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#### Jeff Raybould

Chairman St. Anthony At Large

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Hope District 1

#### **Albert Barker**

Boise District 2

#### **Brian Olmstead**

Twin Falls At Large

#### **Marcus Gibbs**

Grace
District 4

#### Patrick McMahon

Sun Valley At Large

#### **AGENDA**

#### IDAHO WATER RESOURCE BOARD

Water Supply Management Committee Meeting No. 2-25 October 28, 2025

1:00 PM (MT) / Noon (PT)

Water Center Conference Rooms 602 B, C, & D 322 E. Front St. BOISE

Livestream available at <a href="https://www.youtube.com/@iwrb">https://www.youtube.com/@iwrb</a>

- 1. Introductions and Attendance
- 2. IWRB Recharge Water Right Non-Diversion Agreement \*
- 3. IWRB Recharge Capacity Analysis
- 4. Idaho Power Co. Recharge Capacity Analysis
- 5. Other Items
- 6. Adjourn

Committee Members: Chair Jeff Raybould, Dean Stevenson, Jo Ann Cole-Hansen, and Brian Olmstead.

#### **Americans with Disabilities**

The meeting will be held in person and online. If you require special accommodations to attend, participate in, or understand the meeting, please make advance arrangements by contacting Department staff by email jennifer.strange@idwr.idaho.gov or by phone at (208) 287-4800.

322 East Front Street • P.O. Box 83720 • Boise, Idaho 83720-0098 Phone: (208) 287-4800 Fax: (208) 287-6700 Website: idwr.idaho.gov/IWRB/

<sup>\*</sup> Action Item: A vote regarding this item may be made at this meeting. Identifying an item as an action item on the agenda does not require a vote to be taken on the item.

#### Memorandum

To: Idaho Water Resource Board: Water Supply Management Committee

From: Planning & Projects Bureau Staff

Date: October 24, 2025

Re: IWRB Recharge Water Right Non-Diversion Agreement



#### **ACTION: Recommendation may be requested**

A request to consider an agreement not to divert will be discussed by staff and legal representation.





# Is 350,000 ac-ft of Recharge Achievable under Proposed Conditions

Scenario Analysis with and without an Agreement with Idaho Power Company to Limit Recharge Diversions

David Hoekema, Hydrologist, IDWR 10/28/2025





# Introduction

#### The Question:

Can the IWRB reach a 15-year average annual recharge target of 350,000 ac-ft given an agreement with Idaho Power Company not to not divert some of flow available at Milner Dam?





# Why?

The ESPA started declining around 1950 and an agreement in 2014 between groundwater pumpers and surface water users changed the trajectory of the ESPA, which appears to have stabilized. A 2024 agreement proposes 350,000 ac-ft as the IWRB recharge goal.





# History of the ESPA

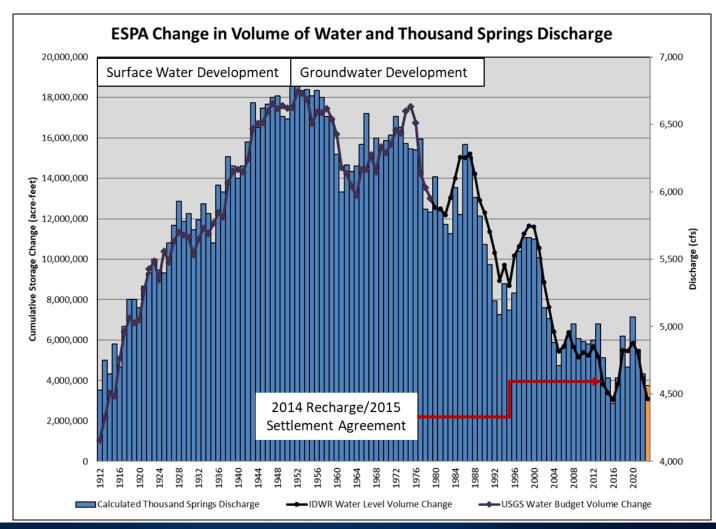
1905 Milner Dam 1906 Minidoka Dam

1940 Groundwater Development begins

1992 Moratorium on new Groundwater Development

2014 Aquifer Recharge Program begins in earnest -goal 250,000 ac-ft

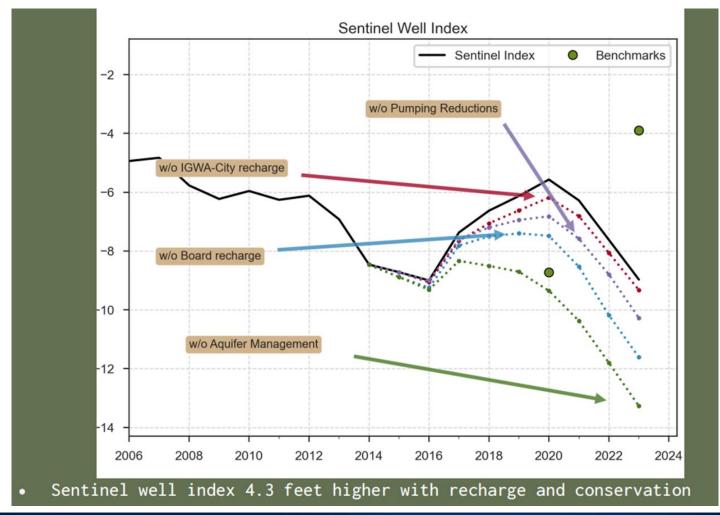
2015 Settlement
Agreement
-Groundwater cutbacks
-goal 240,000 ac-ft







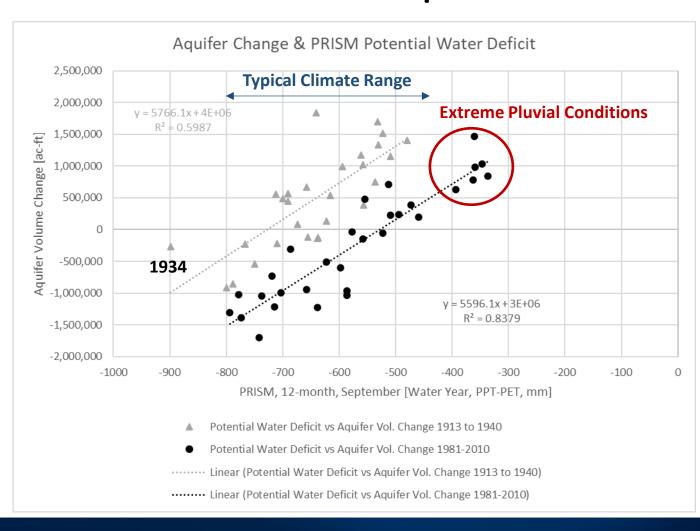
# We have changed the trajectory of the ESPA again!







# How does climate impact the ESPA?

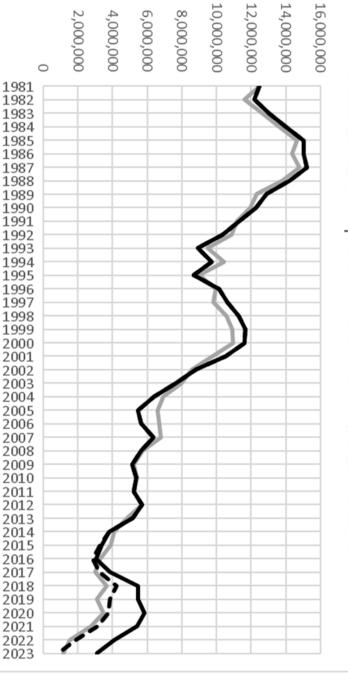




# Climate analysis confirms ESPAM Results

WATER RESOURCES





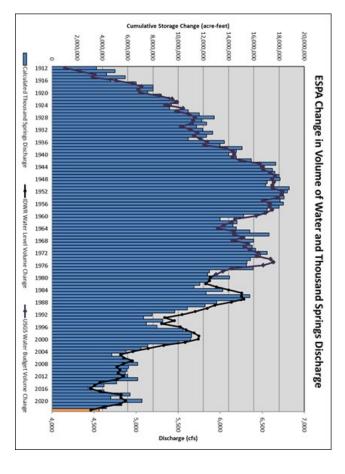
Cummulative Aquifer Volume Change from 1912

[ac-ft]

ESPA aquifer volume less all mitigation

Modeled aquifer volume (PPT-PET correlation from 1981 to 2010)

ESPA aquiter volume







# Constraints on the Analysis

#### Assumptions:

- 1. Analysis uses of historic climate & management conditions
- 2. Analysis uses current recharge program capacity
- 3. Proposed agreement not to divert is based on the water year
- 4. Rolling average will start in 2016 (not part of analysis)
- 5. IWRB Upper Valley recharge capacity was reduced in 2024, due to increased private recharge.





# Proposed Agreement Conditions

Flow that would be diverted given the 15-year rolling average:

- 1. Below 250,000 ac-ft, all flow is diverted to recharge
- 2. Above 250,000 ac-ft and below 350,000 ac-ft, then recharge is limited to 50% from Dec. 1 to Feb. 15
- 3. Above 350,000 ac-ft and below 355,000 ac-ft, recharge is limited to 40% from Dec. 1 to Mar. 1
- 4. Above 355,000 ac-ft, recharge is limited to 40% from Nov. 1 to Apr. 1





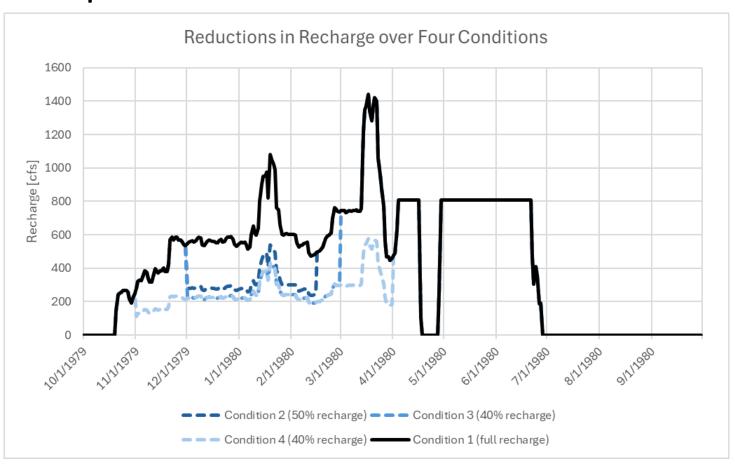
# Proposed Agreement Conditions

Condition	15 Year Rolling Average (ac-ft)	Recharge Limited to:	Limiting Period
1	< 250,000	not limited	_
2	250,000 – 350,000	50% of flow	December 1 – February 15
3	350,000 – 355,000	40% of flow	December 1 – March 1
4	> 355,000	40% of flow	November 1 – April 1



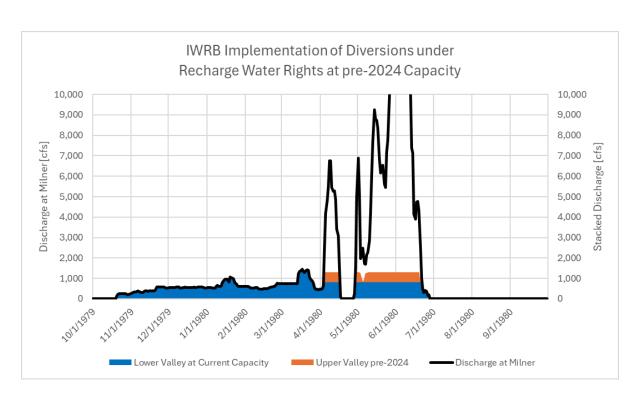


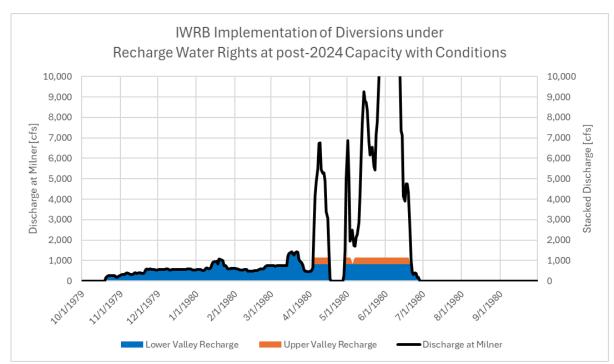
# Impact of Conditions on Recharge in 1980











