# Mono Basin Runoff Year 2026-27
# Annual Operations Plan

Licenses 10191 and 10192
Order WR 2021-0086 EXEC – October 1, 2021

**May 2026**

**Los Angeles Department of Water and Power**

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# I. Abbreviations, Definitions, Memberships Table

| | |
|---|---|
| amsl | above mean sea level |
| AF | acre-feet |
| AFA | acre-feet per annum |
| AOP | Annual Operations Plan |
| BAU | business-as-usual |
| CDFW | California Department of Fish and Wildlife |
| CEQA | California Environmental Quality Act |
| cfs | cubic feet per second |
| DSOD | California Department of Water Resources, Division of Safety of Dams |
| Deputy Director | Deputy Director for the Division of Water Rights |
| Division | State Water Resources Control Board, Division of Water Rights |
| GLOMP | Grant Lake Operations and Management Plan |
| GLR | Grant Lake Reservoir |
| Grant Outlet | Grant Lake Outlet |
| LADWP | Los Angeles Department of Water and Power (Licensee) |
| License(s) | Amended Licenses 10191 and 10192 |
| MAT | Mono Basin Monitoring Administration Team |
| MBOP | Mono Basin Operations Plan |
| MGORD | Mono Gate One Return Ditch |
| Monitoring Directors | Stream Monitoring Team, Limnology Director, and Waterfowl Director |
| Parties | California Department of Fish and Wildlife, Mono Lake Committee, and California Trout |
| RCTE | riffle crest thalweg elevation |
| RY | runoff year |
| SCE | Southern California Edison |
| SEFs | Stream Ecosystem Flows |
| SMT | Stream Monitoring Team |
| SMR | storage management release |
| State Water Board | State Water Resources Control Board |
| TUCP | Temporary Urgency Change Petition |
| USFS | United States Forest Service |
| USGS | United States Geological Service |
| **Teams and Directors as of Current Runoff Year:** | |
| MAT | The Parties and LADWP |
| SMT | Bill Trush (streams) & Ross Taylor (fisheries) |
| Waterfowl Director | Director position to be filled |
| Limnology Director | Dr. John Melack |

# II. Introduction

The purpose of the AOP is to describe how operations will commence for the current year-type to accomplish exports and stream releases in accordance with the Licenses.

The AOP provides specific information about the flow schedule, export, and facility operations for the year ahead. The AOP also evaluates the prior year's plan and compares it to actual runoff and operations.

The timeline for AOP development and submittal is as follows:

- By March 31: convene a meeting to prepare for developing the AOP. Meeting attendees to include the SMT, the Waterfowl Director, the Limnology Director, and the Parties.
- By April 15: distribute the draft AOP to the Waterfowl Director, SMT, Limnology Director, and the Parties.
- By April 24: receive written comments from the Parties, SMT, and Directors on the draft AOP.
- By May 5: convene a meeting to address any unresolved issues.
- By May 15: submit the AOP to the SWRCB Deputy Director for a 30-day review, modification, and approval, if necessary. No Division approval is necessary if the terms of the AOP are entirely within the parameters of the MBOP then in effect.

The draft MBOP (last revised in 2024) is pending SWRCB review and approval and is not in effect at the time of this writing. eSTREAM input hydrology for Rush Creek was adjusted from RY 1971–2016 based on discussions with the Parties preceding the Draft AOP. The revised hydrology better reflects current SCE operational practices, which in turn provides more accurate GLR inflow projections. The total volume of Rush Creek in any given RY is unchanged. Please see the attachments for related information.

# III. Summary of Mono Basin RY 2025-26 Operations

LADWP conducted Mono Basin operations in accordance with the 2025-26 AOP summarized below. No water diversions occurred on Walker or Parker Creeks. Rush Creek flows operated per Table 1, and Lee Vining Creek operated per Table 2. Exports were approximately 15,900 AF, and GLR spilled approximately 1,400 AF.

| | |
|---|---|
| Planned Operations for RY | 2025-26 |
| Year Type | Dry-Normal I |
| April 1 Mono Lake Elev (USGS) | 6,383.25 ft |
| April 1 GLR Elev. & Storage | 7,118.6 ft & 35,250 AF |
| Rush Creek SEF Table | 1F |
| Lee Vining SEF Tables | 2B, 2C |
| Projected Five Siphons Operation | No; will operate if GLR <25k AF on 7/1/25 |
| Projected West Portal (AF) | 16,000 |
| Projected GLR Spill (AF) | 0 |
| SMT Adaptive Management | No |

Combined MGORD and spillway flows led to a peak release from GLR of 161 cfs in June. Final runoff and export data will be presented in the corresponding Quarterly Reports, along with any comments on operations.

DSOD valve cycling took place in September 2025, as part of a valve condition and function evaluation with consultant support. The evaluation report was submitted to DSOD as part of a GLR Workplan in March 2026. After review and acceptance by DSOD, the evaluation will be shared with the Parties. This evaluation has resulted in an allowable rotovalve flow of 380 cfs and led to a change in planned schedule for the GLR facilities diver inspection.

The SMT conducted fish survey work in September 2025.

Lee Vining Creek operations were based on upstream flows according to Table 2 and adjusted on an hourly basis. This hourly-based operation complied with the SEF requirements, but this compliance may not be apparent when only viewing average daily flow data. The SMT prefers this method of operation on Lee Vining Creek over daily-based operations. Refer to the 2023-24 AOP for a detailed explanation of this operation methodology.

# IV. Proposed Mono Basin Operations Plan for RY 2026-27

## *A. Forecast for RY 2026-27*

The May runoff forecast for RY 2026-27 is 72.7% of normal, or about 86,000 AF of runoff.

The May runoff forecast was prepared using the same equations described in the 2025 Final AOP. Input factors specific to this year's forecast:

- The Gem Lake precipitation gage value was estimated from Cain Ranch data because SCE has not yet provided the Gem Lake record.

- March 2026 experienced unusually high temperatures, which increased creek flows. LADWP determined this represented an early runoff event rather than higher baseflows. Therefore, March baseflow inputs were set to proportionally match February 2026 values (143% of normal for the month).

- The Gem Pass snow pillow remains non-operational. Changes in water content at the Mammoth Pass snow pillow from April to May were used to estimate Gem Pass values. The same proportional change was then applied to other relevant Mono snow courses.

