

KERN RIVER BOATERS' KR3 RELICENSING MISSION STATEMENT

For More Information: kernriverboaters.com/kr3

Our Vision

River First: prioritize the integrity of the North Fork Kern and unlock the recreational opportunities it can afford in order to create a healthy, vibrant river now and for the future.

Our Mission

The mission of Kern River Boaters (KRB) is to:

- Present river advocacy issues clearly and completely;
- Educate and empower the community so it can be informed and involved; and
- Secure an equitable resolution of relicensing issues from managing agencies.

Our Goals

KR3 is able to divert 605 cfs from the NF Kern at Fairview Dam. The result is a hydrograph that is unrecognizable in comparison to the natural flows on the Kern, damaging river ecology and decimating the recreational opportunities this river has to offer. To that end, KRB seeks to achieve the following:

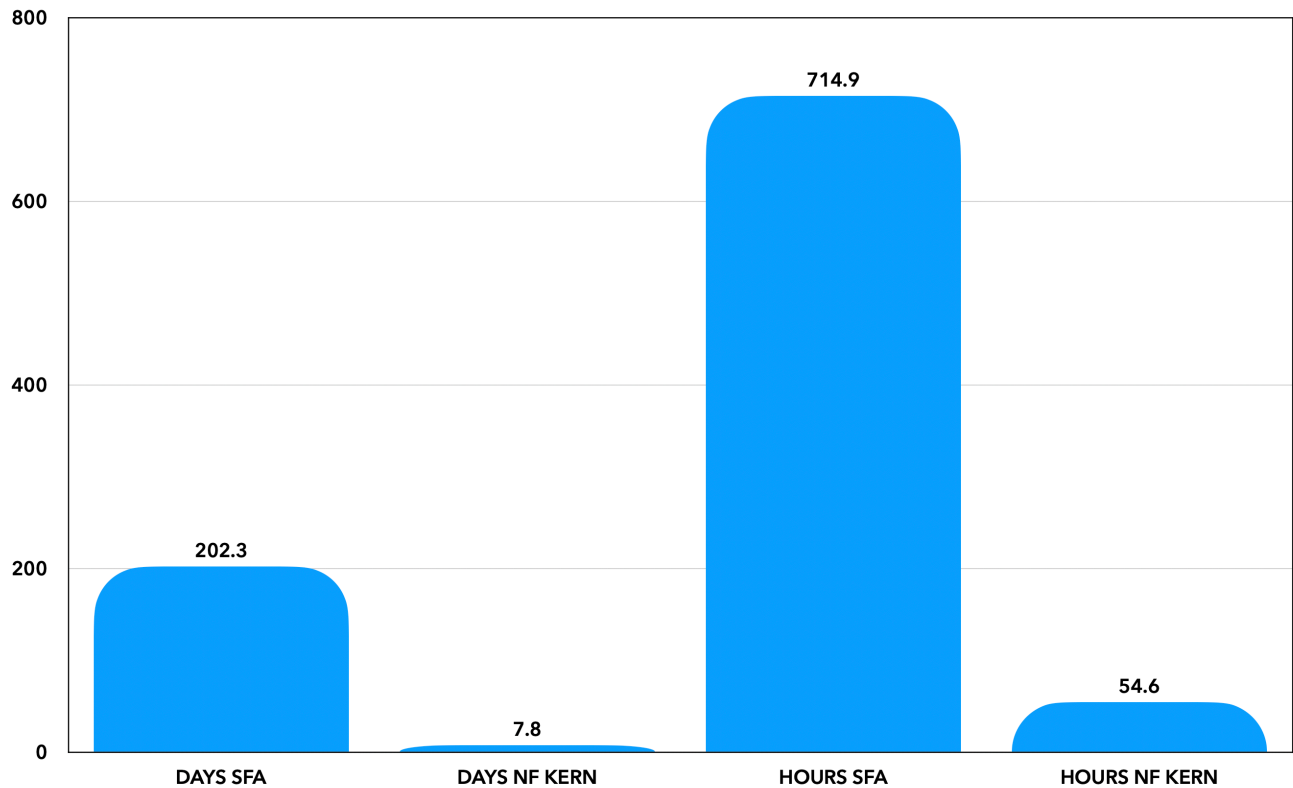
Mitigation Consistent with Current Social Values and Populations Served

- Northern California utilities provide orders of magnitude more flows for its boaters.
 - o Tuolumne releases almost every day all Summer for intermediate & advanced boaters.
 - o South Fork American provides flows year-round for beginning & intermediate boaters.
- The Unimpeded Kern is capable of providing:
 - o enjoyable low- and shoulder-flow boating year-round in all but the driest of years.
 - o exciting, recommended flow boating for months more than available with the KR3 diversion.
- Agencies must consider current social expectations and increasing importance of outdoor recreation given contemporary values and increasing inequality. Public lands and waterways are increasingly important parts of our common treasury.
- Despite the differences between NorCal hydro systems (storage) and KR3 (run-of-river), contemporary social values demand parity of mitigation efforts:

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- KR3 should provide a similar quantity of mitigation (measured in hours and days of hydropower disruption).

COMPARISON OF AVERAGE ANNUAL REC FLOWS (DAYS AND HOURS), SF AMERICAN v. NF KERN



- The Kern River drainage is the only reliable source of whitewater to all of Southern California.
- It is within reasonable proximity of some 25 million people – significantly more than are close to and served by NorCal rivers.
- Every boater from San Diego to Bakersfield considers the Kern as their “home” river.
- Currently, new boaters struggle to maintain their skills and motivation once the Kern goes dry
 - Year-round Rec flows on the Upper Kern would offer new and seasoned boaters alike a place to maintain and improve their skills as they progress through this challenging sport – flows that are especially needed in fall, winter, and early spring.
- The Kern really is “LA’s River” – it belongs not just to the Kern River Valley but to all of Southern California.
 - the Rec flow schedule should reflect the critical importance of the NF Kern to all of Southern California.

