

Sustainable Groundwater Management Act

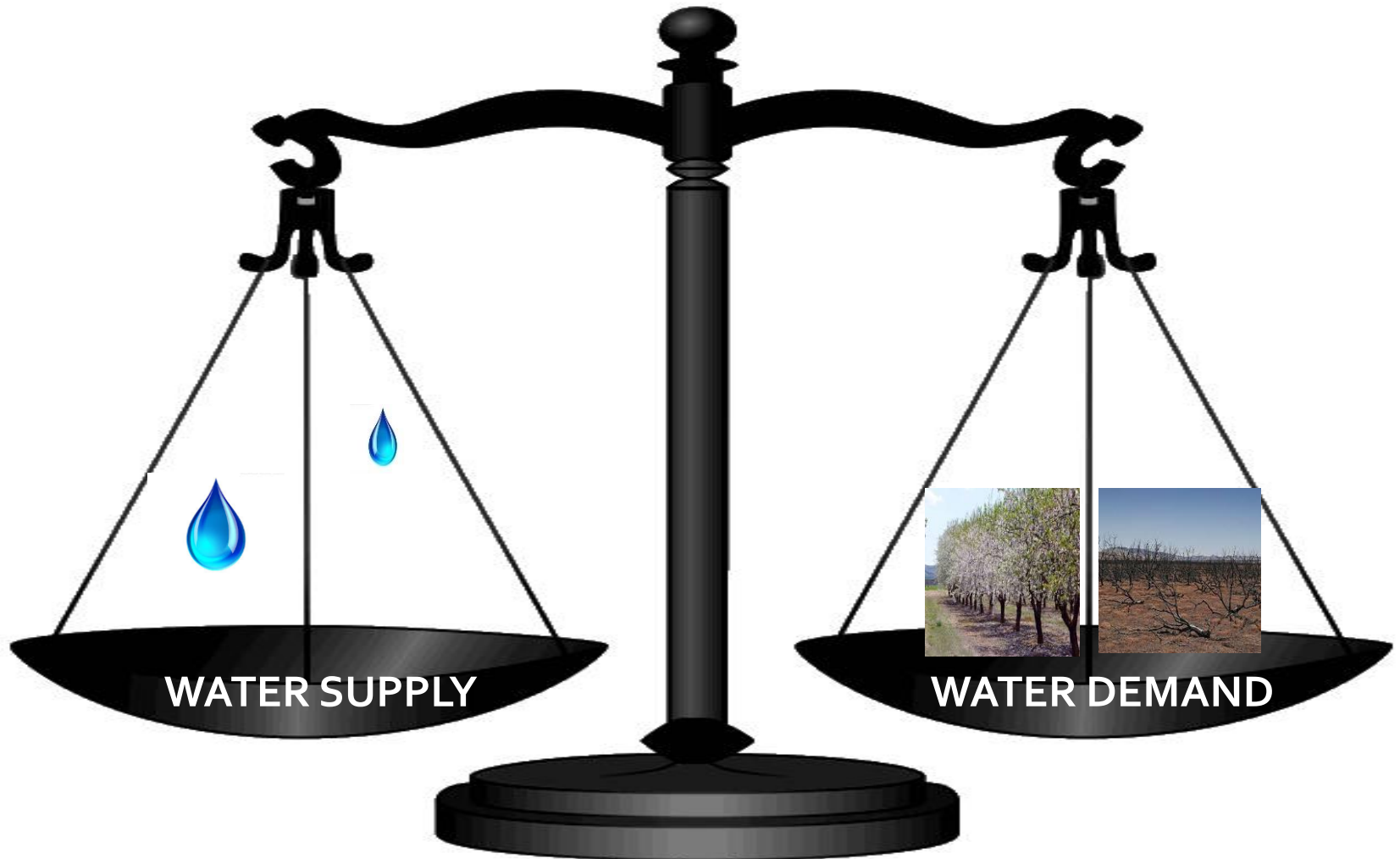


Water Budgeting

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The Groundwater Sustainability Plan "GSP"



**Budgeting
Requires
Accurate Data!**

**Water
Supply**
(District Info)

**Water
Demand**
(Satellite ET)

**APN Based Water
Budget Platform
(Landowner Access)**

**Water
Trading**

Billing

**Open &
Transparent**



Rosedale-Rio Bravo Water Storage District

Water Budgets



- **Project Water**
 - Surface water developed by Rosedale-Rio Bravo
 - May not be carried-forward (subject to reconciliation at end of year)
- **Native Yield**
 - Allocated share of groundwater in basin
- **Stored Water**
 - Water developed or acquired by landowner (not project water) that may be carried forward
- **Reconciliation Water**
 - Rosedale will “reconcile” each APN at the end of the year. Any Project Water not utilized will be re-allocated amongst all APN’s who’s use exceeded their initial allocation proportional to acreage.