## *B. Adaptive Management*

The SMT can provide adaptive management recommendations for flow requirements (such as ramping rates, durations, timing, and/or start and end dates) for SEF Tables 1 and 2, per Paragraphs 11.a.1, 20.f.3 and 20.f.4 of the Licenses. Each year the SMT produces an Annual Monitoring Report to document monitoring observations and discuss possible adaptive management recommendations; the SMT may also include adaptive management recommendations in comments on the draft AOP.

Real-time adaptive management in response to unforeseen circumstances may also be proposed by the SMT, per Paragraph 20.f of the Licenses. Unforeseen circumstances are extreme events (e.g., structural failures or natural disasters) that are not expected variations of regular operations. Such recommendations will be made by written notice to the Division, and they shall be developed in consultation with LADWP and Parties.

Adaptive management recommendations are subject to review, modification, and approval by the Deputy Director.

## *C. Planned Operations*

Planned operations are summarized in the table below and will be based on the Mono Basin runoff forecast, SEF tables, Mono Lake elevation, SMT adaptive management comments, and any events that may arise during the year. RY operations were modeled in eSTREAM using April 1 elevations for GLR and Mono Lake.

| | |
|---|---|
| April 1 Year Type | Dry-Normal I |
| April 1 Mono Lake Elev. (USGS) | 6,382.75 ft |
| April 1 GLR Elev. & Storage | 7,129.4 ft & 46,500 AF |
| Staff Gages & zero elevation (USGS) | 1Q (6383.12)<br>1U (6380.10) |
| Rush Creek SEF Table | 1F |
| Lee Vining SEF Tables | 2B, 2C |
| Projected Five Siphons Operation | No; will operate if GLR <25k AF on 7/1/26 |
| Projected West Portal (AF) | 16,000 |
| Projected GLR Spill (AF) | 2,800 |
| SMT Adaptive Management | Discussed during Draft AOP Comments Meeting; will run Table 1 and Table 2 per Amended Licenses |

The operational plan in this AOP uses RY 2008-09 hydrology, which was 72 percent of normal. Planned Lee Vining Creek flows will follow Table 2, and planned Rush Creek flows will follow Table 1.

Planned export is 16,000 AF. Modeled export flow in eSTREAM starts in spring, given the elevation of GLR and unintended spill. Export flow will be turned off later in spring or summer after GLR elevation falls below the spillway, and exports will resume in late summer. Planned export flow ranges are from 10-80 cfs during the runoff year. Plans are to maintain the rotovalve above 37 cfs per the rotovalve evaluation report. LADWP staff will monitor aqueduct system storage and hydrologic conditions throughout the year regarding Mono Basin operations, including exports. Operational considerations will include maintaining Rush Creek fishery and streambed in good health, meeting environmental obligations, and supplying water to the City.

The SMT has planned field survey work during this RY. Riparian surveys are tentatively planned for late summer. Fish surveys are planned for September 11 to 23. LADWP staff will meet with the SMT in the field before the survey work begins. During any fish survey periods, creek flows will be adjusted as directed by the SMT. Planned monitoring activities by the fisheries SMT are attached.

The Walker and Parker Creeks sediment bypass project is currently in the design phase. LADWP will request a meeting with CDFW for project input regarding construction work as design progresses.

If GLR approaches spill elevation between October and March, planned operations are to cease Lee Vining Creek diversions and/or release SMRs if GLR storage is above 46,500 AF to avoid winter spills. Target SMRs will be at or below values discussed in Chapter 8.3.2 of the draft MBOP (shown below).

| Month | MBOP # cfs | SEF # cfs | cfs increase | Possible AF/period |
|---|---|---|---|---|
| October | 70 | 27 | 43 | 2,600 |
| November | 35 | 27 | 8 | 500 |
| December | 35 | 27 | 8 | 500 |
| Jan - Mar | 90 | 27 | 63 | 11,400 |
| | | | Total = | 15,000 |

Rush Creek and Lee Vining Creek and Conduit daily flows depend on both hydrology and SCE operations, and therefore may differ from eSTREAM model flows.

Each year includes planned cycling of the GLR outlet valve per DSOD requirements. The planned cycling period will depend on the applicable SEF tables for Rush Creek and typically occurs during periods of higher SEF flows in the summer months and will also depend on scheduling of SMT field work. The downstream effects of valve cycling include a reduction and then an increase in flows, followed by a return to the SEF flow rate at the completion of the cycling exercise. The cycling procedure occurs over a two- or three-hour period and the reduction and increase in flows is attenuated downstream due to the relatively short duration of flow variation. Based on experience, SEF flow values would likely be met during any cycling exercise.

This AOP is based on projections from eSTREAM modeling and forecasts with the understanding that actual creek flows and runoff may vary substantially due to actual hydrology, weather patterns, SCE and other agency operations, and/or other factors. LADWP will notify the Parties of adjustments in operations via electronic communication within five business days if changes conflict with License requirements. Otherwise, monthly and quarterly reports will document adjustments in operations.

# ATTACHMENTS

**TABLE 1F: RUSH CREEK STREAM ECOSYSTEM FLOWS FOR DRY/NORMAL I YEARS**

| Hydrograph Component | Timing | Flow Requirement | Ramping Rate |
|---|---|---|---|
| Spring Baseflow | April 1 – April 30 | 40 cfs | Maximum: 10% or 10 cfs* |
| Spring Ascension | May 1 – May 15 | 40 cfs ascending to 80 cfs | Target: 5% Maximum: 25% |
| Snowmelt Bench | May 16 – July 3 | 80 cfs | Maximum Ascending: 20% Maximum Descending: 10% or 10 cfs* |
| Medium Recession (Node) | July 4 – July 9 | 80 cfs descending to 55 cfs | Target: 6% Maximum: 10% or 10 cfs |
| Slow Recession | July 10 – July 30 | 55 cfs descending to 30 cfs | Target: 3% Maximum: 10% or 10 cfs* |
| Summer Baseflow | July 31 – September 30 | 30 cfs target 28 cfs minimum | Maximum: 10% or 10 cfs* |
| Fall and Winter Baseflow | October 1 – March 31 | 27 cfs target 25 cfs minimum and 29 cfs maximum | Maximum: 10% or 10 cfs* |
| | | | * whichever is greater |