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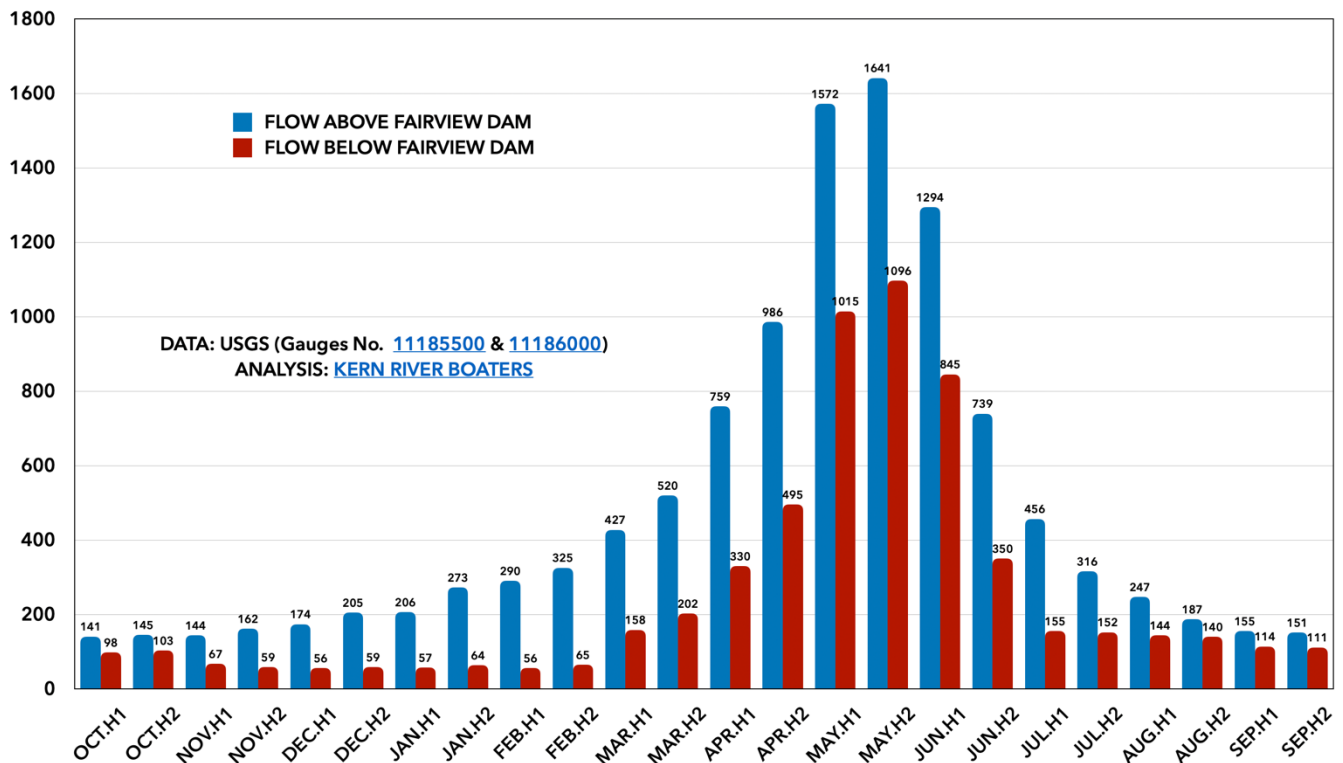
Mitigation commensurate with local community goals as Whitewater Capital of West

- Kernville chamber of commerce and local business community embrace and market themselves on the whitewater opportunities available on the NF Kern.
- KR3 stands in opposition to these values by slashing opportunities for year-round, shoulder season, and natural flow boating.
- The social utility of whitewater opportunities merits more than 8 days (on average per year) of minor (about 150 cfs of extra water) operational changes as exists under the current license.

Mitigation in all seasons

- The current recreation schedule only provides for additional water April through July.
 - o There is often good water – and almost always enjoyable water – coming into the Upper Kern in January, February, March, and August.
 - o The current Rec flow schedule does nothing to protect at least some of the opportunities that water could offer for boaters.