Rosedale-Rio Bravo Water Storage District

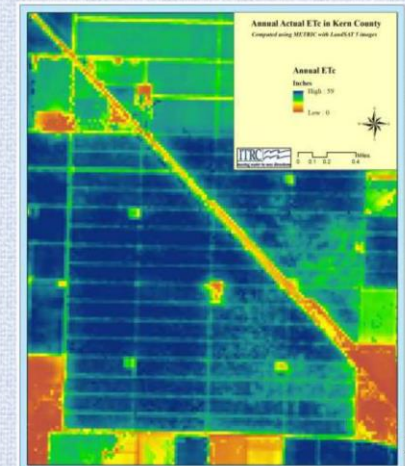
Water Budgets

Water Demand

- Demand on each APN is calculated using Evapotranspiration data
 - Data is collected every few (5-11) days
 - Data is interpolated between images
 - Calibration is critical to ensure field level accuracy
- Landowner may utilize well head metering (Appeal)
- Demand is computed over the course of the calendar year and is basis for water budget.
- January 1 – December 31 ET “demand” is debited From initial “deposit”
- No “Carry-Over”
- Balance is re-allocated amongst all users proportional to acreage
- Deficit is billed at replacement water rate

Actual Evapotranspiration (ETc)

- Field boundaries overlaid in GIS
- Actual ET was extracted from ET raster outputs
- Monthly outputs
- Summarized as April-October Total Actual ETc
- For three years





- Trade 2019-0046 needs to be registered [Register transfer]
- Trade 2019-0045 - A buyer is awaiting your response to their offer to purchase water. This offer expires in 5 days. [Respond to this offer]

Landowner Dashboard - Demo User

Showing data for year 2019

Annual Water Budget Overview

Allocation	5,070.0 ac-ft
Project Water	5,070.0 ac-ft
Reconciliation	0.0 ac-ft
Native Yield	0.0 ac-ft
Stored Water	0.0 ac-ft

Your annual allocated water budget

Purchased -

Water supply you have purchased this year

Sold	300.0 ac-ft
*2019-0046	10/25 300 ac-ft

Water supply you have sold this year

Total Supply 4,770.0 ac-ft

Allocation + Purchased - Sold

* denotes a pending transaction

Usage to Date 2,690.6 ac-ft

Total usage this year as measured by OpenET

Current Available 2,079.4 ac-ft

Allocation + Purchased - Sold - Usage to Date

Average Usage 3808.5 ac-ft

Average usage from all years of OpenET data

Trade Activity

Active

Trade	Date	Status	Description	Price
2019-0046	10/25	Awaiting Registration	Selling 300 ac-ft	\$75,000.00
2019-0045	10/25	They countered	Selling 300 ac-ft	\$157,500.00

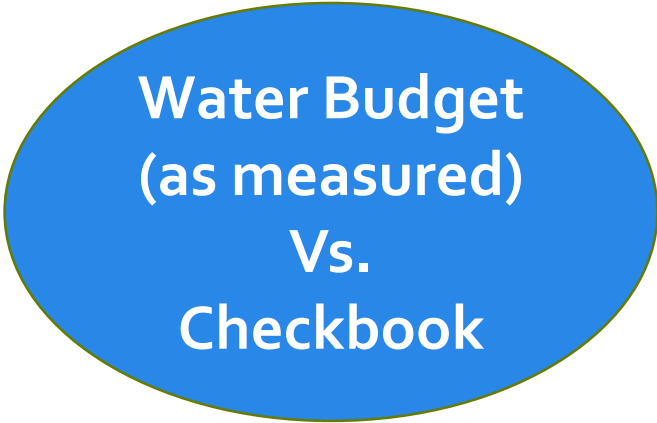
Postings

Active

Date	Type	Status	Initial Quantity	Current Quantity	Price
10/25	Offer to Sell	Open	400 ac-ft	400 ac-ft	\$525.00 per ac-ft

Rosedale-Rio Bravo Water Storage District

Water Budgets



**Water Budget
(as measured)
Vs.
Checkbook**

CHALLENGE

- **Water Budget based upon monitoring vs. “checkbook”**
 - **Groundwater levels are temporally and spatially disconnected from overlying use and right(s) to use.**
 - **Lack of.....or existence of undesirable results at a monitoring point may not indicative of “sustainability” for the GSA reporting.**
 - **White lands adjacent to a sustainable GSA**
 - **Lands within a sustainable GSA but adjacent to an area that is not sustainable**
- **Responsibility for Sustainability cannot go beyond a balanced checkbook**