



# **Diamond Valley Groundwater Management Plan**

**Presented by Jake Tibbitts, Eureka County Natural Resources Manager**



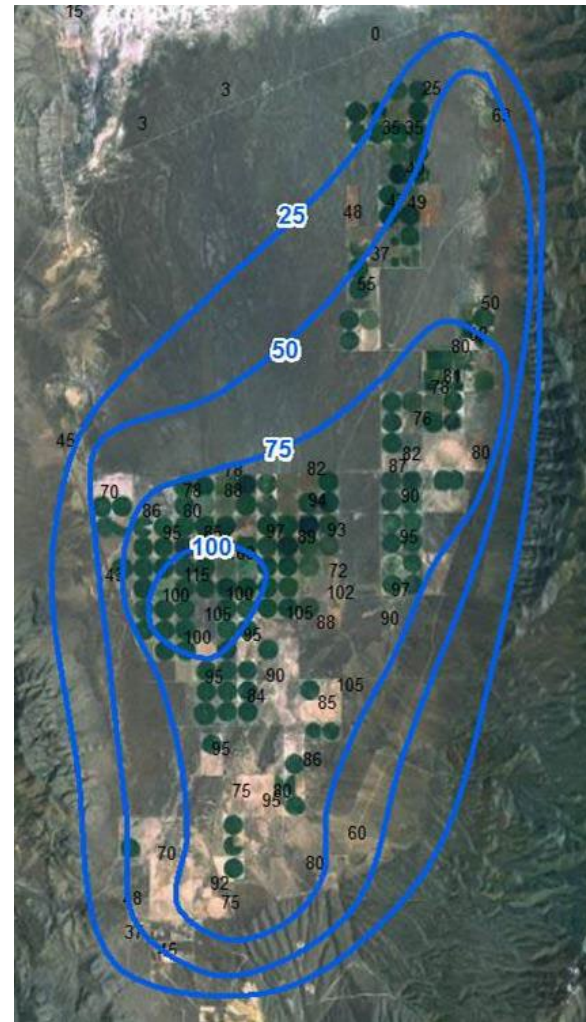
Perennial yield of 30,000 acre-feet annually (afa) (1968 USGS reconnaissance series report) or 35,000 afa (2016 USGS report)

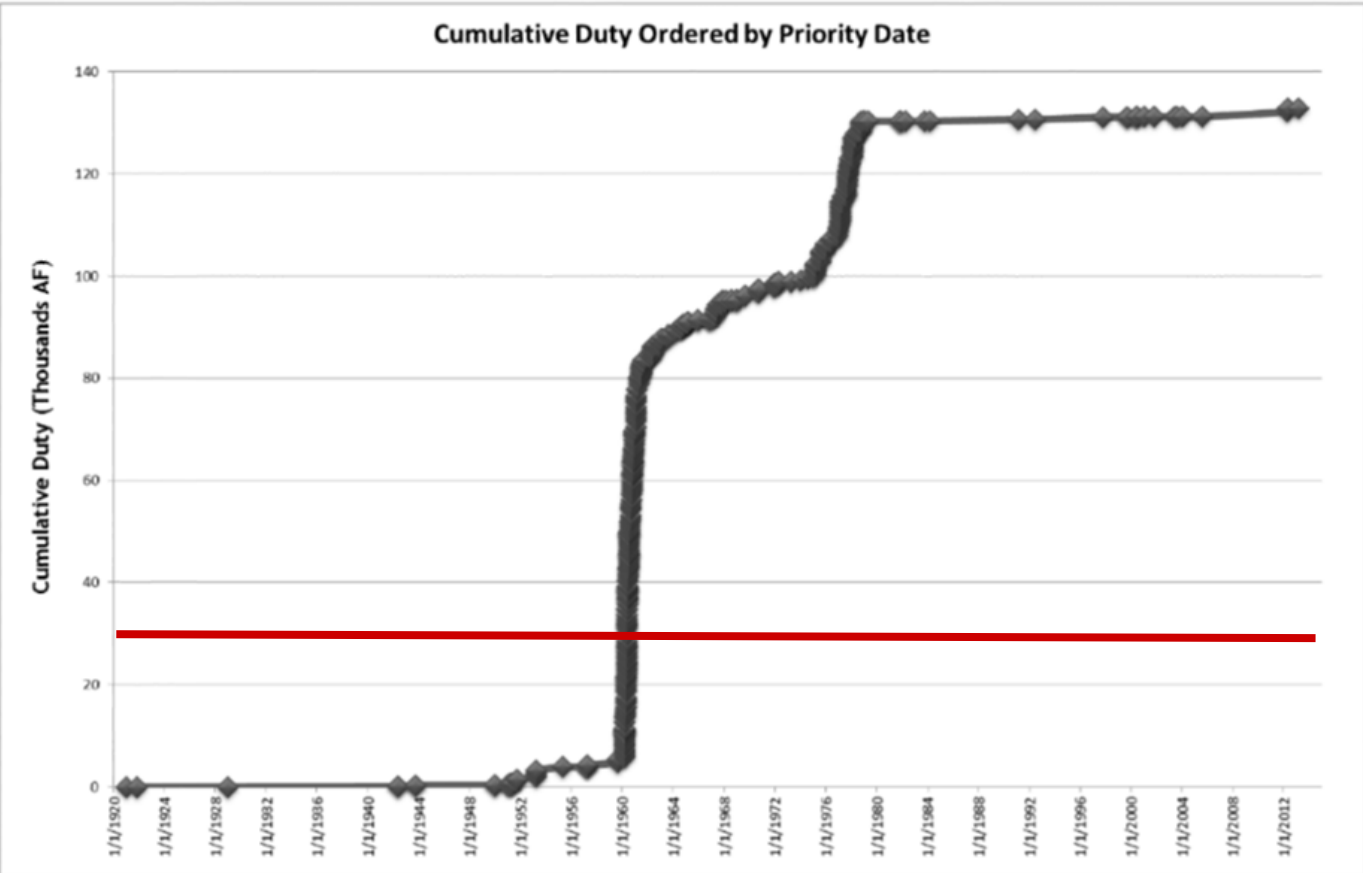
~26,000 acres under irrigation – about 200 “circles”