Condition 1: 250,000 ac-ft 15-year average

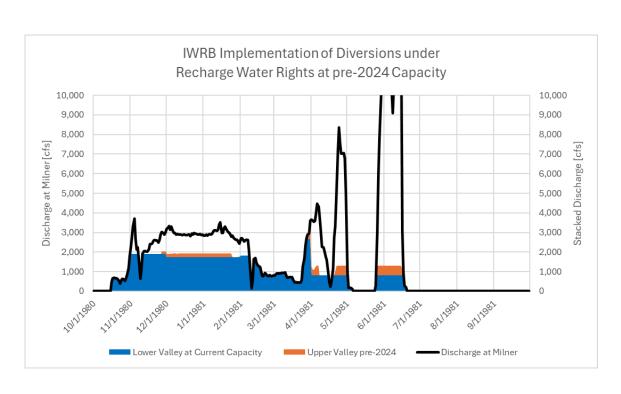
Recharge = 373,568 ac-ft

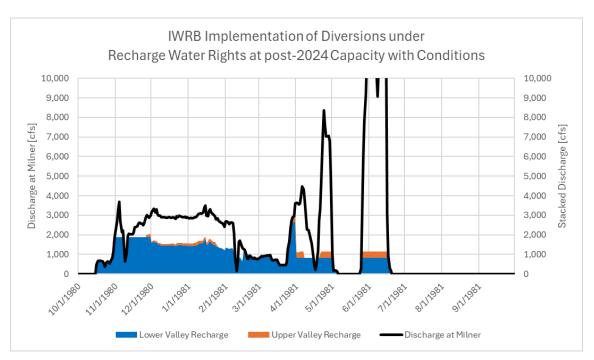
Condition 1: 250,000 ac-ft 15-year average

Recharge = 352,670 ac-ft









Condition 2: 258,328 ac-ft 15-year average

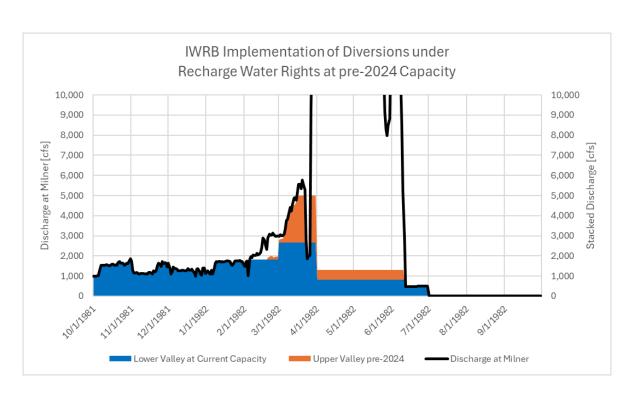
Recharge = 624,410 ac-ft

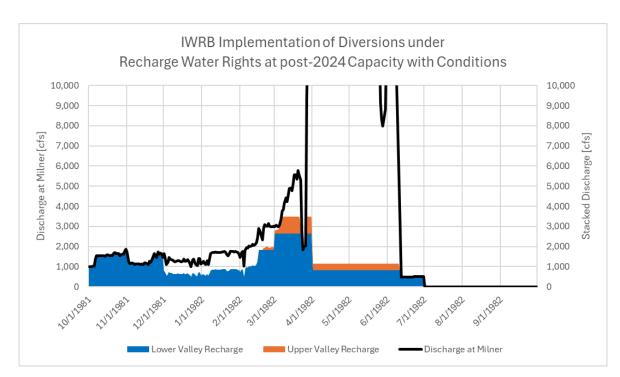
Condition 2: 250,549 ac-ft 15-year average

Recharge = 556,389 ac-ft









Condition 2: 283,199 ac-ft 15-year average

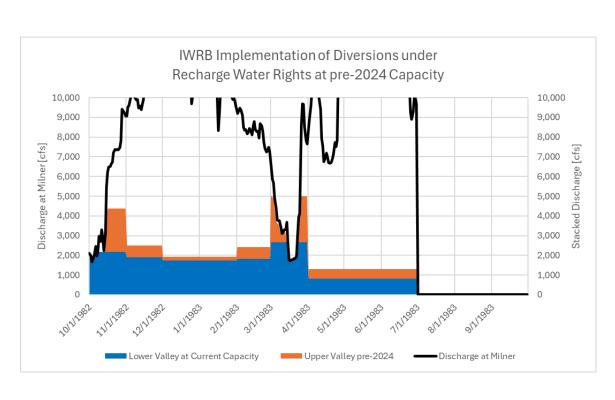
Recharge = 898,353 ac-ft

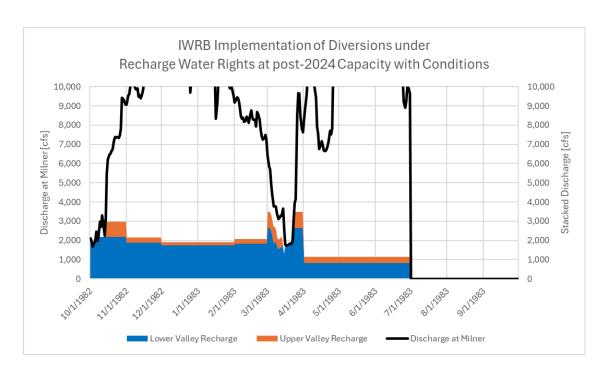
Condition 2: 277,271 ac-ft 15-year average

Recharge = 711,851 ac-ft









Condition 2: 326,422 ac-ft 15-year average

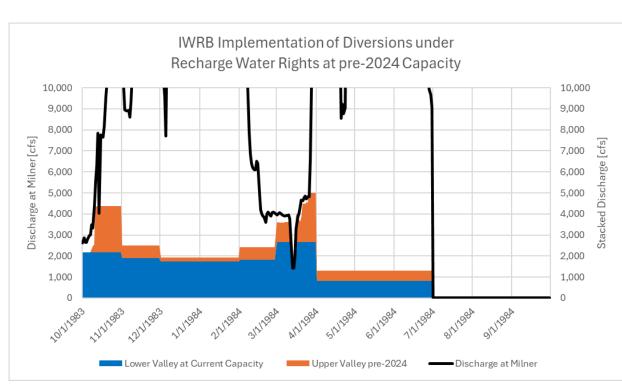
Recharge = 1,178,455 ac-ft

Condition 2: 324,727 ac-ft 15-year average

Recharge = 1,017,819 ac-ft

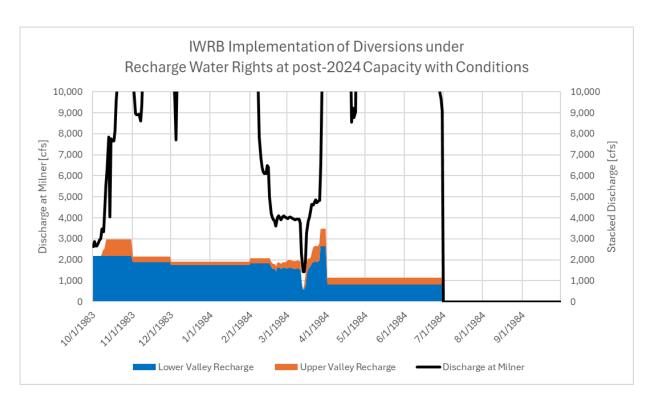








Recharge = 1,221,068 ac-ft

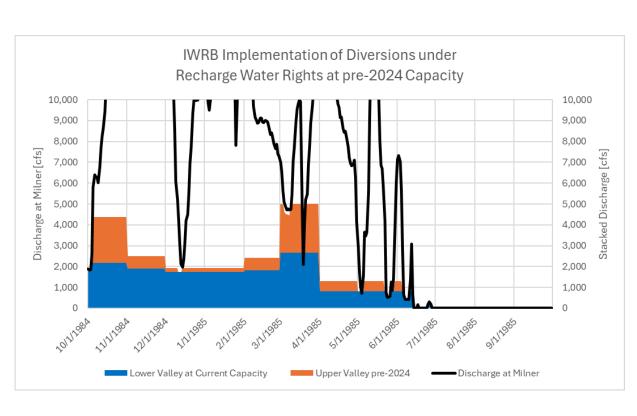


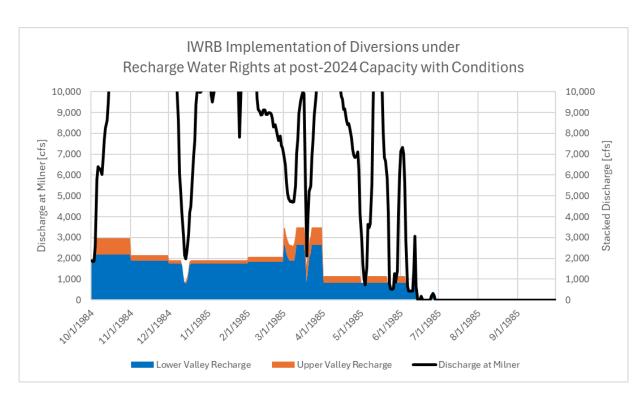
Condition 4: 359,249 ac-ft 15-year average

Recharge = 975,408 ac-ft









Condition 4: 453,057 ac-ft 15-year average

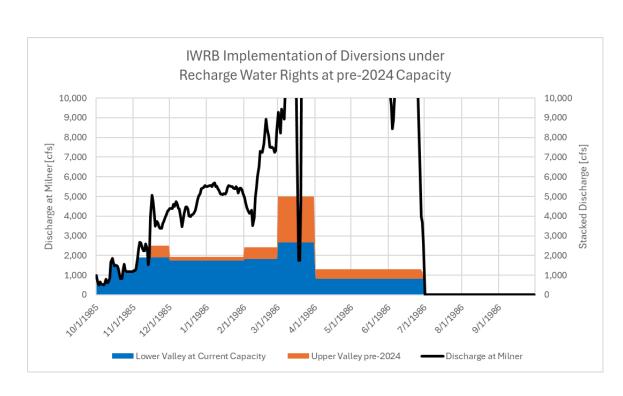
Recharge = 1,235,673 ac-ft

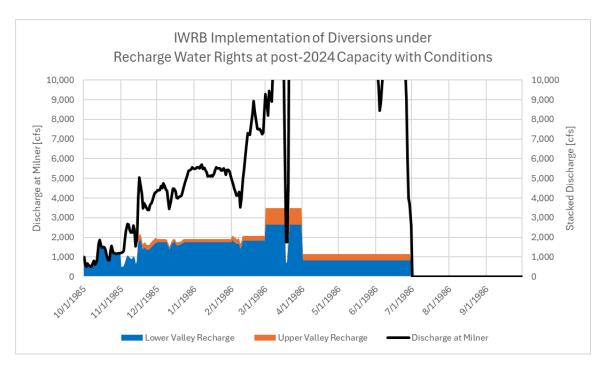
Condition 4: 407,609 ac-ft 15-year average

Recharge = 981,349 ac-ft









Condition 4: 518,768 ac-ft 15-year average

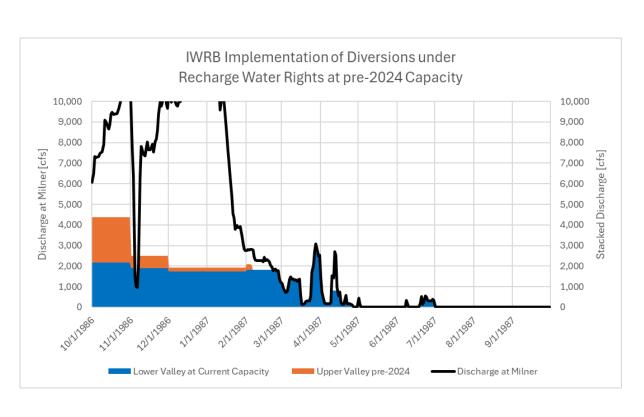
Recharge = 1,092,319 ac-ft

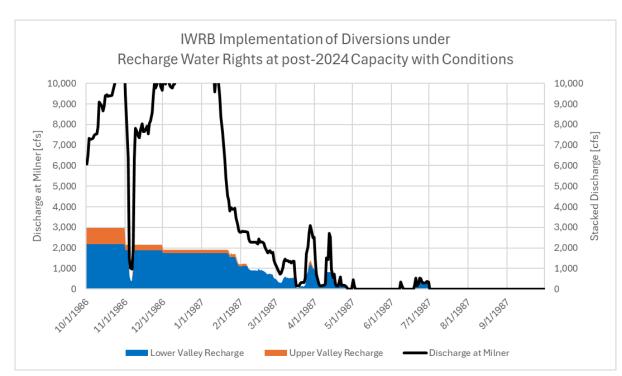
Condition 4: 456366 ac-ft 15-year average