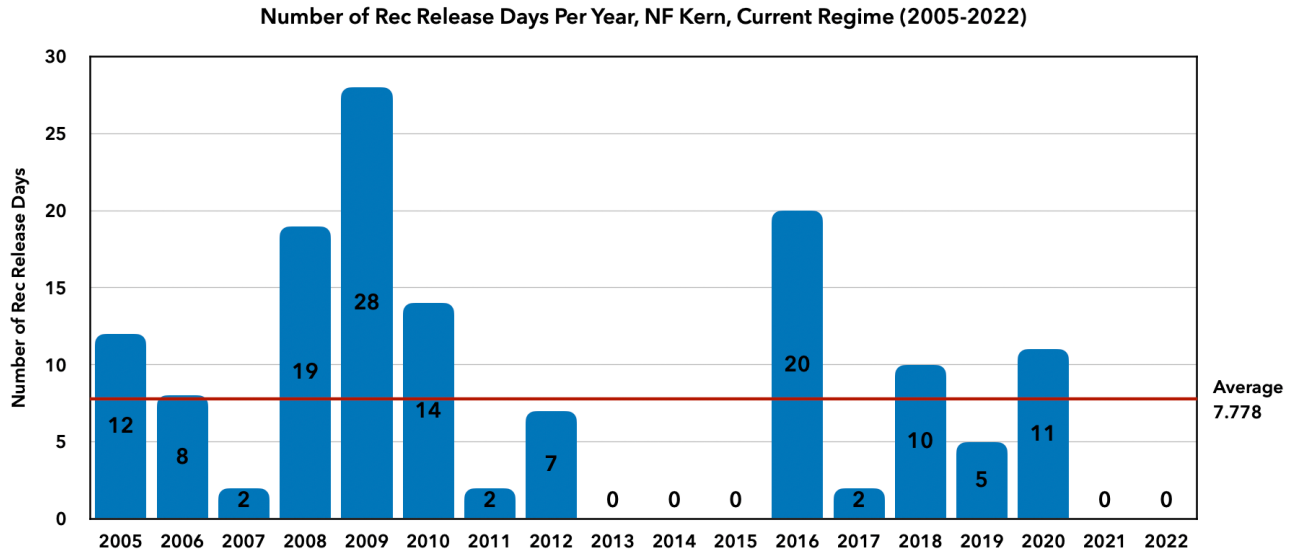
Median NFKR Flows (CFS), WY1997-WY2022, By Half-Month



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Mitigation all years

- In the wettest years, flows are generally above the triggers for mitigation, so very little is given, and none when it is most needed – the shoulder seasons. In the driest years, the current schedule requires ZERO mitigation from Edison, as incoming flows are not high enough to trigger operational changes:

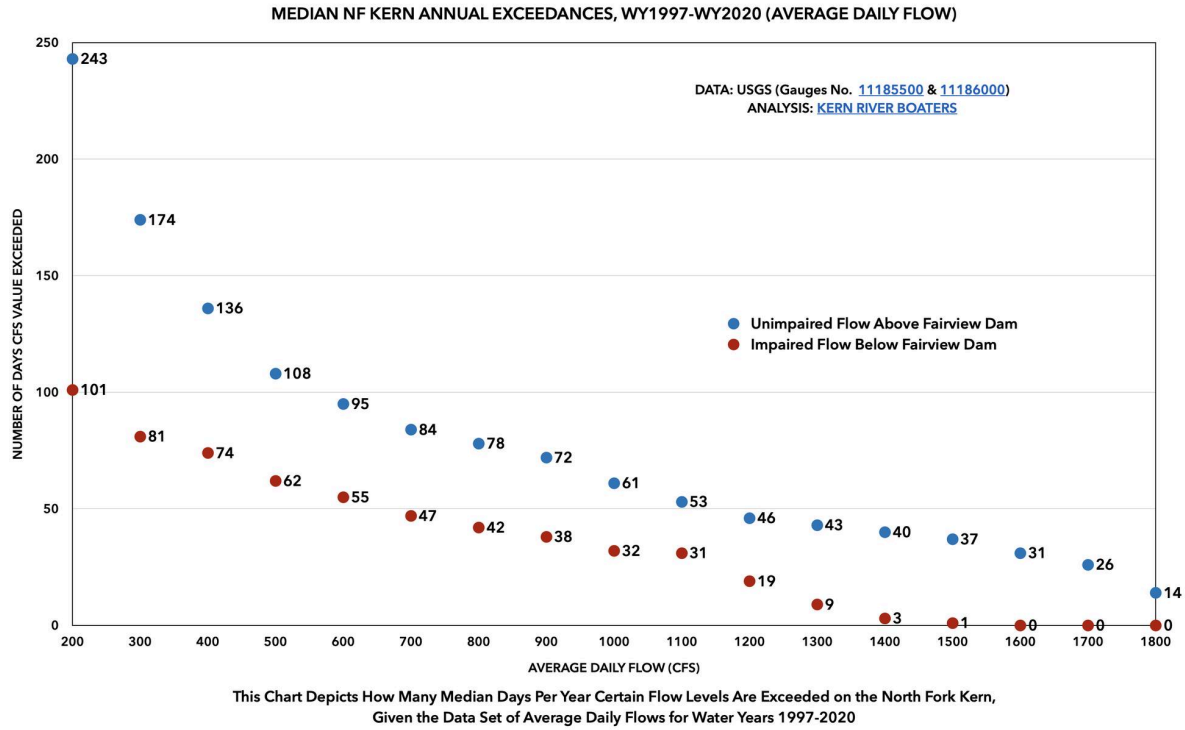


A "Rec Release Day" provides boaters between 1 and 300 *additional* cfs (exact amount depends on instantaneous inflows at Fairview Dam) for 7 hours. Not all Rec Release Days hit their Rec Release Target due to the precedence of the "Tunnel Maintenance Flow"

Mitigation for all users

- The current Rec flow triggers are set for rafting low-optimal flows. Commercial raft companies routinely run trips below the 700 cfs Rec flow level.
- There is plenty of fun to be had by kayaks, SUPs, riverboards, tubes, and some smaller and more maneuverable rafts with flows between 200 and 700 cfs – especially in the drier years when that might be all boaters can get.

