Appendix B - RRBMA Outreach Documentation (UPDATED)

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
January 29, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
Pros BRITTAIN	for Keith GARDNER	pres@prh2o.com	
Dan Bartlett			
VAUGHN WATER	VAN GRAYER	VAN@VAUGHNWATER.ORG	
Lois Henry/Brock	Lois Henry	loisherry130	
RAY BENNETT	IRWD	BennetT@IRWD.com	
Bolthouse Properties	Brad DeBranch		
BONE TRUST	Bryan Bone	lwesos@prodigy.net	
Maria Millan	Maria Mena	Rmillan@bak.rr.com	

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

January 29, 2019

1) Overall Approach to GSP Development
    a. Drafting
    b. Management Areas
    c. Rosedale Philosophy

2) Groundwater Sustainability Planning (GSP) Process
    a. Kern Groundwater Authority – GSA
    b. Chapter & Plan
    c. Rosedale Chapter Outline
    d. Schedule

3) Terminology
    a. Undesirable Results
    b. Minimum Thresholds
    c. Measurable Objectives
    d. Management Actions

4) Rosedale Water Supply Project

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

February 26, 2019

1) Water Budget
    a. 20 Year Approach to Balanced Budget
    b. Update on Safe Basin Yield Discussion(s)

2) Update on Groundwater Monitoring Data

3) Setting of Minimum Thresholds & Measurable Objectives
    a. Presentation – Rosedale Minimum Thresholds & Methodology
    b. Review – Semitropic Minimum Thresholds & Methodology
    c. Discussion – Water Level Impacts & Mitigation

4) Projects and Management Actions

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
February 26, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
VAUGHN WATER Co	VAN GRAYER	VAN@VAUGHNWATER.ORG	
Marvin Weidenbach Family	Mark Weidenbach		
Alan Weidenbach	Weidenbach Family Farm	windofarmr@aol.com	
Frank Briggs	weidenbach Family farms.	weidenbach family farms @ outlook	
~~Mike Hopkins~~			
Hopkins NG	Mike Hopkins	1904 WEDGEMONT PL	
Bolthouse Prop.	Brad DeBranch		
GRIMMWAY	GEORGE CAPPELLO	gcappello@grimmways.com	
Wonderful Orchards	Garrett Busch	garrett.busch@wonderful	
Bone Family Trust	Bryan Bone	huesos@prodigynet	
Ray Bennett			Phone Conference
Greg Wegis	Greg Wegis	greg@wegisandyoung.com	
John Zimmerer	John Zimmerer	jzimmerer@bwpumps.com	

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

March 26, 2019

1) Water Budget
    a. 20 Year Approach to Balanced Budget
    b. Update on Safe Basin Yield Discussion(s)

2) Update on Groundwater Monitoring Data

3) Setting of Minimum Thresholds & Measurable Objectives
    a. Presentation – Rosedale Minimum Thresholds & Methodology
    b. Review – Semitropic Minimum Thresholds & Methodology
    c. Discussion – Water Level Impacts & Mitigation

4) Projects and Management Actions

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
March 26, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
GRIMMWAY	GEORGE CAPPELLO	gcappello@grimmway.com	
IRWD	Roy Bennett	Bennett@IRWD.com	
Bolthouse Properties	Brad DeBranch	bdebranche@bolthouseproperties.com	
Scott Hamilton			
Marvin Weidenbach Farms	Mark Weidenbach		
Wonderful	Garrett Bush		
Marcel/Josephine Ocafrain		" "	
Arrentranger Farms	Marie Millar	Rmillar@bak.rr.com	
Weidenbach	Alan Weidenbach	Windofarmr@Aol.com	
VAUGHN WATER	VAN GRAYER	VAN@VAUGHNWATER.ORG	

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
April 23, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
GRIMMWAY	GEORGE CAPPELLO	gcappello@grimmway.com	[signature]
~~Mike Hopkin~~			
Hopkins AG	Mike Hopkins	Hopkinsmd67@yahoo	[signature]
	Dan Barker		
Affordranger Ranches	Marie Millan	Rmillan@bak.rr.com	[signature]
Garett Busch ↔	Wonderful		[signature]
Josephine Ocafrain			[signature]
PRESTON BRITTIAN	PAC Resources	pres@prh2o.com	[signature]
Greg Wagin	W+Y		[signature]

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

April 23, 2019

1) White Land Withdrawal
2) Review of 2017-2018 ET Data
3) Review of Stakeholder 3/22 Draft Comments Received

KERN COUNTY FARM BUREAU

801 South Mount Vernon Avenue
Bakersfield, CA 93307-2888
www.KernCFB.com

Phone: (661) 397-9635
Fax: (661) 397-3403
Email: kcfb@kerncfb.com

Catalino "Tito" Martinez
President

John Moore III
1st Vice President

Patty Poire
2nd Vice President

Lucas Espericueta
Treasurer

Ariana Joven
Executive Director

SGMA Questions to Consider Asking Your Water District Manager

- What is the current status of the water model for the entire basin? What were our water district's results?
- How does the water model work with the water budget?
- How does the water budget work for each water district? How will it be coordinated?
- How will DWR determine if the basin is going in the right direction of sustainability?
- The KGA stated that the definitions of the Undesirable Results was a great accomplishment, why? How do those definitions interact with the GSP?
- How will domestic wells be handled? Could those wells impact the agricultural industry from pumping at a different water level?
- Will I be able to retain my water rights to surface water deliveries?
- Will I be able to move water easier between my properties?
- How will non-compliant landowners be handled?
- Will there be a "soft landing" approach placed on pumping groundwater or will there be a limit set immediately?
- Will I be required to add a monitoring device to my current water wells?
- Will there be a water market established? If so, when?
- If I decide to fallow some of my properties, will I be able to use that groundwater on my other properties?
- Where is our district in getting our GSP completed?
- When will I be able to review and/or participate in the preparing of the GSP (chapter)?
- Please explain the KGA process of completing the GSP.
- When will I be required to cut back on my water usage?
- Do you know how much I will be required to cut back?
- If I don't receive nor contracted for surface water, what is the amount of groundwater that I am able to pump?
- I hear that the future projected water deliveries must account for climate change, what is the impact of this?

ROSEDALE-RIO BRAVO Management Area

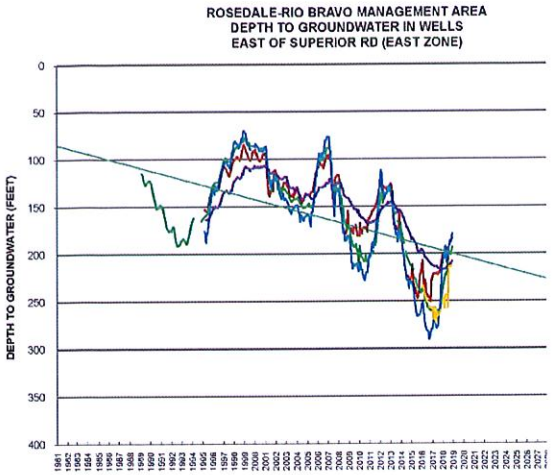
Fact Sheet

Plan Area

- 49,084 acres in the RRBMA (Developed to Ag, Urban, & GW Banking)
- All developed lands rely on groundwater
- RRBWSD formed to bring in supplemental water supplies in 1959
- RRBMA includes a 7,291 acre White Land sub-management area
- RRBMA includes a 41,793 acre of RRBWSD sub-management area

Public Outreach

- Member of Kern Groundwater Authority
- White Land Stakeholder Group (as needed)
- RRBMA Stakeholder Group (monthly)



Sustainable Yield

- RRBWSD
  Sustainable Yield = 93,780 AF/yr
  Demand = 103,257 AF/yr
  Balance = -9,527 AF/yr

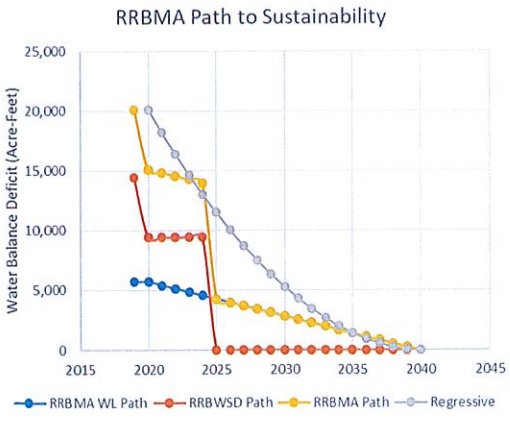
- White Land
  Sustainable Yield = 7,146 AF/yr
  Demand = 11,876 AF/yr
  Balance = -4,703 AF/yr

Undesirable Results

- Groundwater falling at 3-6 ft/yr
- Arsenic > MCL below about 550 ft BGS

Objectives and Thresholds

- Measurable Objectives = 123-248 ft BGS
- Minimum Thresholds = 185-329 ft BGS
- Exceeding Thresholds costs $50M-100M



Projects and Management Actions

2020 - 5,000 AF/yr in projects and 5%/yr (391 AF/yr) demand reduction in White Lands
2025 - 11,500 AF/yr in projects and 4,000 AF/yr in demand reduction in RRBWSD
2030 - 10,000 AF/yr in projects
2035 - 1,000 AF/yr in projects
2040 - None Envisioned

44,250 AF/yr in projects and management actions at a cost of $10M/yr or $225/AF

RRBMA Documents found at https://www.rrbwsd.com/rosedale-groundwater-sustainability-planning

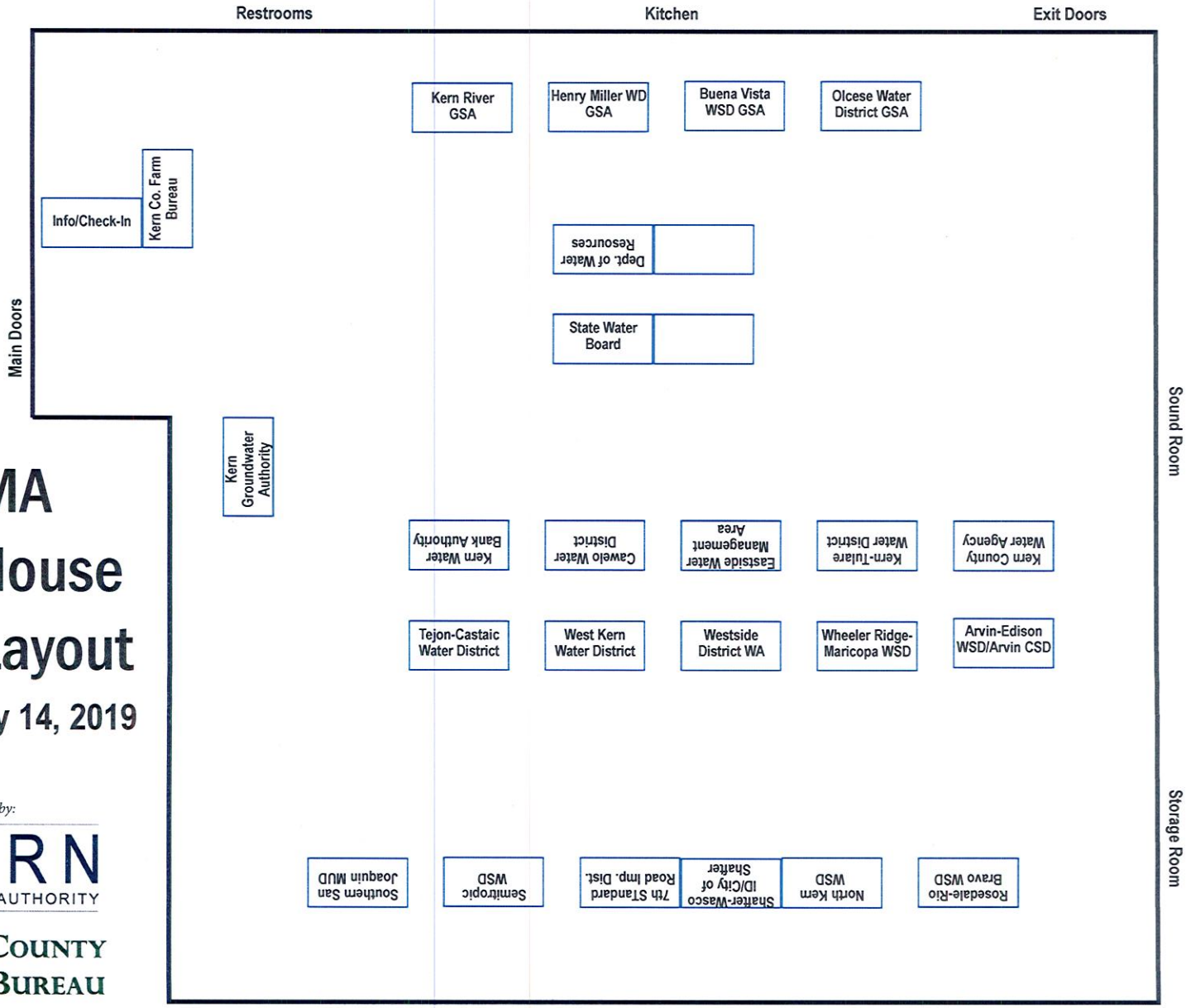
SGMA Open House Room Layout

Tuesday, May 14, 2019

Co-hosted by:

KERN GROUNDWATER AUTHORITY

KERN COUNTY FARM BUREAU



Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Jasmene del Aguila	1527 19th St. Suite 212 Bakersfield, CA 93301	661-843-7677	jdelaguila@leadershipcounsel.org
David Ansolabehere	17207 Industrial Farm	661 393-6072	
Lawrence D'Lang	on file	619 840 3622	lawrence@mottech.com
Max Palmer	1717 W Park Ave, Redlands, CA 92373	909-292-6296	max.palmer@geinc.com
Marko Zaninovich	1999 Road 152 Delano 93215	661 792 3151	
David Nixon			DANAEWSD@AOL.COM
Michelle Anderson			manderson@kcwa.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Kevin Andron		661 747-7835	KAndron@farmmanagementsvcs.com
Marcos Perez	5080 California Ave	661 3360967	marcos.perez@usda.gov
Rick Iger		661 3036607	riger@ppengcon
Dominic Farinelli	16460 E	559-930-5767	dominic@powwowenergy.com
Pres Brittian	4831 Calloway #102/Bksfd 93312	661-301-1708	pres@prh2o.com
Dennis Mullins		328-5358	
Dan Hoekstra	7122 Heatherwood Dr 93313	805 839 8292	dan@hoekstra@associates.com
Tim Holtermann	P.O. Box 507	(661) 340-3201	tims@holtermann-ag.com
Jeff Ginmarra	P.O. Bin 1969 Bakersfield 93303	661-395-7000	jeff@grapeking.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Paul Nugent	Bakersfield CA 93312 4831 Calloway Dr. Ste. 102	829-5109	nugentag@gmail.com ~~rod@rtsag.com~~
Rod Stiefvater	"	"	rod@rtsag.com
DAN RAYTIS		444 5770	dan@bbr.law
Jason Selvidge			jselvidge@aol.com
Gabriela Gonzales	2600 F St 93301	661 421 3515	gabriela@provconsult.com
SATYA GALA	GEI	916 388 4166	SGALA@GEICONSULTANTS.COM
KENT H. STEPHENS	1998 Rd 152 DELANO, CA 93215	661 792-3151	
KEN BONESTEEL		661 616 4900	KBonesteel@PPENG.COM
Wilson Ag Aarin Wilson	P.O. Box 1300 Shafter 93263	661 746 2673	wilsonag@atginternet.com
Alan Christensen	Kern County	661 817 0443	achristensen@kerncounty.com
DEE JASPAR	DJA	661 393 4796	djaspar@djacivil.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Don A Wright	11465 Tollhouse Rd Clovis CA 93619	559/355-2389	don@waterwrights.net
Ron Bock	283 N. Caesar Ave CLOVIS CA 93612	559/435-4333	morethankful@aol.com
Geoff Vanden Heuvel	1407 Monsecco St Tulare, CA	909-730-1240	geoff@milkproducers.org
MARK VALPREDO	5279 FALLGATTER ST BKFLD CA 93308	661-747-2056	MBVALPREDO@GMAIL.COM
Reilly Hossner	2023 Regis Dr, Davis, CA 95618	925 464 0399	reilly@bachandassociates.com
WALT FISHER	PO Box 68 EDISON CA 93220	661-805-5797	IBCATTLE@AOL.COM
ROB GOFF	13654 Hwy 33, LOST HILLS, CA 93249	661-203-9660	rob.goff@wonderful.com
Javi Higuera Jr	2231 Orpheus Ct 93308	661-300-0229	Javi@trilogyplm.com
MARTY BARNES	133 EASY St 93308	661 809-5612	gmc2001cb@gmail.com
Brian F. Kelsey	PO Box 455	6612136754	KCR@ATGINTERNET.Com
Desirea Lawrence	11200 River Run Blvd. #101	410.6026	lawrenced@missionbank.com
Mike Martens	" "	410.6021	martensm@missionbank.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Warren Plaskett	11638 S. Granite Rd Bak 93308	661 978 5445	papaplaskett@yahoo.com
Bill Dewey	985 W. Millbrook Hanford CA 93230	559-904-6959	bill.dewey@olcmnet.com
Juan Ramos	930 18th Bakersfield CA 93301	661 979-8542	juanr@2bfarminginc.com
MEL JOHNSON	551 TAFT HWY BAK. CAL 93307	661-333-3914	greenfield water@hotmail.com
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ALAN TRAN	12000 Vista Del Mar, Playa Del Rey, CA 90293	310-648-5995	ALAN.TRAN@Lacity.org.
LEE WADDLE	31492 APPALOOSA VISALIA 93292	559-368-3514	LWADDLE@Tcag.com
BEN KING	P.O. BOX 29 COLUSA CA 95932	530-723-3119	bking@pacgoldag.com
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Shulamit Shrader	1031 S. Mt. Vernon	661-868-6218	sashrader@ucanr.edu
Jose A Gomez R	930 18 Th Bakerfield	661 201-9052	pepe@2bfarminginc.com
Julio Ramos	930 8th st Bakersfield 93301	661 344-6599	julio@2bfarminginc.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
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Anona Dutton	—	650.292.9100	adutton@ekiconsult.com
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Dan Bartel	849 Allen Rd Bakersfield CA 93312	661 589 6045	dbartel@rrbwsd.com
Eric Averett	"	"	eaverett@rrbwsd.com
Tom Bracken	441 Vineland Rd Bks 93307	661 549 8123	tom@sridge.net
Doug Gosling			dgosling@braungosling.com
John Karnes		661 808 0766	TECTA.1976@GMAIL.COM
Vincent Sorena		661-340-0848	vincent.sorena@ac-foods.com

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Stacie Ann Silva	—	—	SSILVA@NEWCURRENTWATER.COM
Mohammad Goraya	1508 Fieldspring Dr Bkf 93311	661-398-5500	MGoraya@[illegible].com
Jake Cauzza	1600 Corn Camp Rd Bottonwillow 93201	661-331-0760	Jakecauzza@gmail.com
Rebecca Smith	621 Capitol Mall, 18th Floor Sacramento CA	916-520-5281	rsmith@downeybrand.com
Joe Eller	4300 Midway Rd, Taft, CA 93268	661-763-1537	jeller@holmeswestern.com
Micah Eggleton	—	—	eggleton@woodardcarran.com
Jeff Looker	1998 Rd 152, Delano, CA 93215	(661) 792-3151	jlooker@sunviewvineyards.com
Randy Womble	8660 Indian Clover Ct. Bakersfield 93311	213 216 4114	randywomble57@gmail.com
Scott Hamilton	7718 Davis Park Dr 93308	661 3031540	scott@resourceecon.solutions
John Allen	9301 Shafter Rd 93311	661.332.2038	allenalmonds@gmail.com
Jeff Johnson	7812 Calle Espada 93309	661-412-7059	jojw@chevron.com
Sam Blue			SBLUE@BAKERSFIELDCITY.US

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Andy Gordus	1234 East Shaw Ave Fresno, CA DFish+Wildlife	559 243-4014 x239	Andy.gordus@wildlife.ca.gov
Chris Bellue	Kern Delta Water Dist.	661834-4656	chris@kerndelta.org
Kate Melberg	1149 South Broadway St. Los Angeles, CA 90015	213-847-5198	sarah.melberg@lacity.org
Christina Jones	"	213 847 5179	Christina.jones@lacity.org
GARY MORRIS	24886 HWY 33 FELLOWS CA 93224	661-332-5280	GJMORRIS45@HOTMAIL.COM
STEVE LEWIS	1600 NORRIS RD BAK CA 93306	661-912-2604	slewis@cbresources.com
John Battistoni	1234 E Shaw Ave Fresno ICA 93710 CaDept. of Fish & Wildlife	559-243-4014	John.BattistoniCwildlife.ca.gov
Don Nelson	5330 Office Center Ct #34 Bakersfield, CA 93309	661-378-8652	don.bakersfield@yahoo.com
Matthew Hurdon	2106 Lone Tree ct 93312	661-747 3967	matthew.supremealmond.com
Tom Regan	300 N. Lake Ave, Ste 400 Pasadena, CA 91101	(626)568-6044	thomas.regan@stantec.com
Eric Vogler	300 N LAKE PASADENA	626 2985009	eric.vogler@stantec.com
KRIS LAWRENCE	1405 Commercial way, suite 125 Bakersfield, CA, 93309	661-666-1095	klawrence@lhwd.org

Kern County SGMA Open House

May 14, 2019, Kern Ag Pavilion

Name	Mailing Address	Telephone	Email
Martin Milobar	154 E White Ln 93307	661-302-7457	mmilobar@kcwa.com
Mark Sheriff	4200 Truxtun Ave suite 101 93309	661-858-3016	msheriff@farmmanagementservices.com
Steve Johnson	5405 peppertree Ln 93309	909-476-2247	steve.johnson@qcinc.com
Frank Guzman	711 Pine Cone St 93220	661 742 5725	Frank.Guzman@olannet.com
Robert Kuhs	P. O. Box 2205 BAK 93303		
Kelly Cecil	3647 Piccini St.	661-330-7071	Kelly-384@outlook.com
Kevin Pascoe	9400 Etchart Rd. Bak. 93314	661-805-6331	KPascoe@onemainway.com
Everett McGhee	8520 Fuller Dr. 93307	661-319-5008	fulleracresw@yahoo.com
Frances Alcorn	8520 Fuller Dr. 93307	661-319-5008	
Ben Tatt	POBox 445 Edison, CA 93220	661 978-9044	ben@calfruitcoop.com
Mohammad Yaghmour	1081 S. Mt Vernon Ave Bakersfield 93307	661-868-6211	mayaghmour@ucanr.edu
Leroy Ellinghouse	1416 9th St Sac Ca 95814	916 653-7168	leroye@waterca.gov

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
May 28, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
GRIMMWAY	GEORGE CAPPELLO	gcappello@grimmway.com	[signature]
Weidenbach Farms Alan Weidenbach	Alan Weidenbach	windofarmr@aol.com	[signature]
Kelith Gardner ~~Pres Brittian~~	Pres BRITTIAN	pres@prh20.com	[signature]
Brad DeBrandt / Bottle house			
John Zimmerer		jzimmerer@bwpumps.com	[signature]
WONDERFUL	TIM GOBLER	timothy.gobler@wonderful.com	
BONE TRUST	Bryan Bone	huesos@prodigy.net	[signature]
IRWD	Roy Bennett	Bennett@irwd.com	[signature]

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

May 28, 2019

1) KGA Update
2) Kern Subbasin Coordination
3) White Land Withdrawal
4) Updated 2017-2018 ET Data
5) Groundwater Model Results
6) Definition of Native Yield and Developed Lands
7) CEQA
8) Implementation Timeline

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
June 25, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
Mike Hopkins	Hopkins AG	Hopkinsmall@yahoo	[illegible]
Hopkins Ag Management	Joshua Macut	hopkinsagjm@gmail.com	[illegible]
Brad DeBranch / Bolthouse			[illegible]
Tim Gobler	Wonderful		[illegible]
Mark Weidenbach	Marvin Weidenbach Farms		[illegible]
Affentranger Ranch	Marie Millan		[illegible]
Ray Bennet		Bennett@IRWD.com	[illegible]
Bryan Bone			[illegible]
Keith Gardner ~~Pres Brittian~~	Pres Brittian	pres@prh2o.com	[illegible]

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

June 25, 2019

1) KGA Update
2) Kern Subbasin Coordination
3) Stakeholder Feedback on 2017-2018 ET Data
4) Minimum Threshold Financial Model Results
5) Definition of Native Yield and Developed Lands
6) RRBWSD Policy Issues
7) Implementation Timeline

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
July 23, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
Mark Weidenbach Farms	Mark Weidenbach	rawillowblack@gmail.com	
GRIMMWAY	GEORGE CAPPOLLO		
Hopkins Ag	Josh Macnt	hopkinsagjm@gmail	
DOVE TRUST	Dwayne Dove		
Wonderful Orchard	Garrett Busch		
~~Keith Gardiner~~ ~~Pros Brittian~~	Pros Brittian	pbrittian2@gmail.com	
IRWD ~~Ray Bennett~~	Ray Bennett	Bennett@irwd.com	

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

July 23, 2019 at 9:00 am

1) 6/7/19 RRBMA Revised Draft GSP Chapter Comments
2) 7/23/19 RRBMA Administrative Draft GSP Chapter
3) Evapotranspiration Calculation Methodologies
4) Water Balance
5) Implementation Timeline

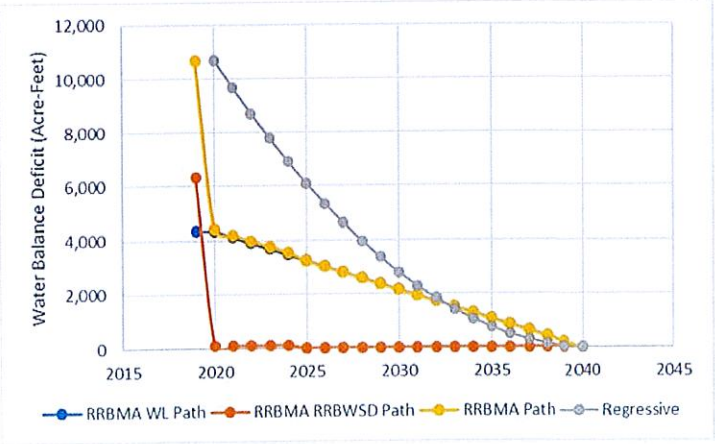
Executive Summary

The Rosedale-Rio Bravo Management Area (RRBMA) generally covers about 48,610 acres west of Bakersfield within the Kern County Sub-basin which has been categorized as severely over drafted and a high priority towards sustainability. This Groundwater Sustainability Plan (GSP), has a 20-year implementation schedule and a 50-year planning horizon, includes a physical description of the basin, including groundwater levels, groundwater quality, subsidence, information on groundwater-surface water interaction, data on historical and projected water demands and supplies, monitoring and management provisions.

The RRBMA relies heavily on groundwater and has approximately 350 extraction wells of which approximately half are agricultural and the other half banking, municipal, domestic. In order to support the groundwater extraction, the Rosedale-Rio Bravo Water Storage District was formed in 1959 over most of the RRBMA area in order to import surface water supplies to reduce the rapid water level declines that were being experienced at the time. From the late 1970's to the late 2000's water levels stabilized, however, as a result of extreme drought conditions and regulatory restrictions on imported water supplies the decline has resumed at a rate of 3-6 ft/yr. As of 2018 the average depth to groundwater in the RRBMA was about 250 ft.