Recharge = 891,379 ac-ft









Condition 4: 574,923 ac-ft 15-year average

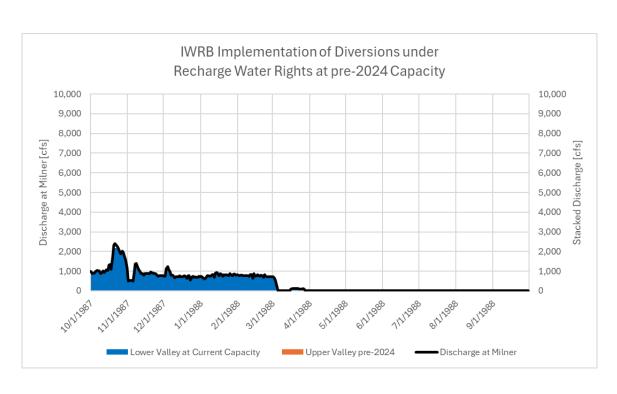
Recharge = 856,386 ac-ft

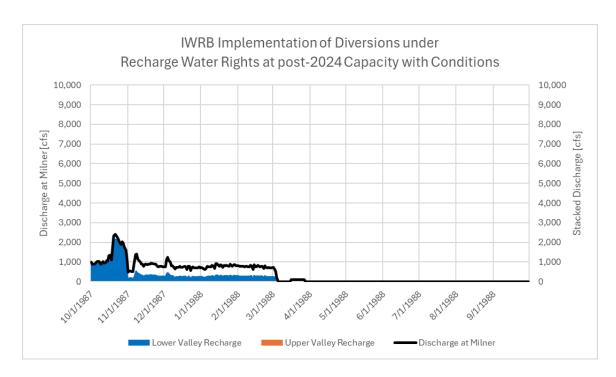
Condition 4: 499,124 ac-ft 15-year average

Recharge = 624,628 ac-ft









Condition 4: 615,349 ac-ft 15-year average

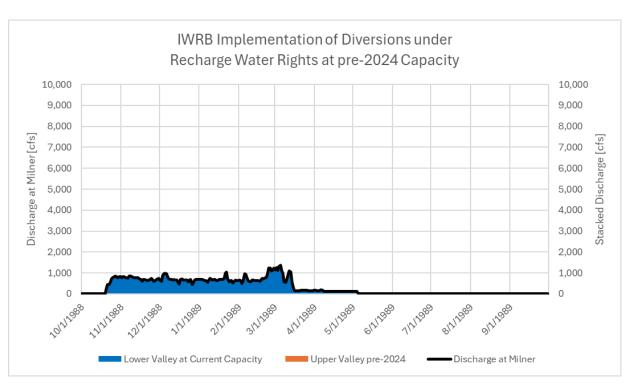
Recharge = 281,841 ac-ft

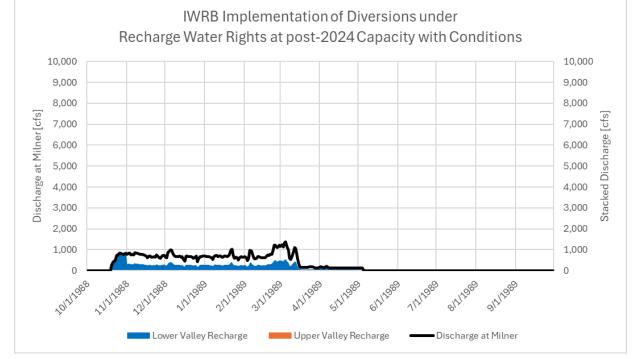
Condition 4: 524,099 ac-ft 15-year average

Recharge = 162,262 ac-ft









Condition 4: 518,250 ac-ft 15-year average

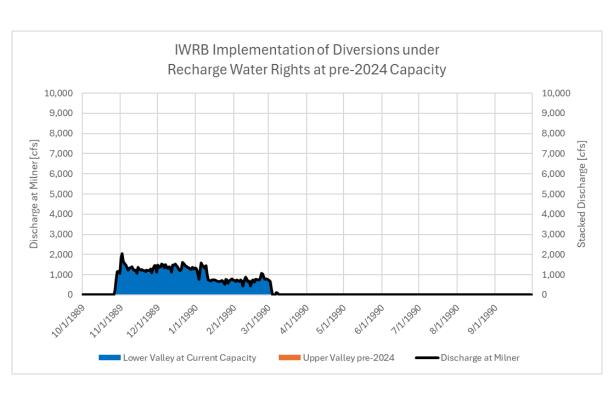
Condition 4: 617,472 ac-ft 15-year average

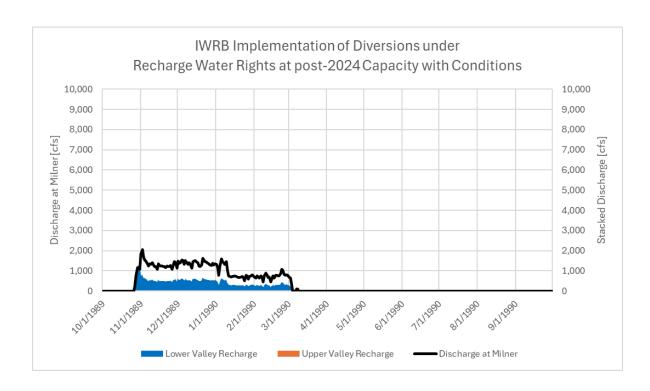
Recharge = 106,600 ac-ft

Recharge = 229,001 ac-ft









Condition 4: 616,072 ac-ft 15-year average

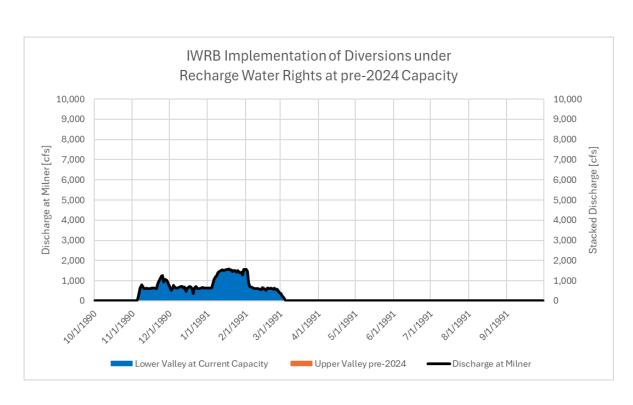
Recharge = 272,795 ac-ft

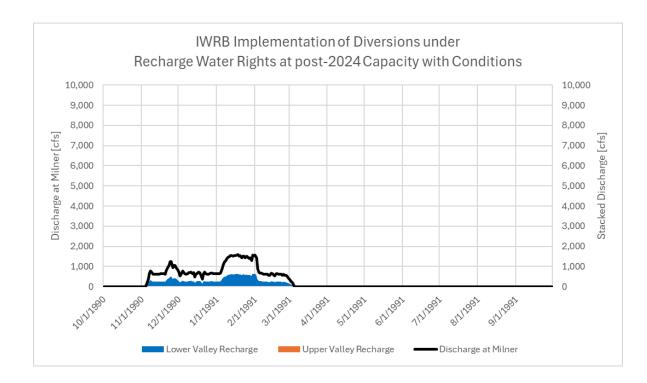
Condition 4: 508,690 ac-ft 15-year average

Recharge = 114,470 ac-ft









Condition 4: 617,591 ac-ft 15-year average

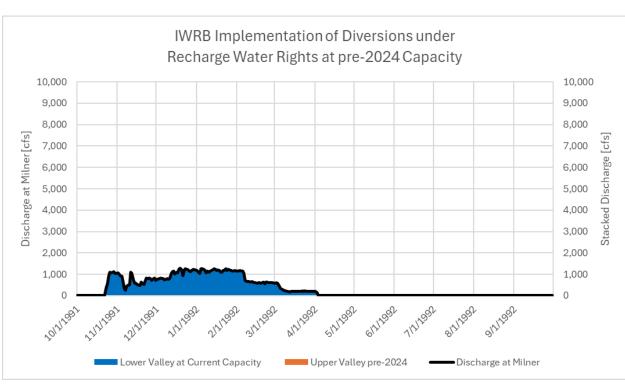
Recharge = 199,903 ac-ft

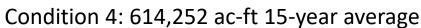
Condition 4: 499,655 ac-ft 15-year average

Recharge = 79,961 ac-ft

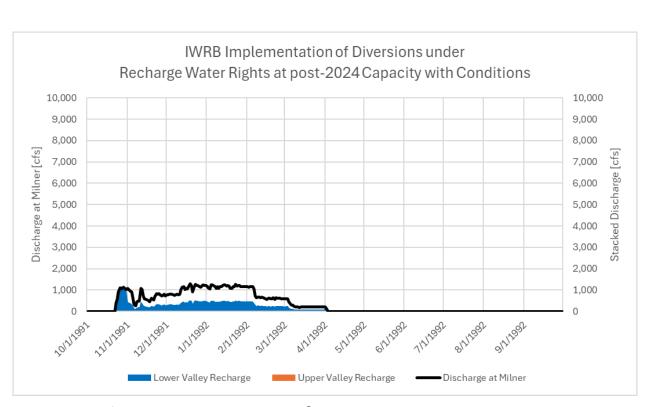








Recharge = 250,514 ac-ft

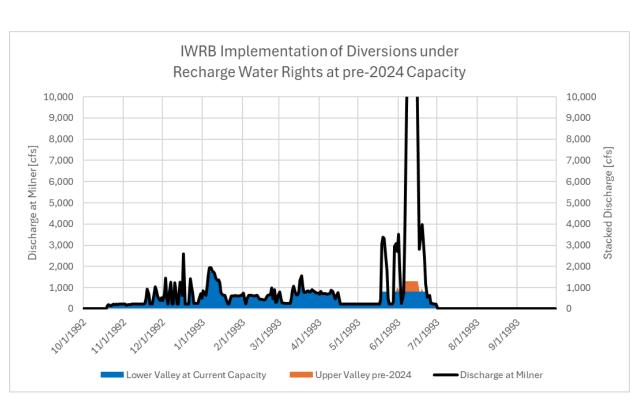


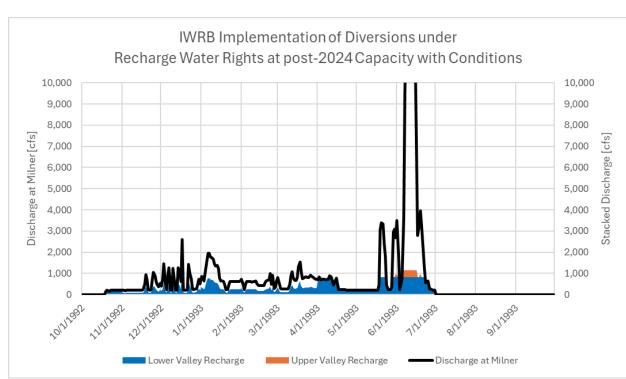
Condition 4: 488,319 ac-ft 15-year average