About 136,000 af appropriated with about 130,000 af for irrigation

110,000+ tons of hay annually ~ \$22M annually. Final demand multiplier of 1.67, income multiplier of 1.28, employment multiplier of 1.5. (UNR Technical Report UCED 2005/06-14 *Updated Economic Linkages in the Economy of Eureka County*);

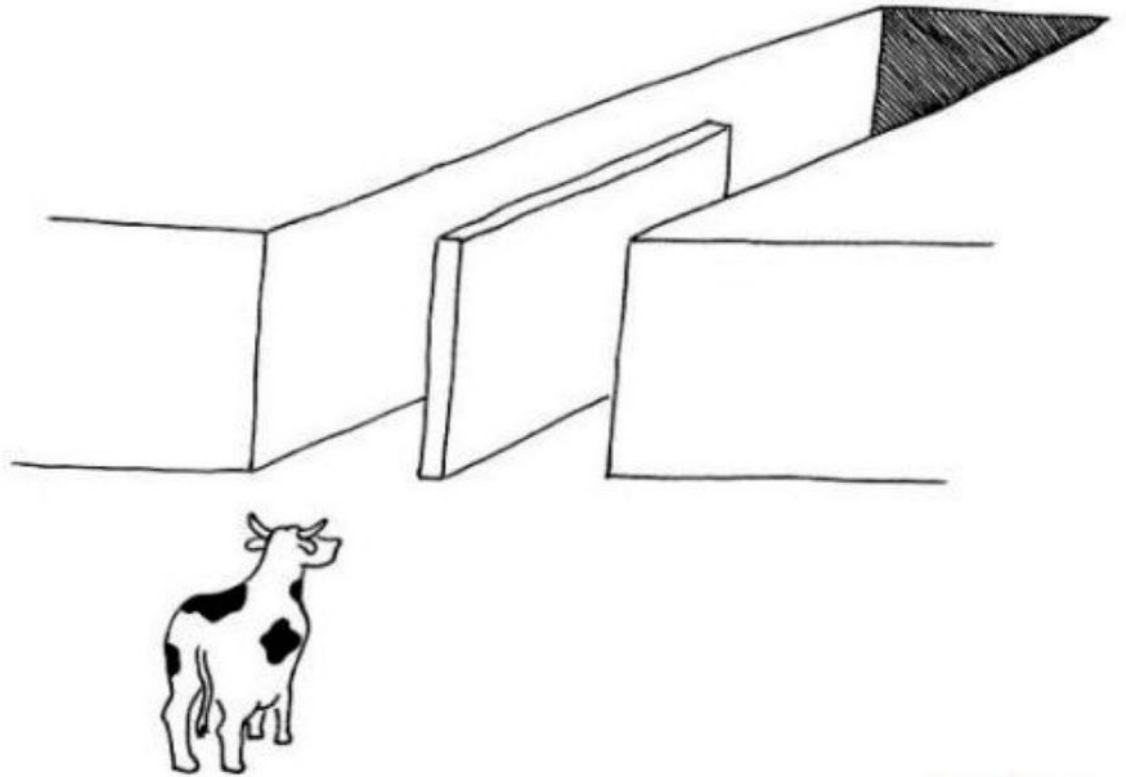
An average of 2 feet of water table decline per year







Is anything other than strict application of prior appropriation (i.e., curtail pumping of all junior water rights) possible in over-drafted basins?



