

1 RYAN S. BEZERRA, State Bar No. 178048
2 ALAN B. LILLY, State Bar No. 107409
3 JENNIFER T. BUCKMAN, State Bar No. 179143
4 ANDREW J. RAMOS, State Bar No. 267313
5 BARTKIEWICZ, KRONICK & SHANAHAN
6 A PROFESSIONAL CORPORATION
7 1011 Twenty-Second Street
8 Sacramento, California 95816-4907
9 Telephone: (916) 446-4254
10 Facsimile: (916) 446-4018
11 E-Mail: rsb@bkslawfirm.com

12 Attorneys for Protestants City of Folsom,
13 City of Roseville, Sacramento Suburban
14 Water District and San Juan Water District

15 [Additional counsel below]

16 BEFORE

17 CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

18 CALIFORNIA WATER FIX HEARING

19 Hearing in the Matter of California
20 Department of Water Resources' and United
21 States Bureau of Reclamation's Petition for
22 Change in Points of Diversion for the Central
23 Valley Project and the State Water Project

24 RESPONSE BY SACRAMENTO VALLEY
25 WATER USERS TO OBJECTION BY
26 CALIFORNIA DEPARTMENT OF WATER
27 RESOURCES TO SUBPOENA DUCES
28 TECUM

29 **INTRODUCTION**

30 The Sacramento Valley Water Users group ("SVWU") responds to the April 16, 2018
31 objection by petitioner Department of Water Resources ("DWR") to the SVWU's April 6, 2018
32 subpoena duces tecum. Although DWR's case-in-chief relies heavily on CalSim II modeling
33 results, DWR has presented only a small portion of the numerical results from its latest, CWF
34 H3+ modeling. The SVWU subpoena demands DWR produce basic, month-by-month results
35 for key parameters from DWR's CWF H3+ modeling, which DWR's witnesses have testified is
36 the "adopted project." DWR objects to producing these basic month-by-month results. DWR
37 argues it should not be required to comply with the subpoena because it need not "generate"
38 new records demanded by the subpoena.

1 The subpoena, however, simply demands that DWR compile basic month-by-month
2 results for its adopted project into a form usable by the SWRCB and protestants. It is not a
3 substantial burden to require DWR to do more than what it has done so far, which has been to
4 post its technical modeling files, produce only its chosen results and then force all other parties
5 to hire and pay experts just to understand DWR's work. In fact, cross-examination of DWR's
6 witnesses has demonstrated that DWR already has prepared compilations of the subpoenaed
7 results that unfortunately do not break those results down in any more detail than by water year
8 type. The SVWU request that the Hearing Officers deny DWR's objection and order it to
9 comply with the subpoena within seven days.

10 **BACKGROUND**

11 DWR's Part 2 testimony relies on the CalSim II modeling it performed for what
12 numerous DWR witnesses have identified as the "adopted project," namely "CWF H3+." (See
13 Exhibits DWR-1011, p. 2:17 (A. Miller); DWR-1014, p. 2:19-20 (C. Earle); DWR-1016, pp.
14 2:12-13, 8:4-12:24 (E. Reyes).) DWR's modeling compares a "no action alternative" (NAA)
15 scenario with the "proposed action" CWF H3+ scenario. (See Exhibit DWR-1016, pp. 3-4 (E.
16 Reyes).)

17 DWR's case-in-chief testimony presents only small portions of the results from its
18 CalSim II modeling for CWF H3+. For example, DWR's model-results exhibit, Exhibit DWR-
19 1069, presents only exceedance plots of end-of-month storage for Shasta, Oroville and Folsom
20 Reservoirs for May and September and does not include either results for the other 10 months
21 or more detailed comparisons of end-of-month storage. (See Exhibit DWR-1069, Figures 35-
22 42; see also Exhibit DWR-1016, pp. 3:15-21, 12:12-24 (E. Reyes).) On cross-examination,
23 DWR's witnesses have denied any familiarity with other results derived from DWR's own
24 model exhibit, Exhibit DWR-1077. (See archived video of March 2, 2018 hearing session,
25 6:24:00-6:26:00.)

26 On April 6, 2018, the SVWU served a subpoena duces tecum requiring DWR's
27 production, in Microsoft Excel or PDF format, of numerical monthly results from Exhibit
28 DWR-1077 for the NAA and CWF H3+ scenarios, as well as comparisons of those scenarios'

1 monthly results, for twenty-nine parameters specified in the subpoena. Many of those
2 parameters were identified in DWR's Exhibit DWR-1069 for which DWR produced partial
3 results in that exhibit. Several of the parameters in the subpoena appear to be components of a
4 parameter in Exhibit DWR-1069 that DWR labeled "Simulated Combined SWP and CVP
5 South of Delta Water Service Contractor Deliveries." The subpoena stated DWR must produce
6 these results on or before April 16, 2018 at noon. On April 16, 2018, DWR filed its
7 objection to the subpoena approximately two hours after the deadline for production specified
8 in the subpoena.

9 ARGUMENT

10 **1. Good Cause Exists For The Production Of Numerical Modeling** 11 **Results Described In The Subpoena**

12 Petitioners rely heavily on DWR's CWF H3+ modeling as the basis for their Part 2
13 testimony. (See Exhibits DWR-1011, p. 2:17 (A. Miller); DWR-1012, p. 6:4-12 (M.
14 Greenwood); DWR-1013-signed, pp. 2:6-3:8, 6:4-15 (R. Wilder); DWR-1014, p. 2:19-20 (C.
15 Earle); DWR-1016, pp. 2:12-13, 3-4, 8:4-12:24 (E. Reyes).) Those results, however, generally
16 are limited to only certain months chosen by DWR. (See Exhibit DWR-1069, pp. 22-23
17 (unnumbered pages listing model results contained in exhibit).) An unreasonable effect to fish
18 and wildlife as a result of the change petition's approval, however, could occur in any month,
19 not just in the months whose modeling results DWR has chosen to disclose. (See SWRCB
20 Corrected Order WR 2008-0014, p. 41 (discussing analysis of potential effects of Yuba River
21 Accord on fish in all months).)

22 In addition, disclosure now of basic, monthly CWF H3+ modeling results that DWR has
23 not yet disclosed would make the rebuttal portion of Part 2 more efficient by enabling all
24 parties to work from common modeling results. Production of these results will allow the
25 SWRCB and the parties to have a common understanding of CWF H3+'s effects on key
26 parameters. DWR has produced voluminous modeling results for other, prior variations of
27 California WaterFix under the California Environmental Quality Act, which of course required
28 that the final EIR "include detail sufficient to enable those who did not participate in its

1 preparation to understand and to consider meaningfully the issues raised by the proposed
2 project.” (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988)
3 47 Cal.3d 376, 405.)¹ Its final EIR – which is staff Exhibit SWRCB-102 – contains literally
4 hundreds of pages of CalSim II modeling results for its project alternatives. (Exhibit SWRCB-
5 102, Appendix 5A – CALSIM II and DSM2 Modeling Results Section C Parts 1 and 2.)
6 Disclosure of the much less extensive CWF H3+ modeling results sought by the subpoena
7 similarly would allow the SWRCB and the parties who did not participate in preparing DWR’s
8 modeling to understand that modeling in sufficient detail to understand and consider
9 meaningfully what DWR now calls the “adopted project.”

10 **2. The Subpoena Simply Requires DWR To Compile Existing**
11 **Information In A Usable Form**

12 As demonstrated by the final EIR's extensive modeling appendix, the results sought by
13 the subpoena are within DWR’s possession or control because they can be generated by DWR
14 from its new CWF H3+ modeling exhibit, Exhibit DWR-1077, by applying the same post-
15 processing that allowed DWR to produce that EIR appendix. DWR, however, argues the law
16 does not require it to “generate” new records in response to a subpoena. (DWR’s Objection, p.
17 3:2-6.) DWR also objects that the subpoena’s demands constitute an undue burden and
18 expense on DWR, although DWR does not say what that burden or expense is. (DWR’s
19 Objection, p. 3:7-10.)

20 The testimony of DWR’s own modeling witness under cross-examination, however,
21 demonstrates that there would be essentially no burden for DWR to respond to the subpoena
22 because DWR already has submitted many of the monthly results sought by the subpoena, but
23 only as compiled into long-term averages and as divided by water year type. In conjunction
24 with certifying its EIR, DWR adopted a July 2017 document entitled “Developments after
25 Publication of the Proposed Final Environmental Impact Report,” which is staff Exhibit
26 SWRCB-108. Exhibit SWRCB-108 contains 19 pages of CalSim modeling results in 26

27
28 ¹The SVWU do not admit that DWR's EIR satisfied this requirement and reserve their rights concerning that issue.

1 figures. (Exhibit SWRCB-108, pp. 134-152.) These results contain, among other results,
2 monthly average flows at 10 locations depicted both as long-term averages and as divided by
3 water year types. (Exhibit SWRCB-108, pp. 143-152.) Those results also contain a number of
4 parameters of Central Valley Project and State Water Project diversions and deliveries, also
5 depicted as long-term averages and as divided by water year types. (Exhibit SWRCB-108, pp.
6 138-142.) DWR has offered Exhibit SWRCB-108 as DWR's own exhibit. (See DWR updated
7 exhibit list, dated April 12, 2018.)

8 Exhibit SWRCB-108's modeling results contain results for a "Revised Alt 4A"
9 scenario. (Exhibit SWRCB-108, pp. 134-152.) During cross-examination, DWR's modeling
10 witness Erik Reyes confirmed that the "Revised Alt4 A" scenario is the same thing as the CWF
11 H3+ "adopted project" scenario that Mr. Reyes presented in his testimony. (See March 2, 2018
12 archived video, 4:14:00-4:16:00.) DWR therefore has already presented in Part 2 at least a
13 substantial portion of the modeling results sought by the subpoena, but not compiled in the
14 basic month-by-month format that the subpoena seeks. Because DWR's EIR-related document
15 that is Exhibit SWRCB-108 proves that DWR already has the model results sought by the
16 subpoena and only would need to compile them in a month-by-month format now, the
17 subpoena would place essentially no burden on DWR.

18 **3. DWR's Arguments About The Availability Of Cross-Examination**
19 **To Test Modeling Results Is Disingenuous And Ignores DWR's Own**
20 **Efforts To Thwart Such Cross-Examination**

21 DWR objects that the SVWU has had an opportunity during Part 2 to conduct cross-
22 examination of DWR's witnesses regarding the modeling. (DWR's Objection, p. 3:16-27.)
23 DWR also argues the subpoena's demands are unreasonable because DWR has made the CWF
24 H3+ modeling public and the SVWU has access to its own experts to prepare the requested
25 results. (DWR's Objection, p. 3:11-15.)

26 DWR's argument asks the Hearing Officers to ignore DWR's own behavior during Part
27 2 and earlier cross-examination. On February 22, 2018, counsel who issued the subpoena sent
28 DWR's counsel cross-examination exhibits depicting CWF H3+ modeling results and requested
that DWR's witnesses be sufficiently familiar with them to be prepared for cross-examination.

1 (See attached **Exhibit A** (February 22, 2018 letter from Ryan Bezerra to James Mizell, with
2 exhibits.) When counsel attempted to cross-examine DWR's modeling witness about these
3 results on March 2, 2018 – seven days later – the witness denied any knowledge that the results
4 were from the CWF H3+ modeling. (See March 2, 2018 archived video, 6:24:00-6:26:00.)

5 Notwithstanding DWR's multiple invocations of cross-examination of its witnesses as
6 protestants' opportunity to test DWR's technical analyses,² DWR also has sought to stymie
7 earlier cross-examination of its modelers. DWR frequently has raised authentication objections
8 to results extracted from its modeling and petitioners' witnesses have denied knowledge of
9 those results during cross-examination. On March 1, 2018, DWR objected, on authentication
10 grounds, to cross-examination by Ms. des Jardins concerning assumptions embedded in the
11 CWF H3+ modeling. (See March 1, 2018 archived video, 1:50:30-1:57:30.) During Part 1 sur-
12 rebuttal, DWR objected to cross-examination about petitioners' modeling results and
13 petitioners' witnesses denied knowledge of those results in responding to cross-examination.
14 (June 15, 2017 transcript, pp. 86:19-91:10, 97:15-98:1 (concerning model results reflected in
15 Exhibits BKS-200 and BKS-201).) This occurred after counsel had provided prior notice of
16 those exhibits to petitioners. (See attached **Exhibit B** (June 14, 2017 letter from Ryan Bezerra
17 to Amy Aufdemberge, with exhibits).) Following that cross-examination, DWR's counsel then
18 conducted redirect examination to attempt to "generally" explain the causes for those results
19 without actually acknowledging that those results originated in petitioners' modeling. (June 15,
20 2017, pp. 157:5-164:23.)