Recharge = 110,549 ac-ft









Condition 4: 614,286 ac-ft 15-year average

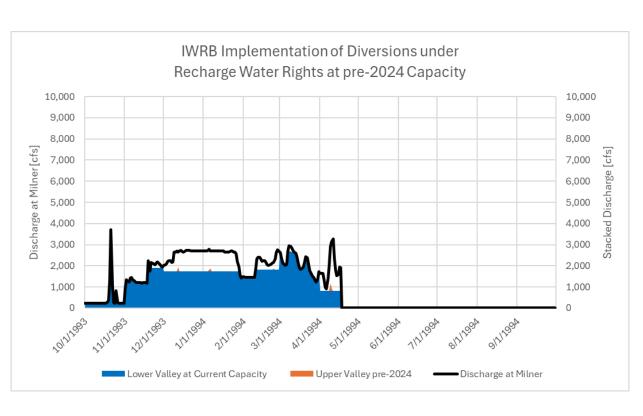
Recharge = 301,307 ac-ft

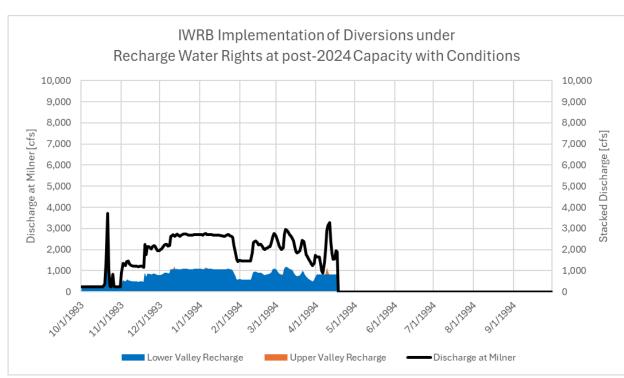
Condition 4: 479,022 ac-ft 15-year average

Recharge = 182,794 ac-ft









Condition 4: 617,706 ac-ft 15-year average

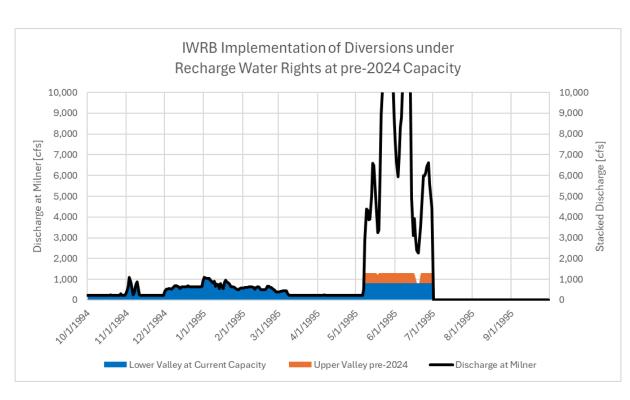
Recharge = 578,728 ac-ft

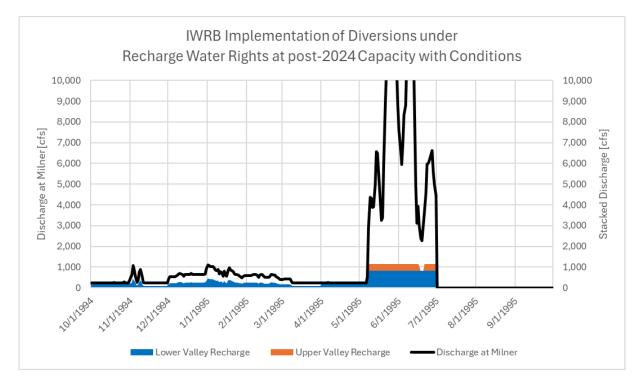
Condition 4: 474,542 ac-ft 15-year average

Recharge = 310,645 ac-ft









Condition 4: 478,585 ac-ft 15-year average

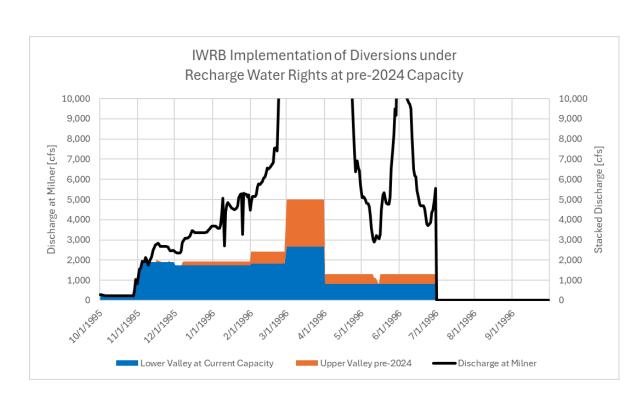
Condition 4: 639,621 ac-ft 15-year average

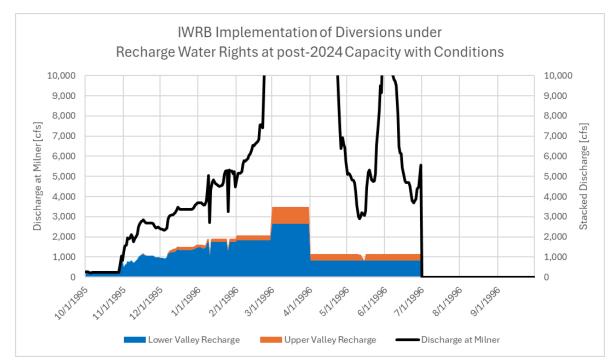
Recharge = 212,847 ac-ft

Recharge = 323,711 ac-ft









Condition 4: 636,298 ac-ft 15-year average

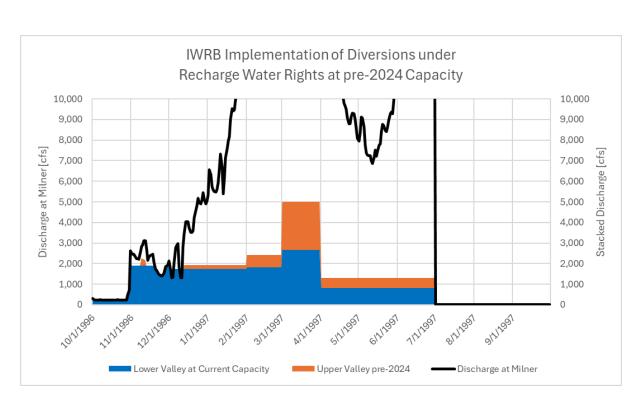
Recharge = 1,037,345 ac-ft

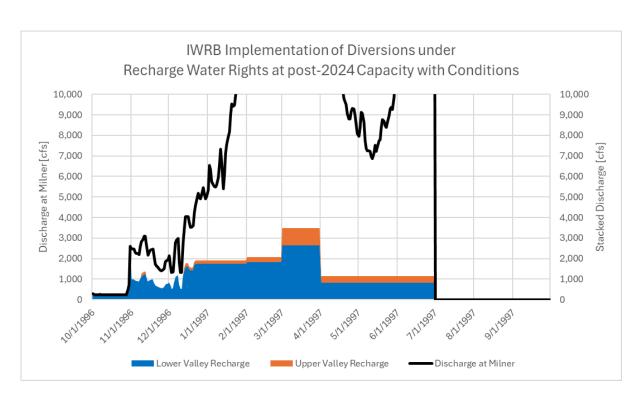
Condition 4: 469,263 ac-ft 15-year average

Recharge = 799,464 ac-ft









Condition 4: 663,827 ac-ft 15-year average

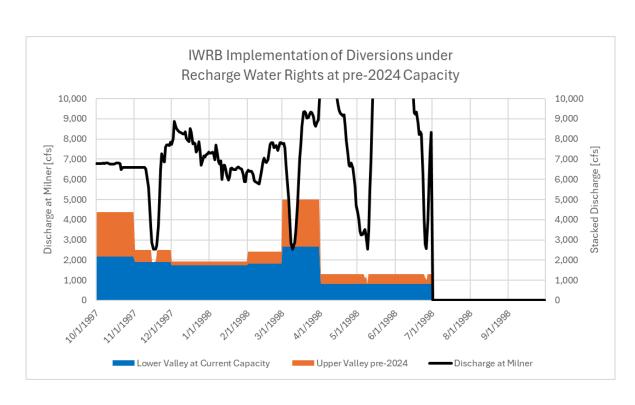
Recharge = 1,036,016 ac-ft

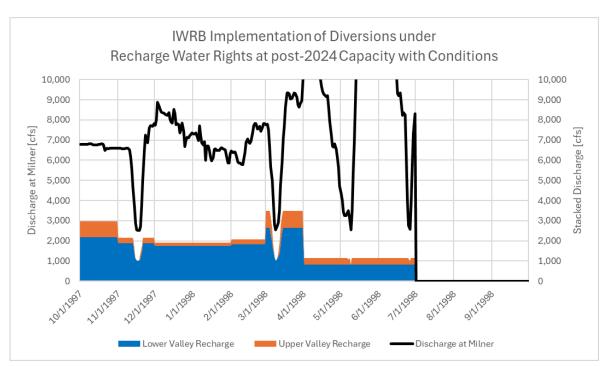
Condition 4: 485,468 ac-ft 15-year average

Recharge = 809,381 ac-ft









Condition 4: 673,004 ac-ft 15-year average

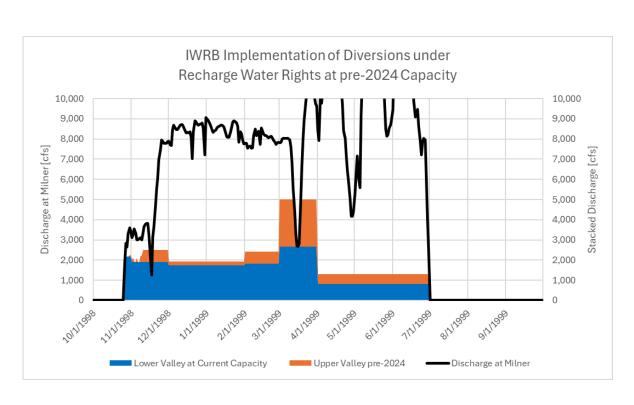
Recharge = 1,300,446 ac-ft

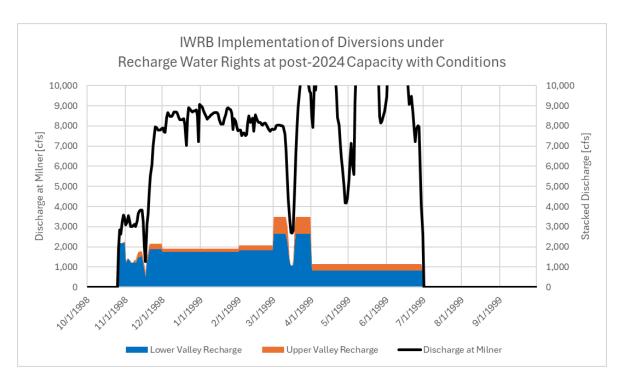
Condition 4: 491,970 ac-ft 15-year average

Recharge = 1,030,602 ac-ft









Condition 4: 681,137 ac-ft 15-year average

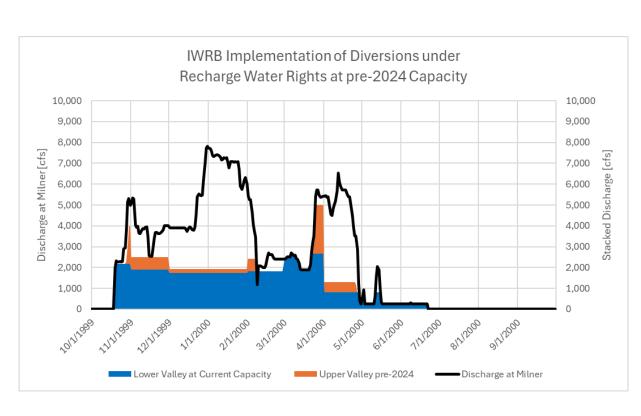
Recharge = 1,059,592 ac-ft

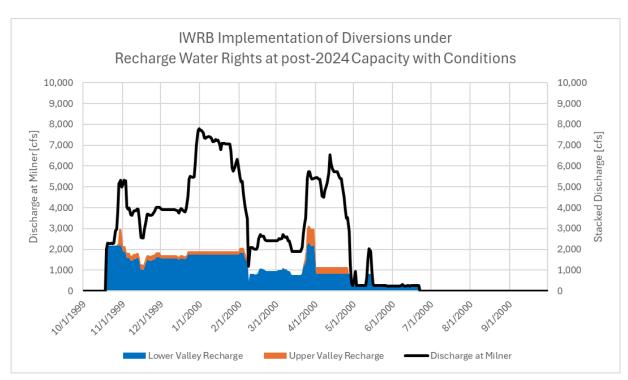
Condition 4: 492,823 ac-ft 15-year average

