

SCHEDULE WA-Ag Hybrid (v2.11)

Allocation Based Agricultural Promotion and Preservation Service

POLICY:

To support, promote, preserve and encourage agriculture and the agricultural heritage of the City of Riverside while fairly allocating resources and costs.

APPLICABILITY:

To customers who agree to receive a monthly Hundred Cubic Feet (CCF) allocation of agricultural water per the DEFINITIONS to: properties that meet the Qualifying Criteria in No. 1 of the DEFINITIONS; or existing WA-3 or WA-9 customers inside the City limits, per Special Conditions #3.

TERRITORY: Within the Riverside City Limits.

RATES:

Monthly Customer Charge, Per Meter

Per WA-1A Schedule

Hybrid Quantity Rates

Per (CCF)

- a. Agricultural Water Use Allocation Per CCF/Per Month
- b. All CCF above "a" (with residence)
- c. All CCF above "a" (without residence)

\$x.xx **
Per WA-1A
Per WA-6

** Subject to all currently proposed and future rate increases.

DEFINITIONS:

1. Qualifying Criteria - To qualify for this rate all of the following criteria **must be met**:
 - a. Property is located within the Riverside City Limits.
 - b. Property is allowed to conduct agricultural activities as a "permitted use" according to City Zoning codes and General Plan land uses.
 - c. Property is growing a minimum of 75 irrigated fruit or nut trees, or 75 fruit bearing vines; or property is cultivating and maintaining minimum of half an acre in row crop produce, nursery stock, or pasture for livestock; or a combination thereof comprising a minimum total of half an acre of irrigable area of qualifying agriculture.
 - d. If property is vacant and for sale, meets Qualifying Criteria a and b above, and the prospective buyer(s) agree(s) to Criteria c within six months of close of escrow on the property, the property can receive this rate upon proof of close of escrow and when agricultural activities begin.

2. Agricultural Use Water Needs – The amount of agricultural water determined to be necessary to support and maintain any combination of items in “c” above in good health. See Appendix A for a detailed explanation.
3. Irrigable Area Allocation – The amount of irrigable area in agricultural use determined by a blanket or assignment method. See Appendix A for a detailed explanation.
4. Monthly Agricultural Water Use Allocation in CCF – The total agricultural water allocation in CCF as determined for each month of the year. See Appendix A for a detailed explanation.

SPECIAL CONDITIONS:

1. The Board of Public Utilities will publish a list of Best Water Management Practices for the WA-Ag customers to use as a guide and menu for efficient agricultural irrigation and conservation practices. These practices will be reviewed and updated at least every 5 years.
2. Any agricultural activities must comply with all applicable City municipal, zoning, land use and building codes and must be conducted such that all crops remain healthy, pest and weed free.
3. Upon the effective date of this rate, all existing WA-3 and WA-9 customers inside the City limits will transition onto this rate in accordance with the RATES section. Initial agricultural water allocations for these prior WA-3 and WA-9 customers will be determined by Riverside Public Utilities (RPU) staff using various methods, as appropriate, including: available aerial photography, GIS applications, customer surveys, and site inspection in conjunction with Definitions 2, 3 and 4. Within 6 months of the effective date of this rate schedule, RPU staff will conduct an onsite inspection of each prior WA-3 and WA-9 customer property to ensure they are being allocated the correct monthly amount of agricultural water per the terms of the DEFINITIONS. If a prior WA-3 or WA-9 customer property is found to no longer meet the Qualifying Criteria as outlined in the DEFINITIONS the customer will have six (6) months to bring their property back into compliance with the Qualifying Criteria as outlined in the DEFINITIONS or the customer will be transitioned to WA-1 (residence on property) or WA-6 (no residence on property). Existing WA-3 or WA-9 customers outside the City limits will transition to WA-1 (residence on property) or WA-6 (no residence) upon the effective date of this rate schedule.
4. Customers are responsible for notifying RPU staff 30 days in advance of changes to expected crops and/or planting schedules so that allocations can be properly updated.
5. So that RPU can assess the success of its agriculture support efforts, customers are required to report harvest types and amount of yields on an annual basis using appropriate units for crops grown. Harvests not used or distributed shall not be included in these reports.
6. Each customer property receiving this rate is subject to site inspection every two years to ensure the property continues to meet the Qualifying Criteria as defined in No. 1 of the

DEFINITIONS and to ensure agricultural water allocations are accurate. Inspections may be conducted using aerial photography, GIS applications, or onsite visits. Customers on this rate grant RPU staff the right to enter and inspect their property for compliance if remote inspection processes are unable to provide adequate information to make a determination of compliance and accurate allocation. A change to the monthly CCF allocations will be made if it is found that agricultural activities onsite and associated areas have changed. Customers found to no longer be in compliance are subject to being transitioned to the otherwise applicable rate. 48 hours' advance notice will be given to a customer when an onsite inspection is required. If a customer declines access to RPU staff to conduct an onsite inspection, after having been given advanced notice, the customer will be transitioned to the applicable rate upon the next billing cycle.