NRS 534.110

7. The State Engineer:

(a) **May** designate as a critical management area any basin in which **withdrawals of groundwater consistently exceed the perennial yield** of the basin.

(b) **Shall** designate as a critical management area any basin in which withdrawals of **groundwater consistently exceed the perennial yield** of the basin upon **receipt of a petition** for such a designation which is **signed by a majority** of the holders of certificates or permits to appropriate water in the basin that are on file in the Office of the State Engineer.

↳ The designation of a basin as a critical management area pursuant to this subsection may be appealed pursuant to NRS 533.450. If a basin has been designated as a critical management area for at least **10 consecutive years**, except as otherwise provided in subsection 9, the State Engineer **shall order that withdrawals**, including, without limitation, withdrawals from domestic wells, be restricted in that basin to **conform to priority rights**, **unless** a groundwater management plan has been approved for the basin pursuant to NRS 534.037.

# CMA Designation

Order 1264 - August  
25, 2015

IN THE OFFICE OF THE STATE ENGINEER  
OF THE STATE OF NEVADA

ORDER

#1264

**DESIGNATING THE DIAMOND VALLEY HYDROGRAPHIC BASIN (153) A  
CRITICAL MANAGEMENT AREA**

**WHEREAS**, the State Engineer designated the Diamond Valley Hydrographic Basin, located within Eureka County, Nevada, as provided under the provisions of Nevada Revised Statute (NRS) § 534.030, by the following Orders:

1. Order No. 277, dated March 11, 1941, designating a portion of the basin.
2. Order No. 280, dated August 28, 1964, amending the designated area described in Order No. 277.
3. Order No. 815, dated April 4, 1983, amending the description of the designated area.

**WHEREAS**, pursuant to NRS § 534.120, the State Engineer determined the groundwater of the Diamond Valley Hydrographic Basin was being depleted and the following orders were entered, deemed essential for the welfare of the area involved:

1. Order No. 541, dated December 22, 1975, curtailed new appropriations in location-specific areas subject to limited exceptions.
2. Order No. 717, dated July 10, 1978, curtailed new appropriations for irrigation with limited exceptions.
3. Order No. 809, dated December 1, 1982, ordering the installation of totalizing meters on all permitted and certificated wells. The Order was suspended for one-year by Order 813, dated February 7, 1983, but was never reinstated.

Order No. 1226, dated March 26, 2013 curtailed all new appropriations with limited exceptions.

# GMP Development Timeline

- Petition for GMP approval submitted to State Engineer on August 16, 2018
- GMP approved by State Engineer through Order 1302 on January 11, 2019
- GMP litigation culminated in NV Supreme Court opinion on June 16, 2022 reinstating Order 1302.
- Order 1332 issued on October 12, 2022 restoring Order 1302.

IN THE OFFICE OF THE STATE ENGINEER  
OF THE STATE OF NEVADA

**ORDER** #1332

**RESTORING ORDER 1302 ADOPTING THE GROUNDWATER MANAGEMENT PLAN FOR THE DIAMOND VALLEY HYDROGRAPHIC BASIN (10-153) WITHIN EUREKA COUNTY, NEVADA**

WHEREAS, on January 11, 2019, the State Engineer issued Order 1302 granting the Petition to Adopt the Groundwater Management Plan for the Diamond Valley Hydrographic Basin.<sup>1</sup>

WHEREAS, year 2019 was the introductory year (Year 1) of the Diamond Valley Groundwater Management Plan (DVGMP), which operated uninterrupted until April 27, 2020.<sup>2</sup>

WHEREAS, as a result of the District Court's decision on April 27, 2020, to grant the Petitions for Judicial Review to invalidate Order 1302,<sup>3</sup> and the subsequent appeal to the Nevada Supreme Court,<sup>4</sup> the State Engineer issued Order 1302-A, an addendum to State Engineer's Order 1302, holding in abeyance the decision granting the petition to adopt a groundwater management plan for the Diamond Valley Hydrographic Basin while the appeal was pending in the Nevada Supreme Court.<sup>5</sup>

WHEREAS, on June 16, 2022, the Nevada Supreme Court issued its opinion reversing the District Court's decision and reinstating State Engineer's Order 1302.<sup>6</sup>

WHEREAS, based in part on the fact that applying the terms of the DVGMP while the irrigation season is well underway would be inefficient and unfair, and also recognizing that the DVGMP designates the start of the DVGMP year as January 1, the Diamond Valley Groundwater Management Plan Advisory Board recommended to the State Engineer that the DVGMP officially restart in 2023, with 2023 being Year 2 of the DVGMP.<sup>7</sup>

<sup>1</sup> State Engineer's Order No. 1302, dated January 11, 2019, official records in the Division of Water Resources.