Recharge = 869,875 ac-ft









Condition 4: 670,372 ac-ft 15-year average

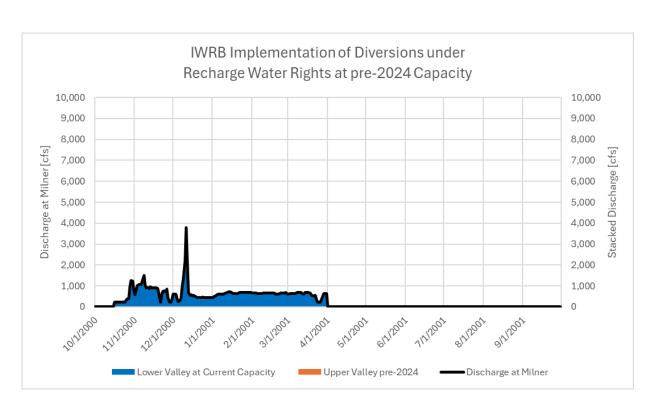
Recharge = 845,935 ac-ft

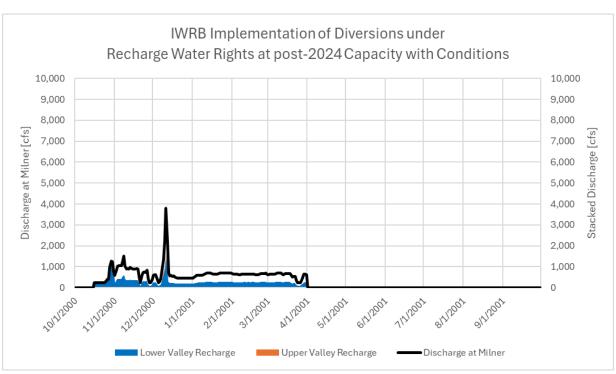
Condition 4: 485,787 ac-ft 15-year average

Recharge = 638,987 ac-ft









Condition 4: 644,389 ac-ft 15-year average

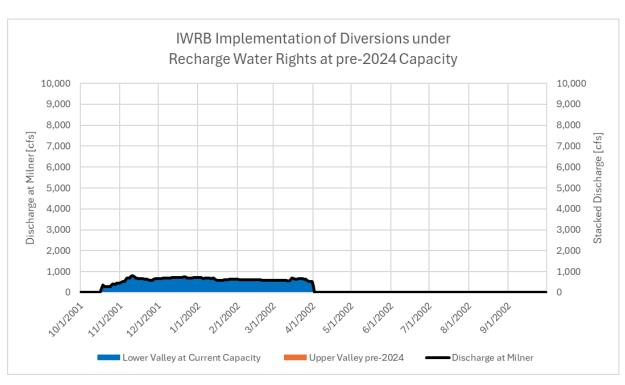
Recharge = 214,303 ac-ft

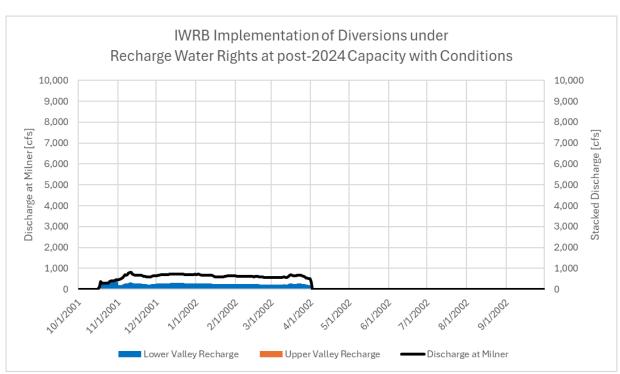
Condition 4: 462,963 ac-ft 15-year average

Recharge = 97,225 ac-ft









Condition 4: 585,855 ac-ft 15-year average

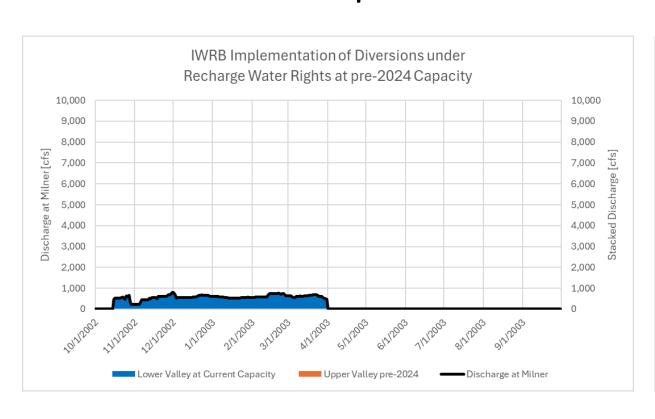
Recharge = 202,323 ac-ft

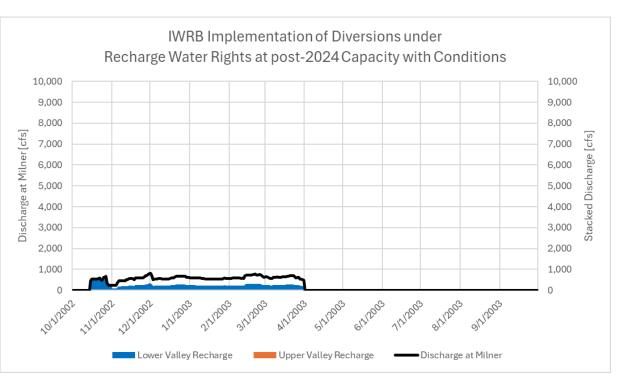
Condition 4: 410,019 ac-ft 15-year average

Recharge = 87,526 ac-ft









Condition 4: 542,251 ac-ft 15-year average

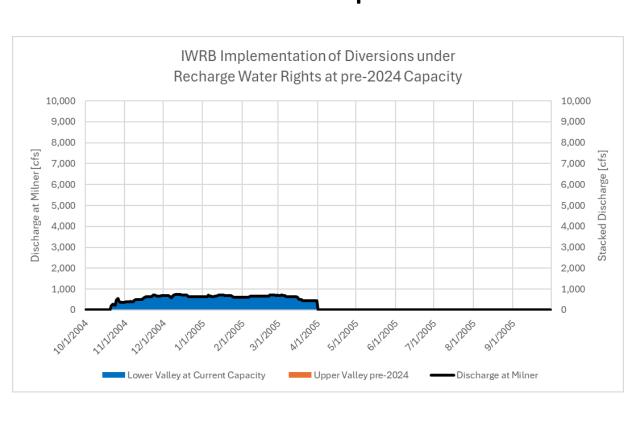
Recharge = 192,923 ac-ft

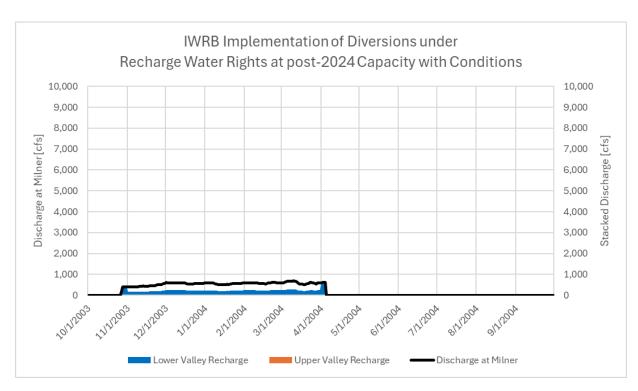
Condition 4: 374,213 ac-ft 15-year average

Recharge = 86,934 ac-ft









Condition 4: 536,323 ac-ft 15-year average

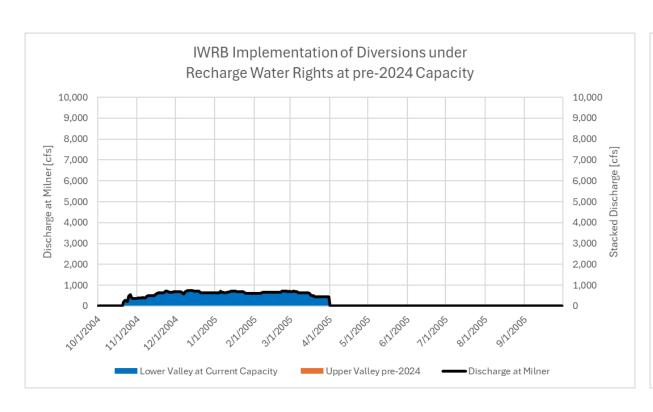
Recharge = 173,074 ac-ft

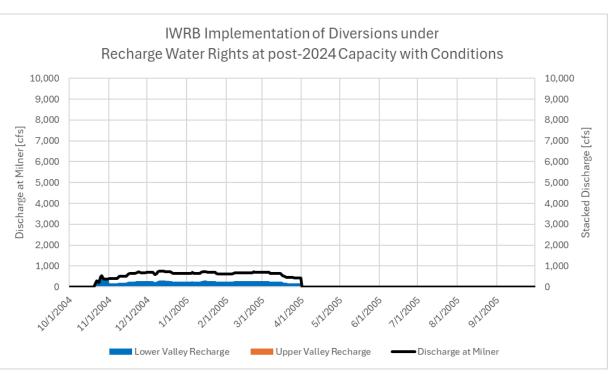
Condition 4: 369,191 ac-ft 15-year average

Recharge = 74,300 ac-ft









Condition 4: 532,594 ac-ft 15-year average

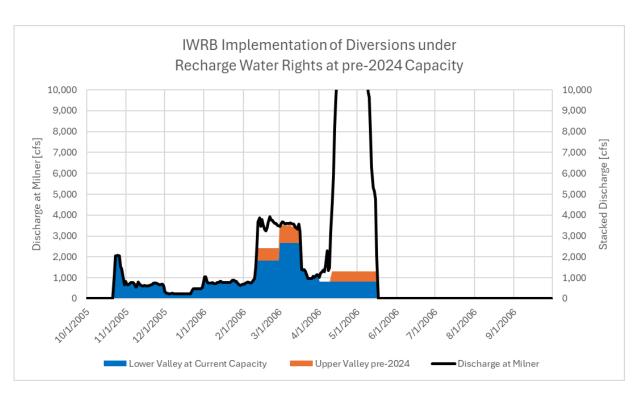
Recharge = 194,778 ac-ft

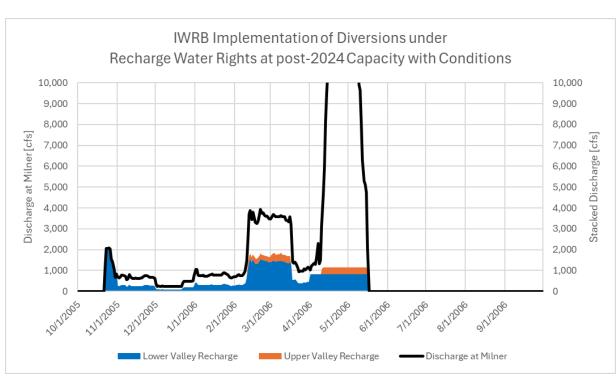
Condition 4: 367,037 ac-ft 15-year average