**TABLE 2B: LEE VINING CREEK STREAM ECOSYSTEM FLOWS**

| Timing: April 1 – September 30 | | | | | | Year-type: Dry/Normal I, Dry | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum ramping at the beginning and end of this period is 20%. | | | | | | | | | | |
| **Inflow** | **Flow Requirement** | | | | | | | | | |
| 30 cfs or less | Licensee shall bypass inflow. | | | | | | | | | |
| 31 – 250 cfs | Licensee shall bypass flow in the amount corresponding to inflow which is displayed as blocks of 10 cfs (left-hand vertical column) and 1 cfs increments within such blocks (top horizontal row). | | | | | | | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 30 | | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 40 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| 50 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 31 | 32 |
| 60 | 32 | 33 | 34 | 34 | 35 | 36 | 36 | 37 | 38 | 38 |
| 70 | 39 | 40 | 41 | 41 | 42 | 43 | 43 | 44 | 45 | 45 |
| 80 | 46 | 47 | 47 | 48 | 49 | 49 | 50 | 51 | 52 | 52 |
| 90 | 53 | 54 | 54 | 55 | 56 | 56 | 57 | 58 | 59 | 59 |
| 100 | 60 | 61 | 61 | 62 | 63 | 64 | 64 | 65 | 66 | 66 |
| 110 | 67 | 68 | 69 | 69 | 70 | 71 | 72 | 72 | 73 | 74 |
| 120 | 74 | 75 | 76 | 77 | 77 | 78 | 79 | 80 | 80 | 81 |
| 130 | 82 | 82 | 83 | 84 | 85 | 85 | 86 | 87 | 88 | 88 |
| 140 | 89 | 90 | 91 | 91 | 92 | 93 | 94 | 94 | 95 | 96 |
| 150 | 97 | 97 | 98 | 99 | 100 | 100 | 101 | 102 | 103 | 103 |
| 160 | 104 | 105 | 106 | 106 | 107 | 108 | 109 | 109 | 110 | 111 |
| 170 | 112 | 112 | 113 | 114 | 115 | 115 | 116 | 117 | 118 | 118 |
| 180 | 119 | 120 | 121 | 121 | 122 | 123 | 124 | 124 | 125 | 126 |
| 190 | 127 | 128 | 128 | 129 | 130 | 131 | 131 | 132 | 133 | 134 |
| 200 | 134 | 135 | 136 | 137 | 138 | 138 | 139 | 140 | 141 | 141 |
| 210 | 142 | 143 | 144 | 144 | 145 | 146 | 147 | 148 | 148 | 149 |
| 220 | 150 | 151 | 151 | 152 | 153 | 154 | 155 | 155 | 156 | 157 |
| 230 | 158 | 158 | 159 | 160 | 161 | 162 | 162 | 163 | 164 | 165 |
| 240 | 165 | 166 | 167 | 168 | 169 | 169 | 170 | 171 | 172 | 172 |
| 250 | 173 | | | | | | | | | |
| 251 cfs and greater | Licensee shall bypass inflow. | | | | | | | | | |

**TABLE 2C: LEE VINING CREEK STREAM ECOSYSTEM FLOWS**

| Timing: October 1 – March 31 | | | | Year-type: All |
|---|---|---|---|---|
| Maximum ramping at the beginning and end of this period and at all times is 20%. | | | | |
| Timing | Flow Requirement | | | |
| | Extreme/Wet, Wet | Wet/Normal | Normal | Dry/Normal II, Dry/Normal I, Dry |
| October 1 – October 15 | 30 cfs | 28 cfs | 20 cfs | 16 cfs |
| October 16 – October 31 | 28 cfs | 24 cfs | 18 cfs | |
| November 1 – November 15 | 24 cfs | 22 cfs | | |
| November 16 – March 31 | 20 cfs | 20 cfs | | |

# 2026 MONO BASIN RUNOFF FORECAST
## May 1, 2026

### APRIL THROUGH SEPTEMBER RUNOFF

| | MOST PROBABLE VALUE (Acre-feet) | MOST PROBABLE VALUE (% of Avg.) | REASONABLE MAXIMUM (% of Avg.) | REASONABLE MINIMUM (% of Avg.) | LONG-TERM MEAN (1971 - 2020) (Acre-feet) |
|---|---|---|---|---|---|
| **MONO BASIN:** | **73,200** | **73%** | 83% | 63% | 100,307 |

### APRIL THROUGH MARCH RUNOFF

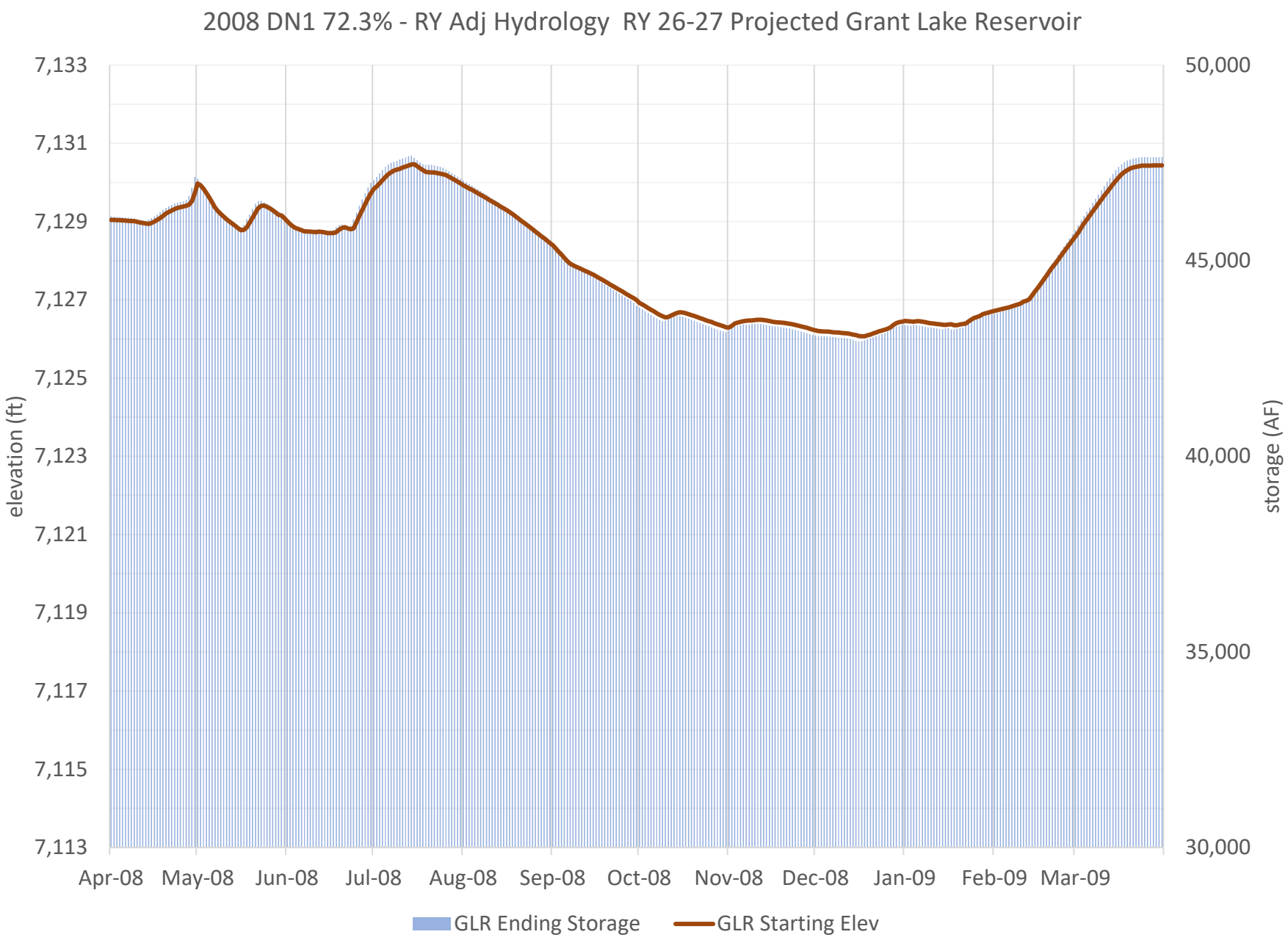
| | MOST PROBABLE VALUE (Acre-feet) | MOST PROBABLE VALUE (% of Avg.) | REASONABLE MAXIMUM (% of Avg.) | REASONABLE MINIMUM (% of Avg.) | LONG-TERM MEAN (1971 - 2020) (Acre-feet) |
|---|---|---|---|---|---|
| **MONO BASIN:** | **86,000** | **73%** | 84% | 62% | 118,156 |