<sup>2</sup> Refer to the Diamond Valley Groundwater Management Plan, available on-line at: <http://water.nv.gov/news.asp?news=Diamond%20Valley%20GMP>.

<sup>3</sup> Findings of Fact, Conclusions of Law, Order Granting Petitions for Judicial Review, *Bailey et al. v. Wilson*, CV-1902-348, consolidated with CV-1902-349 and CV-1902-350 (Seventh Jud. Dist. Ct. April 27, 2020).

<sup>4</sup> *Diamond Natural Resources, et al. v. Diamond Valley Ranch, et al.*, Case No. 81224.

<sup>5</sup> State Engineer's Order No. 1302-A, dated August 27, 2020, official records in the Division of Water Resources.

<sup>6</sup> *Diamond Natural Resources, et al. v. Diamond Valley Ranch, et al.*, Case No. 81224, Adv. Op. 43 (Nev. June 16, 2022), *rel'g denied*, Sept. 12, 2022.

<sup>7</sup> Letter from Diamond Valley Groundwater Management Plan Advisory Board, to Adam Sullivan, Nevada State Engineer (July 27, 2022), official records in the Division of Water Resources.

138 Nev., Advance Opinion 43  
IN THE SUPREME COURT OF THE STATE OF NEVADA

No. 81224

**FILED**  
JUN 16 2022  
ELIZABETH A. SWINSON  
CLERK OF SUPREME COURT  
BY: *S. Sullivan*  
DEPUTY CLERK

DIAMOND NATURAL RESOURCES PROTECTION & CONSERVATION ASSOCIATION; J&P FARMS, LLC; GALLAGHER FARMS LLC; JEFF LOMMORI; M&C HAY; CONLEY LAND & LIVESTOCK, LLC; JAMES ETCHEVERRY; NICK ETCHEVERRY; TIM HALPIN; SANDI HALPIN; DIAMOND VALLEY HAY COMPANY, INC.; MARK MOYLE FARMS LLC; D.F. & E.M. PALMORÉ FAMILY TRUST; WILLIAM H. NORTON; PATRICIA NORTON; SESTANOVICH HAY & CATTLE, LLC; JERRY ANDERSON; BILL BAUMAN; DARLA BAUMAN; ADAM SULLIVAN, P.E., NEVADA STATE ENGINEER, DIVISION OF WATER RESOURCES, DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES; AND EUREKA COUNTY, Appellants,  
vs.  
DIAMOND VALLEY RANCH, LLC; AMERICAN FIRST FEDERAL, INC.; BERG PROPERTIES CALIFORNIA, LLC; BLANCO RANCH, LLC; BETH MILLS, TRUSTEE OF THE MARSHALL FAMILY TRUST; TIMOTHY LEE BAILEY; CONSTANCE MARIE BAILEY; FRED BAILEY; CAROLYN BAILEY; SADLER RANCH, LLC; IRA R. RENNER; AND MONTIRA RENNER, Respondents.

Supreme Court  
of  
Nevada  
JUN 16 2022

22-19127

# Signing of Petition to Approve GMP

- State Law required a majority of holders of permits to sign petition.
- Of 419 permits, 257 signed (61%)
- Of 77 senior permits, 36 signed (46.8%)
- Of the 29,325 afa of senior irrigation water rights, 18,700 afa signed (64%)
- Of the 342 junior permits, 221 signed (64.6%)
- The petition was submitted once a clear majority was reached. More effort could have taken place to gather more signatures.
- Now, likely even more senior support 23,800 afa (79.3%) – changed minds, missed, or sales.



Building Momentum – Folks Coming to the Table

# GMP Vision Statement

Diamond Valley is prosperous and economically stable by all means including education and diversification. We are a community that is united, fair and forward thinking about our water usage in order to ensure stability for ourselves now and our future generations.

# GMP Requirements

The GMP “must set forth the necessary steps for removal of the basin’s designation as a critical management area.”  
(NRS 533.037(1))

- State Engineer shall consider, without limitation:
  - Hydrology of the basin
  - Physical characteristics of the basin
  - Geographic spacing and location of withdrawals of groundwater in the basin
  - Water quality in basin
  - Wells located in basin, including domestic (non-permitted) wells
  - Whether a GMP already exists for the basin
  - Any other factor deemed relevant by the State Engineer

(NRS 533.037(2))

# GMP Goals

- Remove the basin's CMA designation within 35 years by stabilizing groundwater levels in Diamond Valley
- Reduce consumptive use to not exceed perennial yield
- Increase groundwater supply
- Maximize the number of groundwater users committed to achieving GMP goals
- Preserve economic outputs from Diamond Valley
- Maximize viable land-uses of private land
- Avoid impairment of vested groundwater rights
- Preserve the socio-economic structure of Diamond Valley and southern Eureka County

# Scope of Groundwater Uses under the GMP

- Groundwater rights that serve irrigation purposes;
- Groundwater rights that serve mining and milling purposes if they have irrigation base rights;
- Groundwater that is imported to Diamond Valley only if it is injected or infiltrated into the Diamond Valley aquifer.
- The following are not subject to the requirements of the GMP:
  - Vested water rights, including spring vested rights that have been mitigated with groundwater rights;
  - Non-irrigation rights (including base rights).