21 The current subpoena seeks to ensure these sorts of problems do not occur during the
22 remainder of Part 2 by simply requiring DWR to produce basic month-by-month CalSim
23

24 _____
25 ²See January 30, 2018 Consolidated Opposition To City of Antioch's Motion to Continue; Motion for
26 Continuance of Phase 2 and Reconsideration of Reopening of Part 1; and Joinders Thereto Filed by LAND Et Al.,
27 San Joaquin County Et Al., California Sportfishing Protection Alliance Et Al., Friends of the River Et Al., Contra
28 Costa County Et Al. and Sacramento Regional County Sanitation District, p. 4:25-5:1; April 12, 2017 Motion for
Protective Order Based On North Delta Water Agency's Notice Requesting Witnesses And Production Of
Documents, p. 4:3-7; April 19, 2017 letter response to Sacramento Valley Group's Request for Hydrologic
Modeling Supporting Petitioners' Rebuttal Modeling; July 17, 2017 Opposition to Sacramento Valley Water
Users' Request to Keep Open Part 1 of the hearing and Ms. des Jardins' Procedural Objection to Additional
Information on the Project Description, p. 5:22-25.

1 modeling results for key parameters for what DWR's witnesses have called the CWF H3+
2 "adopted project."

3 **CONCLUSION**

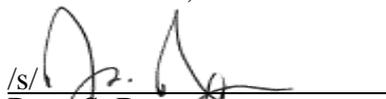
4 Although DWR's case-in-chief relies heavily on CalSim II modeling results, DWR has
5 presented only its chosen sliver of those results. The SVWU subpoena demands DWR produce
6 a more comprehensive set of basic month-by-month modeling results for the current iteration of
7 California WaterFix. DWR's objection to the subpoena lacks merit, so the SVWU respectfully
8 request that the Hearing Officers deny that objection and order DWR to comply within seven
9 days.

10 Dated: April 18, 2018

Respectfully submitted,

11 BARTKIEWICZ, KRONICK &
12 SHANAHAN, P.C.

DOWNEY BRAND LLP

13 
14 /s/ Ryan S. Bezena

/s/ Meredith E. Nikkel

15 Attorney for Cities of Folsom, Roseville,
16 Sacramento Suburban Water District, San
17 Juan Water District

Attorney for Reclamation District 108, Carter
Mutual Water Company, El Dorado Irrigation
District, El Dorado Water & Power Authority,
Howald Farms, Inc., Maxwell Irrigation
District, Natomas Central Mutual Water
Company, Meridian Farms Water Company,
Oji Brothers Farm, Inc., Oji Family
Partnership, Pelger Mutual Water Company,
Pleasant-Grove Verona Mutual Water
Company, Princeton-Codora-Glenn Irrigation
District, Provident Irrigation District,
Sacramento Municipal Utility District, Henry
D. Richter, Et Al., River Garden Farms
Company, South Sutter Water District, Sutter
Extension Water District, Sutter Mutual Water
Company, Tisdale Irrigation And Drainage
Company, Windswept Land And Livestock
Company

1 MINASIAN, MEITH, SOARES, SEXTON &
2 COOPER, LLP

SOMACH SIMMONS & DUNN, PC

3 /s/ Dustin Cooper
4 Dustin Cooper

/s/ Andrew M. Hitchings
Andrew M. Hitchings

5 Attorney for Anderson-Cottonwood Irrigation
6 District, Reclamation District No. 1004,
7 Western Canal Water District, Richvale
8 Irrigation District, Butte Water District,
9 Plumas Mutual Water Company, Nevada
10 Irrigation District, South Feather Water &
11 Power Agency, Paradise Irrigation District

Attorney for Placer County Water Agency,
Glenn-Colusa Irrigation District, Biggs West
Gridley Water District, Sacramento County
Water Agency, Placer County Water Agency
and Carmichael Water District

12 STOEL RIVES, LLP

COUNTY OF SACRAMENTO AND
SACRAMENTO COUNTY WATER
AGENCY

13 By: /s/ Wesley A Miliband
14 Wesley A. Miliband

By: /s/ William C. Burke

15 Attorney for City of Sacramento

William C. Burke
Deputy County Counsel

Exhibit A

BARTKIEWICZ, KRONICK & SHANAHAN

RICHARD P. SHANAHAN
ALAN B. LILLY
RYAN S. BEZERRA
JOSHUA M. HOROWITZ
ANDREW J. RAMOS
PATRICK K. FITZGERALD

A PROFESSIONAL CORPORATION
1011 TWENTY-SECOND STREET
SACRAMENTO, CALIFORNIA 95816-4907
TEL. (916) 446-4254
FAX (916) 446-4018
EMAIL bks@bkslawfirm.com

Retired
PAUL M. BARTKIEWICZ
STEPHEN A. KRONICK

Of Counsel
JENNIFER T. BUCKMAN

February 22, 2018

Mr. James Mizell
Department of Water Resources
Office of Chief Counsel
1416 Ninth Street, Room 1104
Sacramento, California 95814

VIA SWRCB SERVICE LIST

Re: California WaterFix Hearing – Preparation for DWR Panel 2 Cross-
Examination

Dear Mr. Mizell:

In a number of filings in this hearing, the Department of Water Resources (DWR) has emphasized its witnesses' availability for cross-examination to clarify their testimony and answer questions about any uncertainties in their technical analyses.¹ In this vein, on behalf of the Cities of Folsom and Roseville, Sacramento Suburban Water District and San Juan Water District, I respectfully request that DWR's Panel 2 witness Erik Reyes review, and familiarize himself, with the attached results from the CWF H3+ modeling that DWR has produced for Part 2 of this hearing. I will represent that these results were extracted from the electronic files that DWR has produced as Exhibit DWR-1077 in this hearing. We appreciate your cooperation in this matter.

Kind regards,

Ryan S. Bezerra

RSB:tmo

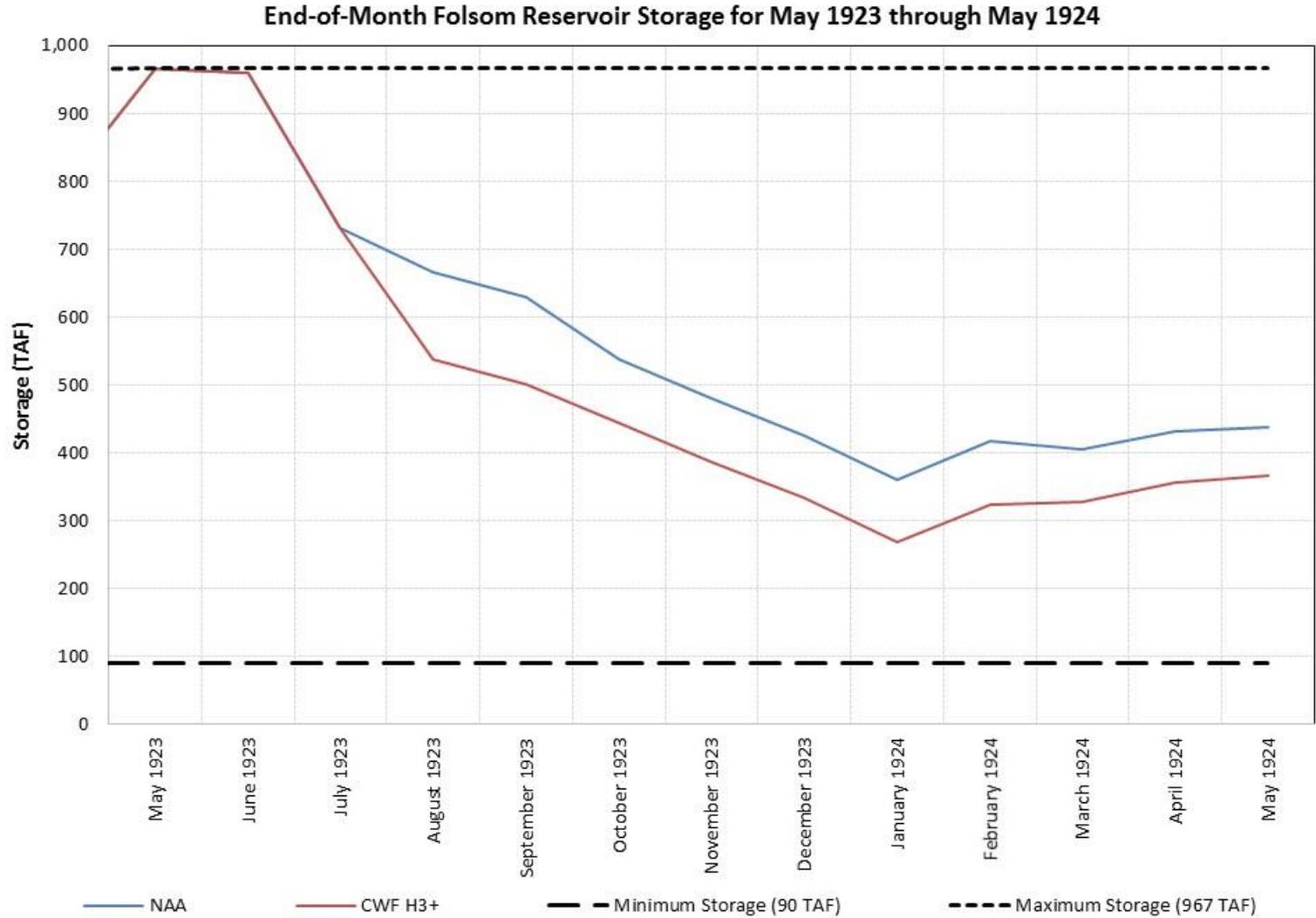
¹ (See January 30, 2018 Consolidated Opposition To City of Antioch's Motion to Continue; Motion for Continuance of Phase 2 and Reconsideration of Reopening of Part 1; and Joinders Thereto Filed by LAND Et Al., San Joaquin County Et Al., California Sportfishing Protection Alliance Et Al., Friends of the River Et Al., Contra Costa County Et Al. and Sacramento Regional County Sanitation District, p. 4:25-5:1; April 12, 2017 Motion for Protective Order Based On North Delta Water Agency's Notice Requesting Witnesses And Production Of Documents, p. 4:3-7; April 19, 2017 letter response to Sacramento Valley Group's Request for Hydrologic Modeling Supporting Petitioners' Rebuttal Modeling; July 17, 2017 Opposition to Sacramento Valley Water Users' Request to Keep Open Part 1 of the hearing and Ms. Des Jardins' Procedural Objection to Additional Information on the Project Description, p. 5:22-25.)

Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 1923 – May 1924

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 1923 - Below Normal Year	May 1923	967	967	0
	June 1923	960	960	0
	July 1923	733	733	0
	August 1923	667	539	-128
	September 1923	629	501	-127
Water Year 1924 - Critical Year	October 1923	538	444	-94
	November 1923	482	388	-94
	December 1923	426	335	-91
	January 1924	361	270	-91
	February 1924	418	324	-93
	March 1924	405	328	-76
	April 1924	432	356	-76
	May 1924	438	368	-70