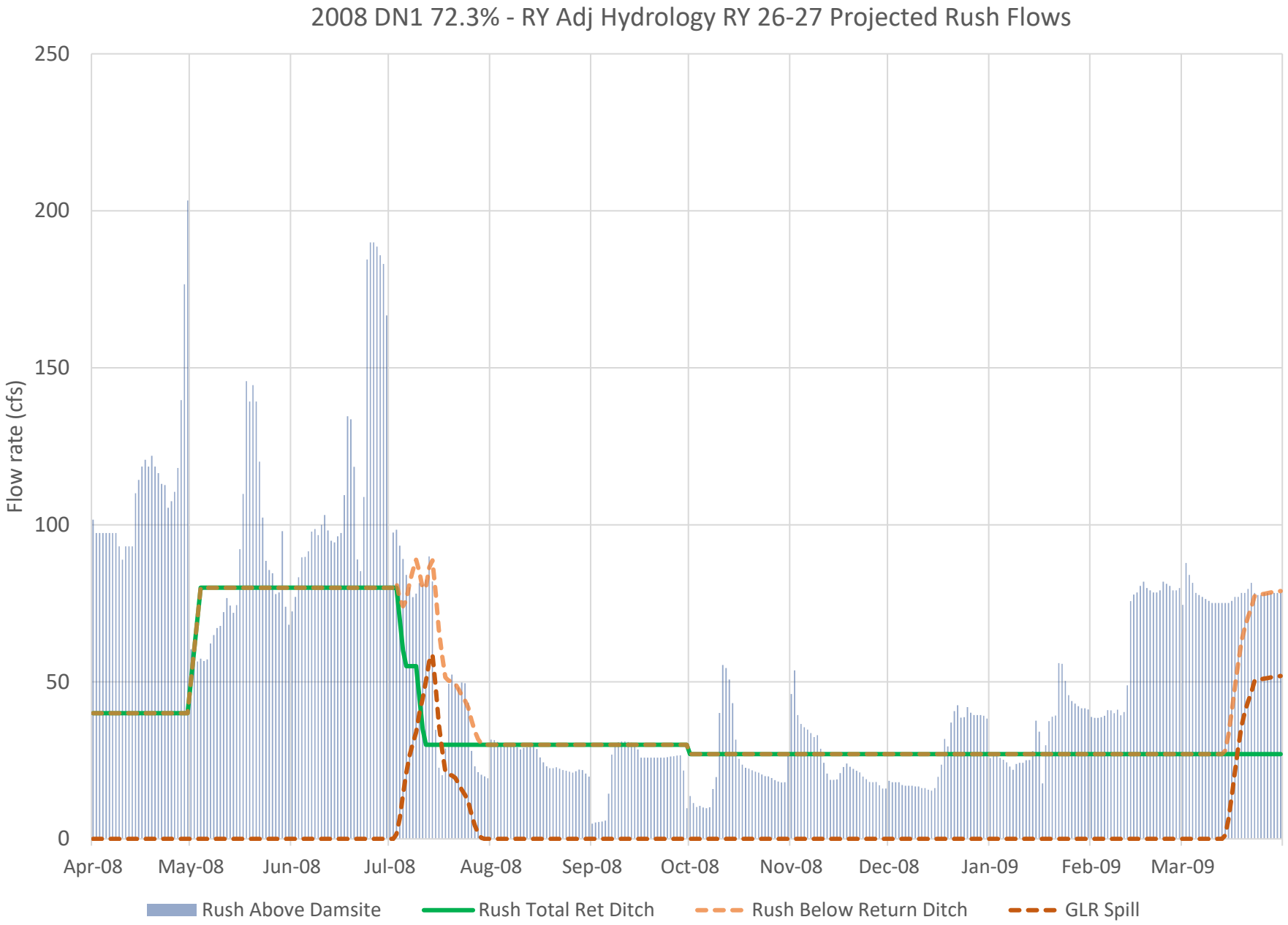
NOTE - Owens River Basin includes Long, Round, and Owens Valleys