# Other Considerations

- No out of basin transfers of water
- State Engineer retains authority to analyze potential for conflicts and take action if necessary – new wells or diversions above well's base right

# Water Market- Based System

- Intended to:
  - Incentivize conservation;
  - Allow banking of unused water allocations for use in the future;
  - Allow quick sale, lease, trade, etc. of water in times when needed by willing participants.

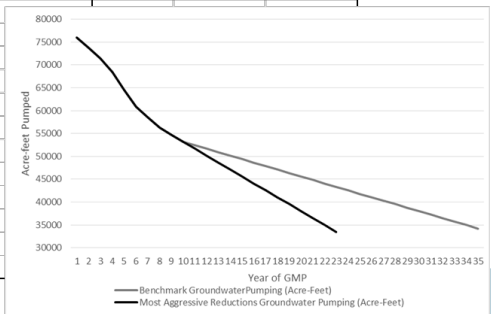
# Water Shares

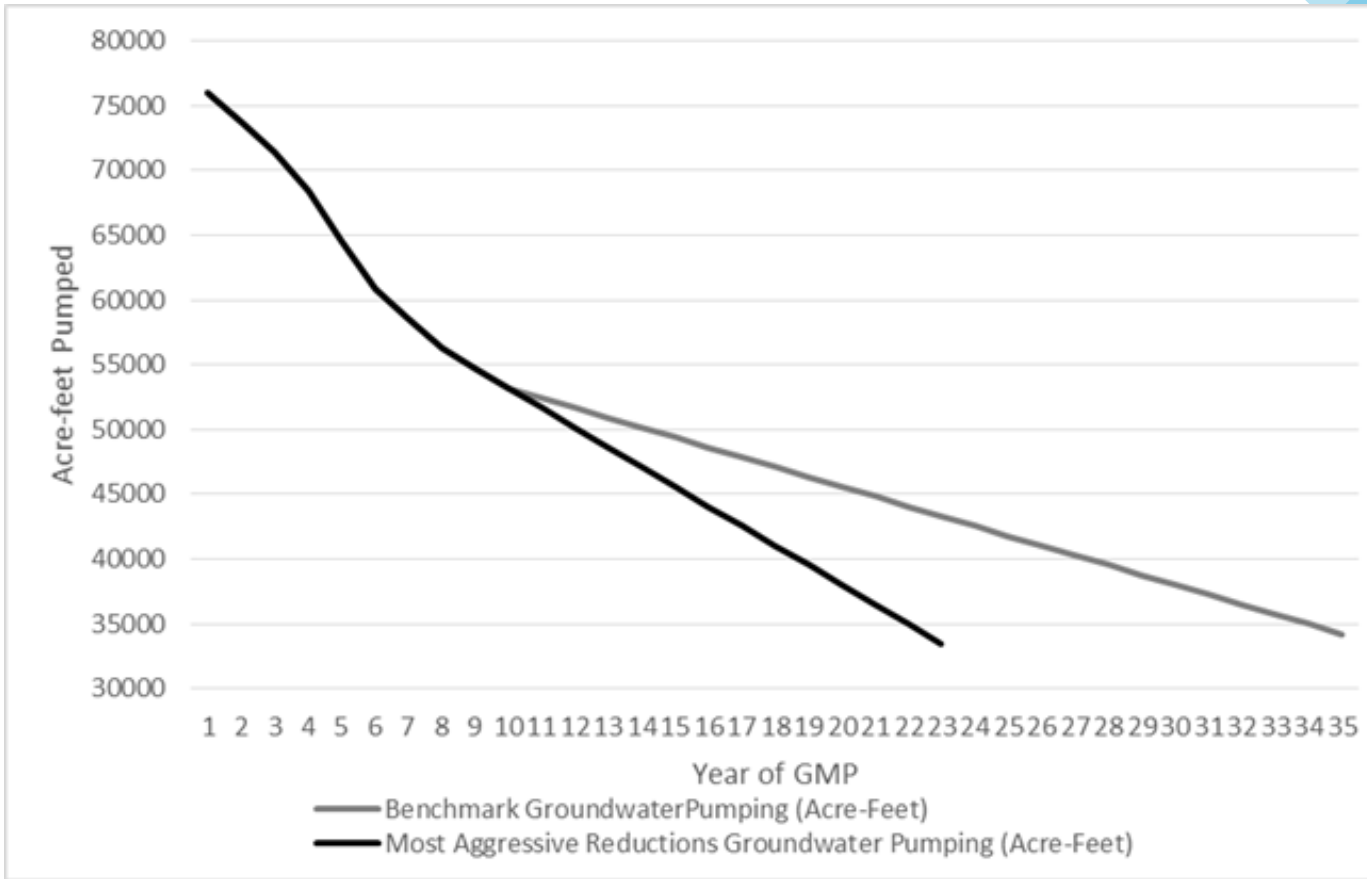
- The base water right (and attendant shares) stay tied to a specific piece of land (i.e., not unbundled)
- Priority (i.e., seniority) taken into account
- Accomplished using formula:  $WR * PF = SA$ 
  - $WR$  = Total groundwater right volume as recognized by DWR accounting for total combined duty
  - $PF$  = Priority factor based on seniority\*
  - $SA$  = Total Groundwater share allotment
- \*20% “spread” between most senior  $PF$  and most junior  $PF$