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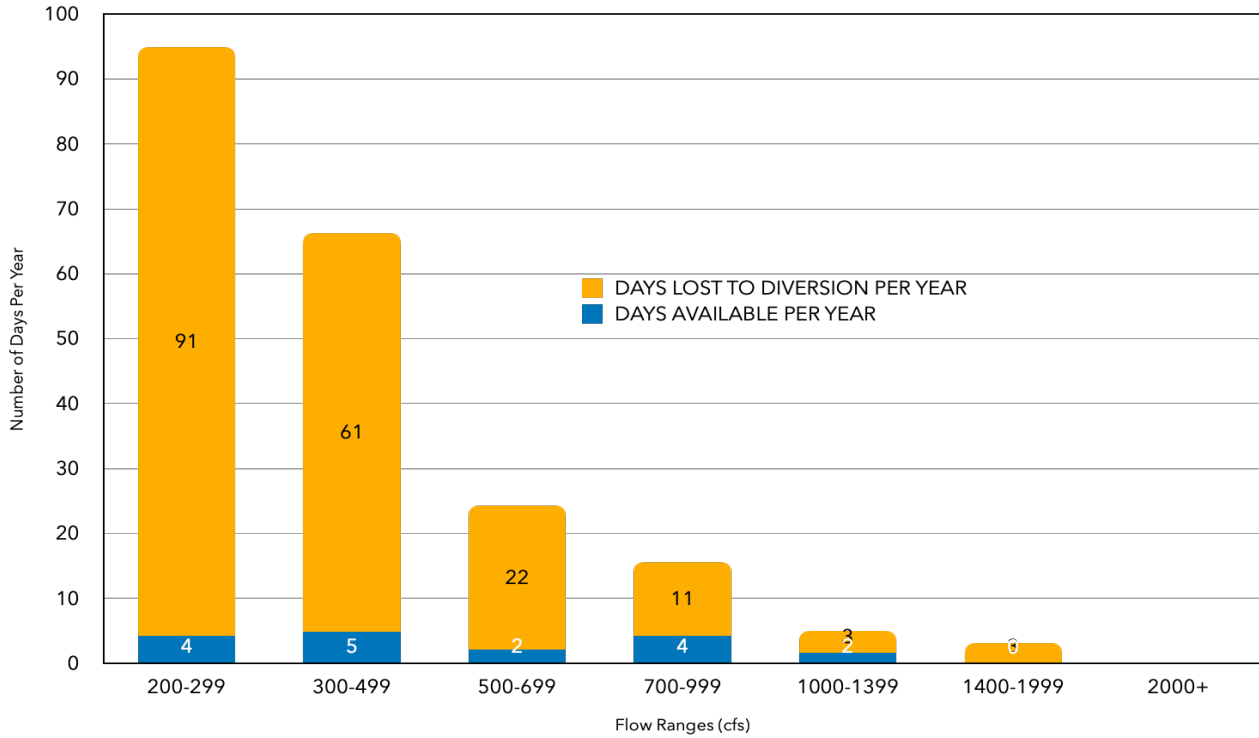


Mitigation when it is most needed

- In wet years, the number of boating days dwarf those in non-wet years, even with the project taking 600+ cfs.
 - o Although some mitigation should be required in wet years to support low-water, shoulder season, and maximum flow boating, this is not the time mitigation is most needed by our community.
- Mitigation is most needed in median and dry water years, when the project's impact is most severe:

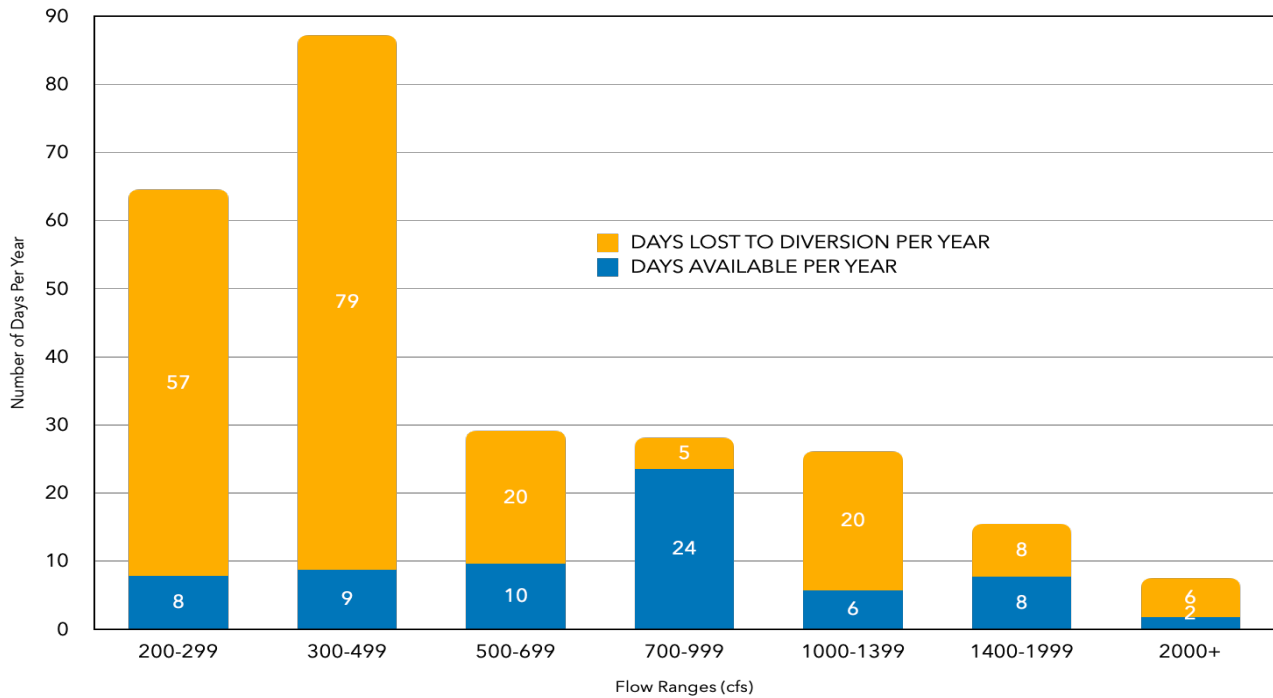
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NF KERN KR3 AUTHORIZED FLOWS 1999-2022, Third Tertile ("Dry") Water Years