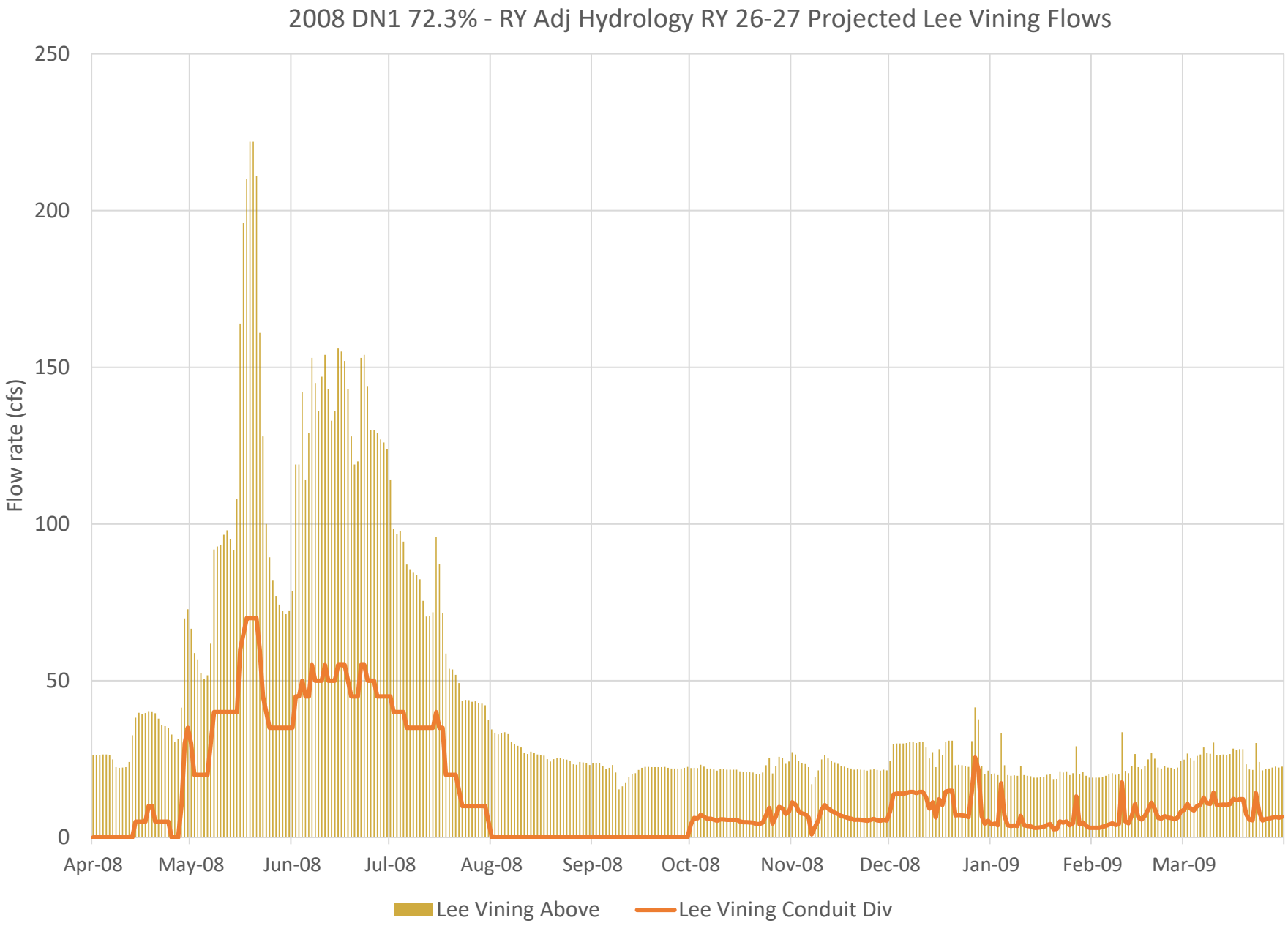
MOST PROBABLE - That runoff which is expected if median precipitation occurs after the forecast date.

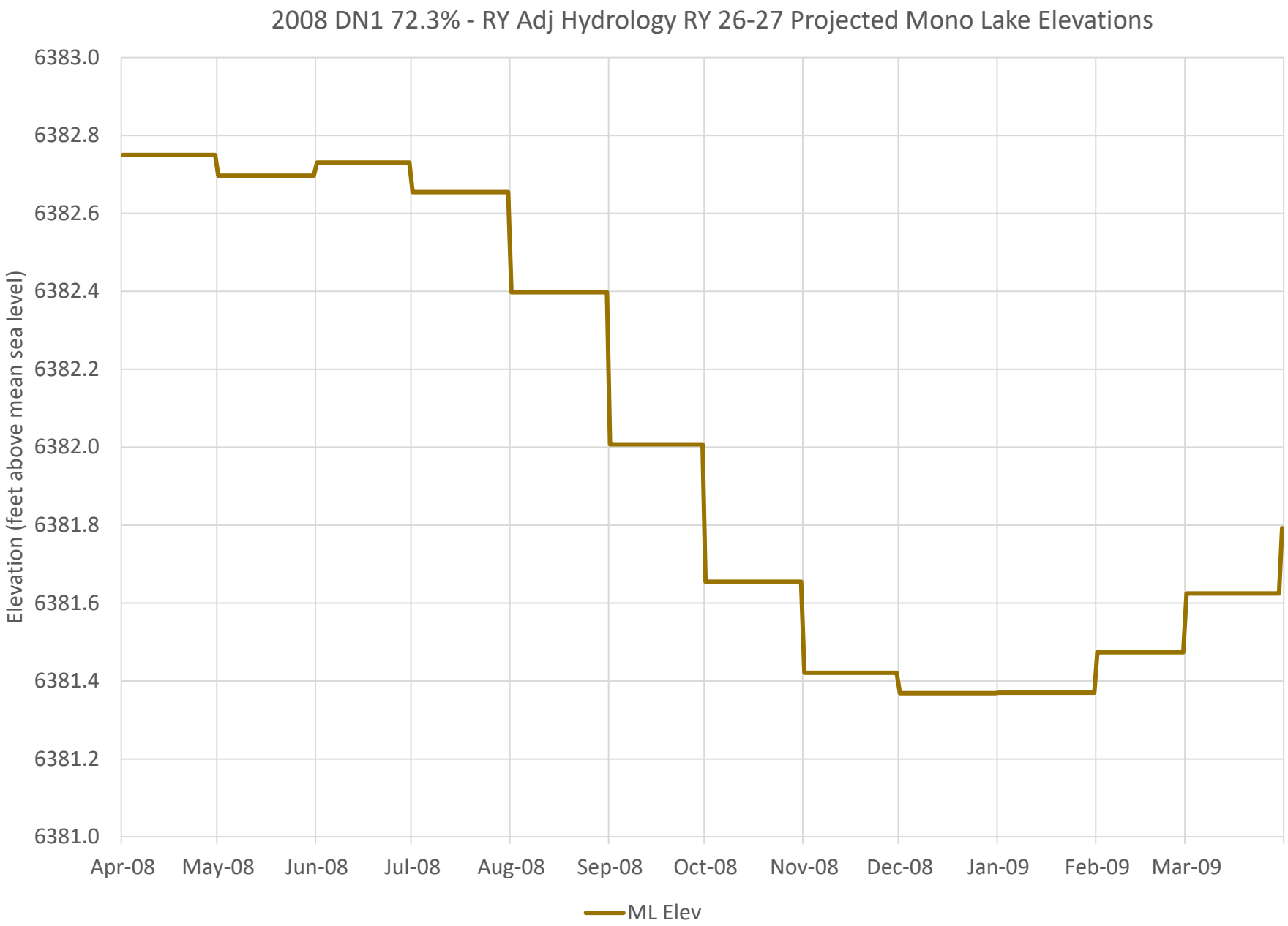
REASONABLE MAXIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average once in 10 years.