In order to protect the groundwater users in and proximate to the RRBMA, Minimum Thresholds are being set at the levels that were experienced during the last drought, which where historically low levels in the area. During that time many wells in the RRBMA were improved to accommodate the conditions but further lowering of water levels could cause further financial harm to the community in regard to well improvements, replacement, and water quality. The RRBMA has analyzed the costs associated with yet deeper Minimum Thresholds. Increasing the Minimum Thresholds by even 50 ft beyond the deepest historic level's costs approximately $640M. A large portion of these costs are based on arsenic treatment costs for municipal, domestic, and groundwater banking wells.

The RRBMA has a projected a potential long-term water supply deficiency of about 10,680 AFY. The RRBMA seeks to eliminate that shortage over the next 20 years in a regressive fashion (aggressive in first 10 years) by a combination of projects and water management actions. Projects include water supply transfers, construction of direct recharge projects, and demand reduction. Costs of projects are estimated at $10M per year.



TO: File

FROM: Dan W. Bartel (CE 56433)

DATE: July 17, 2019

RE: RRBMA ET Calculation Comparison

RRBWSD staff was asked to compare evapotranspiration (ET) results of the METRIC system by ITRC and the OpenET hybrid of SIMS and SSEBop.

METRIC by ITRC
METRIC is a modified Mapping of Evapotranspiration with Internal Calibration procedure to compute actual evapotranspiration using Landsat Thematic Mapper (Landsat) data. The Irrigation Training Research Center at Cal Poly SLO has made modifications to the original METRIC procedures including using a grass reference instead of alfalfa, a semi-automated calibration procedure, spatially interpolated ETo, modifications to the aerodynamic resistance and albedo computations for specific crops.

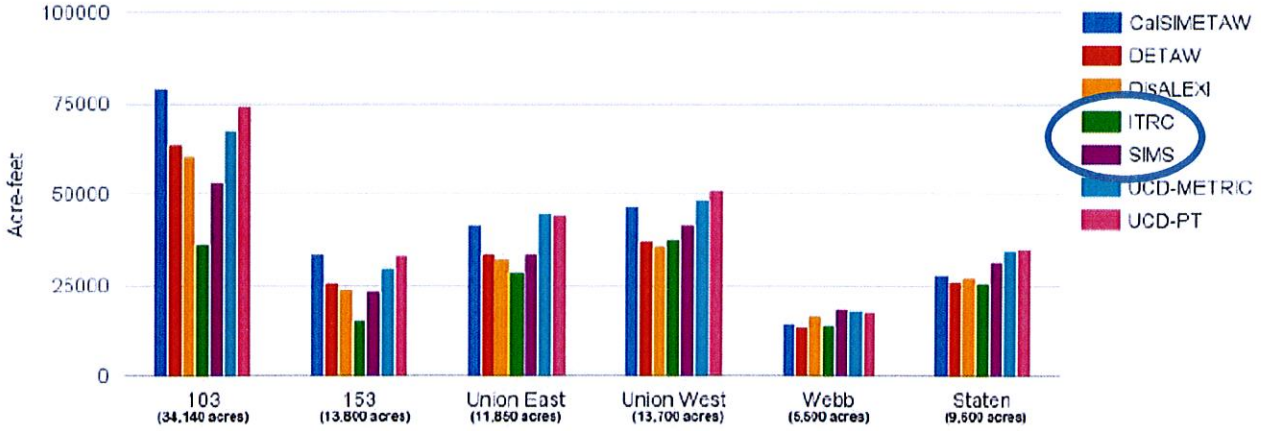
OpenET
OpenET has produced a hybrid analysis of two methodologies by averaging the results of SIMS and SSEBop. The Satellite Irrigation Management Support (**SIMS**) is a USDA/NASA product that uses measurements in the red and near-infrared wavelengths from multiple satellites to track crop canopy development and estimate crop fractional cover and basal crop coefficients in near real-time. SIMS integrates the satellite derived crop coefficients with ETo data from CIMIS to estimate basal crop evapotranspiration. **SSEBop** is as USGS and USDA product that is based on the Simplified Surface Energy Balance approach with unique parameterization for operational applications. It combines ET fractions generated from remotely sensed MODIS thermal imagery, acquired every 8 days, with reference ET using a thermal index approach. The original formulation of SSEB is based on the hot and cold pixel principles of SEBAL and METRIC models. SSEBop was developed to produce ET maps at large scale on a regular basis with less computational requirements.

Comparison of Methodologies
The SIMS and ITRC METRIC methodologies were studied by the Sacramento Delta Watermaster September 2016 along with five other ET estimation processes. In that study it was stated that previously peer reviewed literature has reported accuracies of +/-10% for both methodologies but that both techniques are being constantly improved through experience and greater resolution and that accuracy will improve with time. The variance of METRIC ITRC and SIMS was 8%, METRIC ITRC being lower by 8%. SSEBop was evaluated using lysimetric observations in the Texas High Plains. It had difficulty in estimating a given day's ET (28% error), however a seasonal ET estimate was made with a less than 10% error.

We compared OpenET and METRIC ITRC on dozens of fields (1,879 acres) within the District of various crop type. Note because each system used different polygons there is some slight inherent discrepancy. The variance was 8-16% (0.3-0.6 AF/acre) for the 2017-2018 period, METRIC ITRC being higher than the two. OpenET provides data on field polygons and METRIC is providing them on APN or field basis.

Method	Delta Service Area (1000 acre-feet)
CalSIMETAW	1,753
DETAW	1,429
DisALEXI	1,396
ITRC-METRIC	1,238
SIMS	1,349
UCD-METRIC	1,801
UCD-PT	1,832
Average	**1,543**
Median	**1,429**

8% Delta



		2017				2018			
Crop	Acreage	Metric ET (AF)	AF/Acre	Open Et (Ac-ft)	AF/Acre	Metric ET (AF)	AF/Acre	Open Et (AF)	AF/Acre
Almonds	315	1,389	4.41	1,203	3.82	1,297	4.12	1,272	4.04
Almonds	76	386	5.08	326	4.28	368	4.84	339	4.47
Pistachios	315	1,191	3.78	948	3.01	1,081	3.43	924	2.93
Cotton	153	436	2.85	333	2.18	518	3.38	391	2.56
Grain	146	488	3.35	410	2.81	408	2.79	466	3.19
Corn/Wheat	20	62	3.09	57	2.83	62	3.10	59	2.96
Alfalfa/Grain	228	644	2.82	522	2.29	551	2.42	542	2.38
Alfalfa	326	1,094	3.36	1,054	3.23	1,072	3.29	1,078	3.31
Alfalfa	156	588	3.77	542	3.47	570	3.65	488	3.13
Recharge Pond	144	606	4.21	407	2.82	222	1.54	68	0.47
	1879	6,883	3.67	5,800	3.07	6,148	3.26	5,628	2.94
				16%				**8%**	

RRBMA Water Balance (7/23/19 DRAFT)

2.2.2.5 Sustainable Yield (Water Balance)

Sustainable Yield is the sum of Native Yield, Precipitation and Project Water, all as described above. Table 1 shows historic average annual water supply surplus or deficiency by comparing water demand under existing conditions (2006-2015) with the average annual total water supplies, Sustainable Yield (sum of Native Yield and Project Water) for the last 20 years (1998-2017). As shown, this amount is indicated to be on the order of 6,345 AFY of deficiency over the period. Table 2 depicts a forecasted balance considering regulatory and climate change stressors without the implementation of new projects and management actions (see section 7.3 and 7.4), to account for assumed changing conditions. This results in a potential deficiency of 7,500 AFY.

Native Yield	6,268 AFY
Precipitation	19,854 AFY
Project Water	70,315 AFY
Sustainable Yield	**96,437 AFY**
Demand	**102,782 AFY**
Deficiency	**6,345 AFY**

Table 1. Summary of Historical RRBWSD Water Supply, Water Use, and Implied Water Supply Balance

Native Yield	6,268 AFY
Precipitation	19,854 AFY
Project Water	60,735 AFY
Sustainable Yield	**86,857 AFY**
Demand	**94,357 AFY**
Deficiency	**7,500 AFY**

Table 2. Summary of Projected (2015-2070) RRBWSD Water Supply, Water Use, and Implied Water Supply Balance without Projects and Management Actions

2.2.3 RRBWL - White Land Sub-Management Area Water Budget

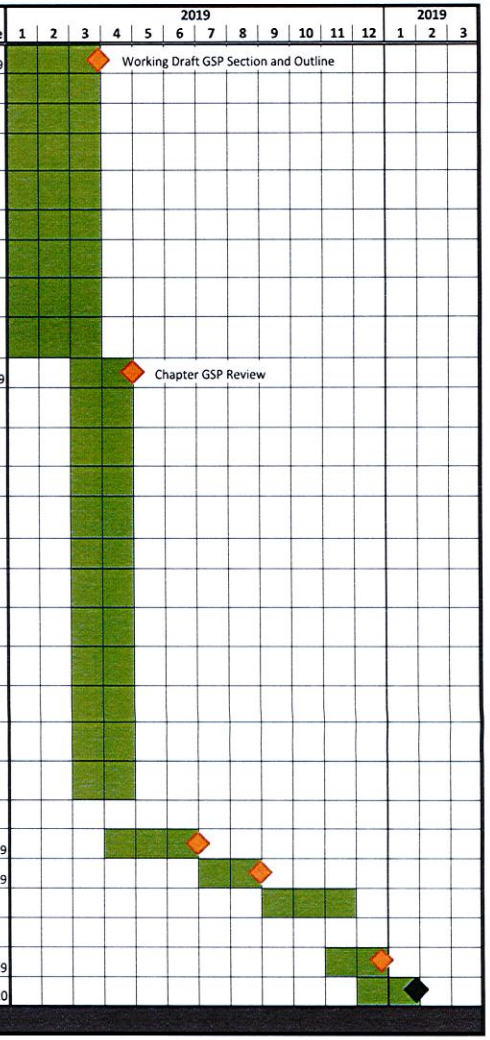
RRBWL lands are not included in the above RRBWSD balance. RRBWSD has no records of surface water deliveries for any of the RRBWL other than for Stockdale Integrated Banking project operations (RRBWSD and IRWD owned) and is reflected below as Project Water to offset recharge losses (ET) of the banking operations. Demands for developed lands during the 2017-2018 period averaged 10,307 AFY as shown in Appendix E. Assuming the allocation of 0.15 AF/acre of native yield (6,817 acres x 0.15 AF/acre = 1,022 AFY) and an average of 0.48 AF/acre of precipitation (5,800 developed acres x 0.48 AF/acre = 2,784 AFY) the current deficit is 4,335 AFY as shown on Table 3.

Native Yield	1,022 AFY
Precipitation	2,784 AFY
Project Water	2,165 AFY
Sustainable Yield	**5,971 AFY**
Demand	**10,307 AFY**
Deficiency	**4,335 AFY**

Table 3. Summary of RRBWL Water Supply, Water Use, and Implied Water Supply Deficiency

Task Order 18 - Development of KGA Groundwater Sustainability Plan

Task Description		GSA Basin Coordination Due Dates	KGA Member Deliverable Description	Date	GEI Deliverable Description	Date
Task 1	Update GSP Outlines and Unique Umbrella Sections		N/A	N/A	GSP Outline Update	March 22, 2019
	Close date of Basin Setting comments		March 15, 2019			
	Definition of Managed Monitoring Areas	March 5, 2019				
	Finalize Monitoring Protocols - Data & Reporting Standards	March 1, 2019				
	Monitoring Locations	Received Preliminary Location				
	Consensus on Sustainable Yield language	March 8, 2019				
	Draft Minimum Thresholds & Measureable Objectives	March 8, 2019/Received all Preliminaries				
	Revised Water Budgets	March 12, 2019/Received March 21, 2019				
	Initial Water Baseline	Received Preliminary Baseline				
Task 2	Collect and Review Chapter GSPs		Prelim Chapters GSP	Received 3/22/2019	Comments to Chapter GSPs	April 26, 2019
	Preliminary Monitoring Network	Received Preliminary Location March 22, 2019				
	Projected Future Sustainability Assessment - TODD	Received prelininaries on March 22, 2019				
	Final Draft of Basin Setting - Planning Document	May 30, 2019				
	Preferred Alternative Scenario & Assessment - Districts to provide to TODD	May 31, 2019				
	Agreement on Monitoring Network	May 31, 2019				
	Agreement on Minimum Thresholds & Measureable Objectives	May 31, 2019				
	Agreement on Surface Water Supply	June 12, 2019				
	Agreement on Total Water Use	June 12, 2019				
	Agreement in Groundwater Storage	June 12, 2019				
	Agreement on Water Budget	June 12, 2019				
	Preferred Alternative Scenario & Assessment - Tood to provide results from disticts data	June 14, 2019				
Task 3	Preparation of First Draft of KGA GSP					
	First Adminstrative Draft		Revised Chapter GSPs	June 7, 2019	Admin Draft U-GSP	July 12, 2019
	Public Review Draft		Comments to Admin U-GSP	August 2, 2019	Public Review U-GSP	August 30, 2019
Task 4	Public Review Process		*Public Review Process: August 30th to October 31st*			
Task 5	Preparation of Final KGA GSP					
	Review Copy - Final KGA GSP		Public Review Comments	November 8, 2019	Review Final U-GSP	December 20, 2019
	Final KGA GSP		Final Comments to U-GSP	January 10, 2020	Final U-GSP	January 24, 2020



ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

August 27, 2019 at 9:00 am

1) 7/23/19 RRBMA Administrative Draft GSP Chapter
2) Review of Kern Groundwater Authority GSP Chapters
3) Kern Groundwater Authority GSP Review Process

1. SUSTAINABILITY GOAL

The shortfall identified below is based upon projected water supplies over the implementation period(s). Rosedale has developed projects which generate over 27,000 AF of new water which will provide a balanced water supply for the Rosedale District by 2020. The Whiteland area will be balanced by 2040.