This chart depicts the annualized effect of the KR3 License on boating opportunities during "Dry" (Third Tertile) water years based on the last 24 years of inflow data at Fairview Dam

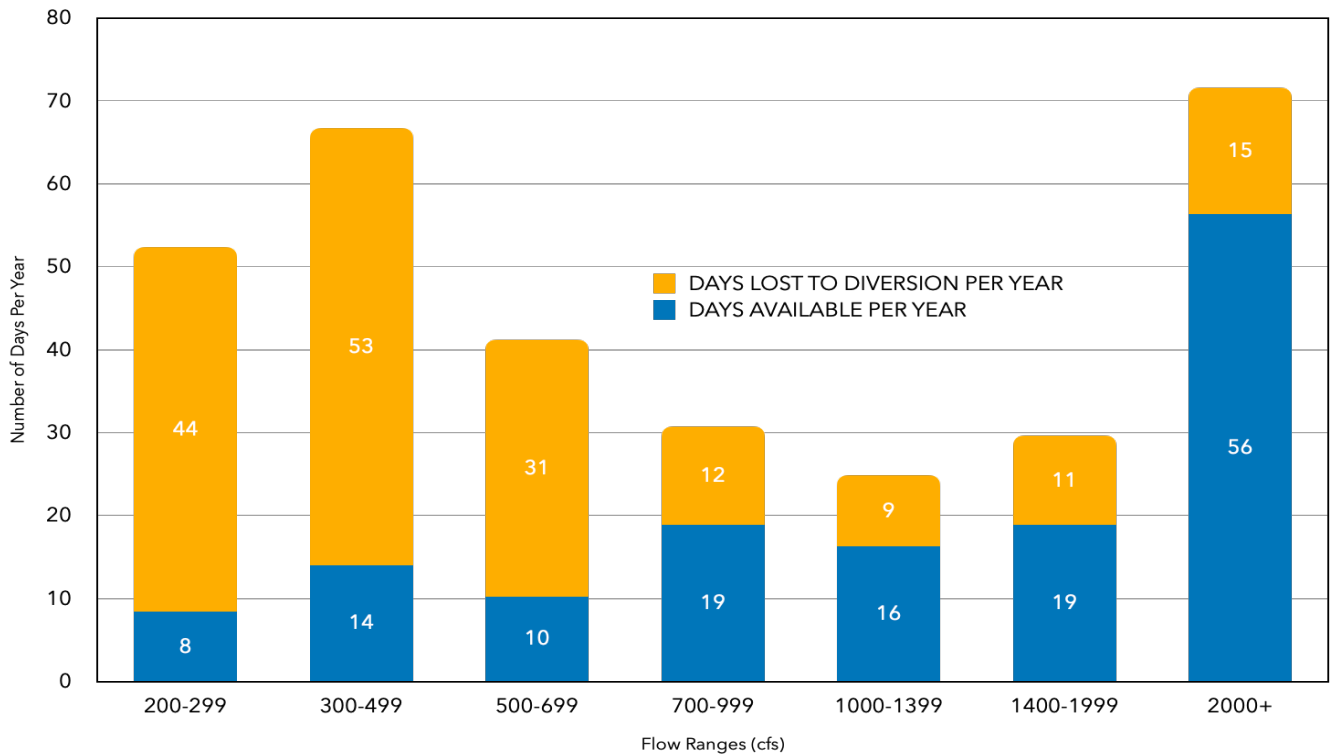
NF KERN KR3 AUTHORIZED FLOWS 1999-2022, Second Tertile ("Moderate") Water Years



This chart depicts the annualized effect of the KR3 License on boating opportunities during "Moderate" (Second Tertile) water years based on the last 24 years of inflow data at Fairview Dam

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NF KERN KR3 AUTHORIZED FLOWS 1999-2022, First Tertile ("Wet") Water Years



This chart depicts the annualized effect of the KR3 License on boating opportunities during "Wet" (First Tertile) water years based on the last 24 years of inflow data at Fairview Dam

Mitigation that is real benefit to boaters

- The current Rec flow schedule claimed 39 "rec release days" by including dozens of days that did not require operational changes.
 - o In fact, the schedule requires operational changes – more water for boaters – less than 8 days a year.
- The current Rec flow schedule puts water at the popular Cables run around 3-5 p.m.
 - o A release day should share water at times boaters can use it.
 - o A release day should open all sections in the dewatered stretch for meaningfully useable periods of time.

Mitigation that is predictable

- While the river can't be predictable, remedial efforts should be.
- The current Rec schedule only triggers a "release" at midnight the day-of.
 - o It is impossible to plan based on a schedule whose uncertainty remains that late in the day.
 - o Southern Californians – or even locals with somewhat flexible schedules – can't be expected to change their plans with only hours notice of a release day.

