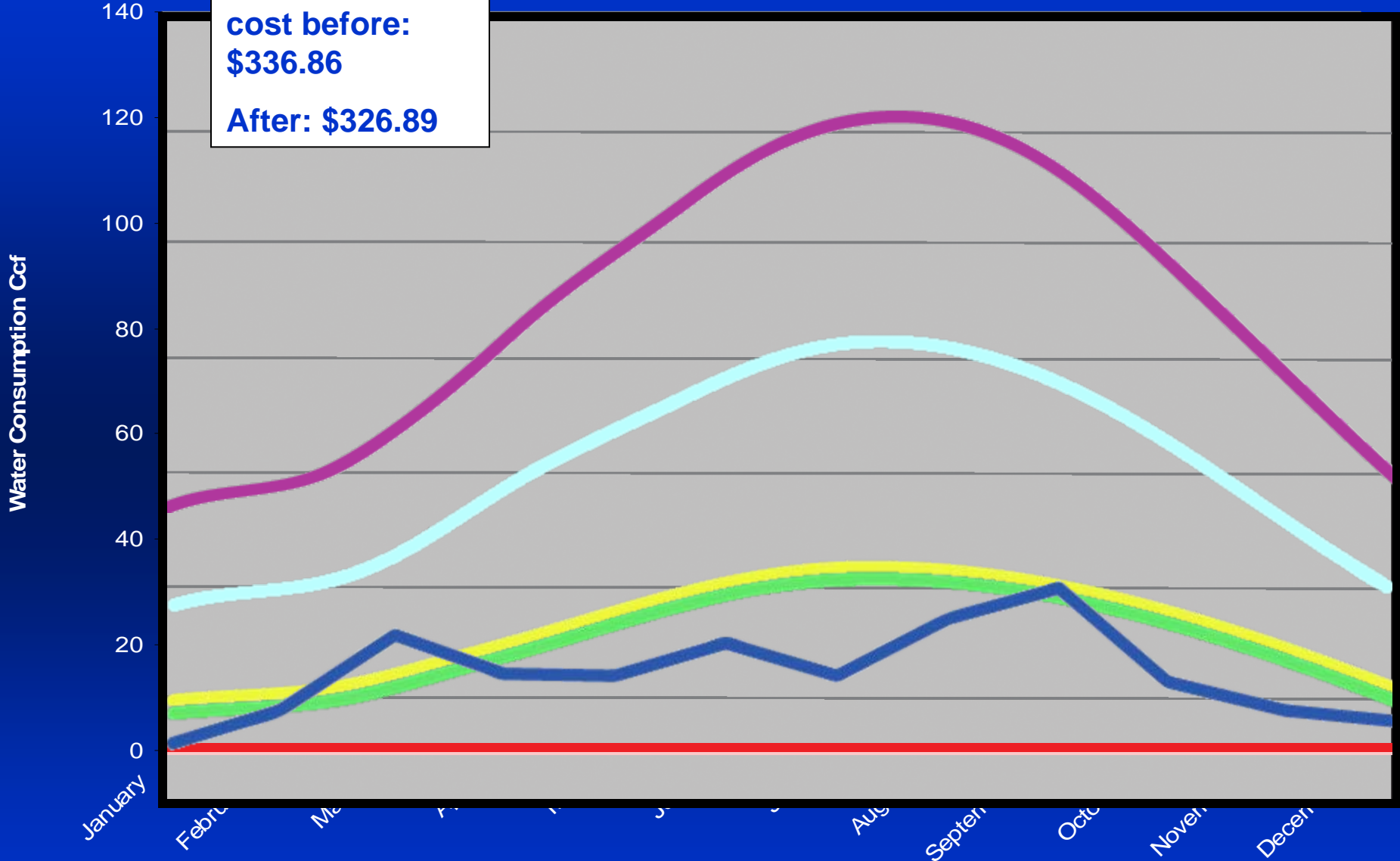
# A real example

- 8,354 square-foot corner lot
- Desert landscaping in front and side yards, grass in back
- Pool
- Smart Controller
- Two adults and a child living at home