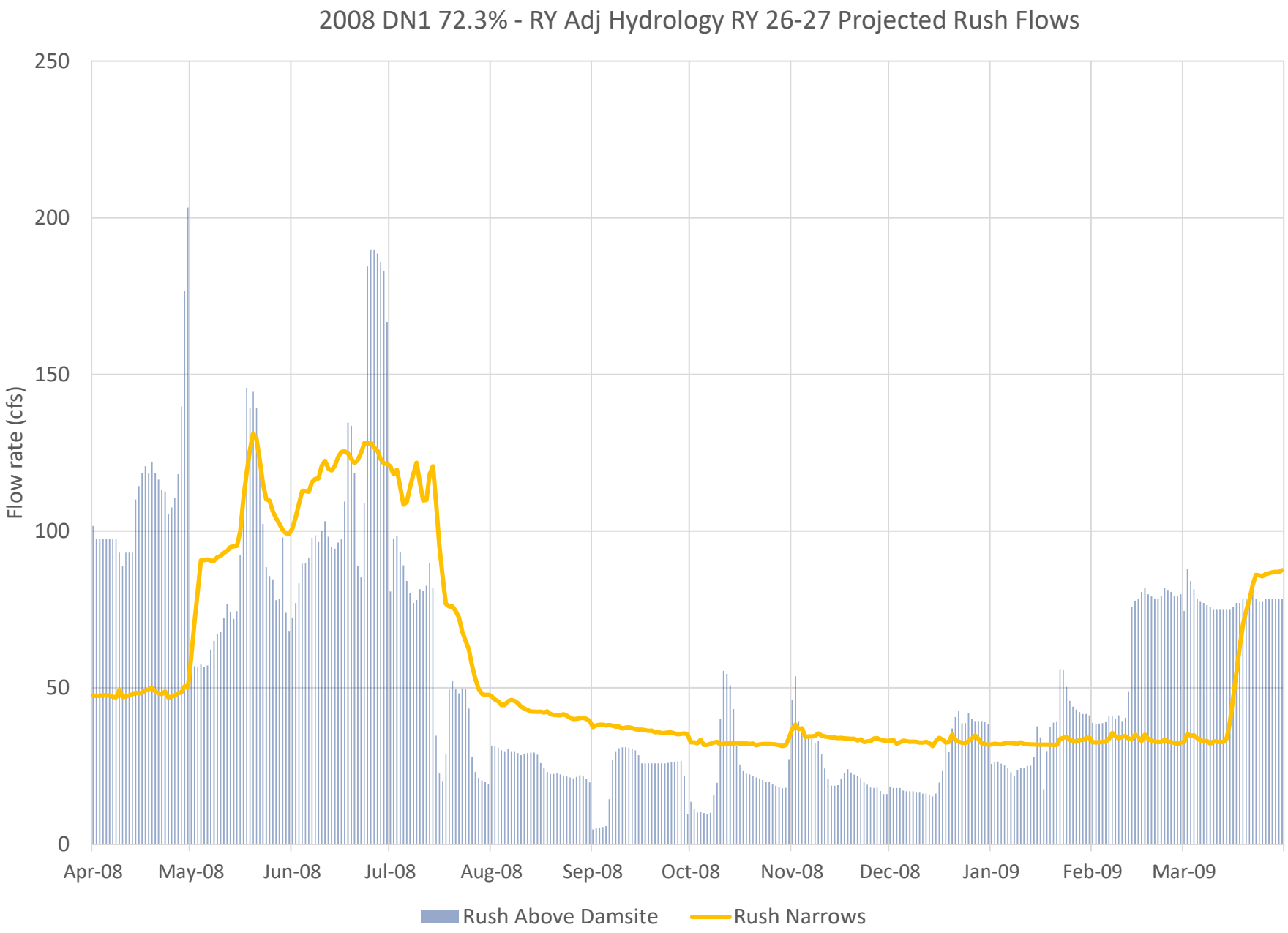
REASONABLE MINIMUM - That runoff which is expected to occur if precipitation subsequent to the forecast is equal to the amount which is exceeded on the average 9 out of 10 years.