Sustainable Yield

District		
Native Yield	= 0.15 AF/Acre	= 6,268 AF
Precipitation	= 0.48 AF/Acre	= 19,854 AF
Project Water		= 70,315 AF
Demand (ITRC)		= 102,782 AF
Balance		**= - 6,345 AF**

White Land		
Native Yield	= 0.15 AF/Acre	= 1,022 AF
Precipitation	= 0.48 AF/Acre	= 2,784 AF
Project Water		= 2,165 AF
Demand (ITRC)		= 10,307 AF
Balance		**= - 4,335 AF**

2. PROJECTS, MANAGEMENT ACTIONS & GLIDE PATH

2020 Projects.

It is estimated that approximately **5,000 AFY** of additional supply could be developed by 2020 by the **West Basin Improvements** (60 acres) and **Stockdale East** (200 acres) recharge expansion projects. Total capital costs are approximately $13.2M and annual O&M costs are approximately $386,000. Total annualized cost is $1,341,000 or $268/AF (plus water cost).

2025 Projects.

It is estimated that approximately **11,500 AFY** could be on-line by 2025 through the implementation of **Recharge Pilot Projects**, **James Groundwater Storage Project**, and the **Onyx Project**. Total capital costs are approximately $38.8M and annual O&M costs are approximately $753,000. Total annualized cost is $3,223,000 or $280/AF (plus water cost for direct recharge projects).

2030 Projects.

It is estimated that another potential **10,000 AFY** is in development and could be on-line by 2030 through the implementation of the **Kern Fan Project**. Total capital costs are approximately $45M and annual O&M costs are approximately $1,350,000. Total annualized cost is $4,700,000 or $468/AF (plus water cost).

2035 Projects.

It is estimated that another potential **1,000 AFY** is in project development and could be on-line by 2035 (**Western Rosedale In-Lieu Service Area**). Total capital cost was approximately $5,100,000 and annual O&M costs are approximately $152,000. Total annualized cost is $526,000 or $467/AF (plus water cost)

2020 Management Actions.

It is estimated that the **RRBWL demand reductions** will result in approximately 217 AFY of demand reduction starting in 2020. This approach would result in an imbalance reduction of

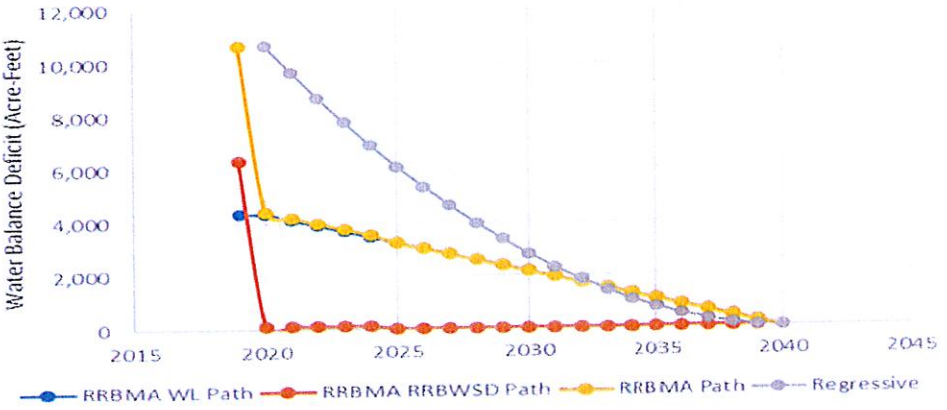
2,167 AFY by 2030. **3rd party recharge and storage program** will result in approximately **1,250 AFY** of new supplies for the RRBMA starting in 2020.

2025 Management Actions.

It is estimated that the District demand reduction **Water Charge** could result in approximately **4,000 AFY** starting by 2025.

Glide Path

"The RRBMA has a projected a potential long-term water supply deficiency of about 10,680 AFY. The RRBMA seeks to eliminate that shortage over the next 20 years in a regressive fashion (aggressive in first 10 years) by a combination of projects and water management actions.



Minimum Thresholds & Measureable Objectives

Levels

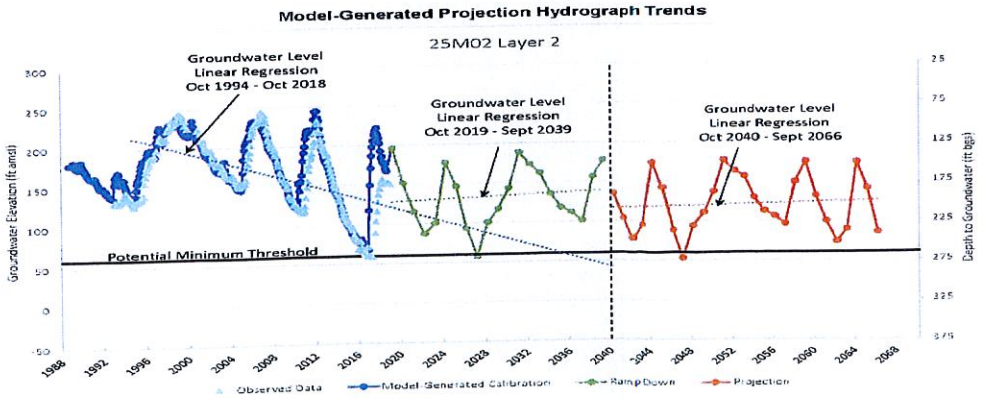
Measurable Objective Depth = 148-248 ft. Minimum Threshold Depth = 256-329 ft.

Basis is the deepest levels experienced in 2012-2016 Drought.

"To the extent that further water level declines are experienced, additional reinvestment in groundwater facilities would be required and additional energy costs would be incurred, which would be deemed an undesirable result. Financial impact of a threshold scenarios of 0, 25, 50, 75, and 100 ft deeper than 2016 levels ($0M, $372M, $640M, $661M, $675M)

Quality

"The measurable objective will be any applicable beneficial use COC value that is less than the MCL and a value increase less than 10% of the 2015-2020 value. An Undesirable Result will exist if any applicable beneficial use COC value that is greater than the current MCL and value increase of greater than 10% from the 2015-2020 value."



Talking Points on Draft GSP's

1. NATIVE YIELD TRANSFER

Based upon our review of the various GSP's it appears that some are claiming that the Native Yield associated with undeveloped acreage within their planning area may be used to offset demand on developed acreage. Given that groundwater may only be pumped for overlying use, absent additional environmental analysis and agreement of affected landowners, this may be an inappropriate assumption.

2. MINIMUM THESHOLDS

Some GSP's project a current surplus or balanced condition but have identified minimum thresholds significantly below current water levels. This seems inconsistent with a balanced water supply projection and/or protecting the land-owners interests.

The minimum thresholds in certain areas does not appear to have taken into account either water quality issues or possible reductions in well yield due to drawdown in wells. We are concerned that DWR will evaluate some of the assumptions made in setting these levels and find them flawed and missing critical supporting considerations.

Almost all plans failed to evaluate water level impacts on quality and/or yield in wells.

3. DOUBLE COUNTING

The KGA has spent significant time coordinating the water budgets for the GSP's. However, there are a few cases of double counting of supplies that should be fixed before the final plans are presented to DWR. Examples of double counting we found in the GSPs are:

a. Wastewater Effluent may be double counted
b. Subsurface flows (not Native Yield)
c. Produce water pumped from the managed aquifer

4. IMPLEMENTATION SCHEDULE

Several GSP's do not clearly define their glide path or schedule for addressing overdraft. While projects and management actions are defined in these GSP's many are listed as "voluntary" and without a timeline for implementation. The five year updates to DWR should include interim milestones for their evaluation of our performance and progress. These should be defined both for adjoining entity evaluation as well as DWR's review.

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
August 27, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
MIKE Hopkins			
Brad DeBranch	Bolthouse Fmg.		
GEORGE CAPPELLO	GRIMMWAY		
TIM GURLEA	WONDERFUL		
Garrett Bysel	Wonderful		

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

September 24, 2019 at 9:00 am

1) Kern GSA Coordination – Water Budgets

2) White Land Water Supplies and Demand Imbalance Reduction Management Action Estimator

3) GSP Adoption Schedule

GUIDANCE DOCUMENT
CONFORMED WATER BUDGET:

The Kern Groundwater Authority (KGA) is developing a coordinated water budget for inclusion into the Kern Groundwater Sustainability Plan (GSP) Coordination Agreement. The members of the KGA shall utilize the information contained herein to ensure consistency within their respective chapters in the KGA coordinated GSP. This budget only accounts for Surface Supplies and there is no consideration, other than an estimate of Native Yield, which shall be developed in coordination with the other GSA/GSP groups within the basin, for any subsurface flows or "credits".

Comments:

1. The amount of SWP water available to members of the KGA has been determined by DWR. Each member of the KGA agrees to utilize this information. The amount of SWP Article 21 shall be based upon actual historic (1994-2015) deliveries.
2. The amount of CVP water available to members of the KGA has been determined by the CVP Participants. This analysis must be used for the GSP to be coordinated amongst the various users of the CVP system. Each member of the KGA agrees to utilize this information. For "High Flow" CVP supplies such as Section 215 Water, KGA members shall use historic (1994-2015) actual deliveries.
3. The amount of Kern River water available to members of the KGA is based upon historic (for the period of 1994-2015) deliveries of Kern River water.
4. The amount of surface water available to each entity should not exceed the historical average (1994-2015) for each respective surface water source available and delivered to that member of the KGA. To the extent the amount exceeds the historical average the participant shall footnote the cell with an explanation as to the basis for said adjustment(s).
5. "Other Water" shall include any surface water source acquired from a local SWP, CVP or Kern River source that is not accounted for as part of that Management Area's previously identified supplies. To the extent any entity identifies a surface water component in the "Other" category, they must footnote the cell and identify the contract or agreement that provides them access to this source. These values must be coordinated between the entity deducting the water from their surface water source and the entity claiming or crediting the water under the "other" category.
6. Any entity that has water management programs with other entities within the Kern Basin that has a "leave behind" should adjust (deduct) their respective SWP, CVP and Kern River surface supplies accordingly. Those who are the beneficiary of these program should identify the benefit under the "Other" category for that supply type.
7. Any entity that has water management programs (water sales etc.) with other entities that requires the export of water to an area **outside** the Kern Basin should add that amount to their "Total Demand".

A – Total Demand
Total Demand is based upon the 2005-2015 Cal Poly ET Study, as provided by the KGA, as adjusted to reflect the removal of undeveloped land(s). The total ET demand for each management area shall be based upon the "developed acreage" which include all lands developed to Municipal, industrial, commercial, residential and agricultural uses.

Any SWP, CVP or Kern River Water that is permanently transferred/delivered to another entity or groundwater basin (Outside of the area modeled on behalf of the Kern Groundwater Authority) that is not returned "leave behind" should be reflected in an adjustment (increase) to your Total Demand number. Please footnote this component.

Total Demand Example 1
Semitropic has 10,000 acres of undeveloped acreage. Semitropic removes this 10,000 acres from the ET consumptive use data and also removes the precipitation value for this area. Accordingly, the area reflects zero demand and zero supply from precipitation. The area would continue to receive a native yield credit.

Total Demand Example 2
Rosedale has a long-term program that delivers 9,500 acre-feet to Coachella Valley Water District annually. Rosedale shall add the 9,500 acre-feet to its Total Water Demand column to reflect this export of water from the groundwater basin.

SWP AVERAGE ANNUAL SUPPLY

B - SWP Table "A"
SWP Table A is the amount of Table "A" contracted for through the Kern County Water Agency (KCWA), as adjusted by GEI. This amount should be approximately 61% of your contracted amount(s).

C – Article 21
Article 21 is the amount of water you are able to capture/divert for beneficial use during Article 21 periods. To determine the average annual volume of Article 21, use the actual historic deliveries for the period of 1994-2015.

D – "OTHER" SWP Supply*
Any SWP supplies acquired through water management programs and/or agreements with member units of the Kern County Water Agency. To determine the average annual volume of "Other" SWP water use the actual deliveries for the period of 1994-2015.

Example 1:
Rosedale has a 2:1 program which delivers a portion of its SWP Table A water to Semitropic for banking (RRB Banks 2 in Semitropic and gets 1 back in return). Semitropic will account for the water supply benefit in its SWP "Other" column and Rosedale will adjust down its SWP Table "A" column. To eliminate any double counting these programs should be coordinated and the numbers agreed to between the impacted parties.

Example 2:
Rosedale delivers a portion of its Article 21 water to Kern Delta as payback for a prior year water management program. Since the "benefit" of the Article 21 is still Rosedale's and it is used to facilitate water management, Rosedale and Kern Delta will not make any adjustment(s) to their respective Article 21 numbers.

Example 3:
Rosedale delivers 1,000 acre-feet of its SWP water to Kern-Tulare as part of a long-term water management program. In exchange, Kern-Tulare credits Rosedale with a like amount of previously banked CVP water in Rosedale. In this example, neither Kern Tulare nor Rosedale would adjust their respective SWP or CVP supplies. Their contractual amounts remain the same with the exchange of supplies merely facilitating the water management transaction.

CVP AVERAGE ANNUAL SUPPLY

(E) – Class I CVP Contract
CVP Class I contract amounts have been determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect those values that have been developed through this coordinated effort.

(F) – Class II CVP Contract
CVP Class II contract amounts have been determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect those values that have been developed through this coordinated effort.

(G) – FK 215 Supplies
FK 215 supplies amounts of high-flow water determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect actual deliveries for the period of 1994-2015.

(H) – "OTHER" CVP Supply
Any CVP water acquired from a local CVC contractor through a water management program.