**Annual water  
cost before:  
\$336.86**  
**After: \$326.89**



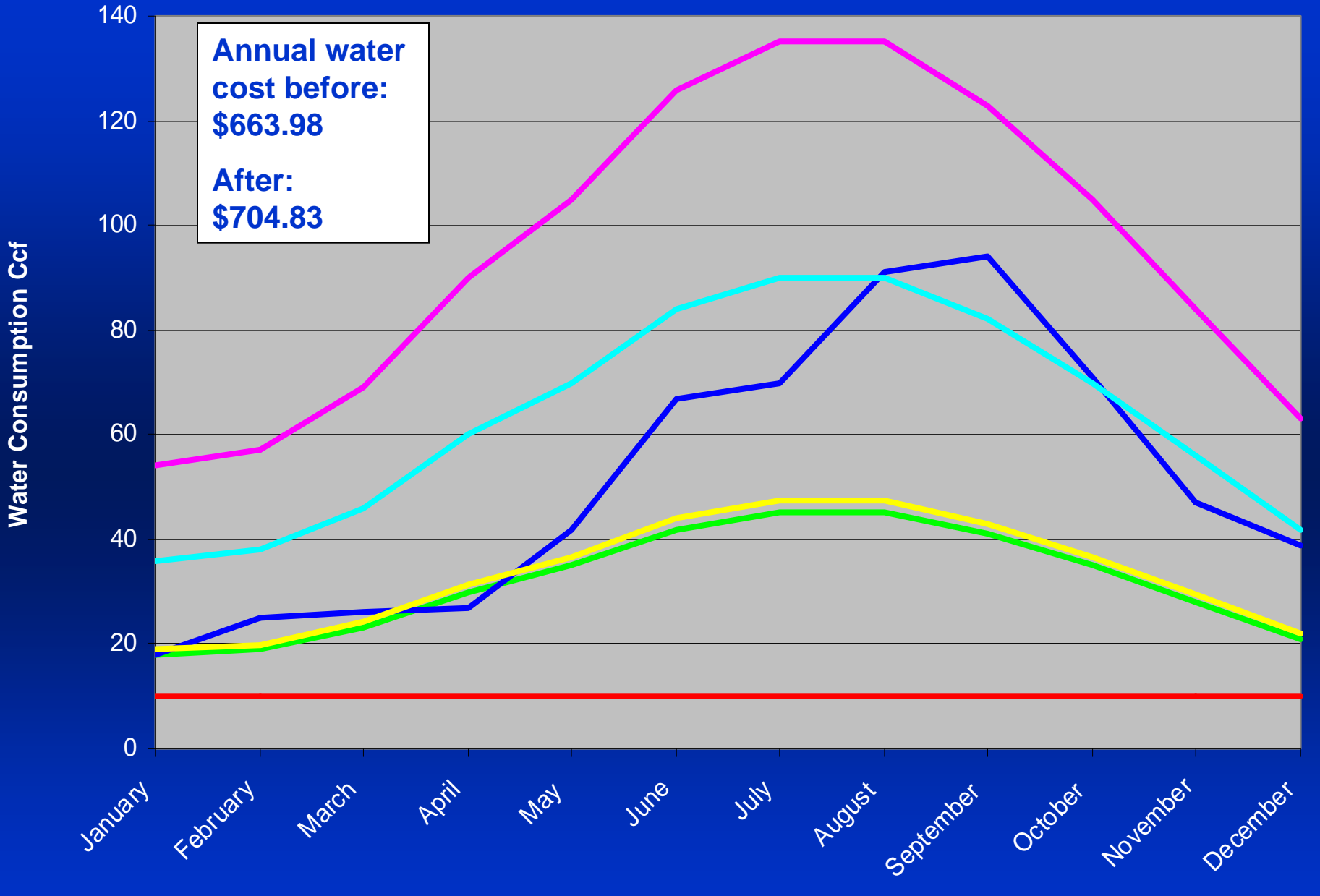
Water Budget    Actual Consumption    Indoor Needs    Tier 2    Tier 3    Tier 4



# Real example #2

- 9,630 square-foot corner lot
- Grass in front and back yards
- Pool
- No Smart Controller
- Two adults and a teenager living at home





— Water Budget   
 — Actual Consumption   
 — Indoor Needs   
 — Tier 2   
 — Tier 3   
 — Tier 4

# How will CVWD help residential customers meet their water budget?

- Smart Controller program
- On-site technical assistance
- Brochures, web-site info, bill stuffers
- *Lush & Efficient Landscape Gardening in the Coachella Valley*
- Landscape Workshop
- Appeals process

# What about non-residential customers?

- Dedicated landscape meters (HOAs, cities, schools, some businesses)
  - Based on landscaped area
  - No indoor allocation
  - Appeals process
- Other customer types (hotels/motels, restaurants, etc.) will be phased in