Recharge = 82,526 ac-ft









Condition 4: 527,393 ac-ft 15-year average

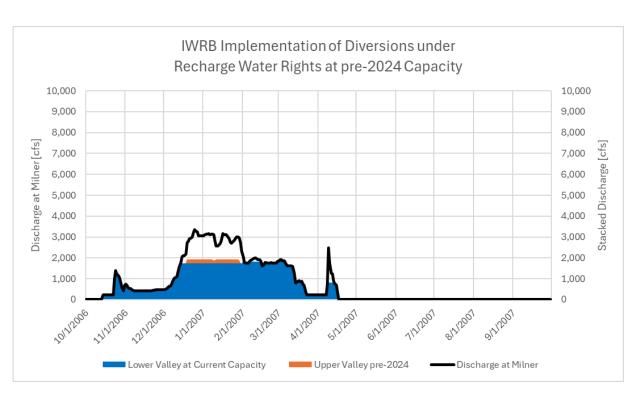
Recharge = 497,976 ac-ft

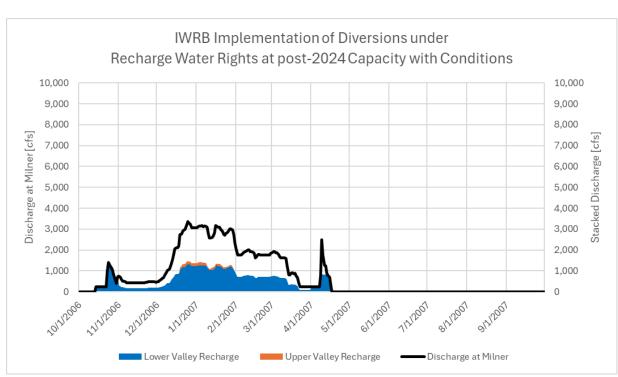
Condition 4: 364,908 ac-ft 15-year average

Recharge = 306,740 ac-ft









Condition 4: 547,265 ac-ft 15-year average

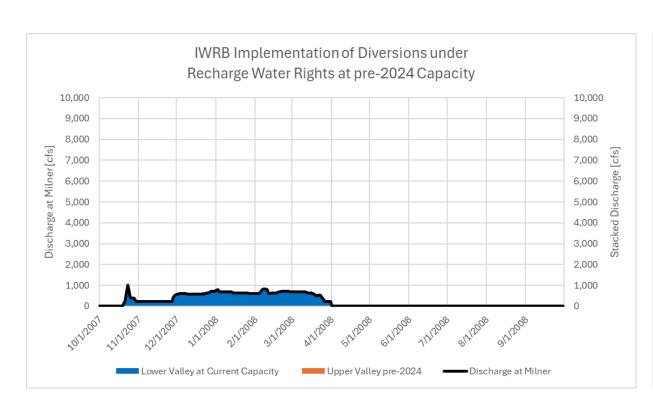
Recharge = 431,981 ac-ft

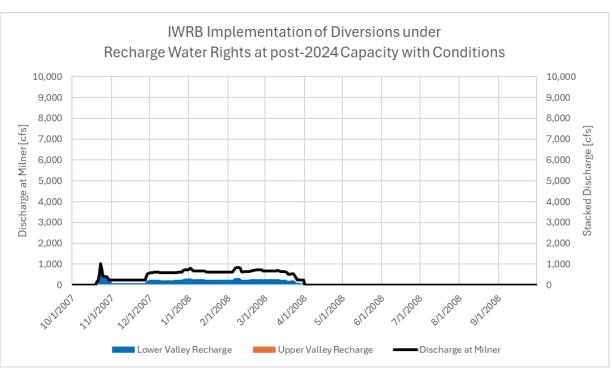
Condition 4: 380,026 ac-ft 15-year average

Recharge = 242,443 ac-ft









Condition 4: 559,363 ac-ft 15-year average

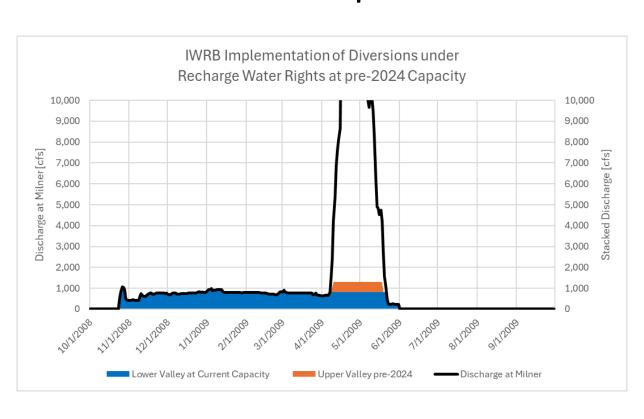
Recharge = 174,915 ac-ft

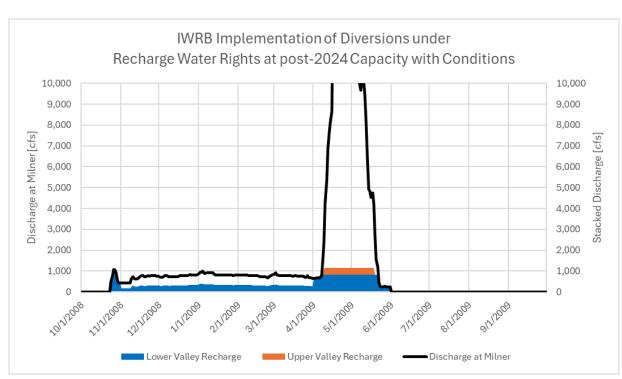
Condition 4: 388,819 ac-ft 15-year average

Recharge = 76,045 ac-ft









Condition 4: 550,936 ac-ft 15-year average

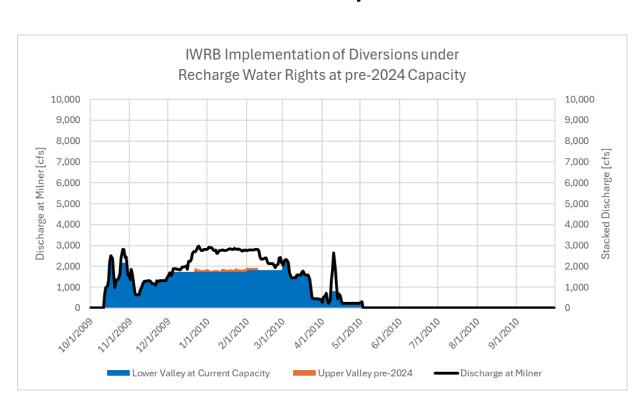
Recharge = 362,067 ac-ft

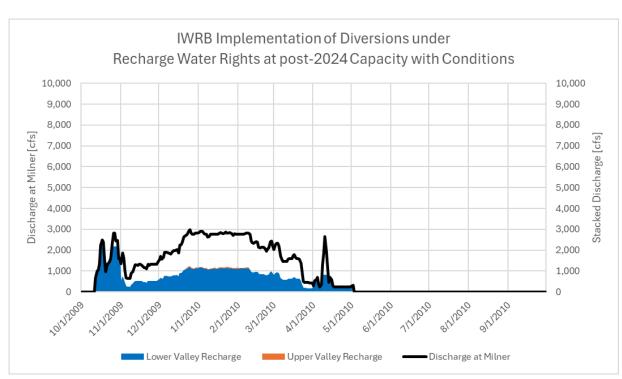
Condition 4: 381,703 ac-ft 15-year average

Recharge = 212,748 ac-ft









Condition 4: 536,492 ac-ft 15-year average

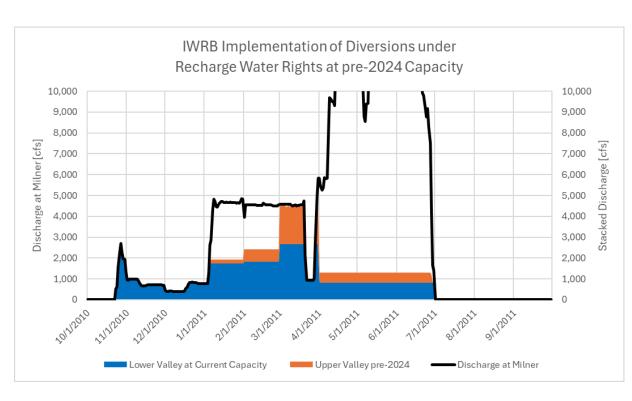
Recharge = 571,413 ac-ft

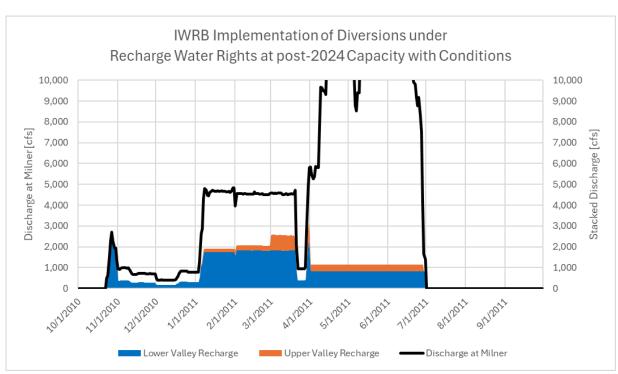
Condition 4: 375,176 ac-ft 15-year average

Recharge = 335,045 ac-ft









Condition 4: 553,006 ac-ft 15-year average

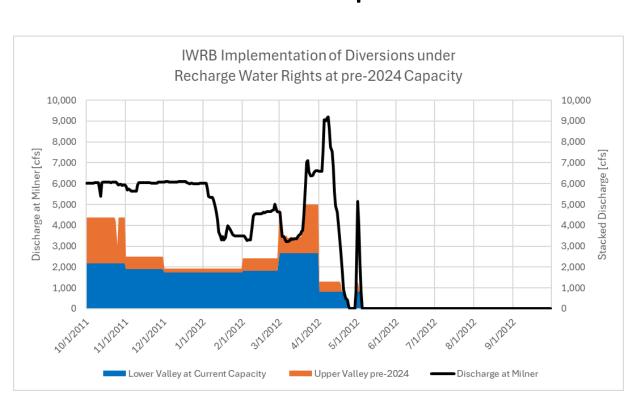
Recharge = 811,151 ac-ft

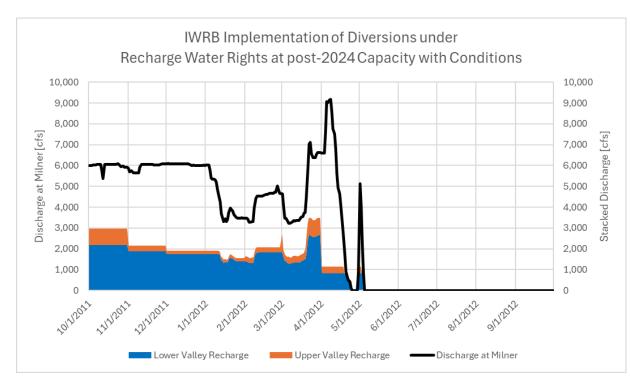
Condition 4: 383,323 ac-ft 15-year average

Recharge = 603,319 ac-ft









Condition 4: 537,926 ac-ft 15-year average

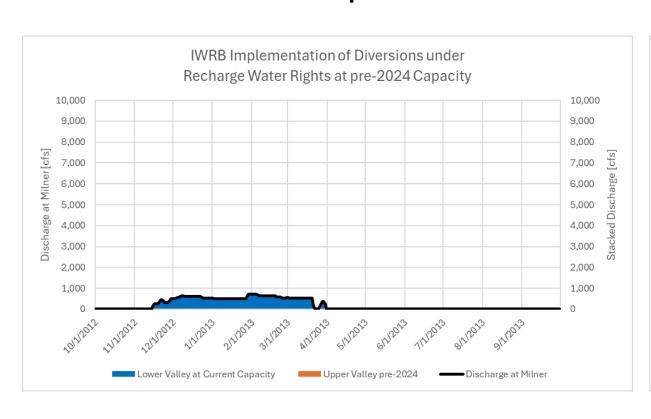
Recharge = 1,101,064 ac-ft

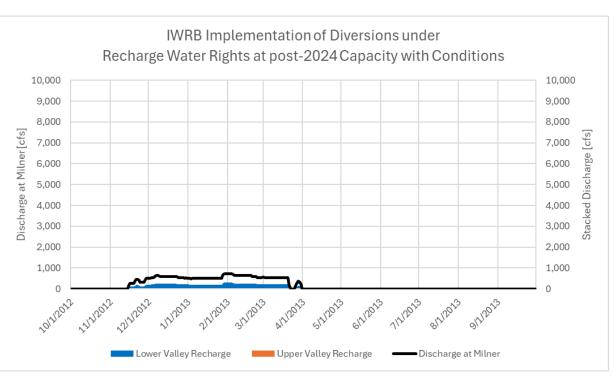
Condition 4: 370,246 ac-ft 15-year average