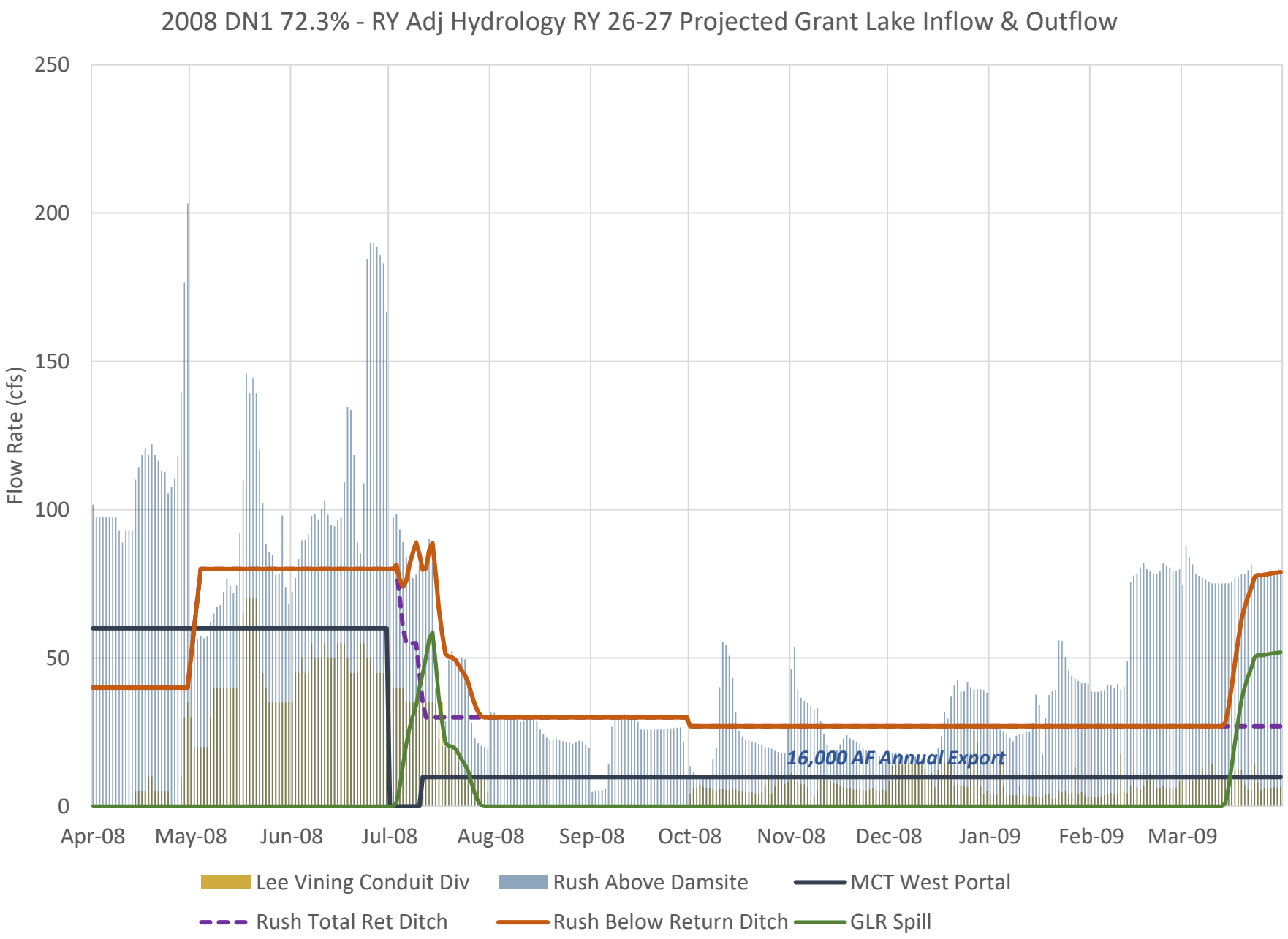

2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Grant Lake Reservoir
7,133
7,131
7,129
7,127
7,125
7,123
7,121
7,119
7,117
7,115
7,113
elevation (ft)
50,000
45,000
40,000
35,000
30,000
storage (AF)
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
GLR Ending Storage
GLR Starting Elev


2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Rush Flows
Flow rate (cfs)
250
200
150
100
50
0
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
Rush Above Damsite
Rush Total Ret Ditch
Rush Below Return Ditch
GLR Spill


2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Lee Vining Flows
Flow rate (cfs)
250
200
150
100
50
0
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
Lee Vining Above
Lee Vining Conduit Div


2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Mono Lake Elevations
Elevation (feet above mean sea level)
6383.0
6382.8
6382.6
6382.4
6382.2
6382.0
6381.8
6381.6
6381.4
6381.2
6381.0
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
ML Elev


2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Rush Flows
250
200
150
100
50
0
Flow rate (cfs)
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
Rush Above Damsite
Rush Narrows


2008 DN1 72.3% - RY Adj Hydrology RY 26-27 Projected Grant Lake Inflow & Outflow
Flow Rate (cfs)
250
200
150
100
50
0
Apr-08
May-08
Jun-08
Jul-08
Aug-08
Sep-08
Oct-08
Nov-08
Dec-08
Jan-09
Feb-09
Mar-09
16,000 AF Annual Export
Lee Vining Conduit Div
Rush Above Damsite
MCT West Portal
Rush Total Ret Ditch
Rush Below Return Ditch
GLR Spill

## SMT Planned Monitoring for 2026-27 RY

The Fisheries SMT 2026 Field Monitoring Schedule:

9/11/26 – Upper Rush mark run.
9/12/26 – Bottomlands mark run. Channel lengths and widths.
9/13/26 – MGORD mark run.
9/14/26 – Lee Vining mark run. Channel lengths and widths.
9/15/26 – Walker Creek depletion estimate. Channel lengths and widths.
9/16/26 – 8-Channel single pass.
9/17/26 – Fence cleaning. Channel lengths and widths. Clean/maintain field gear.
9/18/26 – Upper Rush recapture run.
9/19/26 – Bottomlands recapture run.
9/20/26 – MGORD recapture run.
9/21/26 – Lee Vining recapture run.
9/22/26 – Rush Creek BMI sampling – day #1 (if funded).
9/23/26 – Rush Creek BMI sampling – day #2 (if funded).

The Stream SMT 2026 Field Monitoring schedule is pending, but is expected to include work in the late summer of 2026.

Plans include the following:

- Obtaining complete datasets (LiDAR, RGB, and field surveys) for key areas.
- The field surveys will focus on those datasets that cannot be obtained through remote sensing, primarily the thalweg elevation and residual pools. This will include surveying the riffle crest thalwegs.
- As beavers have been identified in the area, we plan to survey the area of beaver sign and deploy wildlife cameras on a long term basis to capture beaver activity.