Example 1 (CVP Class I and II)
Arvin-Edison delivers a portion of its Class I and/or Class II Contract supplies to Rosedale under a long-term 2:1 program (Arvin delivers 2 acre-feet to Rosedale and can call upon 1 in return). Arvin would adjust down their Class 1 contract amount to reflect the 1 acre-foot leave behind and Rosedale would include the 1 acre-foot in its "Other" CVP supply column.

Example 2
North Kern Water Storage District acquires a short-term contract with the Bureau for 215 water supplies. North Kern would include this estimated supply component in column "G" based upon historic (1994-2015) deliveries.

Example 3
Kern-Tulare delivers a portion of its CVP contract supplies to Rosedale under a long-term 2:1 program. Kern Tulare adjusts its CVP contract down to reflect the "leave behind" and Rosedale includes the water supply benefit from this water management program in its "Other" CVP supply column.

KERN RIVER AVERAGE ANNUAL SUPPLY

(I) – Kern River Rights
The Kern River interests have coordinated their yield, based upon the current water right structure, to Kern River water. All rights associated with the Kern River (1st point, 2nd point, lower river, etc, collectively "Right Holders") should be identified here.

(J) – Kern River Flood
During certain hydrologic periods the US Army Corps of Engineers declares a mandatory release of Kern River water from Isabella Reservoir ("Kern River Flood"). During these periods Kern River water is available to any and all takers as it exceeds the ability of the Kern River interests to manage within their respective rights. Historically, there has been Kern River flood water with many local interests able to secure and put to beneficial use these flood flows.

(K) – "OTHER" Kern River
Any Kern River water that may be acquired through a water management/sale program.

Example 1 (Kern River 1st Point/2nd Point/Lower River etc.)
Pursuant to a long-term agreement the City of Bakersfield sells 10,000 acre-feet of water to Rosedale on an annual basis. This amount will be adjusted (deducted) from their Kern River Rights (Column I). Rosedale will account for the 10,000 acre-feet of Kern River under the Column (K) "Other" Kern River.

Example 2
KGA Members shall use actual deliveries of Kern River Flood water for the historic period 1994-2015) to quantify the amount of Kern River Flood water available. It is recognized that these values are based upon historic deliveries and do not represent the availability of water in the future.

Example 3
The Kern County Water Agency has allocated a portion of its Lower River right to the Member Units. The Member Units would identify their proportionate share of this allocation under "Other" Kern River water.

NATIVE YIELD ESTIMATE

Native yield estimate will be based on the calculation of all subsurface flows, inflow from neighboring basins, seepage from natural water sources, precipitation that percolates into the aquifer, and other natural recharge, divided by all acres in the basin. From this calculation, the native yield estimate may be adjusted based on the groundwater model's projections of basin-wide groundwater deficit.

PRECIPITATION

Each management area shall account for precipitation based upon their selected data source or station. Each member shall identify which CIMIS or weather station they use for their reference ET. The Precipitation shall be calculated as the average precipitation, as recorded by the reference station over the period of 2005-2015. Precipitation shall be reported in tenths of feet. Precipitation shall be accounted on and behalf of developed acres only. For purposes of this document, precipitation on undeveloped acres is equal to evapotranspiration/demand.

ALTERNATIVE WATER SUPPLY

Any water supply acquired from a source other than those identified in (B) through (K) above would be listed in "Alternative Water Supply" Each source of supply contributing to the amount identified within the Alternative Water Supply shall make reference to the source and agreement in place which confirms the amount(s) available. In no case may the amount identified in the Alternative Water Supply category be greater than the actual average annual historic (1994-2015) deliveries made to the KGA Member.

Example 1:
Rosedale has a long-term 2:1 banking arrangement with Santa Clarita Water District whereby Santa Clarita delivers 2 acre-feet to Rosedale and receives 1 in return. Rosedale would identify the benefit of their 1 acre-foot from the Santa Clarita program in the "Alternative" water supply category.

Example 2:
Kern-Tulare acquires water from other CVP contractors (outside of Kern County) to meet their consumptive use. Kern-Tulare would identify this source under "Alternative" water supplies.

Example 3
Cawelo water district acquires oilfield produce water which is pumped from an aquifer separate from and hydraulically disconnected from the "Managed Aquifer" described in the Basin Setting. This water would be identified under "Alternative" water supplies.

Example 4
Rosedale does a 2:1 water management program with Delano-Earlimart ID. Rosedale determines that the average annual benefit from this program is 1,500 acre-feet. Because the

source of this water is a CVP contract originating from outside of Kern County, Rosedale would account for this supply benefit under “Alternative” water supplies.

RRBMA White Land Water Usage Estimator 2020

Please fill in yellow boxes only

Allowable Demand =	2.60 AF/Acre		
Rainfall =	0.48 AF/Acre	*1997-2016 average rainfall*	
Native Yield =	0.15 AF/Acre	*Subject to change in 2020 by KGA per SGMA.*	
Allowable Deficit =	***1.97 AF/Acre***		
Cropped Acres =	450 acres	1170	AF
2019 Non-Cropped Overlying Acres =	50 acres	31.5	AF
Total Acres =	**500 acres**	**1201.5**	AF
Purchased Water =		**75**	AF
		1276.5	AF

Water Demand

									Range Low to High				Range Low to High		
Field Name:	Non Cropped	Crop Type:		Net Acres =	50	ET Range	0.48	0.48	FT/Acre	or	24	24	Acre-Feet		
Field Name:		Crop Type:	Grapes	Net Acres =	50	ET Range	2.34	2.99	FT/Acre	or	117	150	Acre-Feet		
Field Name:		Crop Type:	Potato	Net Acres =	50	ET Range	2.21	2.95	FT/Acre	or	110	148	Acre-Feet		
Field Name:		Crop Type:	Mature Pistachios	Net Acres =	50	ET Range	2.92	3.23	FT/Acre	or	146	161	Acre-Feet		
Field Name:		Crop Type:	Mature Almonds	Net Acres =	50	ET Range	3.25	3.40	FT/Acre	or	163	170	Acre-Feet		
Field Name:		Crop Type:	Grapes	Net Acres =	50	ET Range	2.34	2.99	FT/Acre	or	117	150	Acre-Feet		
Field Name:		Crop Type:	Wheat/Corn Double	Net Acres =	50	ET Range	3.18	3.27	FT/Acre	or	159	164	Acre-Feet		
Field Name:		Crop Type:	Carrots	Net Acres =	50	ET Range	1.65	2.20	FT/Acre	or	83	110	Acre-Feet		
Field Name:		Crop Type:	Potato/Carrots Double	Net Acres =	50	ET Range	3.38	3.73	FT/Acre	or	169	187	Acre-Feet		
Field Name:		Crop Type:	Wheat	Net Acres =	50	ET Range	2.23	2.55	FT/Acre	or	112	128	Acre-Feet		
				Total Acres =	**500**	**GOOD**									
						Total Water Demand =	**2.61**	**3.09**	**FT/Acre**		**1175**	**1390**	**Acre-Feet**		

Notes:

Fallow = any ground that is not planted (roads, set aside, non-developed, etc.)

Total acres must match in top and lower box. If not after total acres it will say "FALSE" and total demand "ERROR"

"Assessed Acres" is gross acreage and can be provided by District

"Net Acres" is your net field acres not including things like roads and yards. That acreage should be included in top row. Assessed Acres - Net Acres should reflect Roads, Yard, Etc.

Balance =	**101**	**(113)**	**Acre-Feet**

Crop Selections

Alfalfa	*Wheat/Corn Double*	*Young Almonds*	*Potato/Carrots Double*
Potato	*Fallow*	*Mature Almonds*	*Corn*
Young Pistachios	*Carrots*	*Cotton*	*Wheat*
Mature Pistachios	*Grapes*		

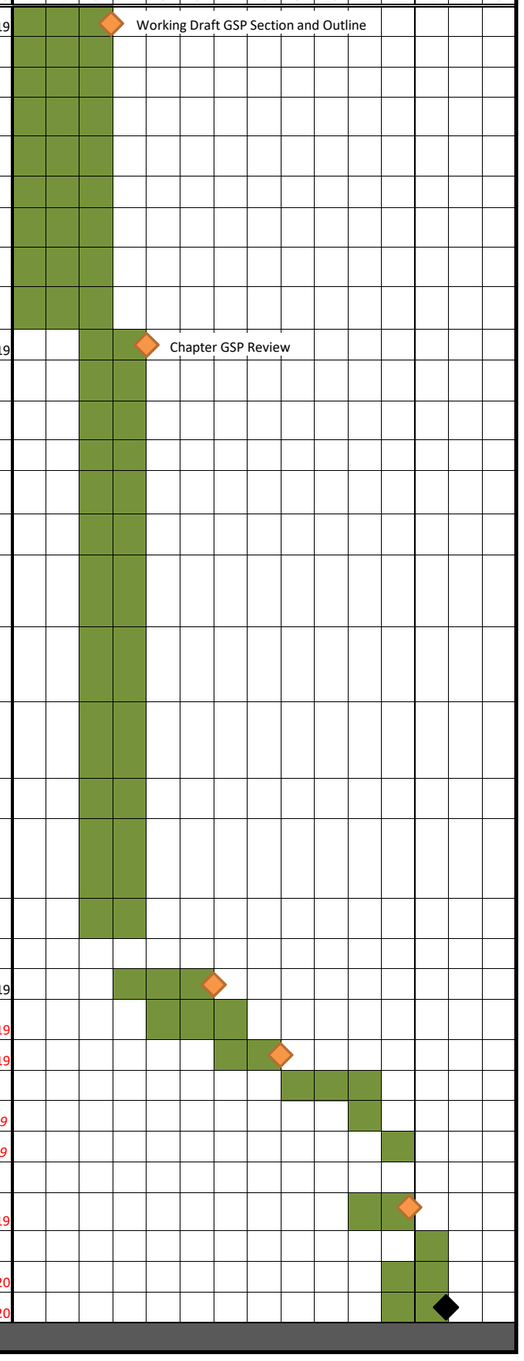
RRBMA White Land Water Usage Estimator

Balance

	Range Low to High			
2020	101	-	(113)	AF
2021	124	-	(58)	AF
2022	129	-	(53)	AF
2023	84	-	(98)	AF
2024	139	-	(43)	AF
2020-2024	**578**	**-**	**(363)**	**AF**

Task Order 18 - Development of KGA Groundwater Sustainability Plan

Task Description	GSA Basin Coordination Due Dates	KGA Member Deliverable Description	KGA Member Deliverable Date	GEI Deliverable Description	GEI Deliverable Date
Task 1 Update GSP Outlines and Unique Umbrella Sections		N/A	N/A	GSP Outline Update	March 22, 2019
Close date of Basin Setting comments		March 15, 2019			
Definition of Managed Monitoring Areas	March 5, 2019				
Finalize Monitoring Protocols - Data & Reporting Standards	March 1, 2019				
Monitoring Locations	Received Preliminary Location				
Consensus on Sustainable Yield language	March 8, 2019				
Draft Minimum Thresholds & Measureable Objectives	March 8, 2019/Received all Preliminaries				
Revised Water Budgets	March 12, 2019/Received March 21, 2019				
Initial Water Baseline	Received Preliminary Baseline				
Task 2 Collect and Review Chapter GSPs		Prelim Chapters GSP	Received 3/22/2019	Comments to Chapter GSPs	April 26, 2019
Preliminary Monitoring Network	Received Preliminary Location March 22, 2019				
Projected Future Sustainability Assessment - TODD	Received prelininaries on March 22, 2019				
Final Draft of Basin Setting - Planning Document	Released 6-12-2019				
Preferred Alternative Scenario & Assessment - Districts to provide to TODD	6/25/2019 Completed				
Agreement on Monitoring Network	5/31/2019 - Pending 7-12-2019				
Agreement on Minimum Thresholds & Measureable Objectives	5/31/2019 Provided initial data - Pending final resolution from districts/GSA 7-12-2019				
Agreement on Surface Water Supply	6/12/2019 - Initial Agreement on 6/21/2019; Unresolved issue of double counting still exists				
Agreement on Total Water Use	6/12/2019 - Pending Todd results & water budget 7-19-2019, received info from Todd; still unresolved demand				
Agreement in Groundwater Storage	6/12/2019 - Initial Agreement on 6/21/2019				
Agreement on Water Budget	6/12/2019 - Pending Todd results & water budget 7-19-2019; received info from Todd; still unresolved				
Preferred Alternative Scenario & Assessment - Todd to provide results from disticts data	June 28, 2019				
Task 3 Preparation of First Draft of KGA GSP					
First Adminstrative Draft to the KGA		Revised Chapter GSPs	June 7, 2019	Internal Review Draft	July 12, 2019
KGA Manager Review		Revised Chapter GSPs	July 23, 2019	Admin Draft Umbrella & Chapter	July 30, 2019
Public Review Draft - Internal		Comments to Admin U-GSP	August 9, 2019	Public Review U-GSP	August 28, 2019
Task 4 Public Review Process		*Public Review Process: August 30th to November 29, 2019*			
Receipt of Public Comments				Last Date of Comments	*November 29, 2019*
Dissemnate Comments to Districts					*December 4, 2019*
Task 5 Preparation of Final KGA GSP					
Review & Response to Comments to Umbrella GSP		Reponse to Comments to KGA	December 13, 2019	Final Response to Comments	December 20, 2019
Receipt of Final Chapters GSPs			January 10, 2020		
Final KGA GSP				Final U-GSP	January 17, 2020
Board Approval					January 22, 2020



Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
September 24, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
Affentranger Farms	Marie Millan	Rmillane bak.rr.com	
Martin Weidenbach Farms	Mark Weidenbach	ma willowbrook@gmail	
Wonderful	Garrett Buck		
Bolthouse Prop	Brad DeBranch		
Grimmway	George Cappello		
IRWD	Ray Bennett	Bennett@irwd.com	
Dave Family Trust	Bryan Bent		
Mohammad Goraya			
Robert Lee	Robert Lee	leerob@wellchartpr.com	

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

November 26, 2019 at 9:00 am

1) Kern GSA Coordination – Water Budgets

2) White Land Water Supplies and Demand Imbalance Reduction Management Action Estimator

3) GSP Adoption Schedule

GUIDANCE DOCUMENT
CONFORMED WATER BUDGET:

The Kern Groundwater Authority (KGA) is developing a coordinated water budget for inclusion into the Kern Groundwater Sustainability Plan (GSP) Coordination Agreement. The members of the KGA shall utilize the information contained herein to ensure consistency within their respective chapters in the KGA coordinated GSP. This budget only accounts for Surface Supplies and there is no consideration, other than an estimate of Native Yield, which shall be developed in coordination with the other GSA/GSP groups within the basin, for any subsurface flows or "credits".