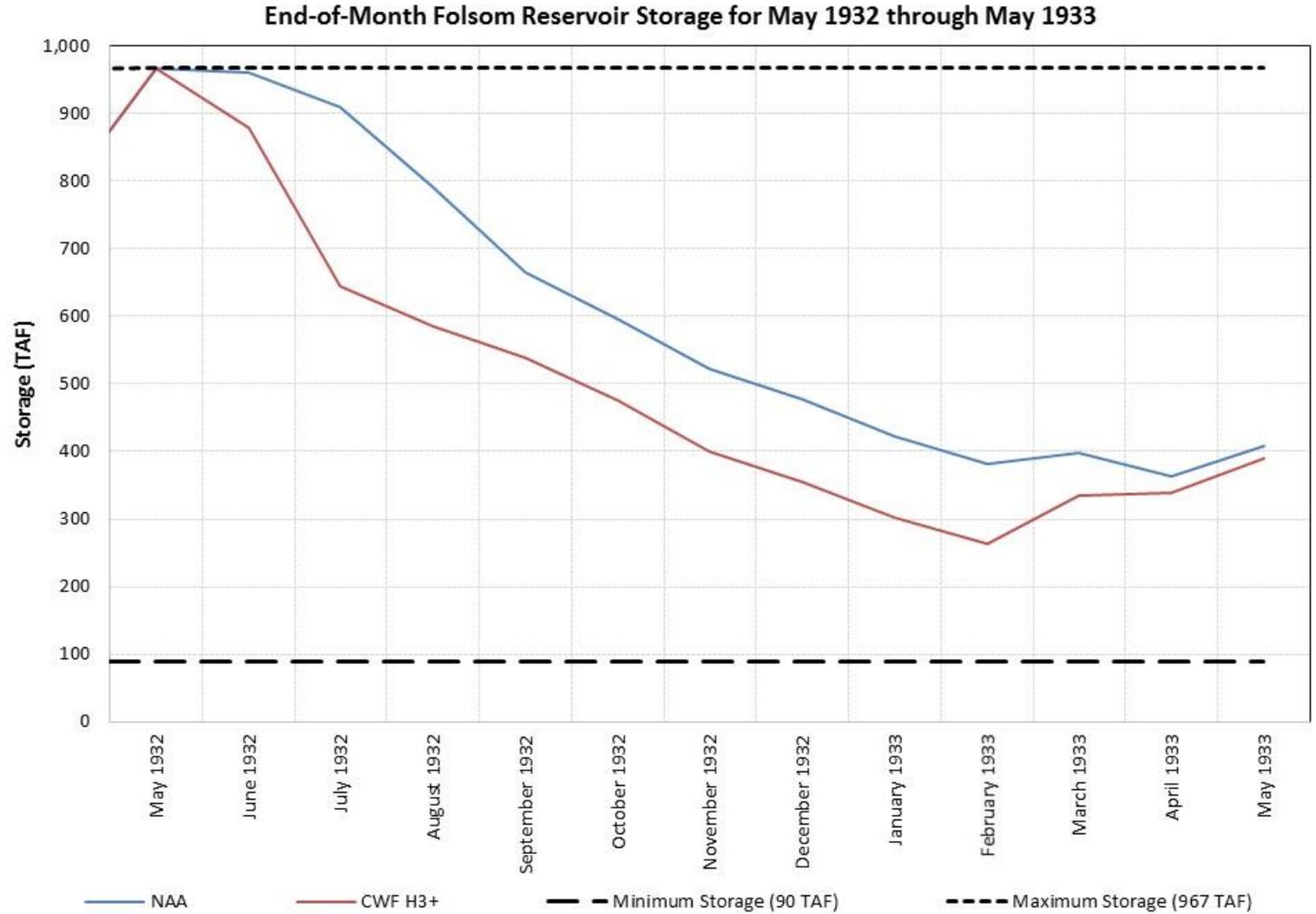


Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 1932 – May 1933

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 1932 - Critical Year	May 1932	967	967	0
	June 1932	961	878	-82
	July 1932	910	645	-265
	August 1932	792	585	-207
	September 1932	666	538	-128
Water Year 1933 - Critical Year	October 1932	595	476	-120
	November 1932	522	399	-122
	December 1932	477	355	-122
	January 1933	423	301	-122
	February 1933	382	263	-119
	March 1933	399	334	-64
	April 1933	363	340	-24
	May 1933	408	389	-18

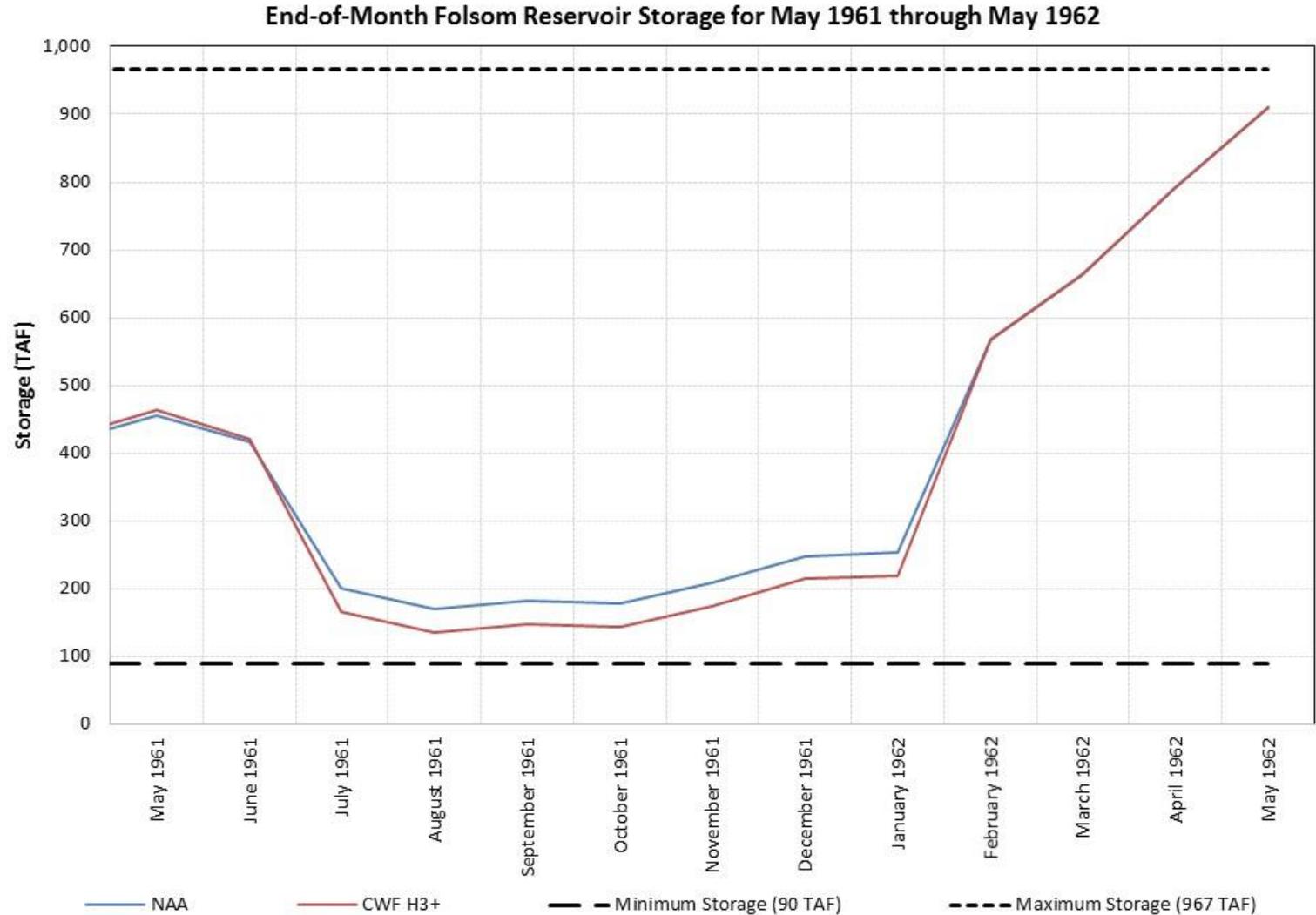


Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 1961 – May 1962

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 1961 - Dry Year	May 1961	456	463	7
	June 1961	416	421	5
	July 1961	201	166	-35
	August 1961	170	135	-35
	September 1961	182	148	-35
Water Year 1962 - Below Normal Year	October 1961	179	144	-35
	November 1961	209	175	-34
	December 1961	248	214	-34
	January 1962	253	219	-34
	February 1962	567	567	0
	March 1962	664	664	0
	April 1962	792	792	0
	May 1962	910	911	1

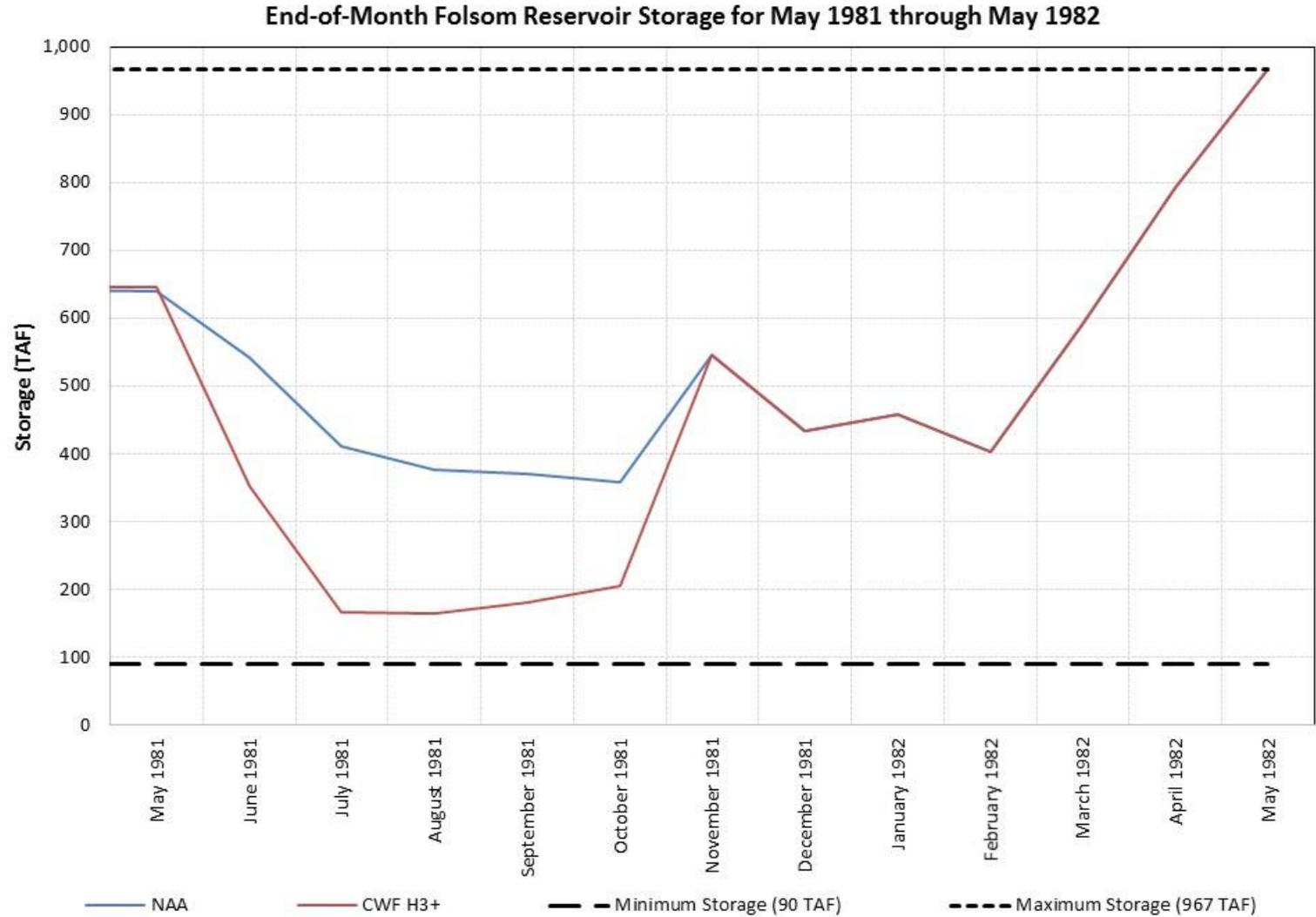


Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 1981 – May 1982

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 1981 - Dry Year	May 1981	640	645	5
	June 1981	542	352	-190
	July 1981	411	166	-245
	August 1981	377	165	-212
	September 1981	370	181	-190
Water Year 1982 - Wet Year	October 1981	358	205	-153
	November 1981	546	546	0
	December 1981	433	433	0
	January 1982	459	459	0
	February 1982	402	402	0
	March 1982	590	590	0
	April 1982	792	792	0
	May 1982	967	967	0