Recharge = 836,948 ac-ft









Condition 4: 542,263 ac-ft 15-year average

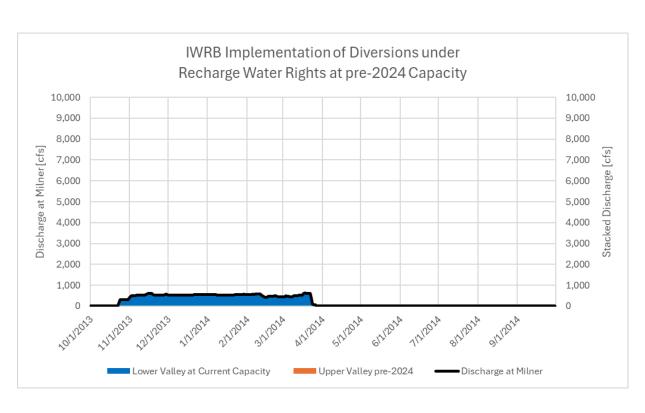
Recharge = 137,863 ac-ft

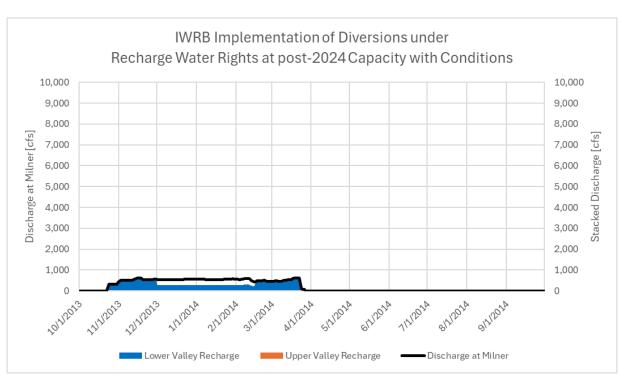
Condition 4: 372,084 ac-ft 15-year average

Recharge = 55,145 ac-ft









Condition 4: 464,757 ac-ft 15-year average

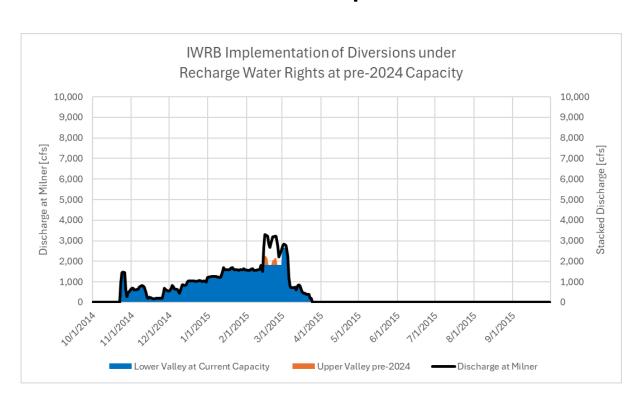
Recharge = 156,701 ac-ft

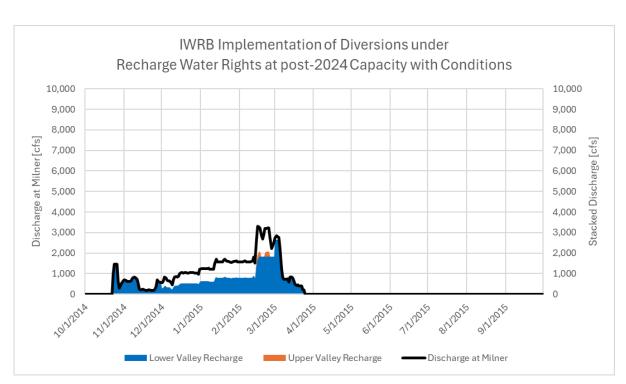
Condition 2: 307,054 ac-ft 15-year average

Recharge = 115,022 ac-ft









Condition 4: 404,564 ac-ft 15-year average

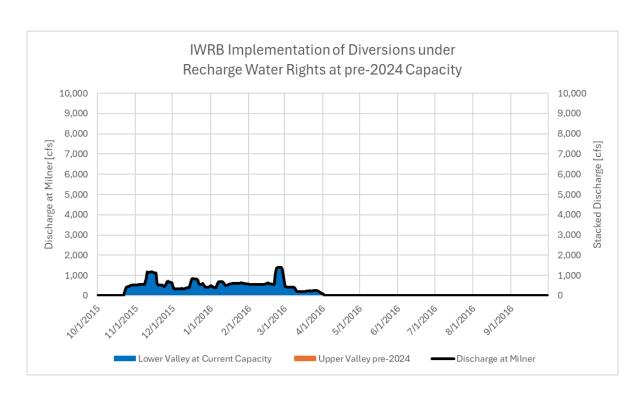
Recharge = 337,210 ac-ft

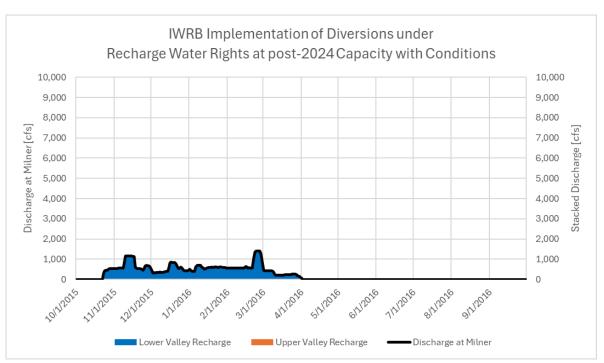
Condition 2: 256,730 ac-ft 15-year average

Recharge = 241,194 ac-ft









Condition 4: 370,649 ac-ft 15-year average

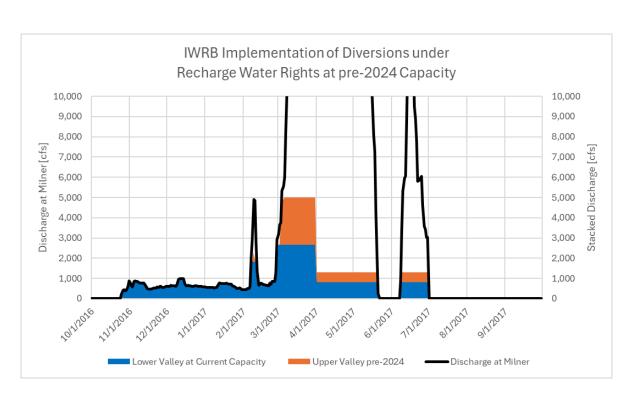
Recharge = 177,776 ac-ft

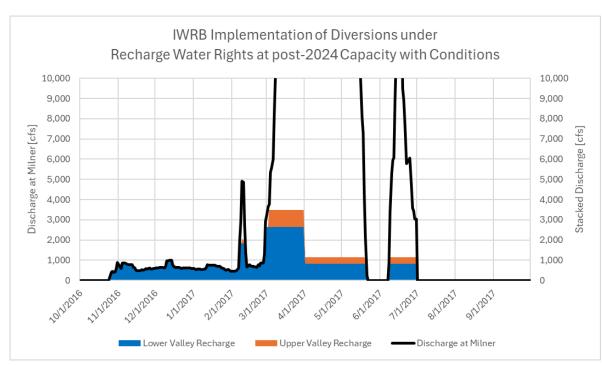
Condition 1: 230,211 ac-ft 15-year average

Recharge = 177,776 ac-ft









Condition 4: 368,214 ac-ft 15-year average

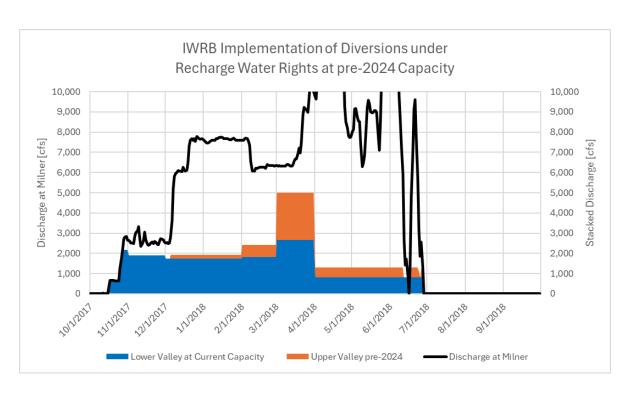
Recharge = 662,234 ac-ft

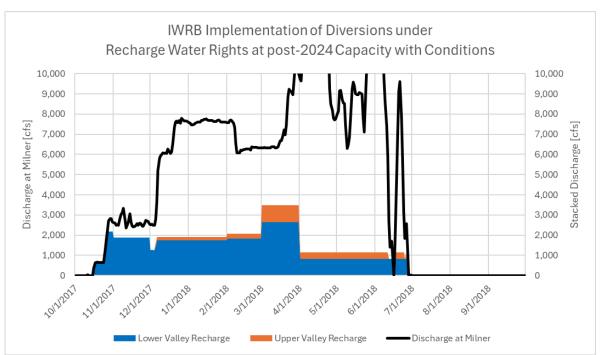
Condition 1: 235,581 ac-ft 15-year average

Recharge = 553,237 ac-ft









Condition 4: 398,875 ac-ft 15-year average

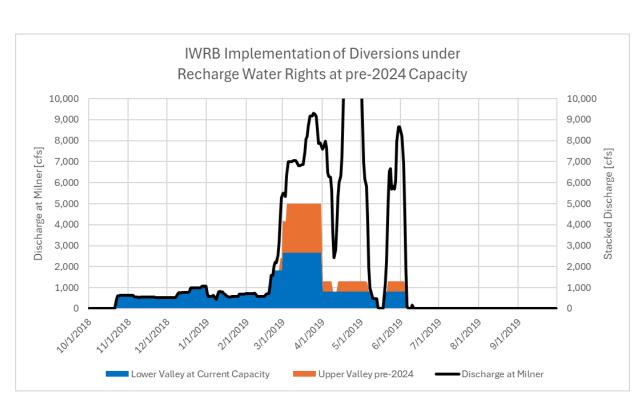
Recharge = 1,047,429 ac-ft

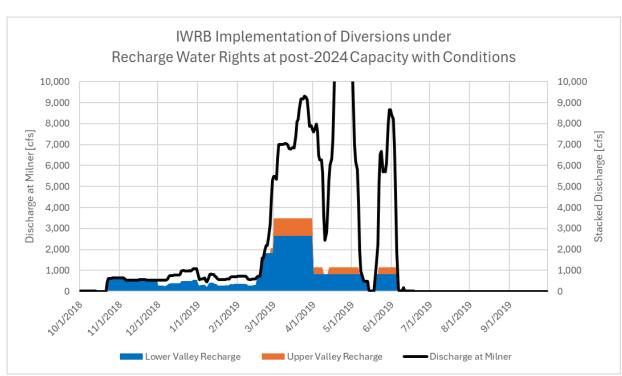
Condition 2: 266,628 ac-ft 15-year average