7. If staff determines that this rate is not applicable, the Customer may appeal the determination, following the requirements set out in Part A of the "General Provisions" section of the Water Rules and Rate Schedules.
8. Any properties being sold will be subject to being placed on the applicable rate. The new owner of a property previously receiving this rate must certify that the property meets the Qualifying Criteria as defined in No. 1 of the DEFINITIONS within 60 days of closing escrow to remain on this rate. RPU staff may need to inspect the property to ensure the correct agricultural water allocation is being provided.
9. If this rate is requested for a meter size larger than two (2) inch, RPU has the sole discretion to make a determination if the property can be allowed to receive this rate. Customer will be responsible for all costs and fees associated with a meter larger than (2) inch.
10. Customers can petition to have their properties reassessed for re-allocation of agricultural water once every two years. Such re-allocation will require an onsite visit and inspection of the property to verify types and amounts of qualifying agriculture as well as to verify area in agricultural use. RPU reserves the right to reassess irrigable area on a customer property and/or adjust agricultural water allocations at any time.
11. RPU reserves the right to make adjustments to allocation amounts due to extreme weather conditions.
12. Customers found to be out of compliance more than one time within a 5 year period will be transitioned to the applicable WA-1 or WA-6 rate within 90 days of such determination, unless otherwise determined as the result of an appeal. Customers who have been found to be out of compliance twice within a 5 year period and transitioned off this rate can reapply for this rate 2 years after the transition date.
13. Water Conservation Surcharge: The rates and charges above are subject to a surcharge (Water Conservation Surcharge) as adopted via City Council Resolution No. 22675 on April 22, 2014 and such surcharge as in effect from time to time. The Water Conservation

Surcharge will be applied to the Customer's total water usage charge including without limitation the quantity rates, customer and minimum charge for the applicable billing period.

14. Water General Fund Transfer: The Water General Fund Transfer is a component of every customer's water bill, and is a transfer of up to 11.5% of revenues from the Water Fund to the City's General Fund. On June 4, 2013, the voters of the City of Riverside approved the Water General Fund Transfer as a general tax, pursuant to Article 13.C of the California Constitution.

ENERGY COST ADJUSTMENT FOR PUMPING WATER:

The Quantity Rates shall be subject to an energy cost adjustment relating to increases and decreases in the cost of electric power for pumping water. This energy cost adjustment shall apply to each one hundred cubic feet (CCF) of sales to which Quantity Rates apply.

Determination of the adjustment factor shall be made at the beginning of each quarter, with the initial adjustment beginning February 1, 1983.

The energy cost adjustment shall be calculated by dividing the CCF of metered Water sold in each quarter into the total dollar amount of fuel cost adjustments plus any base rate increases imposed by power suppliers for pumping water during that quarter:

- A. Fuel cost adjustment charges by Southern California Edison Company.
- B. Fuel cost surcharge charges by City of Riverside.
- C. Base rate increase charges by Southern California Edison Company.*
- D. Base rate increase charges by City of Riverside.*

$$\frac{\$ (A+B+C+D)}{\text{CCF (Metered Sales)}} = \$.0000 \text{ per CCF}$$

The resultant shall be the energy cost adjustment factor for pumping water and shall be expressed in terms of cents per CCF carried out to the nearest \$0.0001. This factor shall be divided by 0.885 to allow for the 11.5% of gross revenue payable to the City General Fund. The resultant shall then become the energy cost adjustment to be multiplied by all CCF increments reported in billings to Customers. The resultant amount in each case, expressed to the nearest \$0.01, shall constitute the adjustment to be added to the Customer's bill.

*(Over base rates in effect February 1, 1983)

APPENDIX A

Agricultural Use Water Needs – These needs will be determined using a 15 year historical average (2004 – 2018) of local Monthly Reference Evapotranspiration (ET_0) data from the California Irrigation Management Information System (CIMIS) Station #44 located at the University of California Riverside. This 15 year average ET_0 will provide required irrigation in inches for each month of the year. The ET_0 will then be multiplied by the crop coefficient (K_c) of 0.65 for citrus, as established by the University of California Cooperative Extension, Leaflet #21428. The result is the crop evapotranspiration rate (ET_{crop}) in inches of needed water per month. This value can then be converted to CCF per month per irrigable area (square feet or acreage). The upcoming year's Monthly Agricultural Water Use Allocations, in CCF per month, will be established by using the ET_{crop} value in relation to the irrigable area determination.

Table 1 below shows the 15 year monthly average Reference ET_0 from CIMIS Station #44, with the resultant ET_{crop} requirement in inches of irrigation per month using the citrus K_c of 0.65. This table will be updated in December of each year to ensure a running 15 year average.