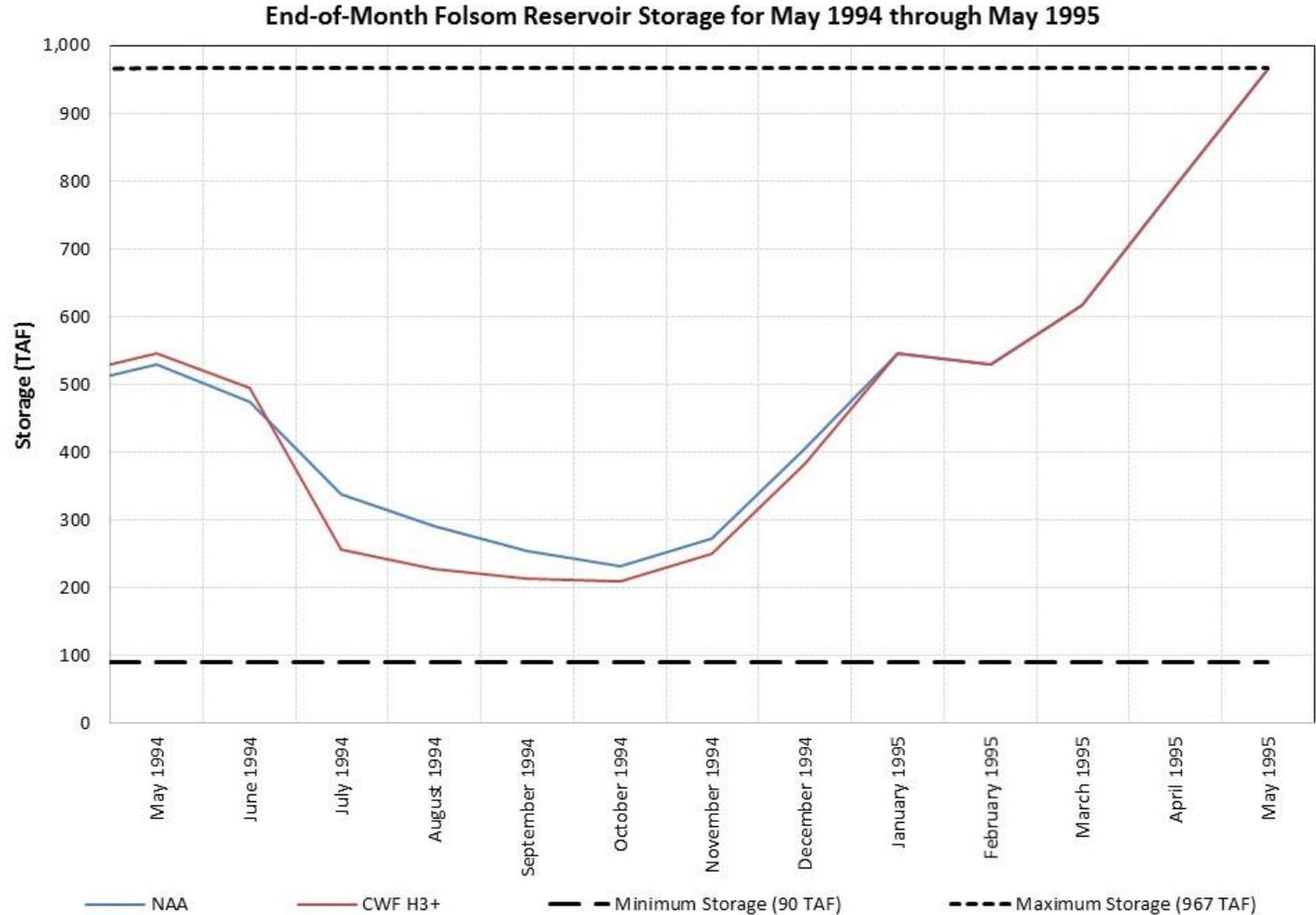


Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 1994 – May 1995

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 1994 - Critical Year	May 1994	530	546	16
	June 1994	475	496	21
	July 1994	338	256	-82
	August 1994	291	229	-62
	September 1994	255	213	-41
Water Year 1995 - Wet Year	October 1994	233	209	-24
	November 1994	274	250	-24
	December 1994	407	382	-24
	January 1995	546	546	0
	February 1995	530	530	0
	March 1995	618	618	0
	April 1995	792	792	0
	May 1995	967	967	0



Case-in-Chief – No Action v. CWF H3+ Alternative

End-of-Month Folsom Reservoir Storage

May 2001 – May 2002

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		NAA (TAF)	H3 (TAF)	
Water Year 2001 - Dry Year	May 2001	600	602	2
	June 2001	506	377	-129
	July 2001	420	319	-101
	August 2001	370	271	-99
	September 2001	375	280	-94
Water Year 2002 - Dry Year	October 2001	358	264	-94
	November 2001	412	310	-102
	December 2001	567	508	-59
	January 2002	567	567	0
	February 2002	563	563	0
	March 2002	655	655	0
	April 2002	792	792	0
	May 2002	865	864	-2

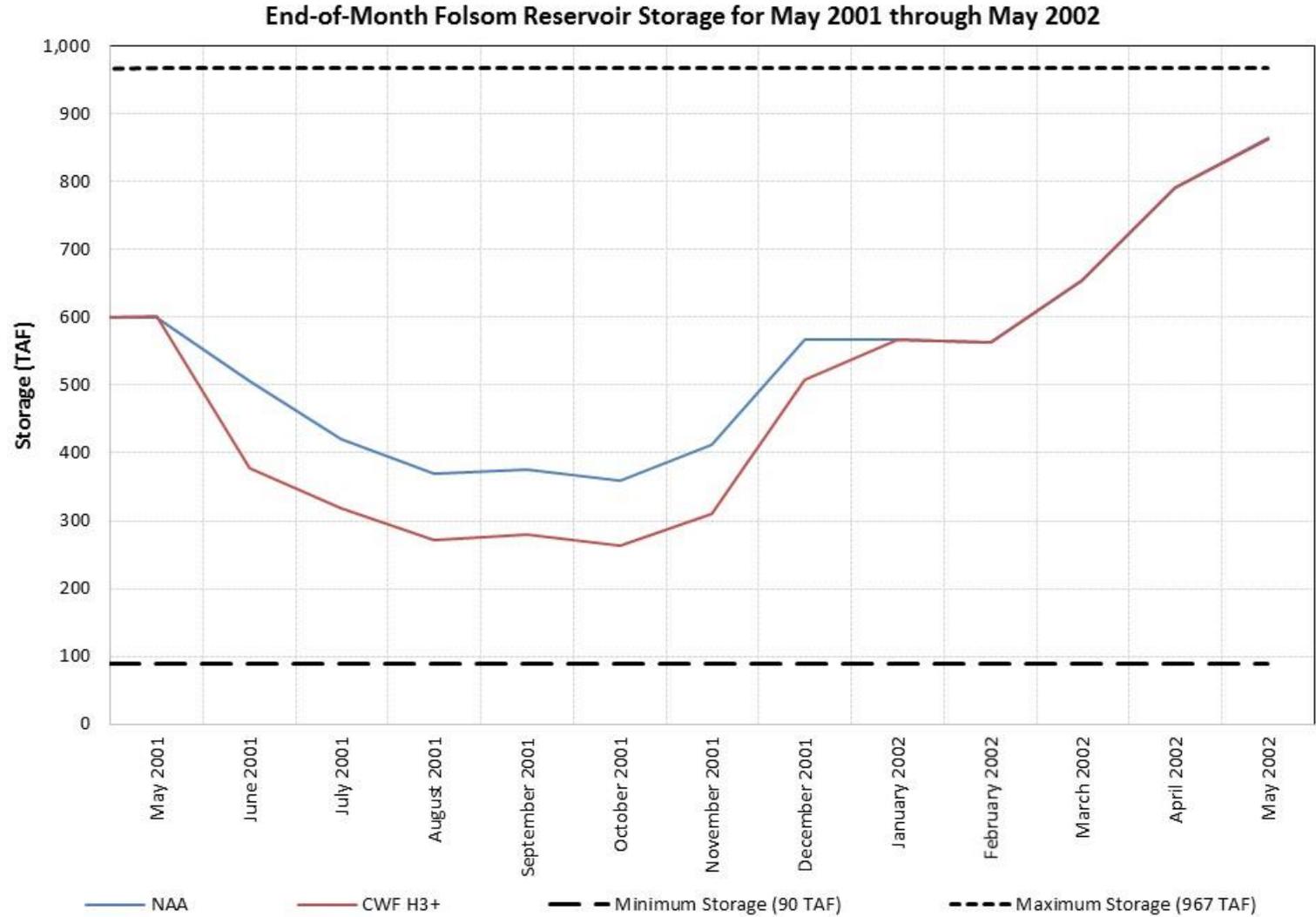


Exhibit B

BARTKIEWICZ, KRONICK & SHANAHAN

RICHARD P. SHANAHAN
ALAN B. LILLY
RYAN S. BEZERRA
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ANDREW J. RAMOS
KATRINA G. NELSON
PATRICK K. FITZGERALD

A PROFESSIONAL CORPORATION
1011 TWENTY-SECOND STREET
SACRAMENTO, CALIFORNIA 95816-4907
TEL. (916) 446-4254
FAX (916) 446-4018
EMAIL bks@bkslawfirm.com

Of Counsel

PAUL M. BARTKIEWICZ
STEPHEN A. KRONICK
JENNIFER T. BUCKMAN

June 14, 2017

VIA CALIFORNIA WATERFIX SERVICE LIST

Ms. Amy L. Aufdemberge
Assistant Regional Solicitor
Office of the Regional Solicitor
U.S. Department of the Interior
2800 Cottage Way
Sacramento, California 95825

Re: California WaterFix – Modeling Curves and Results for Sur-Rebuttal

Dear Ms. Aufdemberge:

In her sur-rebuttal testimony, Reclamation's witness Nancy Parker discusses Folsom Reservoir storage results from the modeling that petitioners presented in their case-in-chief in this hearing. (See exhibit DWR-514). Ms. Parker's sur-rebuttal testimony also discusses the Water Supply Index – Delivery Index (WSI-DI) used in CalSim as part of her testimony concerning modeling conducted by MBK Engineers. In order to expedite Ms. Parker's cross-examination, please ensure that, prior to her testimony, Ms. Parker is familiar with the attached, which are:

- Additional Folsom Reservoir storage results from the modeling that petitioners presented in their case-in-chief in this hearing; and
- WSI-DI curves from various model runs whose results petitioners have presented in this hearing.

Kind regards,



Ryan S. Bezerra

Enclosures

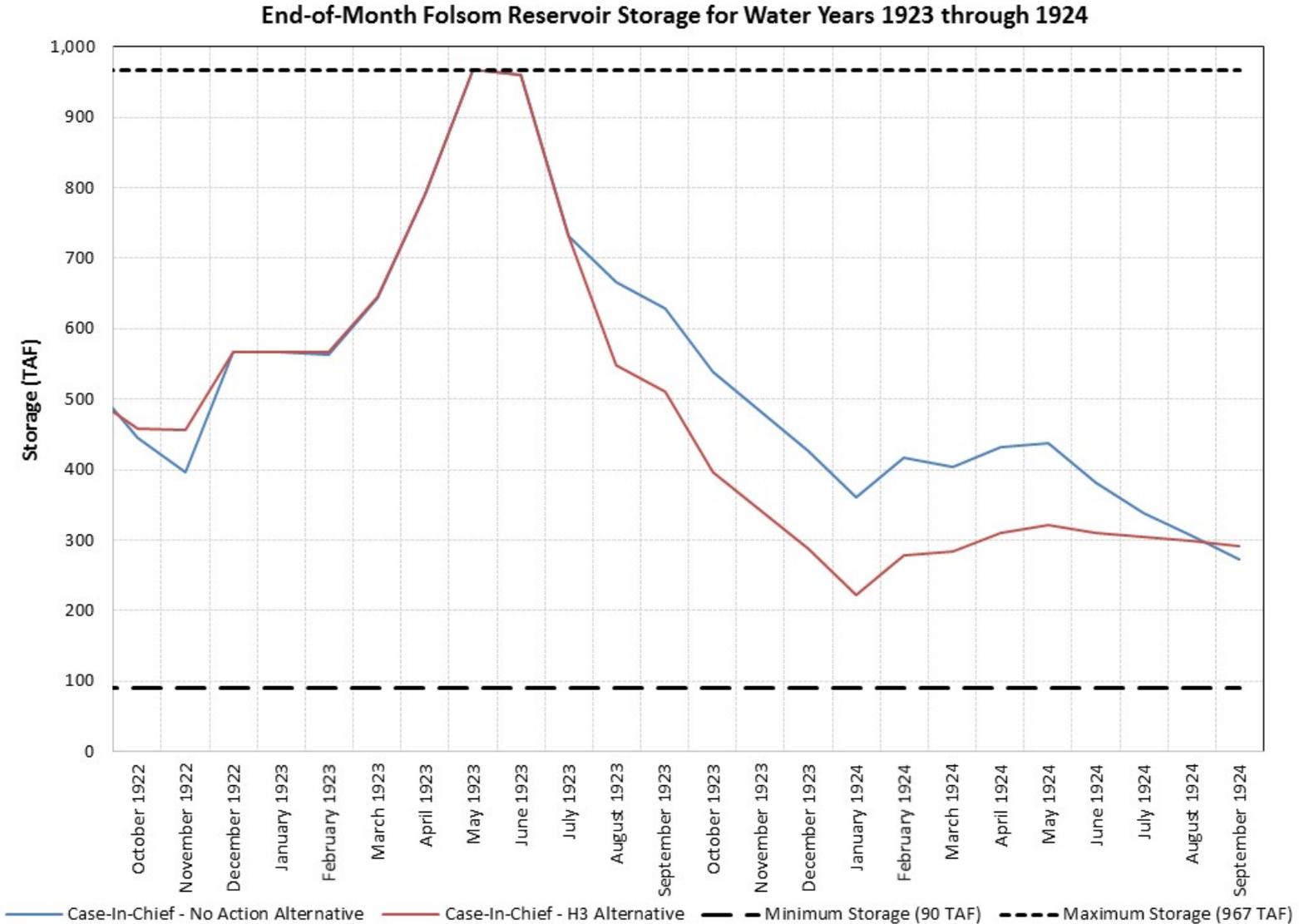
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Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage

1923-1924

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 1923 - Below Normal Year	October 1922	445	459	14
	November 1922	396	457	61
	December 1922	567	567	0
	January 1923	567	567	0
	February 1923	564	567	3
	March 1923	643	646	3
	April 1923	792	792	0
	May 1923	967	967	0
	June 1923	960	960	0
	July 1923	733	733	0
	August 1923	667	548	-119
	September 1923	629	511	-118
Water Year 1924 - Critical Year	October 1923	538	396	-142
	November 1923	482	343	-139
	December 1923	426	287	-139
	January 1924	361	222	-139
	February 1924	418	279	-139
	March 1924	405	284	-121
	April 1924	432	309	-122
	May 1924	438	322	-116
	June 1924	381	311	-70
	July 1924	339	304	-35
	August 1924	306	300	-6
	September 1924	273	292	19

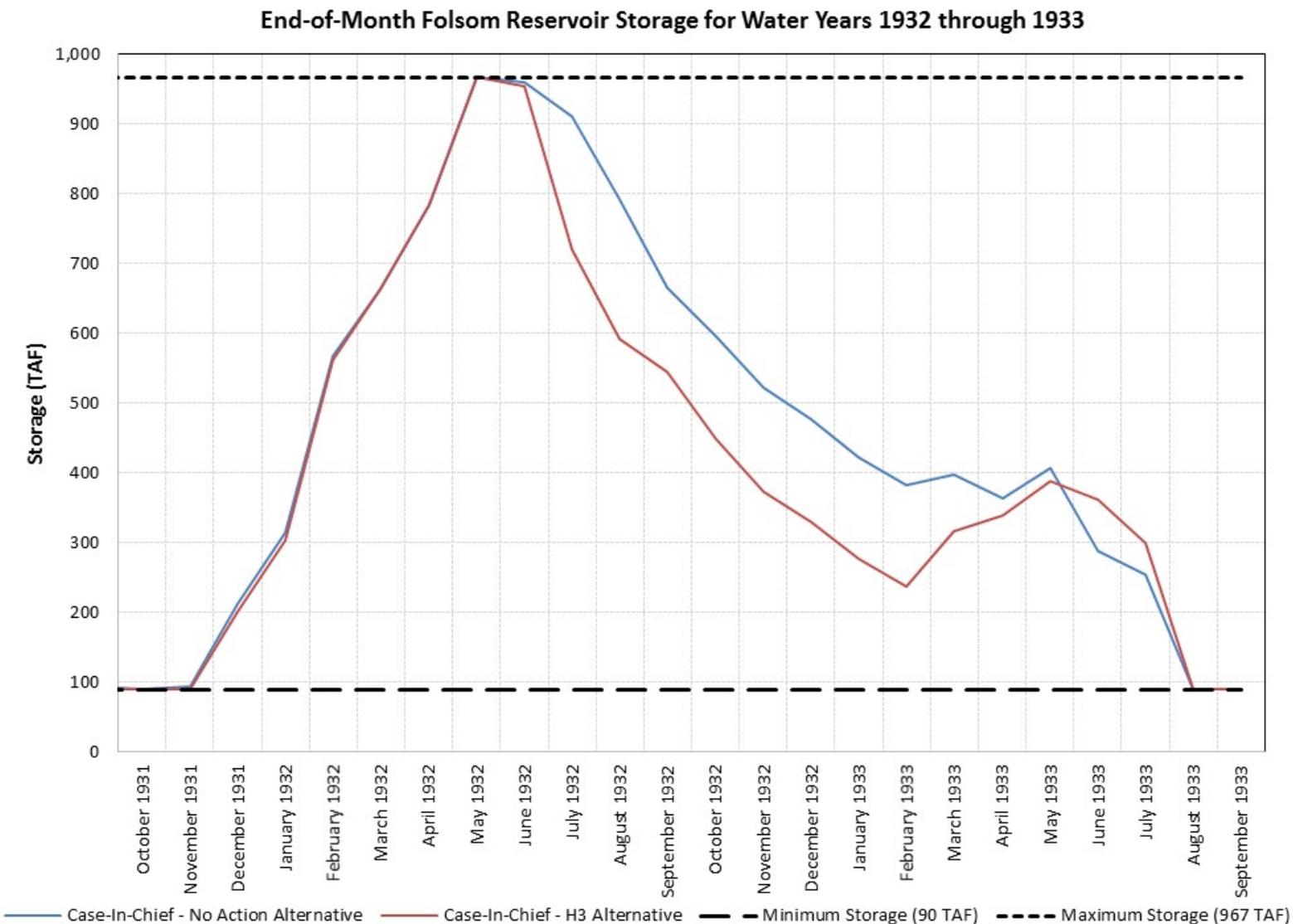


Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage

1932-1933

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 1932 - Critical Year	October 1931	90	90	0
	November 1931	94	90	-4
	December 1931	213	202	-11
	January 1932	314	303	-11
	February 1932	567	561	-6
	March 1932	664	664	0
	April 1932	784	784	0
	May 1932	967	967	0
	June 1932	961	954	-6
	July 1932	910	721	-190
	August 1932	792	592	-200
September 1932	666	545	-121	
Water Year 1933 - Critical Year	October 1932	595	448	-147
	November 1932	522	374	-148
	December 1932	477	330	-148
	January 1933	423	278	-146
	February 1933	382	237	-145
	March 1933	399	316	-83
	April 1933	363	339	-25
	May 1933	408	388	-20
	June 1933	288	362	75
	July 1933	255	300	45
	August 1933	90	90	0
	September 1933	90	90	0

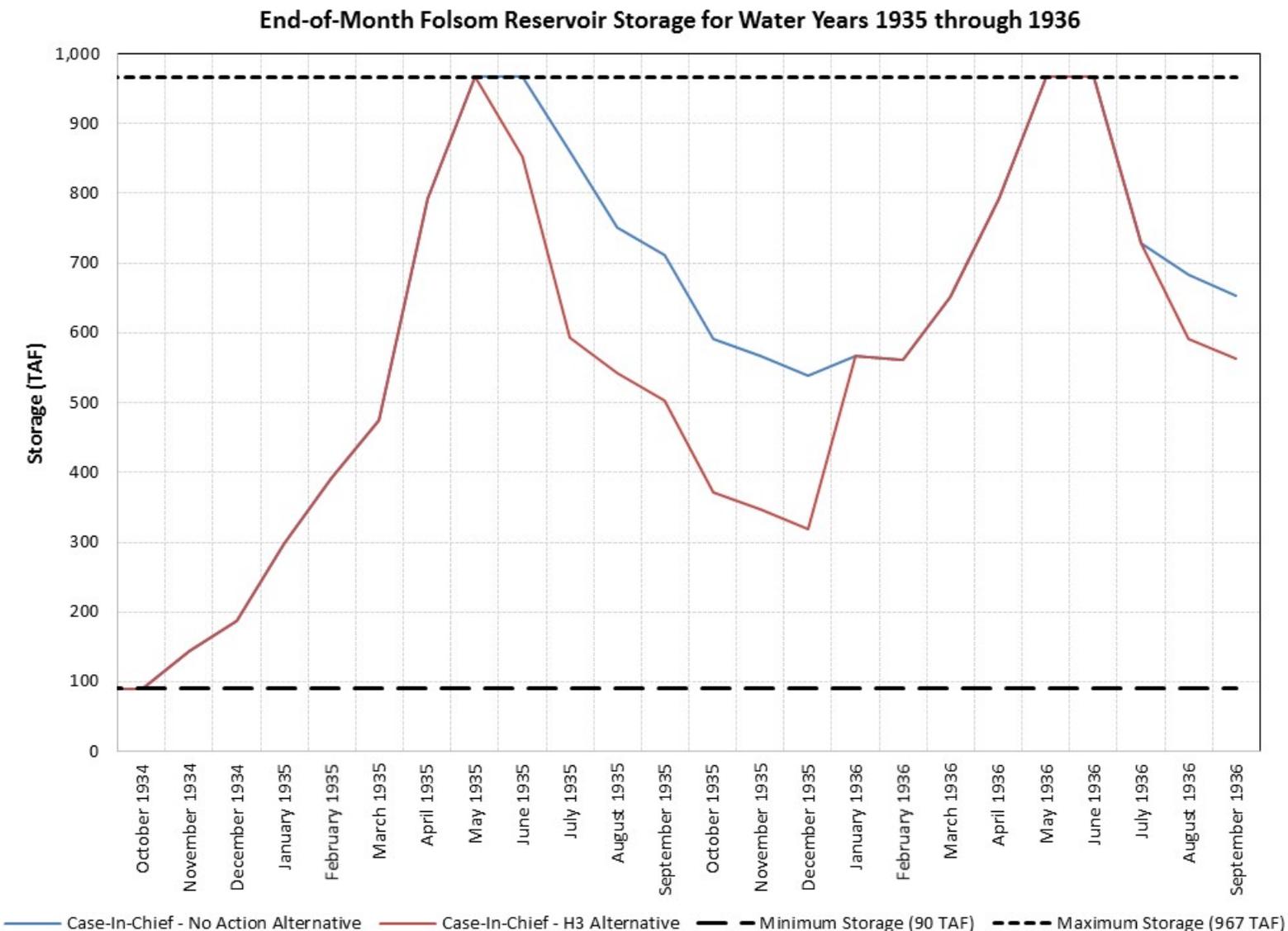


Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage

1935-1936

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 1935 - Dry Year	October 1934	90	90	0
	November 1934	144	144	0
	December 1934	188	188	0
	January 1935	297	298	0
	February 1935	392	392	0
	March 1935	474	474	0
	April 1935	792	792	0
	May 1935	967	967	0
	June 1935	967	852	-115
	July 1935	860	593	-267
	August 1935	751	543	-208
September 1935	711	503	-208	
Water Year 1936 - Below Normal Year	October 1935	592	371	-221
	November 1935	567	347	-220
	December 1935	540	319	-220
	January 1936	567	567	0
	February 1936	562	562	0
	March 1936	651	651	0
	April 1936	792	792	0
	May 1936	967	967	0
	June 1936	967	967	0
	July 1936	728	728	0
	August 1936	683	592	-91
September 1936	653	562	-91	