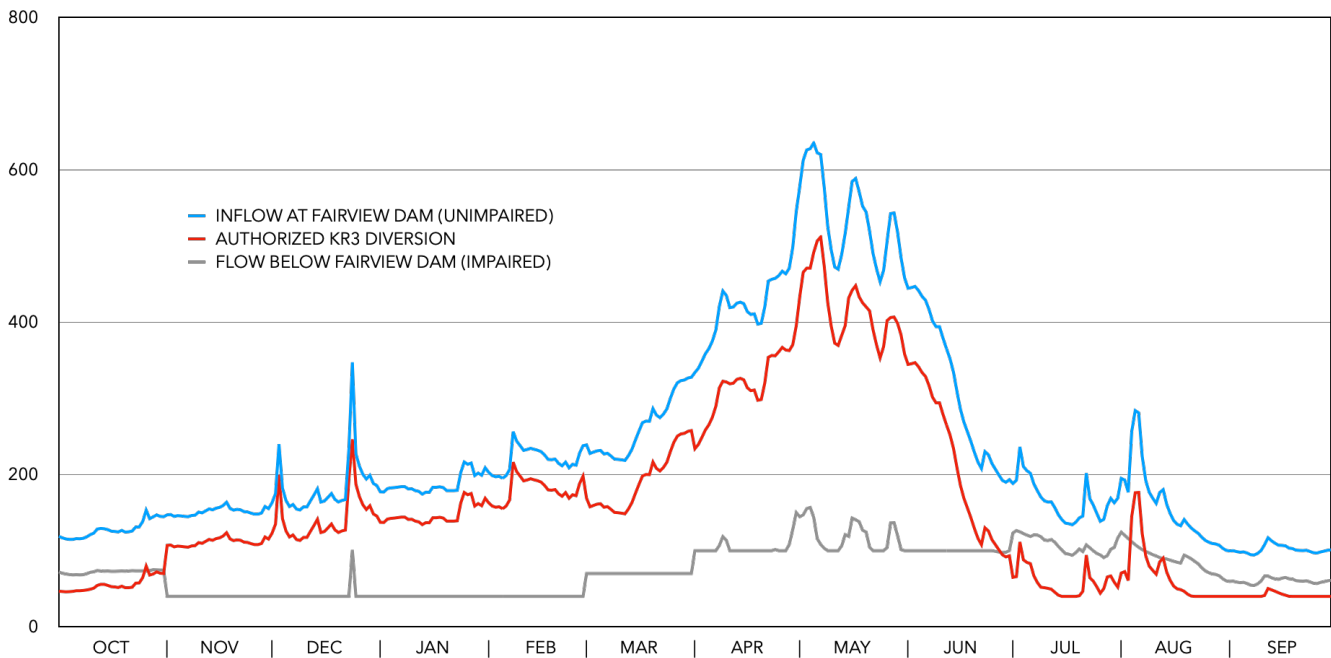
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- The situation is exacerbated on weekdays.
- Without predictability, release days can go substantially unused.

Mitigation consistent with contemporary science (CDFW)

- 1) The North Fork Kern is a congressionally designated Wild & Scenic River.
 - a. Science tells us hydro plants are not environmentally safe in protected areas (Thieme et al.)
- 2) KR3 encumbers our river with a significant environmental load.
 - Contemporary scientific methods (CDFW/ Canada/ Tenant/ Richter/ EA of UK) all agree that our river is currently under-watered for an environmental flow regime.
 - These sources recommend:
 - a “hands-off” (minimum) flow of between 160 and 200 cfs at all times.
 - mimicking a natural hydrograph with a percentage take, not a flat line.

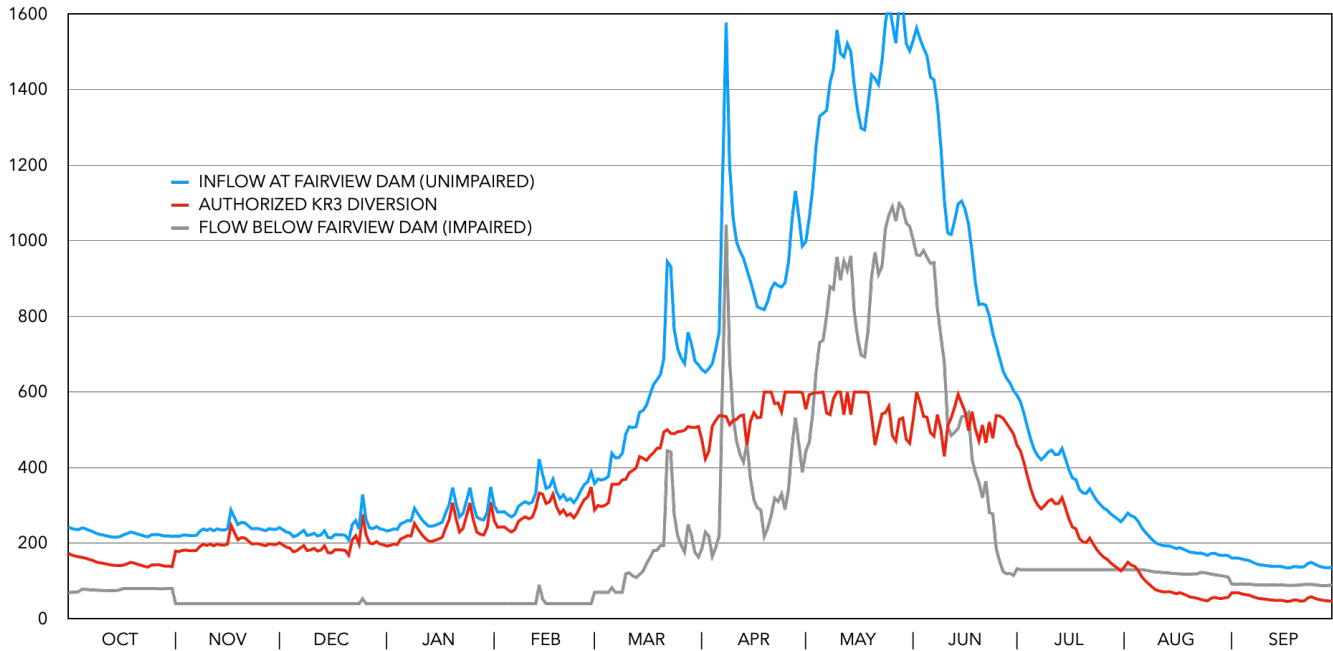
Amended 1996 KR3 License Authorized Diversion (cfs) in “Super Dry” (Fifth Quintile) Water Years, NFKern (WY1998-WY2022)