# Annual “Wet Water” Allocations

- Water Per Share - annual allocations are calculated by taking the total pumping allowed in any given year under the GMP and dividing by the total number of shares
- Secure groundwater share and allocation transfer, settlement, and market system;
- Groundwater can only be withdrawn if there is a positive balance in an account;
- Unused water balances roll over (banked);
- Any or all of any groundwater allocation in any individual groundwater Account may be transferred to any other individual groundwater account through willing-party agreements and transactions.

Year of GMP	Benchmark Groundwater Pumping (Acre-Feet)	Benchmark Cumulative Pumping Reduction (%)	Benchmark Water Allocation (AF/Share)	Most Aggressive Reductions Cumulative (%)	Most Aggressive Reductions Groundwater Pumping (Acre-Feet)	Most Aggressive Reductions Water Allocation (AF/Share)
1	76000	0	0.670	0	76000	0.670
2	73720	3	0.649	3	73720	0.649
3	71440	6	0.629	6	71440	0.629
4	68400	10	0.603	10	68400	0.603
5	64600	15	0.569	15	64600	0.569
6	60800	20	0.536	20	60800	0.536
7	58520	23	0.516	23	58520	0.516
8	56240	26	0.495	26	56240	0.495
9	54720	28	0.482	28	54720	0.482
10	53200	30	0.469	30	53200	0.469
11	52440	31	0.462	32	51680	0.455
12	51680	32	0.455	34	50160	0.442
13	50920	33	0.449	36	48640	0.428
14	50160	34	0.442	38	47120	0.415
15	49400	35	0.435	40	45600	0.402
16	48640	36	0.428	42	44080	0.388
17	47880	37	0.422	44	42560	0.375
18	47120	38	0.415	46	41040	0.362
19	46360	39	0.408	48	39520	0.348
20	45600	40	0.402	50	38000	0.335
21	44840	41	0.395	52	36480	0.321
22	44080	42	0.388	54	34960	0.308
23	43320	43	0.382	56	33440	0.295
24	42560	44	0.375			
25	41800	45	0.368			
26	41040	46	0.362			
27	40280	47	0.355			
28	39520	48	0.348			
29	38760	49	0.341			
30	38000	50	0.335			
31	37240	51	0.328			
32	36480	52	0.321			
33	35720	53	0.315			
34	34960	54	0.308			
35	34200	55	0.301			





# Enforcement and Tracking Use and Water Table Response

Highly accurate magnetic  
flow meters (smart-  
capable) to measure use;

Locally-elected Advisory  
Board (7 Members);

Local-based Water  
Manager;

Funded through special  
assessment authority in  
State Law;

Robust groundwater  
monitoring network.