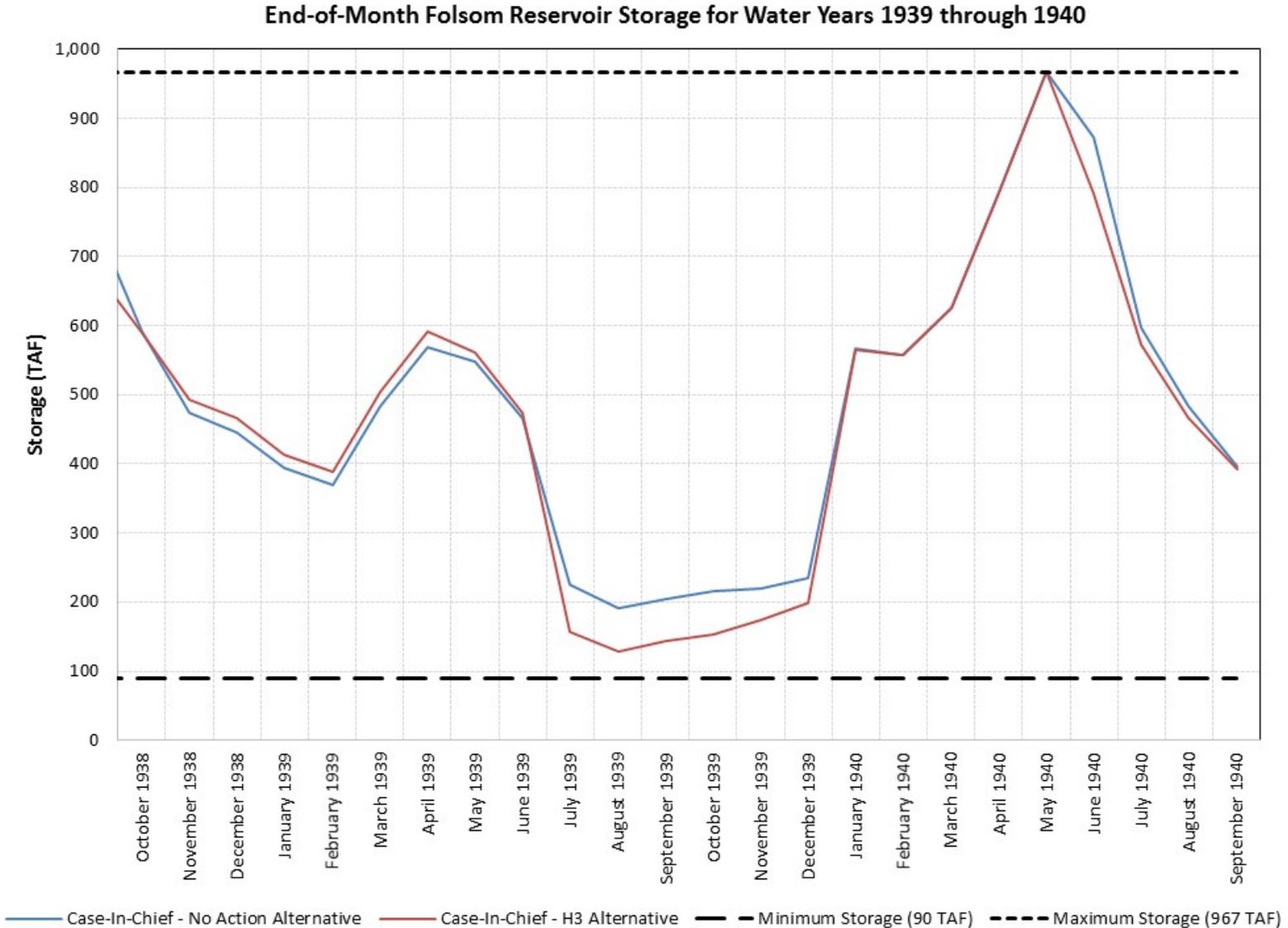


Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage

1939-1940

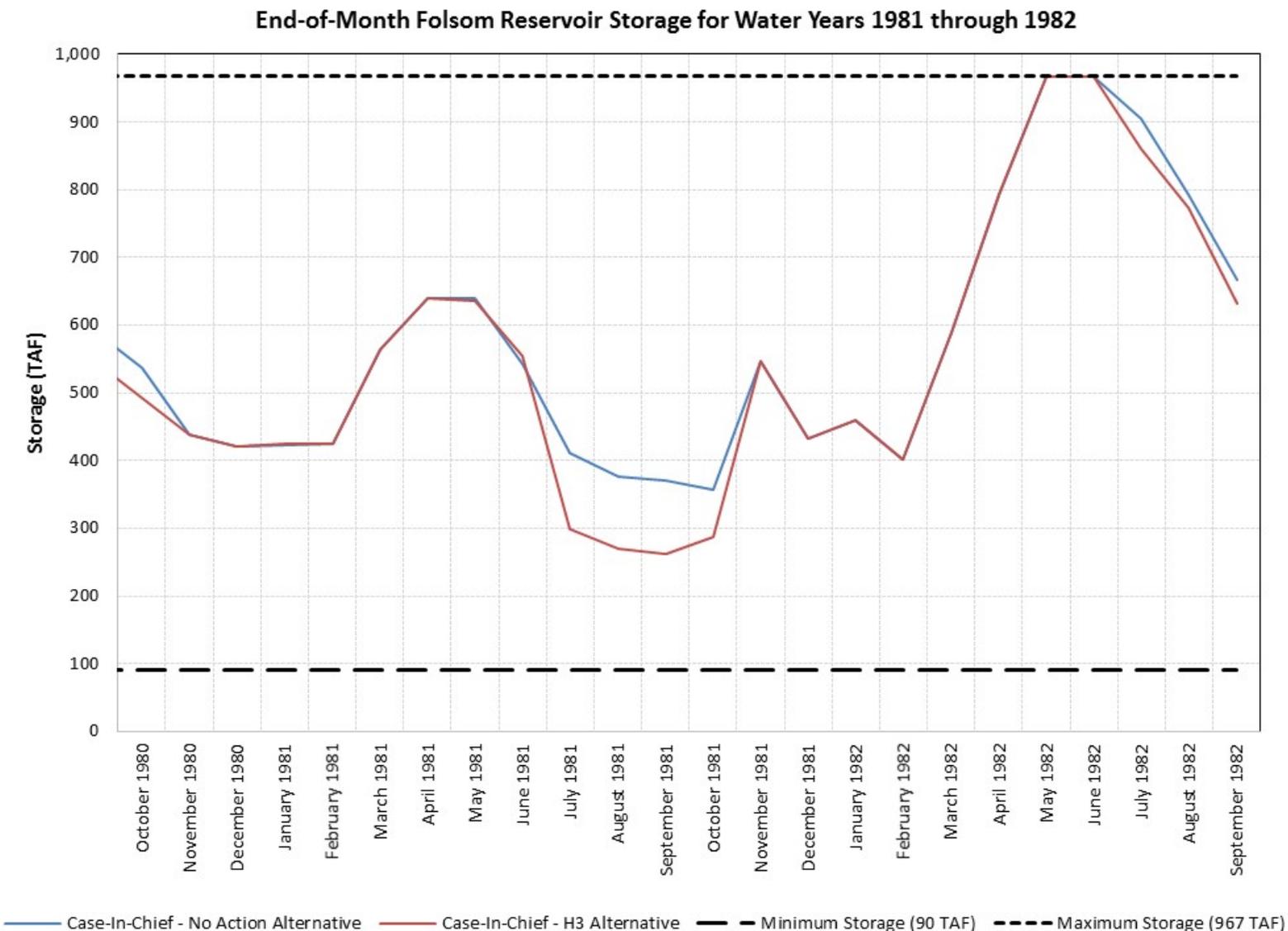
Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 1939 - Below Normal Year	October 1938	592	590	-2
	November 1938	474	493	20
	December 1938	446	466	20
	January 1939	395	414	20
	February 1939	369	389	20
	March 1939	484	504	20
	April 1939	570	591	21
	May 1939	548	561	13
	June 1939	466	475	9
	July 1939	225	157	-68
	August 1939	191	128	-63
September 1939	205	143	-62	
Water Year 1940 - Above Normal Year	October 1939	215	154	-61
	November 1939	220	175	-45
	December 1939	235	199	-35
	January 1940	567	565	-2
	February 1940	557	557	0
	March 1940	626	626	0
	April 1940	792	792	0
	May 1940	967	967	0
	June 1940	873	791	-82
	July 1940	597	573	-24
	August 1940	484	467	-17
	September 1940	396	392	-4



Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage 1981-1982

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 1981 - Dry Year	October 1980	538	492	-46
	November 1980	437	439	2
	December 1980	420	421	1
	January 1981	423	424	1
	February 1981	425	425	0
	March 1981	563	564	0
	April 1981	641	640	-1
	May 1981	640	635	-5
	June 1981	542	555	13
	July 1981	411	299	-112
	August 1981	377	269	-107
September 1981	370	263	-107	
Water Year 1982 - Wet Year	October 1981	358	287	-71
	November 1981	546	546	0
	December 1981	433	433	0
	January 1982	459	459	0
	February 1982	402	402	0
	March 1982	590	590	0
	April 1982	792	792	0
	May 1982	967	967	0
	June 1982	967	967	0
	July 1982	905	860	-45
	August 1982	792	772	-20
	September 1982	667	631	-36

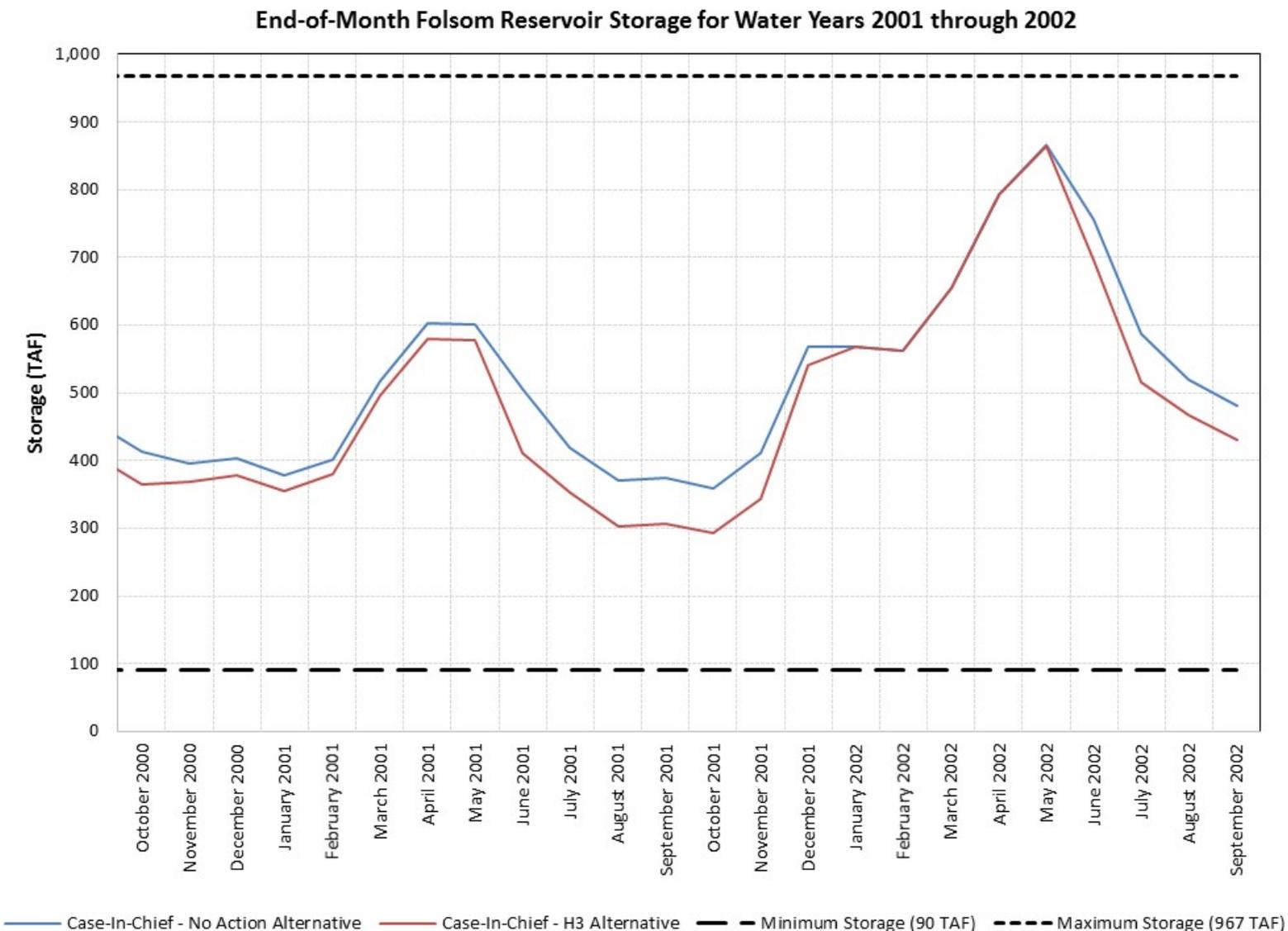


Case-in-Chief – No Action v. Case-in-Chief – H3 Alternative

End-of-Month Folsom Reservoir Storage

2001-2002

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-In-Chief - No Action Alternative (TAF)	Case-In-Chief - H3 Alternative (TAF)	
Water Year 2001 - Dry Year	October 2000	413	365	-48
	November 2000	395	369	-27
	December 2000	403	378	-25
	January 2001	379	356	-23
	February 2001	402	380	-22
	March 2001	518	495	-22
	April 2001	602	579	-23
	May 2001	600	578	-22
	June 2001	506	411	-95
	July 2001	420	352	-67
	August 2001	370	303	-67
September 2001	375	307	-68	
Water Year 2002 - Dry Year	October 2001	358	293	-66
	November 2001	412	344	-68
	December 2001	567	542	-25
	January 2002	567	567	0
	February 2002	563	563	0
	March 2002	655	655	0
	April 2002	792	792	0
	May 2002	865	864	-2
	June 2002	755	695	-60
	July 2002	587	517	-70
	August 2002	520	468	-52
	September 2002	481	430	-51