This Chart Depicts the Average Daily Effect of the Authorized KR3 Diversion (including Recreational and Minimum Instream Flow Requirements) on NF Kern Hydrology in “Super Dry” (Fifth Quintile) Water Years between 1998 and 2022 (Water Years 2013, 2014, 2015, 2021, 2022). DATA: USGS Gauges [11185500](#) & [11186000](#). ANALYSIS: [KERN RIVER BOATERS](#).

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Amended 1996 KR3 License Authorized Diversion (cfs) in "Moderate" (Third Quintile) Water Years, NFKern (WY1998-WY2022)



This Chart Depicts the Average Daily Effect of the Authorized KR3 Diversion (including Recreational and Minimum Instream Flow Requirements) on NF Kern Hydrology in "Moderate" (Third Quintile) Water Years between 1998 and 2022 (Water Years 1999, 2000, 2004, 2016, 2018). DATA: USGS Gauges [11185500](#) & [11186000](#). ANALYSIS: [KERN RIVER BOATERS](#).

Month	Flow in cfs	%MAD	Percent Exceedance	CDFW Narrative Description of Flow
January	40	5.2	100.0	Severe degradation
February	40	5.2	100.0	Severe degradation
March	70	9.2	100.0	Severe degradation
April	100	13.1	99.2	Poor or minimum habitat
May	100	13.1	99.2	Poor or minimum habitat
June	100	13.1	99.2	Poor or minimum habitat
July	130	17.0	96.1	Poor or minimum habitat
August	130	17.0	96.1	Poor or minimum habitat
September	100	13.1	99.2	Poor or minimum habitat
October	80	10.5	99.7	Poor or minimum habitat
November	40	5.2	100.0	Severe degradation
December	40	5.2	100.0	Severe degradation

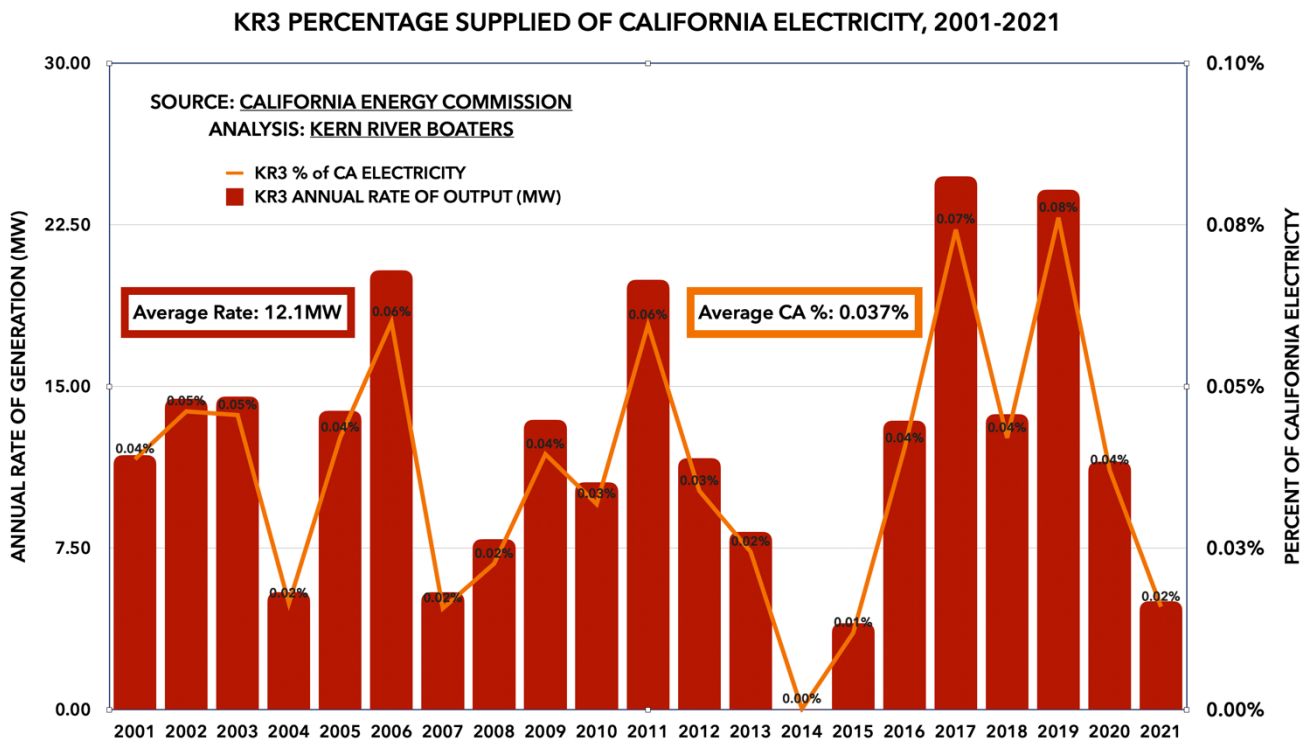
- 3) KR3 poses a major threat to life and property travelling along Mountain 99.
 - a. In 2013, a fully regulated and licensed Kern River No. 1 experienced a catastrophic failure in which it caused a deluge of water and earth across Highway 178.
 - b. The event shut this major artery in and out of the Kern River Valley down for two weeks.