Annual measurements

Daily (and sub-daily)  
measurements

# Other Important Pursuits In Tandem with GMP

Funding to purchase and retire water rights

Managed groundwater recharge

Watershed management to increase water supplies

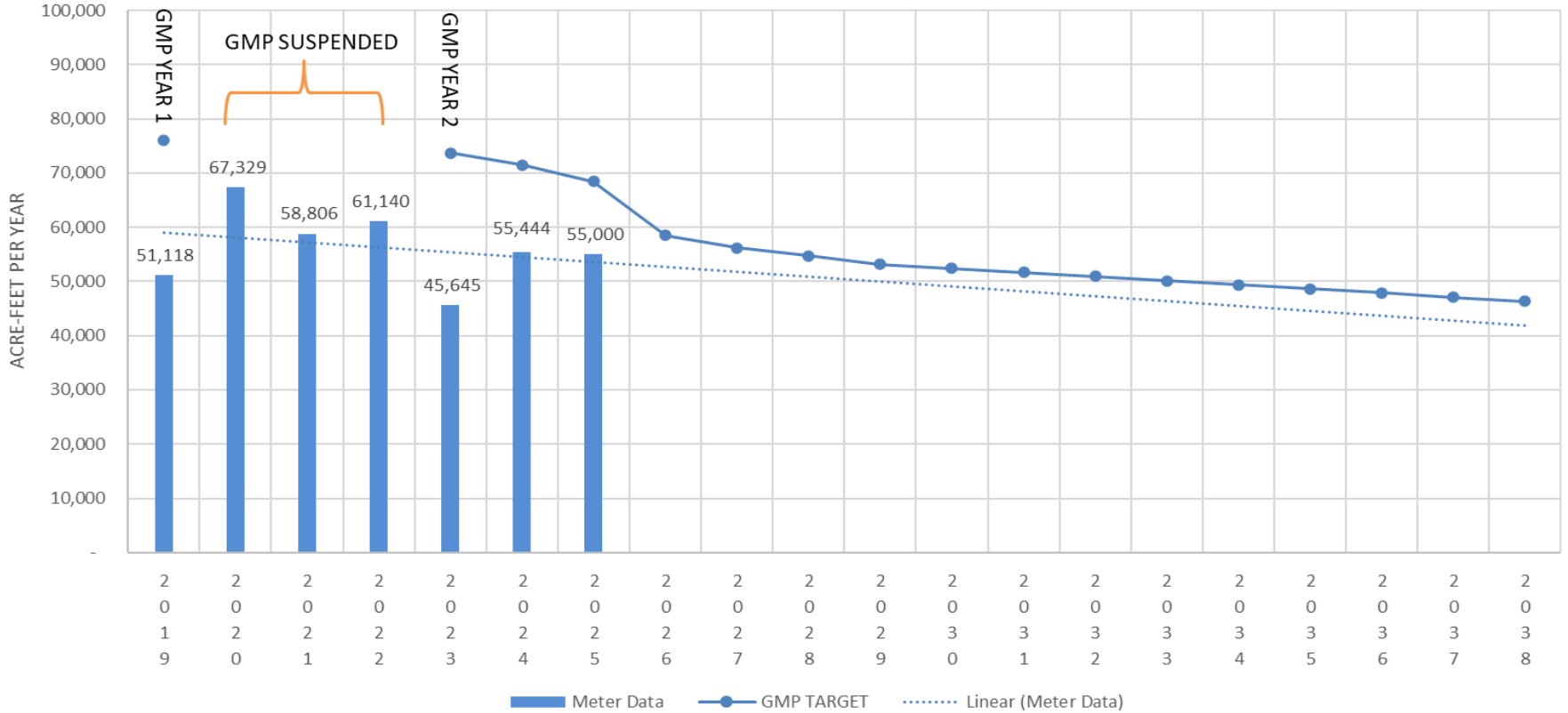
Importation of groundwater

Cloud seeding

# For More on the Diamond Valley GMP Plight:

- See Daniel Rothberg's excellent reporting -
  - <https://thenevadaindependent.com/article/in-diamond-valley-farmers-are-looking-to-protect-their-future-and-testing-the-limits-of-nevadas-water-laws>
  - <https://thenevadaindependent.com/article/justices-uphold-groundwater-plan-in-ruling-that-could-significantly-affect-water-managementefbfbcb>
- See DWR's website –
  - <https://tools.water.nv.gov/DiamondValleyGMP.aspx>

# ANNUAL GMP PUMPING VS. GMP TARGETS





## Leaving Baggage at the Door is Hard to Do!

“This GMP does not address inequities of the past. The GMP starts with current pumping levels and current water rights in good standing and works forward to reduce pumping to sustainable levels.”

Progress is impossible without  
change; and those who cannot  
change their minds cannot change  
anything.

— *George Bernard Shaw* —

Legal Matters  
Will Matter



# Legal Wrangling

- GMP was litigated through the Nevada Supreme Court. District Court had overturned the GMP (violation of prior appropriation and beneficial use and impaired vested rights).
- Supreme Court (4-2-2) Opinion:
  - *We recognize that our opinion will significantly affect water management in Nevada. We are of the belief, however, that—given the arid nature of the state—it is particularly important that we effectuate the plain meaning of a statute that encourages the sustainable use of water. The GMP here is a community-based solution to the long-term water shortages that befall Diamond Valley. Because the GMP complies with NRS 534.037 and NRS 534.110(7), it is valid. Thus, we reverse the district court order granting respondents' petitions for judicial review and reinstate Order No. 1302. (Diamond Valley Natural Resources Protection & Conservation Ass'n, et al. vs. Diamond Valley Ranches, LLC, et al., 138 Nev. Adv. Op. 43 (2022))*