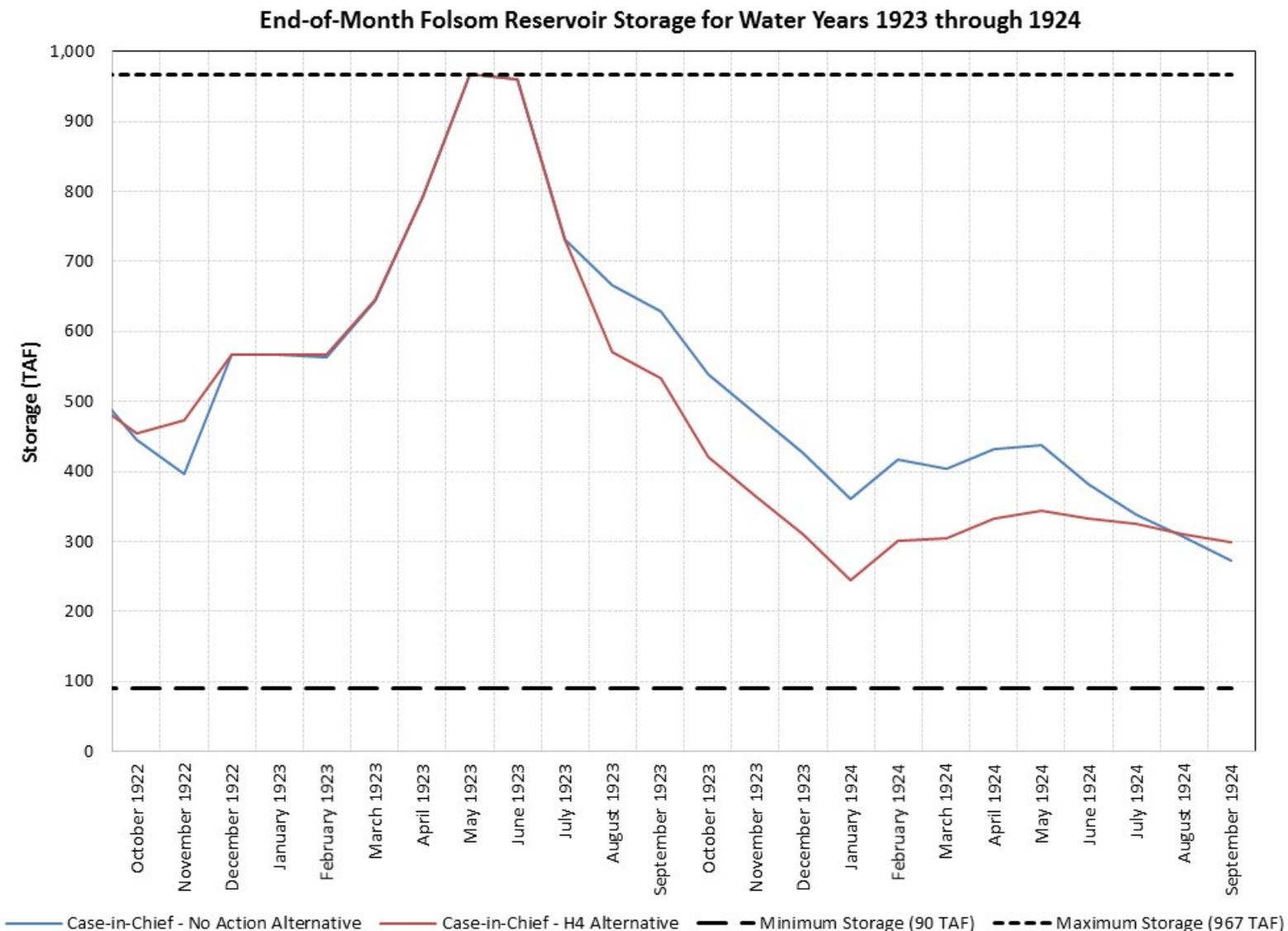


Case-in-Chief – No Action v. Case-in-Chief – H4 Alternative

End-of-Month Folsom Reservoir Storage

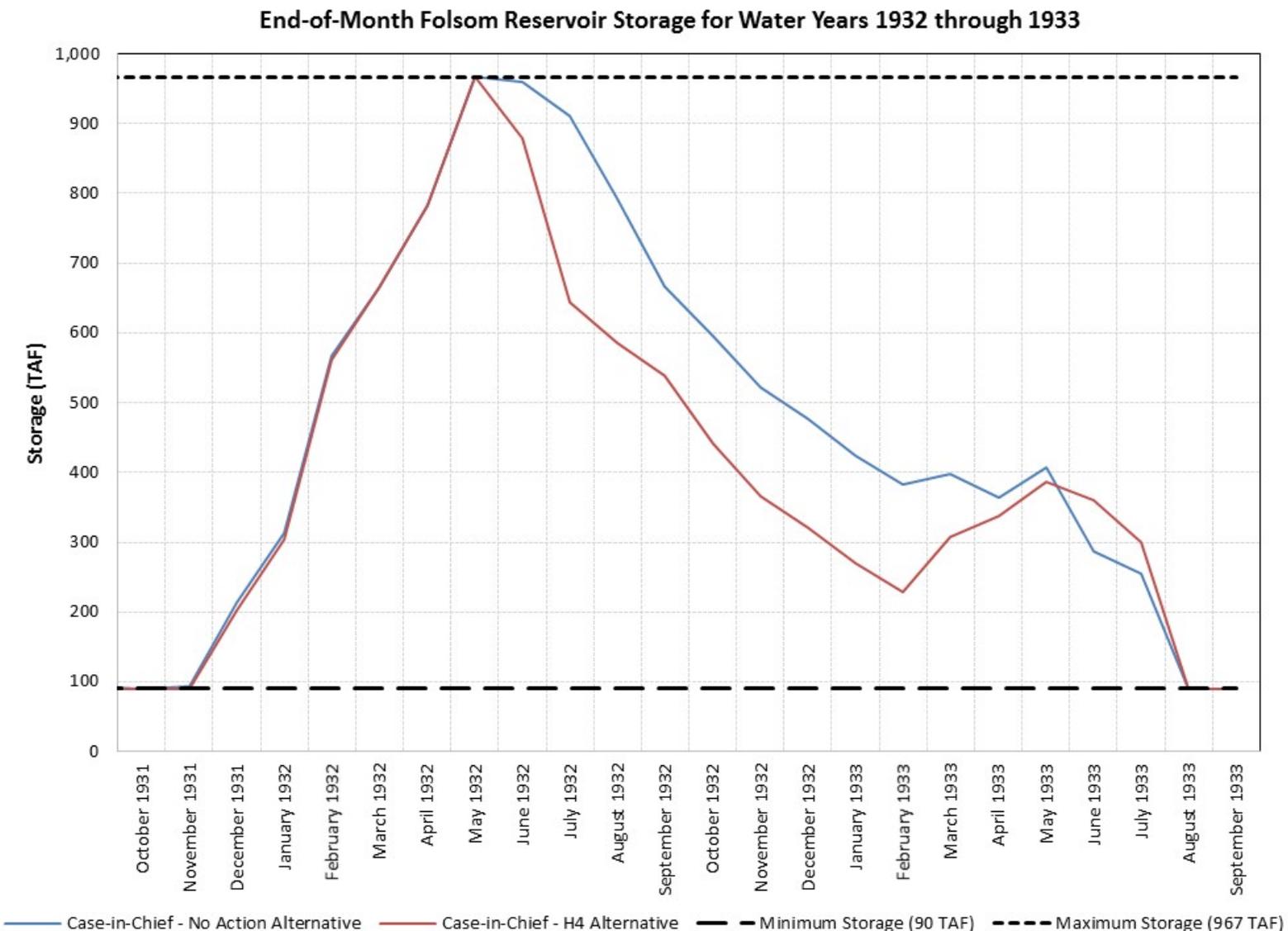
1923-1924

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-in-Chief - No Action Alternative (TAF)	Case-in-Chief - H4 Alternative (TAF)	
Water Year 1923 - Below Normal Year	October 1922	445	455	11
	November 1922	396	474	77
	December 1922	567	567	0
	January 1923	567	567	0
	February 1923	564	567	3
	March 1923	643	646	3
	April 1923	792	792	0
	May 1923	967	967	0
	June 1923	960	960	0
	July 1923	733	733	0
	August 1923	667	571	-95
	September 1923	629	534	-95
Water Year 1924 - Critical Year	October 1923	538	420	-118
	November 1923	482	364	-118
	December 1923	426	311	-115
	January 1924	361	245	-115
	February 1924	418	300	-117
	March 1924	405	305	-100
	April 1924	432	333	-99
	May 1924	438	345	-93
	June 1924	381	333	-47
	July 1924	339	324	-15
	August 1924	306	310	4
	September 1924	273	300	27



Case-in-Chief – No Action v. Case-in-Chief – H4 Alternative End-of-Month Folsom Reservoir Storage 1932-1933

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-in-Chief - No Action Alternative (TAF)	Case-in-Chief - H4 Alternative (TAF)	
Water Year 1932 - Critical Year	October 1931	90	90	0
	November 1931	94	90	-4
	December 1931	213	202	-11
	January 1932	314	303	-11
	February 1932	567	561	-6
	March 1932	664	664	0
	April 1932	784	784	0
	May 1932	967	967	0
	June 1932	961	878	-82
	July 1932	910	645	-265
	August 1932	792	585	-207
September 1932	666	538	-128	
Water Year 1933 - Critical Year	October 1932	595	442	-154
	November 1932	522	365	-157
	December 1932	477	321	-156
	January 1933	423	269	-154
	February 1933	382	229	-154
	March 1933	399	308	-91
	April 1933	363	338	-26
	May 1933	408	387	-21
	June 1933	288	361	73
	July 1933	255	299	45
	August 1933	90	90	0
	September 1933	90	90	0

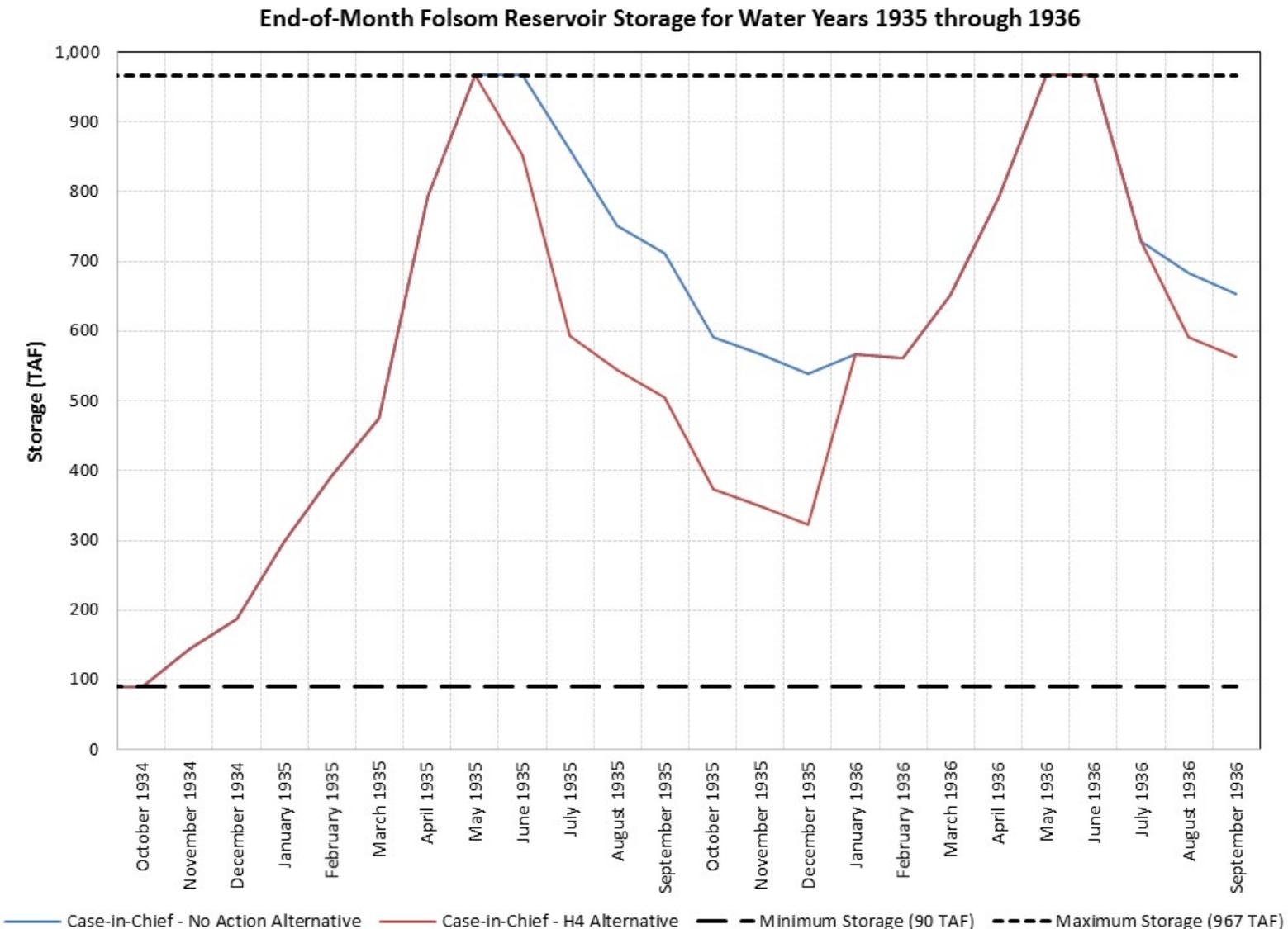


Case-in-Chief – No Action v. Case-in-Chief – H4 Alternative

End-of-Month Folsom Reservoir Storage

1935-1936

Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-in-Chief - No Action Alternative (TAF)	Case-in-Chief - H4 Alternative (TAF)	
Water Year 1935 - Dry Year	October 1934	90	90	0
	November 1934	144	144	0
	December 1934	188	188	0
	January 1935	297	298	0
	February 1935	392	392	0
	March 1935	474	474	0
	April 1935	792	792	0
	May 1935	967	967	0
	June 1935	967	853	-114
	July 1935	860	594	-267
	August 1935	751	544	-207
September 1935	711	504	-207	
Water Year 1936 - Below Normal Year	October 1935	592	373	-219
	November 1935	567	349	-218
	December 1935	540	322	-218
	January 1936	567	567	0
	February 1936	562	562	0
	March 1936	651	651	0
	April 1936	792	792	0
	May 1936	967	967	0
	June 1936	967	967	0
	July 1936	728	728	0
	August 1936	683	592	-91
	September 1936	653	562	-91

