WA-Ag
Hybrid Approach

David Crohn

Objectives

- Honor the wishes of Riverside Citizens per Prop R and Measure C
- Assure fairness and avoid arbitrary requirements
- Allocate Ag water volume based on:
  - Actual irrigation needs
  - Scientific research
  - Irrigation industry standards
- Allow flexibility
- Support reasonable accountability

3

What Makes It "Hybrid"?

- Customers are charged:
  - Ag rate for qualifying Ag water allocation
  - WA-1 or WA-6 for use above Ag allocation
- Only one meter is needed
- Similar qualifying criteria as WA-Ag (v17)
- Similar terms and conditions as WA-Ag (v17)

4

Qualifying Criteria - <u>All must be met</u>:

- Located within the City limits
- Where agriculture is zoned as a "permitted use"
- Property is growing:
  - ≥ 75 irrigated fruit trees, nut trees, or vines; or
  - ≥ ½ acre row crops, nursey stock, or pasture for livestock;
  - OR a combination thereof, ≥ ½ acre in planted area
- Allows vacant properties to qualify

5

Crop Management

- Irrigation must conform to best water management practices
- Plants must be healthy
- Pests must be managed
- Weeds must be controlled
- Yields must be harvested and used

6

Monthly Allocation Methods

- Ag water allocations based on established research and standards
  - 15-year mean potential evapotranspiration (ET_o) values from UCR CIMIS station
  - Locally appropriate crop factors (K_c)
  - Required irrigation = (ET_o x K_c)
  - Ag water allocation = (Total planted area × required irrigation per area)
- Trees, vines & horticulture: Planted areas = canopy sizes
- Row crops: Planted areas = cultivated areas

7

Verification Process

- Initial on-site inspection for existing and new planted areas
- Random verification intervals using remote sensing or onsite visits
- Customer obligated to inform RPU prior to:
  - Expansions, fallowing, or cultivation changes
- Customer must attest in writing to:
  - That yields were consumed or distributed
  - What was harvested
  - How much was consumed or distributed (needed to assess program success)

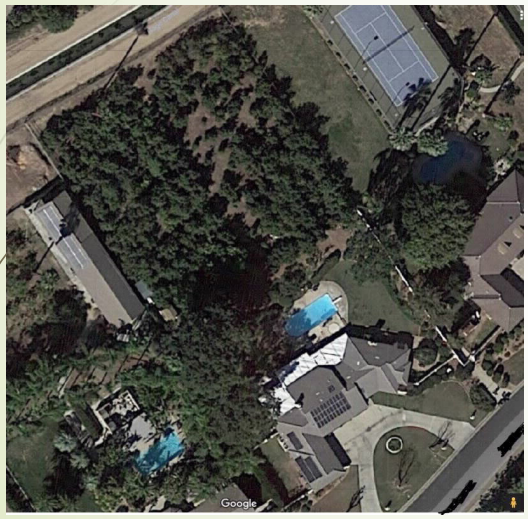
8

Advantages of Hybrid Approach

- Maximizes fairness, flexibility, and proportionality
- Eliminates concerns of:
  - property fractions,
  - hardscapes,
  - homes and nominal landscaping
- Institutes reasonable accountability
- Avoids Ag rates being used for luxury consumption
- Permits City to monitor and support food/fiber/plant production infrastructure

9

Clustered Allocation Example



- Clustered qualifying trees occupying 0.53 acres
- 0.53 acres x 61.58 CCF/acre
- 33 CCF allocation for January

10

Non-clustered Allocation Example

- 100 non-clustered qualifying trees
- 8 foot average radius
- $(\pi \times r^2) \times 100$ trees
- 0.46 acres x 61.58 CCF/acre
- 28 CCF allocation for January

11

Nursery Allocation Example

- 15 acre nursery with 10 acres in nursery stock
- 10 acres x 61.58 CCF/acre
- 616 CCF allocation for January

12

Row Crop Allocation Example

- ~ 30 acre parcel with 27.64 acres of produce
- 27.64 acres x 61.58 CCF/acre
- 1702 CCF allocation for January

13

Pasture Allocation Example

- 0.5 acres of pasture
- 0.5 acres x 61.58 CCF/acre
- 31 CCF allocation for January

14

Fruit Bearing Vine Allocation Example

- 430 fruit bearing vines
- 8 foot average spacing
- 4 foot average width
- 32 ft^2 x 430 vines
- 0.32 acres x 84.58 CCF/acre
- 27 CCF allocation for March