Comments:

1. The amount of SWP water available to members of the KGA has been determined by DWR. Each member of the KGA agrees to utilize this information. The amount of SWP Article 21 shall be based upon actual historic (1994-2015) deliveries.
2. The amount of CVP water available to members of the KGA has been determined by the CVP Participants. This analysis must be used for the GSP to be coordinated amongst the various users of the CVP system. Each member of the KGA agrees to utilize this information. For "High Flow" CVP supplies such as Section 215 Water, KGA members shall use historic (1994-2015) actual deliveries.
3. The amount of Kern River water available to members of the KGA is based upon historic (for the period of 1994-2015) deliveries of Kern River water.
4. The amount of surface water available to each entity should not exceed the historical average (1994-2015) for each respective surface water source available and delivered to that member of the KGA. To the extent the amount exceeds the historical average the participant shall footnote the cell with an explanation as to the basis for said adjustment(s).
5. "Other Water" shall include any surface water source acquired from a local SWP, CVP or Kern River source that is not accounted for as part of that Management Area's previously identified supplies. To the extent any entity identifies a surface water component in the "Other" category, they must footnote the cell and identify the contract or agreement that provides them access to this source. These values must be coordinated between the entity deducting the water from their surface water source and the entity claiming or crediting the water under the "other" category.
6. Any entity that has water management programs with other entities within the Kern Basin that has a "leave behind" should adjust (deduct) their respective SWP, CVP and Kern River surface supplies accordingly. Those who are the beneficiary of these program should identify the benefit under the "Other" category for that supply type.
7. Any entity that has water management programs (water sales etc.) with other entities that requires the export of water to an area **outside** the Kern Basin should add that amount to their "Total Demand".

A – Total Demand

Total Demand is based upon the 2005-2015 Cal Poly ET Study, as provided by the KGA, as adjusted to reflect the removal of undeveloped land(s) plus a minimum 5% adjustment to reflect uncertainty in the data. To the extent entities have data that demonstrates a demand greater than the ITRC Data, as adjusted, that dataset may be used. The total ET demand for each management area shall be based upon the "developed acreage" which include all lands developed to Municipal, industrial, commercial, residential and agricultural uses.

Any SWP, CVP or Kern River Water that is ~~permanently~~ transferred/delivered to another entity or groundwater basin (Outside of the area modeled on behalf of the Kern Groundwater Authority) that is not returned "leave behind" should be reflected in an adjustment (increase) to your Total Demand number. Please footnote this component.

Total Demand Example 1

Semitropic has 10,000 acres of undeveloped acreage. Semitropic removes this 10,000 acres from the ET consumptive use data and also removes the precipitation value for this area. Accordingly, the area reflects zero demand and zero supply from precipitation. The area would continue to receive a native yield credit.

Total Demand Example 2

Rosedale has a long-term program that delivers 9,500 acre-feet to Coachella Valley Water District annually. Rosedale shall add the 9,500 acre-feet to its Total Water Demand column to reflect this export of water from the groundwater basin.

SWP AVERAGE ANNUAL SUPPLY

B - SWP Table "A"
SWP Table A is the amount of Table "A" contracted for through the Kern County Water Agency (KCWA), as adjusted by GEI. This amount should be approximately 61% of your contracted amount(s).

C – Article 21
Article 21 is the amount of water you are able to capture/divert for beneficial use during Article 21 periods. To determine the average annual volume of Article 21, use the actual historic deliveries for the period of 1994-2015.

D – "OTHER" SWP Supply*
Any SWP supplies acquired through water management programs and/or agreements with member units of the Kern County Water Agency. To determine the average annual volume of "Other" SWP water use the actual deliveries for the period of 1994-2015.

Example 1:
Rosedale has a 2:1 program which delivers a portion of its SWP Table A water to Semitropic for banking (RRB Banks 2 in Semitropic and gets 1 back in return). Semitropic will account for the water supply benefit in its SWP "Other" column and Rosedale will adjust down its SWP Table "A" column. To eliminate any double counting these programs should be coordinated and the numbers agreed to between the impacted parties.

Example 2:
Rosedale delivers a portion of its Article 21 water to Kern Delta as payback for a prior year water management program. Since the "benefit" of the Article 21 is still Rosedale's and it is used to facilitate water management, Rosedale and Kern Delta will not make any adjustment(s) to their respective Article 21 numbers.

Example 3:
Rosedale delivers 1,000 acre-feet of its SWP water to Kern-Tulare as part of a long-term water management program. In exchange, Kern-Tulare credits Rosedale with a like amount of previously banked CVP water in Rosedale. In this example, neither Kern Tulare nor Rosedale would adjust their respective SWP or CVP supplies. Their contractual amounts remain the same with the exchange of supplies merely facilitating the water management transaction.

CVP AVERAGE ANNUAL SUPPLY

(E) – Class I CVP Contract
CVP Class I contract amounts have been determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect those values that have been developed through this coordinated effort.

(F) – Class II CVP Contract
CVP Class II contract amounts have been determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect those values that have been developed through this coordinated effort.

(G) – FK 215 Supplies
FK 215 supplies amounts of high-flow water determined through a coordinated effort with other Friant CVP contractors. The amount shown in this column should reflect actual deliveries for the period of 1994-2015.

(H) – "OTHER" CVP Supply
Any CVP water acquired from a local CVC contractor through a water management program.

Example 1 (CVP Class I and II)
Arvin-Edison delivers a portion of its Class I and/or Class II Contract supplies to Rosedale under a long-term 2:1 program (Arvin delivers 2 acre-feet to Rosedale and can call upon 1 in return). Arvin would adjust down their Class 1 contract amount to reflect the 1 acre-foot leave behind and Rosedale would include the 1 acre-foot in its "Other" CVP supply column.

Example 2
North Kern Water Storage District acquires a short-term contract with the Bureau for 215 water supplies. North Kern would include this estimated supply component in column "G" based upon historic (1994-2015) deliveries.

Example 3
Kern-Tulare delivers a portion of its CVP contract supplies to Rosedale under a long-term 2:1 program. Kern Tulare adjusts its CVP contract down to reflect the "leave behind" and Rosedale includes the water supply benefit from this water management program in its "Other" CVP supply column.

KERN RIVER AVERAGE ANNUAL SUPPLY

(I) – Kern River Rights
The Kern River interests have coordinated their yield, based upon the current water right structure, to Kern River water. All rights associated with the Kern River (1st point, 2nd point, lower river, etc, collectively "Right Holders") should be identified here.

(J) – Kern River Flood
During certain hydrologic periods the US Army Corps of Engineers declares a mandatory release of Kern River water from Isabella Reservoir ("Kern River Flood"). During these periods Kern River water is available to any and all takers as it exceeds the ability of the Kern River interests to manage within their respective rights. Historically, there has been Kern River flood water with many local interests able to secure and put to beneficial use these flood flows.

(K) – "OTHER" Kern River
Any Kern River water that may be acquired through a water management/sale program.

Example 1 (Kern River 1st Point/2nd Point/Lower River etc.)
Pursuant to a long-term agreement the City of Bakersfield sells 10,000 acre-feet of water to Rosedale on an annual basis. This amount will be adjusted (deducted) from their Kern River Rights (Column I). Rosedale will account for the 10,000 acre-feet of Kern River under the Column (K) "Other" Kern River.

Example 2
KGA Members shall use actual deliveries of Kern River Flood water for the historic period 1994-2015) to quantify the amount of Kern River Flood water available. It is recognized that these values are based upon historic deliveries and do not represent the availability of water in the future.

Example 3
The Kern County Water Agency has allocated a portion of its Lower River right to the Member Units. The Member Units would identify their proportionate share of this allocation under "Other" Kern River water.

NATIVE YIELD ESTIMATE

Native yield estimate will be based on the calculation of all subsurface flows, inflow from neighboring basins, seepage from natural water sources, precipitation that percolates into the aquifer, and other natural recharge, divided by all acres in the basin. From this calculation, the native yield estimate may be adjusted based on the groundwater model's projections of basin-wide groundwater deficit.

PRECIPITATION

Each management area shall account for precipitation based upon their selected data source or station. Each member shall identify which CIMIS or weather station which is reflective of precipitation within the respective management area(s). The Precipitation shall be calculated as the average precipitation, as recorded by the reference station over the period of 2005-2015. Precipitation shall be reported in tenths of feet. Precipitation shall be accounted on and behalf of developed acres only. For purposes of this document, precipitation on undeveloped acres is equal to evapotranspiration/demand.

ALTERNATIVE WATER SUPPLY

Any water supply acquired from a source other than those identified in (B) through (K) above would be listed in "Alternative Water Supply" Each source of supply contributing to the amount identified within the Alternative Water Supply shall make reference to the source and agreement in place which confirms the amount(s) available. In no case may the amount identified in the Alternative Water Supply category be greater than the actual average annual historic (1994-2015) deliveries made to the KGA Member.

Example 1:
Rosedale has a long-term 2:1 banking arrangement with Santa Clarita Water District whereby Santa Clarita delivers 2 acre-feet to Rosedale and receives 1 in return. Rosedale would identify the benefit of their 1 acre-foot from the Santa Clarita program in the "Alternative" water supply category.

Example 2:
Kern-Tulare acquires water from other CVP contractors (outside of Kern County) to meet their consumptive use. Kern-Tulare would identify this source under "Alternative" water supplies.

Example 3
Cawelo water district acquires oilfield produce water which is pumped from an aquifer separate from and hydraulically disconnected from the "Managed Aquifer" described in the Basin Setting. This water would be identified under "Alternative" water supplies.

Example 4

Rosedale does a 2:1 water management program with Delano-Earlimart ID. Rosedale determines that the average annual benefit from this program is 1,500 acre-feet. Because the source of this water is a CVP contract originating from outside of Kern County, Rosedale would account for this supply benefit under "Alternative" water supplies.

CALENDAR YEAR 2019 Proposed GSP BUDGET

BASIS OF REVENUE AND COST ALLOCATION

	Acres	Percent
Rosedale-Rio Bravo WSD Acreage	39,468	84.41%
White Land Area	7,291	15.59%
Subtotal:	46,759	100.00%

REVENUES

REVENUES *Account No.*	*Description*	RRBMA Revenue *Budget*	RRB *Revenue*	WL Management *Area Revenue*	RRBMA Revenue *Actual -Oct2019*
Assessments					
	RRBWSD	**$ 635,247**	$ 635,247		**$ 702,191**
	White Land Management Area	**$ 129,850**		$ 129,850	**$ 141,945**
	Total Assessments	**$ 765,097**			**$ 844,136**
			$/Acre	**$/Acre**	
			$16	$18	
Total Revenue from Current Fiscal Year					**$ 844,136**

CALENDAR YEAR 2019 Proposed GSP BUDGET

EXPENDITURES

EXPENDITURES	*Description*	*RRBMA Expense Budget*	*RRB Budget*	*WL Management Area Budget*	*Total Expenditures -Oct2019*
KGA	Reconciliation of Rosedale costs incurred to date (2014-Sept2018)	**$ 123,428**	$ 104,182	$ 19,246	**$ 123,428**
	Rosedale costs forecasted (Oct2018-2019)	**$ 100,000**	$ 84,407	$ 15,593	**$ 40,795**
	5				
Salaries & Benefits	Staff salary and benefits attributable to GSP development to date (2014-Sept2018)	**$ 304,169**	$ 256,741	$ 47,428	**$ 304,169**
	Staff salary and benefits attributable to GSP development projected (Oct2018-2019	**$ 75,000**	$ 63,305	$ 11,695	**$ 118,888**
Administration	Administrative costs (building, printing, etc.)	**$ 20,000**	$ 16,881	$ 3,119	
	Management Area Meetings	**$ 5,000**		$ 5,000	
Professional Services					
	Legal Services	**$ 25,000**	$ 21,102	$ 3,898	**$ 30,883**
	Legal Services - Direct Charge	**$ 7,500**		$ 7,500	
	Environmental Consultants	**$ 10,000**	$ 8,441	$ 1,559	
	Hydrogeology Consultants	**$ 25,000**	$ 21,102	$ 3,898	**$ 55,489**
	Engineering Consultants	**$ 50,000**	$ 42,204	$ 7,796	**$ 36,425**
	Special Consultants	**$ 20,000**	$ 16,881	$ 3,119	**$ 36,386**
White Land Only Expenses				*$ 12,228*	**$ 12,228**
	TOTAL EXPENDITURES	**$ 765,097**	**$ 635,247**	**$ 142,078**	**$ 758,690**
				Revenues - Expenses -Oct2019 =	**$ 85,445**
				Projected Year End Carryover =	**$ 50,445**

CALENDAR YEAR 2020 Proposed GSP BUDGET

BASIS OF REVENUE AND COST ALLOCATION

	Acres	Percent
Rosedale-Rio Bravo WSD Acreage	39,468	85.16%
White Land Area	6,875	14.84%
Subtotal:	46,343	100.00%

