OBSERVATIONS

• Indoor conservation
  - Much already done
    • e.g. high flow toilets 85% → 9%
  - Savings potential = rather small

• Outdoor conservation
  - Relatively unaddressed
  - Savings potential = quite large
  - Savings possible without massive investment
    • NO Toilets, Washing Machines, Showerheads, Recirculation Systems, etc.
    • Just rebates for Graywater & Turf Replacement
FACTS

- “Summer” usage **double** “Winter” usage¹ (Outdoor Irrigation as large as Indoor use)
  - Average use is **double**
  - Therefore, for many customers:
    
    “Summer” use **More Than Double** “Winter” (Outdoor Irrigation **Larger Than** Indoor use)

¹[many thanks to Sue Holt of Cabrillo College for this fact]
Policy

- Outdoor Irrigation **less important** than Indoor water for drinking, cooking, cleaning, etc.
  - i.e. if shortage, then irrigation restricted first

- Concentrate first on reducing Outdoor Irrigation
Phase 1
“Reduce Excessive Irrigation”

- Determine “Winter” baseline amount
  - Do not consider future usage
    - Discourage schemes to “game” the system
  - Do not consider 2013/14 or 2012/13 usage
    - Weird freaky weather, esp. winters
  - Consider 2011/12 and 2010/11 usage
  - Use customer's own usage data
    - In later phases, mix with neighborhood usage data
  - Easy to calculate and print on monthly bills etc.
Phase 1
“Reduce Excessive Irrigation”

• Employ Cost as primary signal

• New Rate Structure
  – Charge for “Excessive” Outdoor usage
    i.e. more than **double** Winter Baseline
  – As Usage increases past **double** Baseline,
    rate of “Excess” Charge increases

• Increase Rebates & Help for Outdoor Usage:
  Graywater & Turf Replacement
  – Paid for by “Excess” Charge??

• Works even for Businesses and Organizations

• Start When? = this summer, next summer?! --> ASAP!
Phase 2
“Reduce Significant Irrigation”

• Baseline is mixture of past personal Winter use and current neighborhood Winter use
  - Note: Charge possible in winter if using way more than neighborhood normal

• Charge for any Usage more than 1.5 * Baseline

• Even larger Rebates for Outdoor savings
Phase 3

- Baseline is largely the current neighborhood Winter use

- Charge for Usage more than 1.25 * Baseline

- Even Very Much Larger Rebates for Outdoor Usage
Phase 4 …..

• Manage Usage by adjusting:
  – **Baseline** computation
    • **Mixture** of
      – Past personal winter use
      – Current neighborhood winter use
      – Current efficient neighborhood winter use
      – EPA best indoor practices
      – Etc.
  – **Charge** threshold
    • **Multiple** of baseline
Summary

• Actual explicit Plan
  – Not just undefined “Outreach” & “Pricing”
• This Plan is not perfect
  – Can be improved
• Seems to work for all customer classes
• Pricing signals should make it effective
• Offers some degree of fairness
• Might avoid “fiscal cliff”

• Allows customer to answer: “How will this affect me?”