TABLE 1

	15 Year Average Reference ET (2004 – 2018) in Inches Per Month and Other Conversion Factors											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
CIMIS Sta #44 Ref 15 yr avg ET_0	2.61	2.92	4.66	5.68	6.42	7.02	7.47	7.17	5.7	4.07	2.89	2.28
K_c Citrus per UC Co-op	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
ET_{crop} (inches/month)	1.70	1.90	3.03	3.69	4.17	4.56	4.86	4.66	3.71	2.65	1.88	1.48
ET_{crop} (gals/ft ² /month)	1.06	1.18	1.89	2.30	2.60	2.84	3.03	2.91	2.31	1.65	1.17	0.92
ET_{crop} (CCF/ft ² /month)	0.001	0.002	0.003	0.003	0.003	0.004	0.004	0.004	0.003	0.002	0.002	0.001
ET_{crop} (CCF/acre/month)	*61.58	68.90	109.95	134.02	151.48	165.64	176.25	169.18	134.49	96.03	68.19	53.80
ET_{crop} (Gals/acre/month)	46064	51535	82245	100247	113307	123896	131838	126544	100600	71832	51006	40240

* 61.58 CCF/acre/month in January was derived by multiplying the ET_{crop} of 1.70 inches/month by 7.48 gallons/ft³, and dividing the product by 12 inches/foot. The result was then divided by 748 gals/CCF and then multiplied by 43,560 ft²/acre, producing the final result of 61.58 CCF/acre/month for January.

Irrigable Area Allocation – Some agricultural activities not closely spaced (qualifying trees spaced randomly throughout a property) will be assigned a specific irrigable area per qualifying tree, vine or plant; while some activities will be assigned a blanket irrigable area. For example,

each individually planted qualifying tree, vine or plant can be assigned a specific amount of irrigable area. Row crops and irrigated pasture can be assigned a blanket square footage (or acreage) occupied by such agriculture. Nursery stock will be assigned a specific irrigable area per potted plant unless it is determined that the plant stock is organized close enough together to justify the blanket method. Areas that are not directly being used for agriculture such as buildings, roads, pathways, fallow areas, hardscapes, and landscaping will not be included in irrigable area allocations. RPU staff will make the final determination upon which method should be used and may use a combination of both methods.

The method of determining assigned irrigable area for non-clustered applications is based on the following formula established by the University of California, Division of Agriculture and Natural Resources Center for Landscape & Urban Horticulture. Irrigable area = $(R^2 \times 3.14)$ where R is the radius of a qualifying tree or plant's canopy in feet. The equation represents the area of the circle created by the canopy projected over the soil below. The average canopy size of the crop will be used in this calculation. For example, a crop of 100 qualifying trees with an average canopy radius of 8 feet would be assigned an irrigable area of $100 \times (8^2 \times 3.14) = 20,096$ square feet, or 0.46 acres.

Monthly Agricultural Water Use Allocation in CCF – By taking the monthly ET_{crop} value in CCF/acre/month from Table 1 and applying it to the determined irrigable acreage the total Agricultural Water Use Allocation in CCF can be determined for each month of the year.

Examples of Monthly Agricultural Water Use Allocation in CCF for January 2019

- **Clustered avocado trees occupying 0.53 acres.**

0.53 acres of irrigable area

0.53 acres x 61.58 CCF/acre/month = 32.64 CCF/month

Total January 2019 agricultural water CCF allocation = 33 CCF

- **100 non-clustered qualifying trees (Average tree canopy radius of 8 feet).**

$100 \times (8^2 \times 3.14) = 20,096$ square feet, or 0.46 acres, of irrigable area

0.46 acres x 61.58 CCF/acre/month = 28.33 CCF/month

Total January 2019 agricultural water CCF allocation = 28 CCF

- **Nursery on 15 total acres, with 10 acres in active nursery stock.**

10 acres x 61.58 CCF/acre/month = 615.8 CCF/month

Total January 2019 agricultural water CCF allocation = 616 CCF

- **Produce Farm on 29.64 total acres, with 27.64 acres in agricultural use.**

27.64 acres x 61.58 CCF/acre/month = 1702.15 CCF/month

Total January 2019 agricultural water CCF allocation = 1702 CCF

- **0.5 acres of irrigated pasture for grazing of livestock.**

0.5 acres x 61.58 CCF/acre/month = 30.79 CCF/month

Total January 2019 agricultural water CCF allocation = 31 CCF

- **430 fruit bearing vines (Average irrigable area of 32 square feet per vine).**

430 x 32 sq. ft. = 13,760 square feet, or 0.32 acres of irrigable area

0.32 acres x 84.58 CCF/acre/month = 27.07 CCF/month

Total March 2019 agricultural water CCF allocation = 27 CCF

Allocations are rounded to nearest whole CCF. Allocations do not carryover from month to month.