The areas will include: A-13

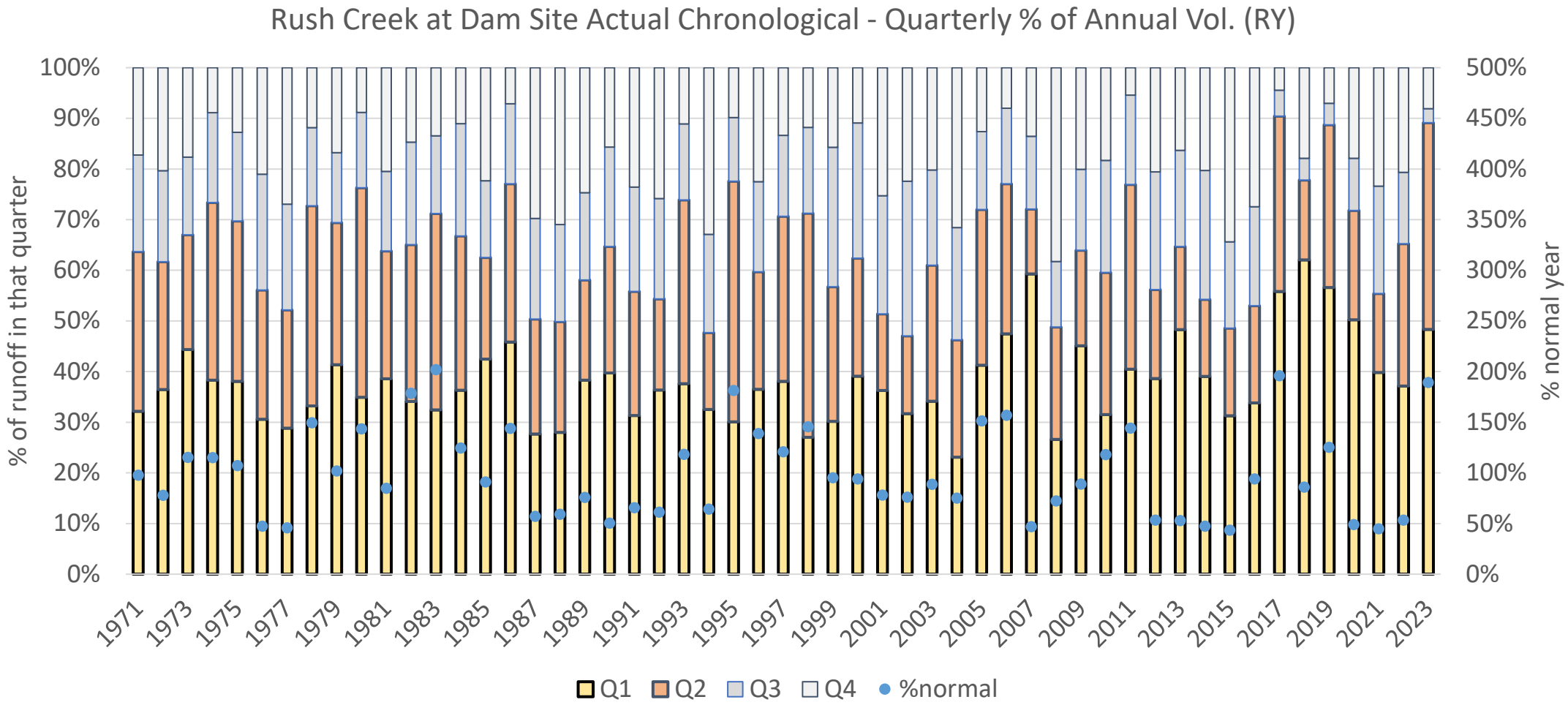
- Mainstem Rush Creek from the Narrows downstream to Test Station Road culvert.
- Mainstem Lee Vining Creek from Route 395 crossing to Mono Lake.
- Parker and Walker creeks below their respective diversion dams.

# Rush Creek Adjusted Hydrology Attachment

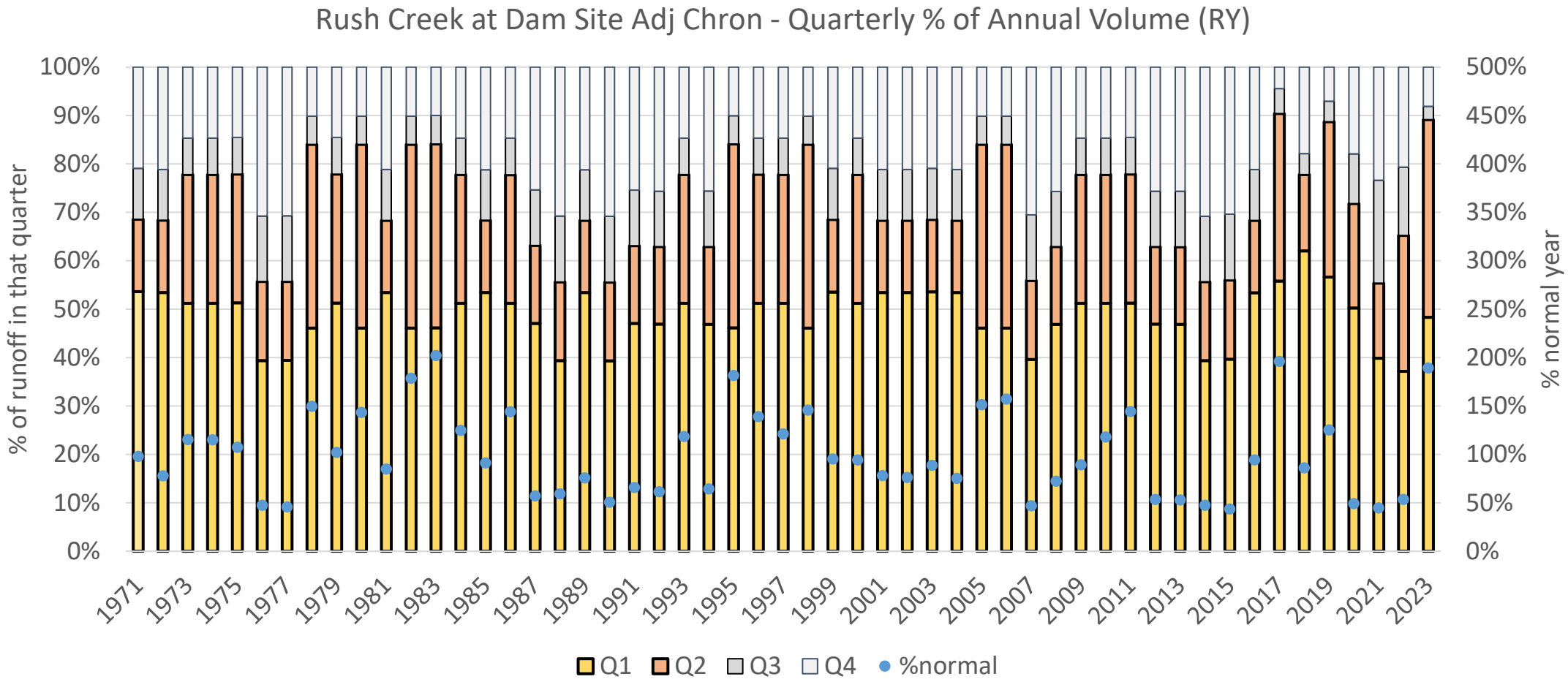
# Background

- Edison operates upstream of Grant Lake Reservoir
- The timing of Rush Creek releases has changed in recent years
- This will impact Grant Lake Reservoir storage volumes and apparent runoff timing
- Portion of eSTREAM hydrology dataset reflects prior SCE practices
- Adjusted hydrology would help with AOP process

# Actual Quarterly Inflows



# Adjusted Quarterly Inflows 1971- 2016
(2017 on is actual)



# Example Year