REVENUES

REVENUES *Account No.*	*Description*	RRBMA Revenue *Budget*	RRB *Revenue*	WL Management *Area Revenue*	RRBMA Revenue *Actual*
Assessments					
	RRBWSD	**$ 306,594**	$ 306,594		
	White Land Management Area	**$ 63,406**		$ 63,406	
	Total Assessments	**$ 319,555**			
	Prior Year Carryover	**$ 50,445**	**$ 42,962**	**$ 7,484**	
	Total Revenue	**$ 370,000**	**$ 42,962**	**$ 7,484**	
			$/Acre	**$/Acre**	
			$8	$9	
Total Revenue from Current Fiscal Year					**$ -**

CALENDAR YEAR 2020 Proposed GSP BUDGET

EXPENDITURES

EXPENDITURES	*Description*	*RRBMA Expense Budget*	*RRB Budget*	*WL Management Area Budget*	*Total Expenditures*
KGA		**$ 100,000**	$ 85,165	$ 14,835	
Salaries & Benefits	Staff salary and benefits attributable to SGMA	**$ 110,000**	$ 93,681	$ 16,319	
Professional Services					
	Legal Services	**$ 30,000**	$ 25,549	$ 4,451	
	Legal Services - Direct Charge			$ -	
	Environmental Consultants	**$ 5,000**	$ 4,258	$ 742	
	Hydrogeology Consultants	**$ 25,000**	$ 21,291	$ 3,709	
	Engineering Consultants	**$ 50,000**	$ 42,582	$ 7,418	
	Special Consultants	**$ 40,000**	$ 34,066	$ 5,934	
White Land Only Expenses		***$ 10,000***		*$ 10,000*	
	TOTAL EXPENDITURES	**$ 370,000**	**$ 306,594**	**$ 63,406**	**$ -**
				Revenues - Expenses =	**$ -**

Redline of 7/23/19 Draft

Groundwater Sustainability Plan Chapter

(Final)

for the

ROSEDALE-RIO BRAVO Management Area

Kern Groundwater Authority Groundwater Sustainability Agency

Kern County Sub-basin 5-22.14, California

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Appendix A-6 Long-term Operations Plan

Appendix A-7 KGA JPA

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Appendix A-9 Kern Fan Operations Report

Appendix B - RRBMA Outreach Documentation

Appendix C - RRBWSD Numerical Groundwater Model

Appendix D - RRBWSD 2017 Operations Report

Appendix E - METRIC Demand Data

Appendix F - RRBWSD Water Supply Model Forecast

Appendix G - Arsenic Threshold Report

Appendix H - Financial Analysis of Thresholds

Appendix I - White Land Arrangements

Appendix J – Well Monitoring Agreements

Abbreviations and Acronyms

AF	Acre-Feet
AFY	Acre-Feet per Year
APN	Assessor Parcel Number
B	Billion
BVWSD	Buena Vista Water Storage District
cfs	cubic ft per second
CASGEM	California Statewide Groundwater Elevation Monitoring
CIMIS	California Irrigation Management Information System
COC	Constituents of Concern
CVC	Cross Valley Canal
CVP	Central Valley Project
CWC	California Water Code
DWR	Department of Water Resources
EIR	Environmental Impact Report
ET	Evapotranspiration
ft	feet
ft/yr	feet per year
Grat	Groundwater Recharge Assessment Tool
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
I-5	Interstate Highway 5
ID4	Improvement District No. 4
IRWD	Irvine Ranch Water District
IRWMP	Integrated Regional Water Management Plant
ITRC	Irrigation Training and Research Center
JPA	Joint Powers Authority
JURP	Joint Use Recovery Project
KCWA	Kern County Water Agency
KGA	Kern Groundwater Authority
KRCWA	Kern River Coalition Authority
KWB	Kern Water Bank
KWBA	Kern Water Bank Authority
M	Million
MCL	Maximum Contaminant Level
mg/ℓ	milligram per liter
µg/ℓ	Microgram per liter
MMRP	Mitigation, Monitoring, and Reporting Plan
MOU	Memorandum of Understanding
O&M	Operations and Maintenance
ppm	parts per million
RRBDL	Rosedale-Rio Bravo District Land Sub-Management Area

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
November 26, 2019

Property Owner / Company	Contact Name	Email Address	Sign In
Wonderful	Garrett Brady		
Grimmway	George Cappello		
Vaughan Water	Van Grayer		
Hopkins Ag Management	Joshua Hart	hopkinsagjm@gmail.com	

Wonderful orchards™
Wonderful citrus™

November 27, 2019

Eric Averett
Rosedale Rio Bravo Water Storage District
849 Allen Rd.
Bakersfield, CA 93314

VIA EMAIL: eaverett@rrbwsd.com

Re: Comments on Draft Kern Groundwater Authority Umbrella Groundwater Sustainability Plan and Rosedale Rio Bravo Management Area Plan

Dear Mr. Averett and Board of Directors,

Wonderful Orchards LLC and Wonderful Citrus LLC (collectively, "Wonderful") appreciate all the hard work that has gone into preparing the draft Groundwater Sustainability Plan ("Umbrella GSP") and Management Area Plans ("MAPs") by the Kern Groundwater Authority ("KGA") and its member agencies ("Members") including Rosedale Rio Bravo Water Storage District.

Wonderful, and our related entities, farm and process almonds, pistachios, various citrus varietals, pomegranates and nursery stock in Central California, including Kern County. As a major agricultural entity in the Central Valley, we understand just how important it is to formulate a GSP that meets the sustainability needs of the groundwater basin well into the future.

In order to best execute the GSP's goal to achieve sustainability by 2040, we encourage all GSAs and Members in the subbasin to initiate stakeholder-driven processes and to work together cooperatively to develop coordinated, subbasin-wide management actions and implementation strategies. To that end, we request that the following comments be considered prior to the Umbrella GSP and MAPs being finalized and implemented.

Quantification of Native Yield[1]

It is imperative that the final GSP properly address the quantification of native yield. The GSPs, management areas, and other planning units in the subbasin should utilize coordinated methods of determining supply sources for native yield, quantifying the native yield, and accounting for it in individual MAPs' water budgets. Unless there are specific hydrogeologic conditions that differentiate certain portions of the basin from the basin at-large (such as a fault line or barrier to groundwater flow), native yield should be considered a basin-wide resource.

For example, a district or pumper located adjacent to the foothills does not necessarily have a superior claim to native yield over someone located in the center of the basin just because they are geographically closer to the source of mountain front recharge. Similarly, a district or

[1] Native yield as defined in Section 4.2.1 of Appendix J to the GSP.

pumper located in a cone of depression does not necessarily have a superior claim to native yield just because groundwater is flowing toward them. Surface water entering the groundwater via seepage in natural channels, including the Kern River and small streams, may be attributable to the native yield depending upon the circumstances of that seepage. A thorough technical and legal analysis is necessary to determine appropriate sources contributing to the native yield and to quantify these supplies.

Allocation of Native Yield

In addition to a clear definition of native yield, the final GSP must also include a thorough description of how to calculate the allocation of native yield. Currently, the GSP references native yield in terms of acre-feet per gross acre for water budget purposes. Appendix J of the GSP indicates the subbasin native yield is approximately 0.144 acre-feet per acre. It is our understanding that subsequent to the release of the draft GSP, all MAPs and other GSPs in the basin agreed to utilize the same number for their water budgets. If referencing native yield this way is necessary, the GSP should clarify that it is for initial water budget purposes ONLY, is non-precedent setting, and is not a determination of individual landowner allocations or groundwater rights. Alternatively, in the 2020 plans subbasin native yield could be described as a total volume of water and not associated with a given gross or net area.

In addition, GSAs should initiate a stakeholder-driven process to develop a methodology for establishing landowner-level allocations of native yield that are coordinated across the subbasin. The allocation methodology should be consistent with various legal considerations drawn from applicable case law and be generally consistent with groundwater rights, recognizing that GSAs do not have statutory authority to make a final determination of water rights. An equal-per-gross acre approach to allocations is not likely to be consistent with established water rights doctrine, which must recognize many equitable considerations in addition to acreage owned, to determine a legally defensible allocation. Further information regarding allocation methodology can be found in *Groundwater Pumping Allocations Under California's Sustainable Groundwater Management Act – Environmental Defense Fund and New Current Water & Land, July 2018*.

Groundwater Markets

Markets are essential in facilitating the highest and best use of a limited resource and in giving landowners the most flexibility to minimize the economic impacts of pumping restrictions. To enable a market that works for all landowners in the subbasin, it is imperative that all pumpers know exactly how much marketable water they have available for use or transfer. Unless it is deemed necessary to prevent undesirable results, markets should not place geographic or jurisdictional limitations on transfers within a subbasin and should allow for carry-over of allocations from one year to the next.

Pumping Restrictions

Wonderful understands that there are instances where it may be necessary to restrict pumping in order to achieve basin-wide sustainability. If this becomes a necessity, the GSAs or MAs should implement pumping restrictions when supported by the best available data and appropriate analytical tools. Furthermore, if possible, pumping should be ramped down gradually over the implementation period to avoid a sudden disruption in economic activity.

As with native yield allocations, initial pumping allowances and ramp down schedules should be coordinated across the entire basin so that similarly situated pumpers in the basin are treated equitably regardless of their respective MA (some MAPs include a ramp down schedule for groundwater-only lands and others do not; this is a significant difference and should be reconciled).

Groundwater Recharge and Banking

GSAs must develop clear policies and conditions that protect existing investment in groundwater banking and banked inventory, and without interference with existing rules and regulations. GSAs must also find a way to incentivize additional investment, such as on-farm recharge, and allow flexibility for recharged or banked water to be freely transferrable (subject to the rights and conditions of use associated with the source water and the avoidance of undesirable results). Where possible, GSPs should also identify management areas that may benefit from additional recharge and banking. We also recommend that GSAs work to develop incentives for public or private investment to expand recharge and banking capacity, as these facilities help to achieve multiple benefits (e.g., habitat, water quality, drinking water, etc.).

Measurement and Data Management

Finally, GSAs should develop a coordinated basin-wide data management system ("DMS") that is capable of tracking groundwater and surface water use at the landowner, field, or parcel level, and a coordinated methodology for measuring landowner-level use of groundwater. The DMS should also include, or be capable of interfacing with, a groundwater market platform that allows for individual users to conduct transactions.

Markets will be most effective if there is confidence in the accuracy of the measurements taken, consistency in the data sources relied upon, and flexibility to allow for transactions across the basin. For instance, GSAs using remote sensing to calculate crop evapotranspiration ("ET") as a measurement of consumptive use of groundwater should develop methodologies and quality assurance elements to allow for grower provided information to be included into the ET calculation and calibration. Additionally, GSAs should establish criteria and procedures to address any apparent inaccuracies in the ET calculations (e.g., if calculated ET is greater than applied water and precipitation).

***

Wonderful appreciates the opportunity to provide feedback on the GSP and MAPs. We would be happy to discuss these comments at your convenience. Thank you for your consideration.

Sincerely,

Rob C. Yraceburu
President
Wonderful Orchards LLC

David W. Krause
President
Wonderful Citrus LLC

Commentor	Ref #	Comment	Response
Rosedale-Rio Bravo Water Storage District Received Comments			
Wonderful Orchards	WO-1	It is imperative that the final GSP properly address the quantification of native yield. The GSPs, management areas, and other planning units in the subbasin should utilize coordinated methods of determining supply sources for native yield, quantifying the native yield, and accounting for it in individual MAPs' water budgets. Unless there are specific hydrogeologic conditions that differentiate certain portions of the basin from the basin at-large (such as a fault line or barrier to groundwater flow), native yield should be considered a basin-wide resource.	See KGA Response WO-1
Wonderful Orchards	WO-2	In addition to a clear definition of native yield, the final GSP must also include a thorough description of how to calculate the allocation of native yield.	See KGA Response WO-2
Wonderful Orchards	WO-3	In addition, GSAs should initiate a stakeholder-driven process to develop a methodology for establishing landowner-level allocations of native yield that are coordinated across the subbasin.	See KGA Response WO-3
Wonderful Orchards	WO-4	Markets are essential in facilitating the highest and best use of a limited resource and in giving landowners the most flexibility to minimize the economic impacts of pumping restrictions. To enable a market that works for all landowners in the subbasin, it is imperative that all pumpers know exactly how much marketable water they have available for use or transfer. Unless it is deemed necessary to prevent undesirable results, markets should not place geographic or jurisdictional limitations on transfers within a subbasin and should allow for carry-over of allocations from one year to the next.	See KGA Response WO-4
Wonderful Orchards	WO-5	GSAs or MAs should implement pumping restrictions when supported by the best available data and appropriate analytical tools. Furthermore, if possible, pumping should be ramped down gradually over the implementation period to avoid a sudden disruption in economic activity	See KGA Response WO-5
Wonderful Orchards	WO-6	GSAs and MAs must develop clear and understandable policies and conditions that protect existing groundwater banking and banked inventory and allow them to continue operating as they have been under their existing rules and regulations without interference. They must also incentivize additional investment, such as on-farm recharge by providing pumping credits and allow flexibility for recharged or banked water to be freely transferrable subject to the rights and conditions of use associated with the source water and the avoidance of undesirable results. They should develop incentives for public or private investment to expand recharge and banking capacity, as these facilities help to achieve multiple benefits (e.g., habitat, water quality, drinking water, etc.).	See KGA Response WO-6
Wonderful Orchards	WO-7	GSAs should develop a coordinated basin-wide data management system ("DMS") that is capable of tracking groundwater and surface water use at the landowner, field, or parcel level, and a coordinated methodology for measuring landowner-level use of groundwater.	See KGA Response WO-7

Rosedale-Rio Bravo Water Storage District Regular Board Meeting	
December 10, 2019, 8:30 AM	Board Room, 849 Allen Road, Bakersfield, CA 93314

1. CONSENT ITEMS

a) Regular Board Meeting Minutes – November 12, 2019
b) Treasurer's Report

2. FINANCIAL REPORT

a) Accounts Payable
b) Revenue and Expenditures Report

3. OPERATIONS REPORT

a) District Water Levels & Hydrograph Report
b) Operations Report
c) Maintenance Report
d) 2020 Water Supply Projection
e) 2018 Operations Report
f) Consideration of Security System Budget