# Keeping Dissents In Mind

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Statute subject to more than one reasonable interpretation and no express declaration to allow deviation from prior appropriation

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Reallocates senior rights to junior users; junior users have onus to reduce water use

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GMP does not account for vested rights (depleted spring flow)

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Prior, unpassed, legislation demonstrates that GMPs are not permitted to deviate from prior appropriation

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Potential takings without just compensation

# 2023 Legislative Session CMA Statute Changes

- SB 113 of the 2023 NV Legislative Session amended NRS 534 to:
  - Address uncertainty or changes in perennial yield
  - Clarify how to calculate a “majority” based on “the total groundwater permitted or certificated”
  - Not require senior water rights holders to follow the GMP unless they sign the petition or ask to be included
  - Require a 10 year review of any GMP “to determine whether there has been significant progress towards stabilizing the water level of the basin” and, if not, dissolve the GMP and curtail by priority. This applies to the Diamond Valley GMP in October 2033.
- Have these changes made the CMA statute worthless?



**Thank You**

**Contact info:**

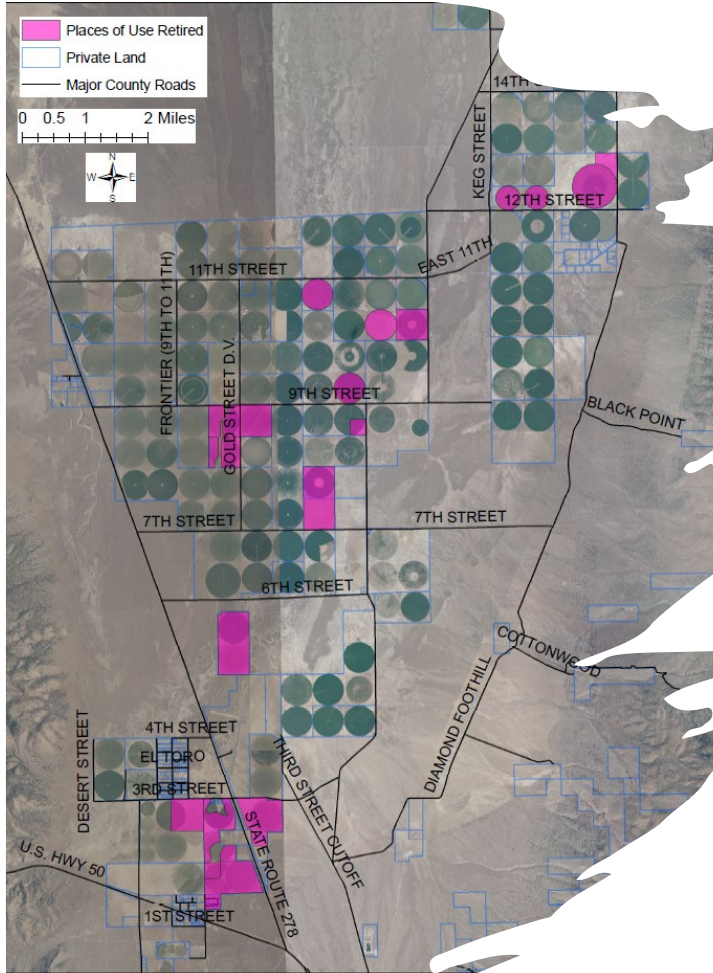
**Jake Tibbitts**

**[jtibbitts@eurekacountynv.gov](mailto:jtibbitts@eurekacountynv.gov)**

**775-237-6010**



Additional slides if needed based on questions



# Groundwater Rights Retirement

- Nevada Water Conservation Infrastructure Initiative (NWCII) – 11,298 AFA retired in Diamond Valley at a total cost of \$9.6M.
- GMP banked water also retired.
  - Benefit of reducing current water use and future GMP water use.
- Legislative authority – AB104 and SB36 (2025)

# NV Water Conservation and Infrastructure Initiative (NWCII) Funding - \$2.5M

- Project summary:
  - “Water supplied to the town of Eureka is obtained through groundwater wells located in Diamond Valley. Water rights for the town are junior rights, appropriated after the senior agricultural rights in Diamond Valley. It is well-documented that Diamond Valley is over appropriated and that the groundwater levels in the basin are declining. The basin is under increasingly strict groundwater management that may jeopardize the water rights relied on by the town of Eureka. This project would supplement the water system with a new, separate ground water source from a new municipal well to be drilled in Kobeh Valley. The project would include the design and engineering of a transmission main from Kobeh Valley to the County’s water system.”