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- c. Edison claimed the event to be unforeseeable.
 - d. Many of the same elements – vast amounts of water being moved high above a major highway in a similarly constructed project near a fault that is subject to nature’s fury – exist at the KR3 powerhouse.
 - e. The incidence of extreme weather events is expected to rise with climate change.
- 4) Edison encumbers Salmon and Corral Creeks – natural tributaries to the NF Kern – for a power production benefit of a few CFS “supplemental” flow.
- 5) Not climate resilient: Considerable decline in streamflow causes considerable impact.

Mitigation acknowledging the decreasing social utility of this project’s energy production

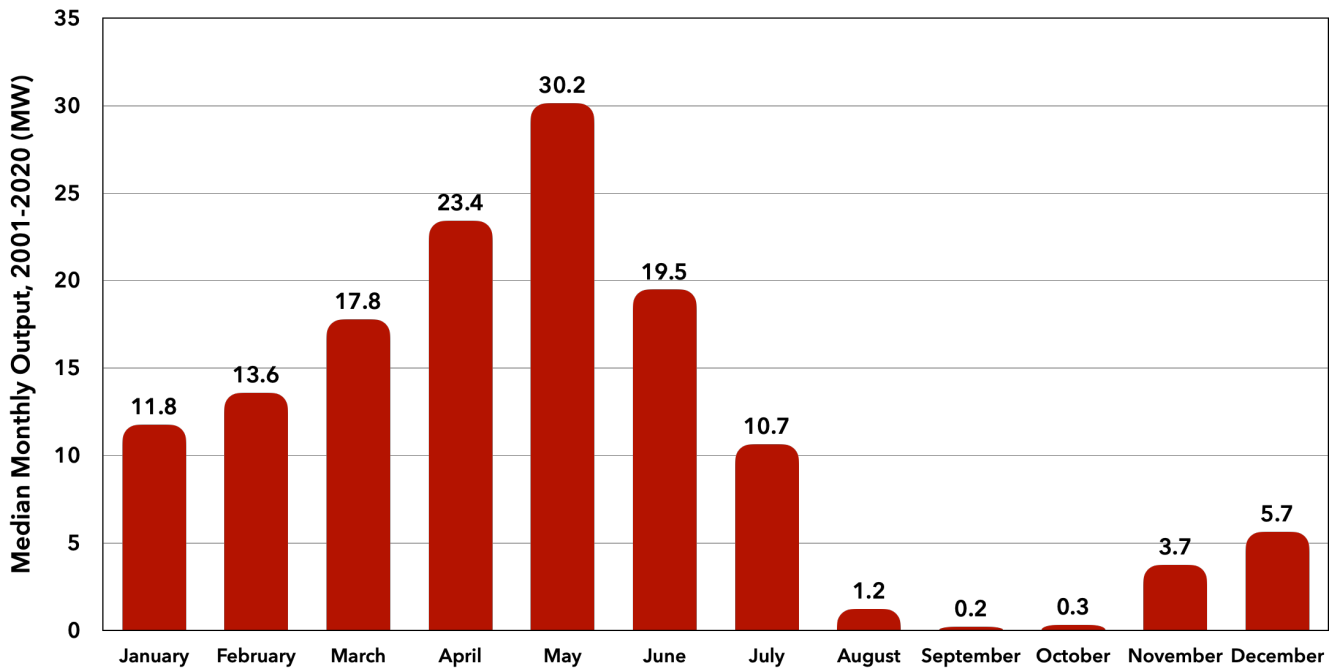
- The project, built over a hundred years ago, generates at an average rate of just 12.1 MW. That’s less than 0.04% of our state’s energy:



- Worse, KR3 makes the lion’s share of its energy when the state least needs it: Spring and early Summer, when demand is relatively low and supply is abundant. KR3 is nowhere to be found in August-October, when the threat of loss-of-load (blackouts) is at its highest:

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KERN RIVER NO. 3 MEDIAN MONTHLY RATE OF OUTPUT (MW), 2001-2021



- New solar projects in Kern County currently produce more than 3,000MW.
 - That figure is growing significantly.
 - That figure does not include residential scale solar.
 - Almost all has been installed since the last license to operate KR3 was issued.
- The proposed pumped hydro plant at the Lake Isabella has a capacity of 2,000 MW, again dwarfing the production of KR3.
- The explosion of renewables in this state since the issuance of the last license has resulted in the “duck curve.”
 - KR3 participates (bids into) the day-ahead CALISO market.
 - During daylight hours, energy markets signal that too much energy is being produced (negative pricing and curtailment).
 - Potential overgeneration threatens the grid. CAISO orders more rational renewables (solar, wind) to stop producing and go offline – reducing their profitability – while KR3 churns along with the water it has taken from our river at Fairview Dam.
 - KR3 exacerbates the duck curve and its related threats to the grid during daylight hours.
 - Daylight hours track with recreation. The fullest social use of the NF Kern during these times is not the production of unneeded energy that is harmful to our grid but recreational (and environmental) flows in the 16-mile Wild and Scenic riverbed.