# Sample tier structure for dedicated landscape customers

| Tier                              | % of accounts in range (Jan.) | % of accounts in range (July) |
|-----------------------------------|-------------------------------|-------------------------------|
| <b>1</b><br><i>(indoor needs)</i> | <b>NA</b>                     | <b>NA</b>                     |
| <b>2</b>                          | <b>46.62%</b>                 | <b>51%</b>                    |
| <b>3</b>                          | <b>18.34%</b>                 | <b>22.23%</b>                 |
| <b>4</b>                          | <b>11.49%</b>                 | <b>11.8%</b>                  |
| <b>5</b>                          | <b>23.55%</b>                 | <b>14.97%</b>                 |

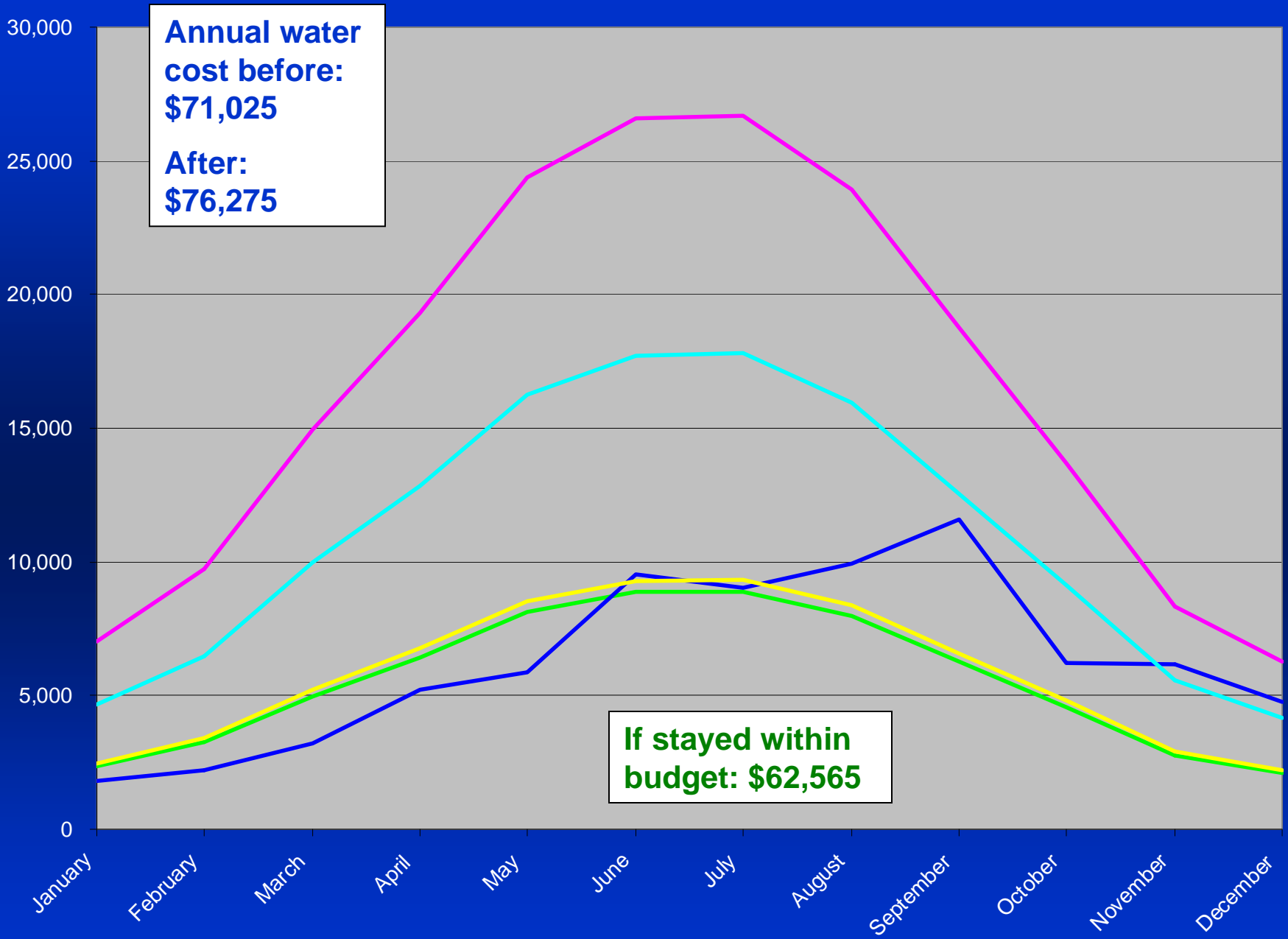
Landscape customers account for 4% of domestic customers, but use 30% of domestic water

# A real example

Large public school

- 14 landscape meters
- 46 acres
- 52% irrigated
- Meters/rate for indoor use stay the same