4. STATE WATER PROJECT ACTIVITIES

a) Update on State Water Project Operations
b) Update on the California Delta Conveyance Project

5. MANAGER'S REPORT

a) Consideration of Terminating Emergency Action - Public Contract Code §22050(c)(1) – Res. No. 502
b) Review of Strategic Plan Update
c) Review of 2019 Goals
d) Consideration of Agreement with Crimson Resources
e) Consideration of Adjustment to Compensation and Benefits for District Employees
f) Consideration to Execture Lease/Option Agreement (APN:104-250-06) and Notice of Exemption

6. ENGINEER'S REPORT

a) Onyx Ranch
   i. Operations Report
   ii. Consideration of extension Tenancy in Common Agreement (Smith Ranch)
b) Drought Relief Project
   i. Status Report
   ii. Pumping Plant Equipping – Consideration of Pay Estimate and Change Order
   iii. Stockdale East Wells
c) Kern Fan Project – Consideration of Hallmark Variance
d) Raitifacation of West Basin Earthwork
e) Superior Recharge Improvements
f) Consideration of Technical Services Agreements

7. COMMITTEE/SPECIAL PROJECT ACTIVITIES

a) Rosedale Management Area Committee
b) Kern Fan Monitoring Committee
c) Cross Valley Canal Advisory Committee
d) Pioneer Project
e) Kern River Watershed Coalition Authority (KRWCA)
f) Kern Groundwater Authority – Consideration of Final RRBMA GSP and Submission to KGA
g) Kern Fan Authority
h) Banking Projects Joint Operating Committee (JOC)
i) South Valley Water Resources Authority
j) Valley Ag Water Coalition
k) BizFed Group
l) Kern Integrated Regional Water Management Plan
m) James Water Bank Authority

8. ATTORNEY'S REPORT

9. OLD OR NEW BUSINESS

10. CORRESPONDENCE

11. PUBLIC COMMENT

12. CLOSED SESSION

a) Conference with legal counsel – Anticipated Litigation: Significant Exposure to Litigation – *Government Code Section 54956.9(d)(2):* One (1) Matter

b) Conference with legal counsel – Anticipated Litigation: Initiation of Litigation – *Government Code Section 54956.9(d)(4):* Three (2) Matters

c) Conference with legal counsel – Pending Litigation – *Government Code Section 54956.9 (d)(1):*
   i. State Water Resources Control Board – Applications to Appropriate Kern River Water
   ii. City of Bakersfield v. Rosedale-Rio Bravo Water Storage District (McAllister CEQA)

d) Conference with real property negotiator – *Government Code Section 54956.8* – Negotiators: Eric Averett / Dan Bartel / Dan Raytis
   i. Property: Water Supply (California WaterFix). Negotiating parties: Various parties and Rosedale-Rio Bravo Water Storage District. Under negotiation: Price & Terms of Payment
   ii. Property: APN: 104-250-06. Negotiating parties: McCaslin and Rosedale-Rio Bravo Water Storage District. Under negotiation: Price & Terms of Payment
   iii. Property: Water Supply. Negotiating parties: Various parties and Rosedale-Rio Bravo Water Storage District. Under negotiation: Price & Terms of Payment

13. ADJOURNMENT

DECLARATION OF POSTING: I, Megan Misuraca, declare under penalty of perjury, that I am employed by the Rosedale-Rio Bravo Water Storage District and I posted the foregoing Agenda at the District Office on or before December 6, 2019. ***Requests for disability related modifications or accommodations, including auxiliary aids or services may be made by telephoning or contacting the District offices. Please attempt to make such requests known at least 24 hours before the scheduled meeting.***

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

January 28, 2020 at 9:00 am

1) GSP Submission
2) Water Budget Platform/OpenET Update
3) Management Actions – CEQA
4) White Land Water Supplies Opportunity
5) RRBMA Budget

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
January 28, 2020

Property Owner / Company	Contact Name	Email Address	Sign In
Bolthouse Prop.	Brad DeBranch		
Morgan Weidenbach farms	Mark Weidenbach		
GRIMMWAY	GEORGE CAPPELLO		
Wegis & Young	Greg Wegis		
Bone Family Trust	Bryan Bone		
Wonderful	Garrett Buser		
IRWD	Ky Bennett		

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT
GROUNDWATER SUSTAINABILITY PLAN
Stakeholder Advisory Committee Meeting

September 22, 2020 at 9:00 am

1) Update on CEQA efforts
2) Water Accounting and Trading Platform Update
3) White Land Project Water Update

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

Zoom:
https://us02web.zoom.us/j/83732865153?pwd=WnpIUER6Nzc4ZW1yeWpDcUVsS0Jadz09
Telephone Dial-in: (669) 900-6833
Meeting ID: 837 3286 5153
Password: 860747

March 23, 2021 at 9:00 am

1) 2021 Budget (RE)
2) Groundwater Management Plan Annual Update (DWB)
3) CEQA efforts (DWB)
4) Evapotranspiration Methodology (MN)
5) Water Accounting and Trading Platform (MN)
6) Request for White Land Exclusion (DWB)

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
March 23, 2021

Property Owner / Company	Contact Name	Email Address	Sign In
Bryan Bone	Bryan Bone	huesos@prodigy.net	via videoconference
Ray Bennett	Ray Bennett	bennett@irwd.com	via videoconference
Brad DeBranch	Brad DeBranch	bdebranch@bolthouseproperties.com	via videoconference
Garrett Busch	Garrett Busch	garrett.busch@wonderful.com	via videoconference
George Capello	George Capello	gcappello@grimmway.com	via videoconference
John Gaugel	John Gaugel	john.gaugel@wonderful.com	via videoconference
Joshua Macut	Joshua Macut	hopkinsagim@gmail.com	via videoconference
Matt Vickery	Matt Vickery	mvickery@grimmway.com	via videoconference

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

This meeting will be held in person at the Rosedale-Rio Bravo Board Room
849 Allen Rd. Bakersfield, CA 93314

OR

This meeting will also be available via Zoom if preferred.
https://us02web.zoom.us/j/88588337642?pwd=VTBLcytmU1IveHI5ZkZNV0FWT0NGUT09
Telephone Dial-in: (669) 900-6833
Meeting ID: 885 8833 7642
Password: 900756

June 22, 2021 at 9:00 am

1) Groundwater Management Plan Annual Update (DWB)
2) CEQA efforts (RE)
3) Evapotranspiration Methodology (MN)
4) Water Accounting and Trading Platform (MN)
5) Request for White Land Exclusion (DWB)
6) Native Yield Study (DWB)
7) KGA – Data Management Systems (MN)

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

This meeting will be held in person at the Rosedale-Rio Bravo Board Room
849 Allen Rd. Bakersfield, CA 93314

OR

This meeting will also be available via Zoom if preferred.
https://us02web.zoom.us/j/86255371569?pwd=dHJtdFo4MkF2Tk42dUwxbkN4SGVUUT09
Telephone Dial-in: (669) 900-6833
Meeting ID: 862 5537 1569
Password: 692944

August 24, 2021 at 9:00 am

1) Groundwater Level Update (MN)

2) CEQA efforts (RE)

3) Water Accounting and Trading Platform (MN)

4) KGA
   a. Data Management Systems (MN)
   b. Draft Exceedance Plan (DWB)

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
August 24, 2021

Property Owner / Company	Contact Name	Email Address	Sign In
Bolthouse Land Co	Brad DeBranch		
Wegis and Young	Grey Wegis		
VAUGHN WATER	VAN GRAYER		
Affeldt Ranger & Sons	Marie Millan		Marie Millan
Alexander Verdugo			Video conference
John Gangel			Video conference
Leta Spencer			Video conference
Kellie Welch			Video conference
Lois Henry			Video conference

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

GROUNDWATER SUSTAINABILITY PLAN

Stakeholder Advisory Committee Meeting

This meeting will be held in person at the Rosedale-Rio Bravo Board Room
849 Allen Rd. Bakersfield, CA 93314

OR

This meeting will also be available via Zoom if preferred.
https://us02web.zoom.us/j/86980506530?pwd=d2x3a0UybGpiT2hUa1NZWTRsVnFvUT09
Telephone Dial-in: (669) 900-6833
Meeting ID: 869 8050 6530
Password: 734742

October 26, 2021 at 9:00 am

1) Groundwater Level Update (MN)

2) CEQA efforts (RE)

3) Water Accounting and Trading Platform (MN)

4) Water Charge Implementation (DB)

5) KGA
   a. Data Management Systems (MN)
   b. DWR Comment Schedule (DB)

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
October 26, 2021

Property Owner / Company	Contact Name	Email Address	Sign In
Pacific Resources	Travis Millwee		
Wegis and Young	Greg Wegis		
KD/CSG	Paul Gill		
	Alex Verdugo		video conference
	Bryan Bone		video conference
	John Zimmer		video conference
	John Gangel		video conference
	Kellie Welch		video conference
	Lois Henry		video conference

Rosedale-Rio Bravo Management Area – Stakeholder Advisory Committee Meeting February 22, 2022, at 9:00am
Location: Rosedale-Rio Bravo WSD Board Room 849 Allen Rd. Bakersfield, CA 93314
To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below: https://us02web.zoom.us/j/86869378330?pwd=RkpmTVJkbnRwMyt1UVZYeUdKMlV4Zz09 Telephone Dial-in: (669) 900-6833 Meeting ID: 868 6937 8330 Password: 178153

AGENDA

1) RRBMA Budget (RE)

2) Sustainability Indicators (MN)
   a. Groundwater Levels
   b. DMS Development

3) 2021 GSP Update (RE)

4) Project Implementation (DB)

5) Management Activity Implementation (TT)
   a. Water Charge (District Lands)
   b. Demand Reduction (White Lands)
   c. Groundwater Purchase Opportunity

6) CEQA efforts (RE)

7) Water Accounting and Trading Platform (MN)

8) KGA - DWR Review Status (DB)

PLEASE SIGN IN

Rosedale-Rio Bravo Water Storage District
Rosedale Management Area Meeting
February 22, 2022

Property Owner / Company	Contact Name	Email Address	Sign In
Affentranger & Sons	Marie Millan	Rmillan@bak.rr.com	
John Gavgel	Wonderful Orchards	john.gavgel@wonderful.com	
Barry Watts			
Grimmway	Matt Vickery	mvickery@grimmway.com	
Rowe Trust			
Sage Creek			
MIKE GOODING			VIDEO CONFERENCE
VINCENT SORENA			
ALEX VERDUGO			
KELLY WELCH			
LETA SPENCER			
MATT CLAASSEN			
TRAVIS MILLWEE			
GREG VEGIS			
BRAD DEBRANCH	(10:15 AM)		

Rosedale-Rio Bravo Management Area – Stakeholder Advisory Committee Meeting Friday April 29, 2022, at 11:00am
Location: Rosedale-Rio Bravo WSD Board Room 849 Allen Rd. Bakersfield, CA 93314
To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below: https://us02web.zoom.us/j/81016672954?pwd=cldCeDZ1RkE4YnF1c1dORng3QTBidz09 Telephone Dial-in: (669) 900-6833 Meeting ID: 810 1667 2954 Password: 815888

AGENDA

1) Sustainability Indicators
   a. Groundwater Levels
   b. DMS Development

2) 2021 GSP Update

3) Project Implementation

4) Management Activity Implementation
   a. Water Charge (District Lands)
   b. Demand Reduction (White Lands)

5) CEQA efforts

6) Water Accounting and Trading Platform

7) KGA - DWR Review Status

PLEASE SIGN IN

Rosedale-Rio Bravo Water Storage District

RRBMA Stakeholder Advisory Committee Meeting

April 29, 2022

Property Owner / Company	Contact Name	Email Address	Sign In
Bone Family Trust	Bryan Bone	hwesos@prodigy.net	[signature]
Sage Creek	"	"	[signature]
John Gaugel		john.gaugel@wonderful.com	[signature]
GAPI USA LLC	Vincent Sorena	vincent.sorena@nuveenrc.com	[signature]
Watts Farming	Barry Watts		[signature]

Rosedale-Rio Bravo Management Area – Stakeholder Advisory Committee Meeting **Tuesday, June 28, 2022, at 9:00am**
Location: Rosedale-Rio Bravo WSD Board Room 849 Allen Rd. Bakersfield, CA 93314
To virtually attend the meeting and to be able to view any presentations or additional materials provided at the meeting, please join online using the link and information below: https://us02web.zoom.us/j/81377241659?pwd=S2etYXFcFZcjQ-V_zzxk_8qCoNZPWY.1 Telephone Dial-in: (669) 900-6833 Meeting ID: 813 7724 1659 Password: 614390

AGENDA

1) Sustainability Management Criteria Status Update
    a. Levels
    b. Storage
    c. Quality
    d. Subsidence

2) Project Implementation
    a. James Groundwater Storage Project
    b. Onyx Project
    c. Kern Fan Project

3) Management Action Implementation
    a. Water Charge Demand Reduction
    b. White Land Imbalance Reduction
    c. Water Accounting Platform
    d. 3rd Party Recharge and Storage

4) SGMA Planning and Reporting
    a. RRBMA 2021 Annual Report
    b. RRBMA GSP 2020 Revision
    c. KGA Issues

PLEASE SIGN IN

Rosedale-Rio Bravo Water Storage District

RRBMA Stakeholder Advisory Committee Meeting

June 28, 2022

Property Owner / Company	Contact Name	Email Address	Sign In
Grimmway	Matt Vickery	mvickery@grimmway.com	
Pacific Resources	Travis Millwee	travis@RTS Ag.com	
Wonderful Orchards	John Gaugel		
SAGE CREEK	Bryan Bone	bvesos@prodigy.net	