Recharge = 899,498 ac-ft









Condition 4: 455,842 ac-ft 15-year average

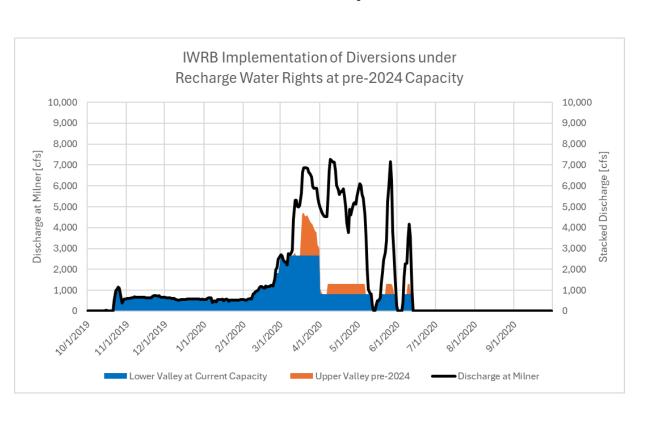
Recharge = 637,681 ac-ft

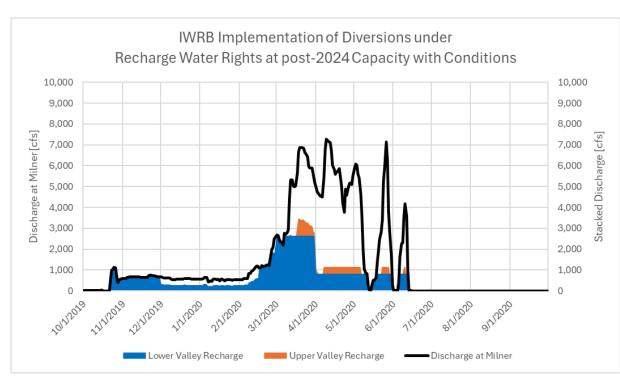
Condition 2: 320,735 ac-ft 15-year average

Recharge = 478,333 ac-ft









Condition 4: 486,816 ac-ft 15-year average

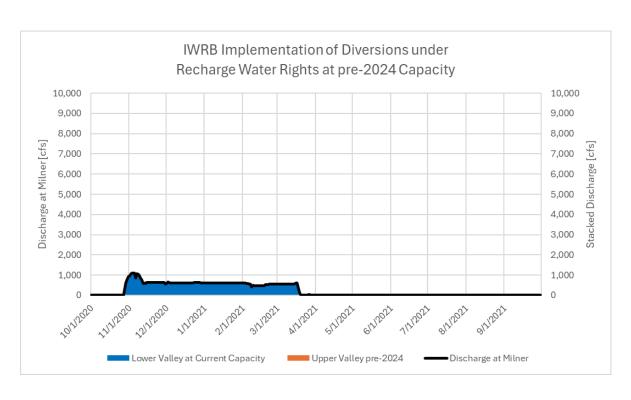
Recharge = 527,408 ac-ft

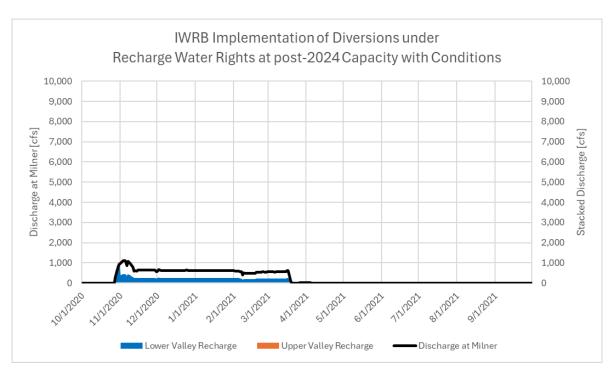
Condition 2: 347,735 ac-ft 15-year average

Recharge = 442,059 ac-ft









Condition 4: 508,991 ac-ft 15-year average

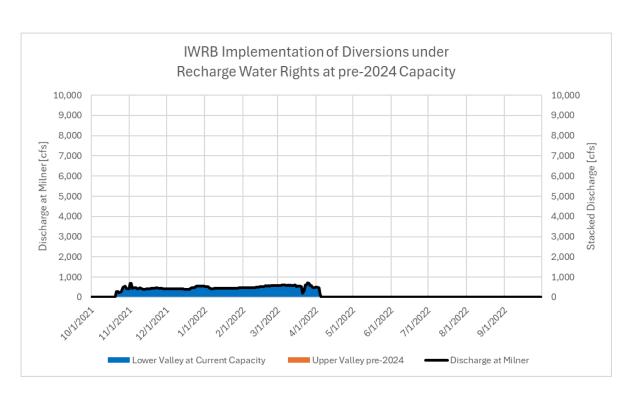
Recharge = 175,216 ac-ft

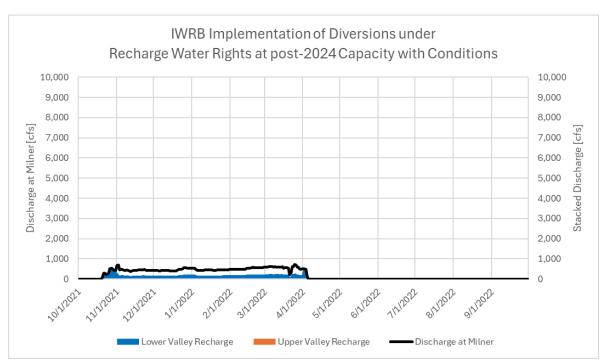
Condition 4: 371,704 ac-ft 15-year average

Recharge = 73,358 ac-ft









Condition 4: 487,474 ac-ft 15-year average

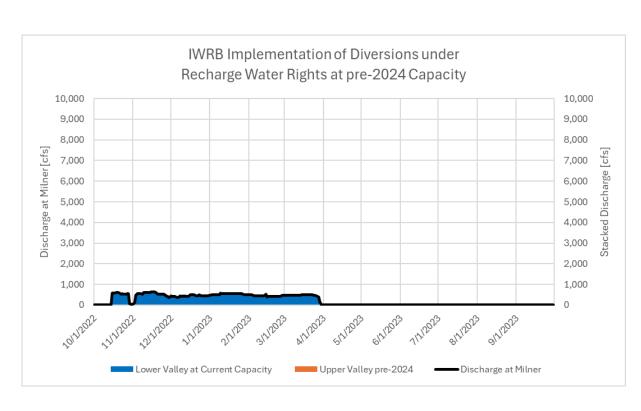
Recharge = 157,776 ac-ft

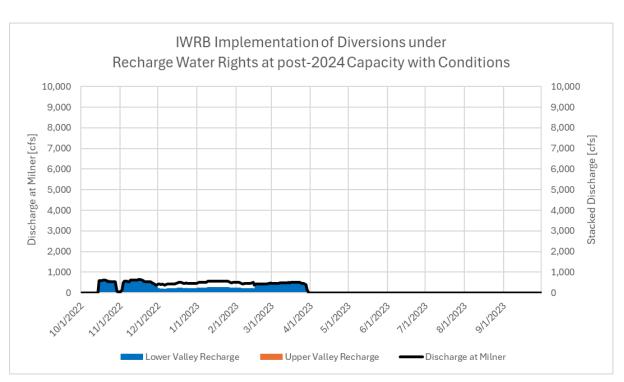
Condition 4: 356,145 ac-ft 15-year average

Recharge = 70,109 ac-ft









Condition 4: 487,474 ac-ft 15-year average

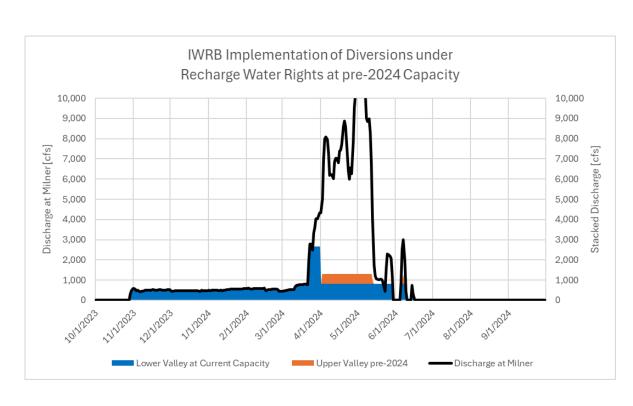
Recharge = 158,288 ac-ft

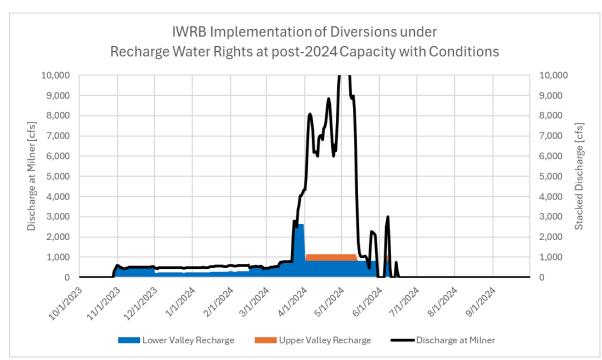
Condition 2: 344,656 ac-ft 15-year average

Recharge = 121,345 ac-ft









Condition 4: 468,085 ac-ft 15-year average

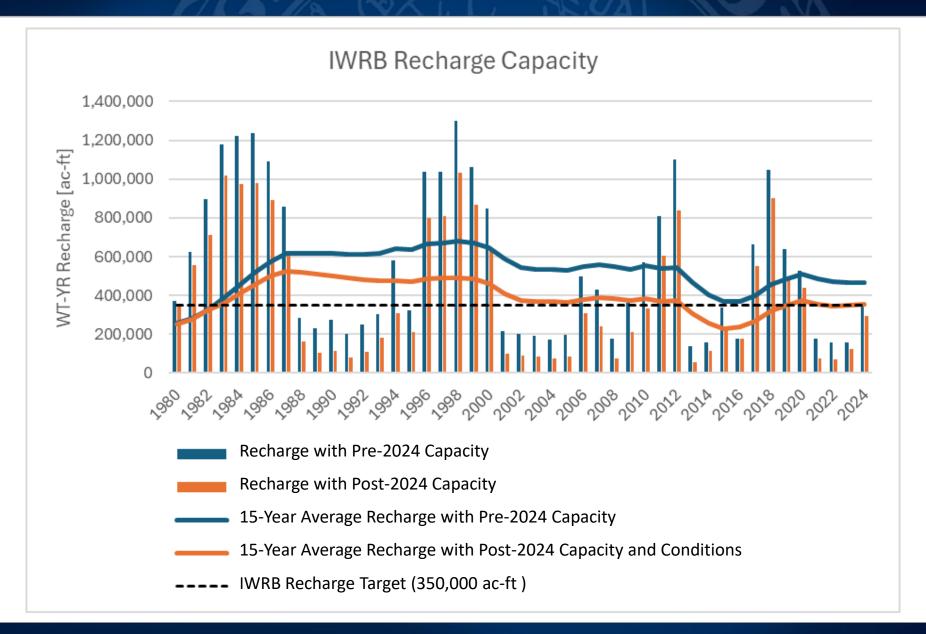
Recharge = 347,413 ac-ft

Condition 2: 347,646 ac-ft 15-year average

Recharge = 293,690 ac-ft

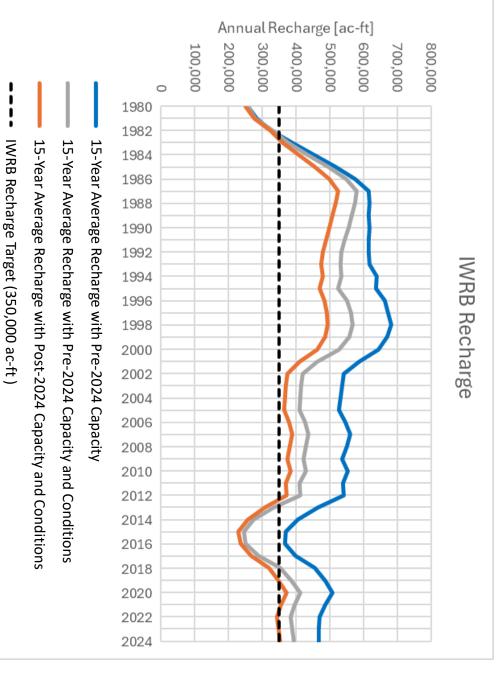








# Current Capacity Recharge vs. w/ Conditions







# Conclusions

- Under historic conditions, the 15-year rolling average would stay near 350,000 ac-ft.
- Under 1930 drought conditions, the IWRB would not reach 350,000 ac-ft for at least a decade or more.
- Under 1970 pluvial conditions, the IWRB would quickly reach and exceed 350,000 ac-ft.

### Memorandum

To: Idaho Water Resource Board: Water Supply Management Committee

From: Planning & Projects Bureau Staff

Date: October 24, 2025

Re: Idaho Power Co. Recharge Capacity Analysis



### **ACTION: No action**

An analysis by Idaho Power Company will discuss recharge capacity.