— Water Budget 
 — Actual Consumption 
 — Tier 1 
 — Tier 2 
 — Tier 3

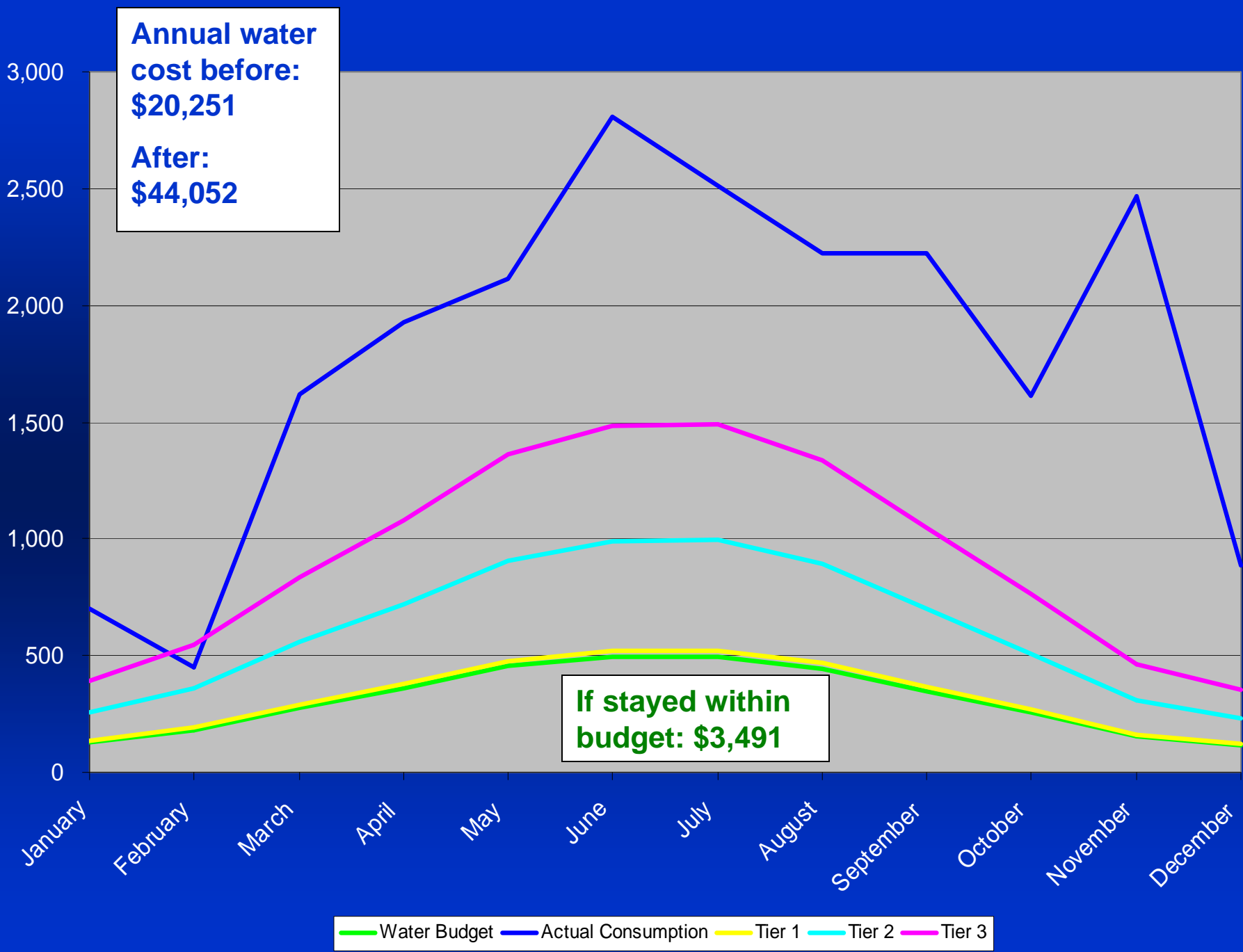


# Real example #2

Public parkway

- 1 landscape meter
- 2 acres
- 100% irrigated





# How will CVWD help landscape customers meet their water budget?

- Large Landscape Smart Controller program
- Individual water audits and analyses
- Encourage customers to be more actively involved in landscaping company/staff's decisions regarding watering and plant choice
- Educational opportunities
- Bill Stuffer, brochure, web-site

# Public outreach and education

- Tiered Rate Advisory Committee (TRAC)
- Presentations to City Councils, community groups, HOAs, etc
- Public workshops
- Informational fliers distributed at public events
- Bill stuffers and mock bills showing new rate
- Press releases

# Questions?