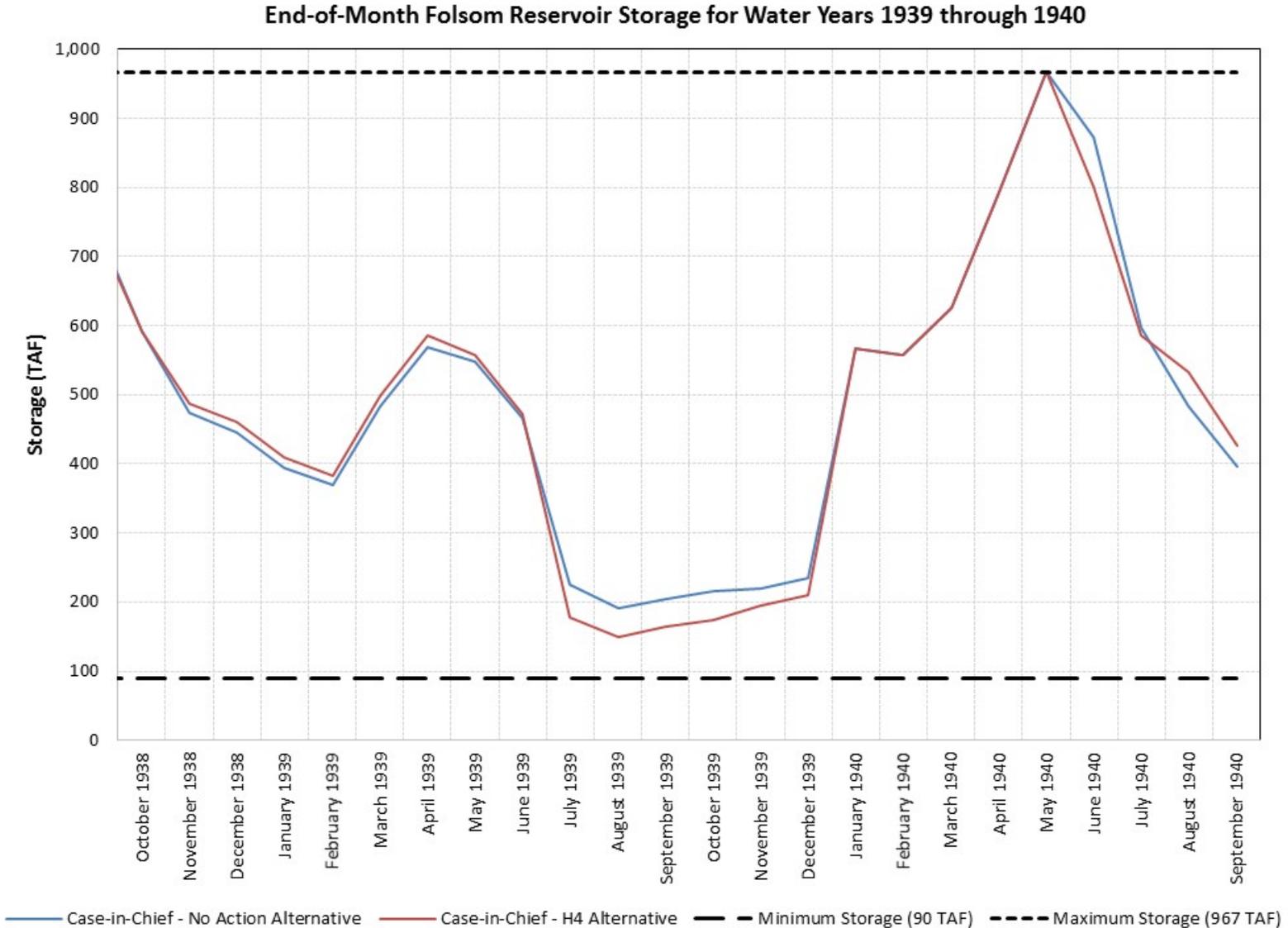


Case-in-Chief – No Action v. Case-in-Chief – H4 Alternative

End-of-Month Folsom Reservoir Storage

1939-1940

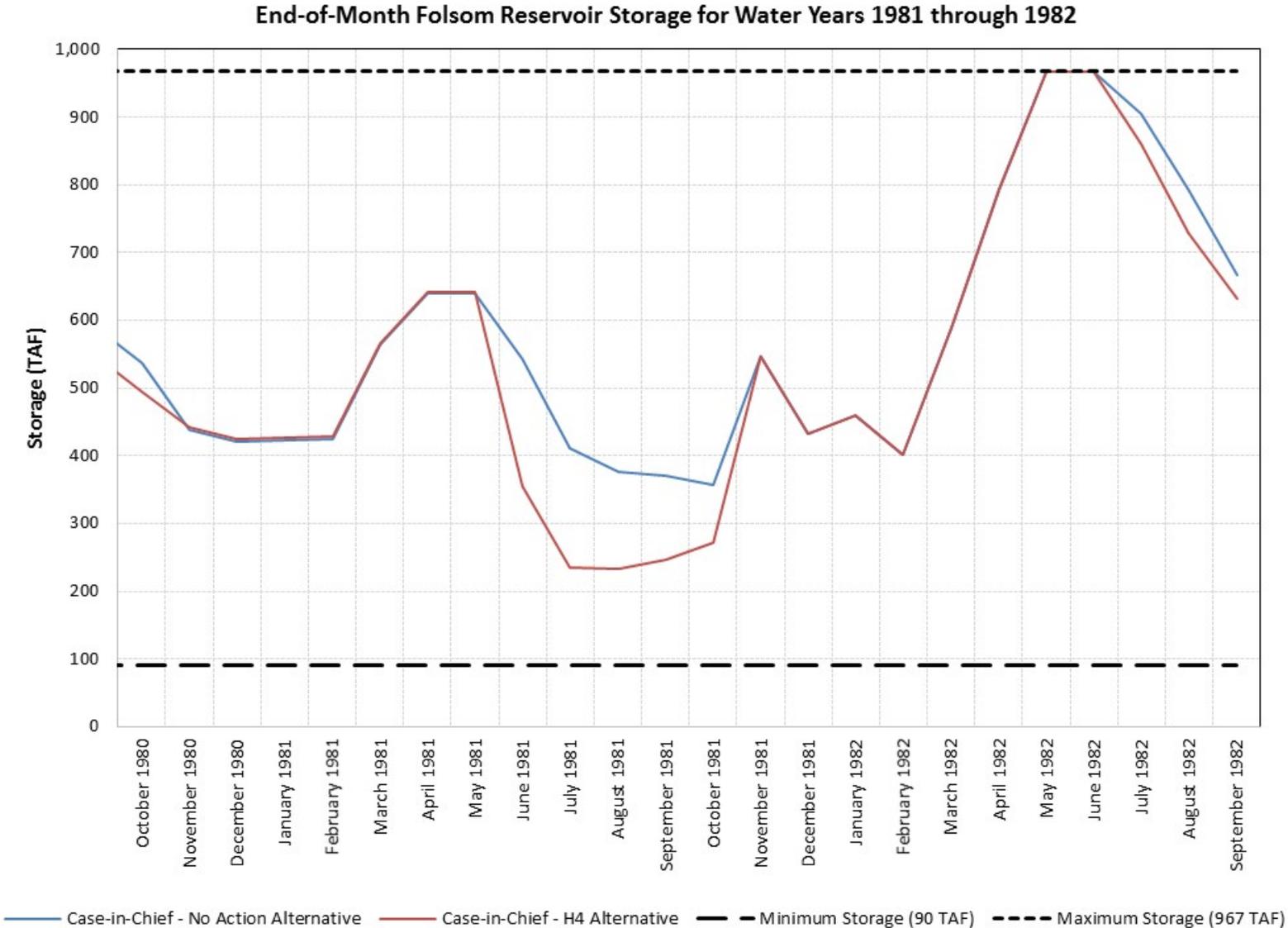
Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-in-Chief - No Action Alternative (TAF)	Case-in-Chief - H4 Alternative (TAF)	
Water Year 1939 - Below Normal Year	October 1938	592	592	0
	November 1938	474	488	14
	December 1938	446	460	14
	January 1939	395	409	14
	February 1939	369	383	14
	March 1939	484	498	14
	April 1939	570	587	17
	May 1939	548	557	9
	June 1939	466	471	5
	July 1939	225	178	-46
	August 1939	191	150	-42
September 1939	205	164	-41	
Water Year 1940 - Above Normal Year	October 1939	215	175	-41
	November 1939	220	196	-25
	December 1939	235	210	-25
	January 1940	567	567	0
	February 1940	557	557	0
	March 1940	626	626	0
	April 1940	792	792	0
	May 1940	967	967	0
	June 1940	873	800	-73
	July 1940	597	586	-11
	August 1940	484	533	49
September 1940	396	427	31	



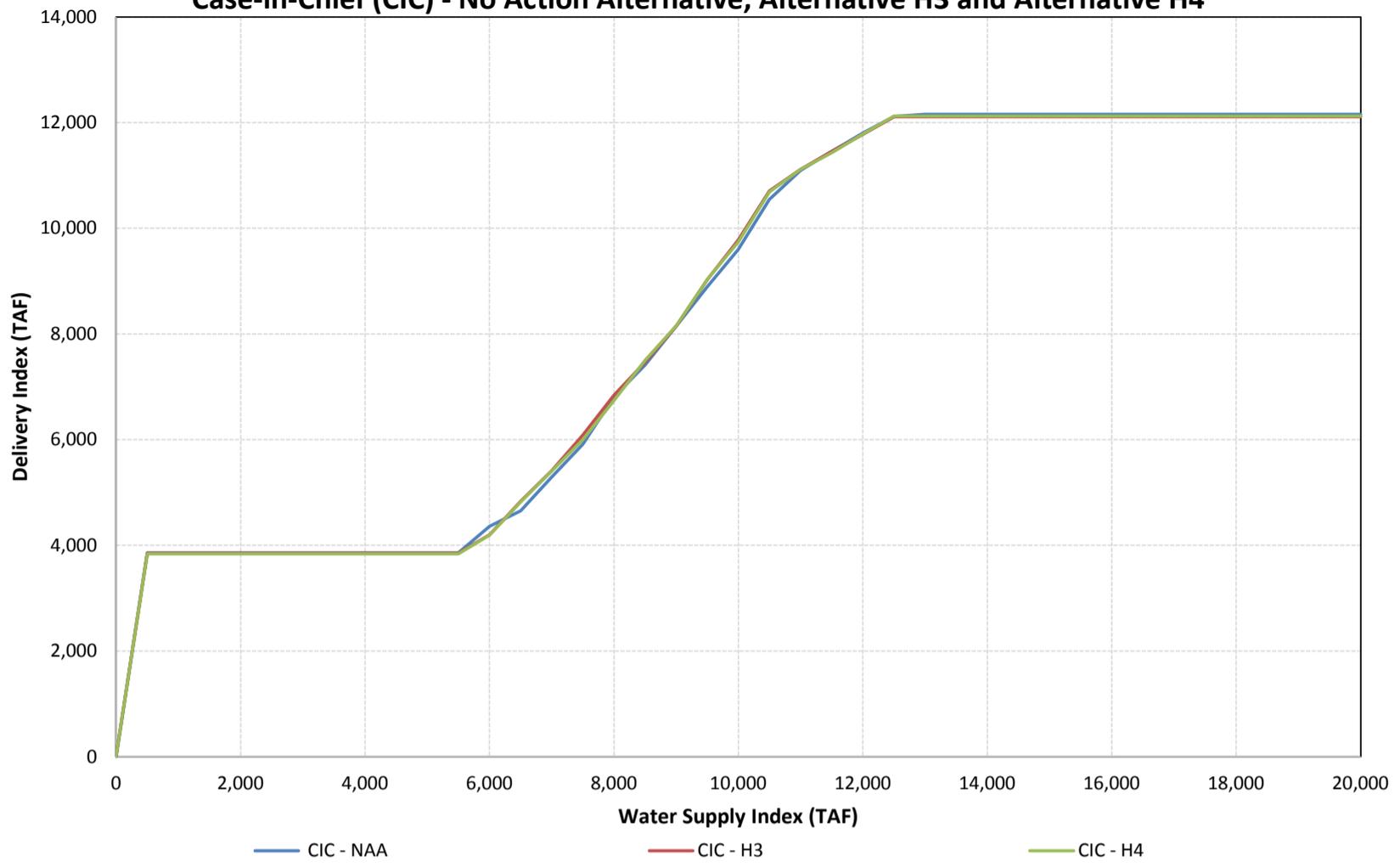
Case-in-Chief – No Action v. Case-in-Chief – H4 Alternative

End-of-Month Folsom Reservoir Storage 1981-1982

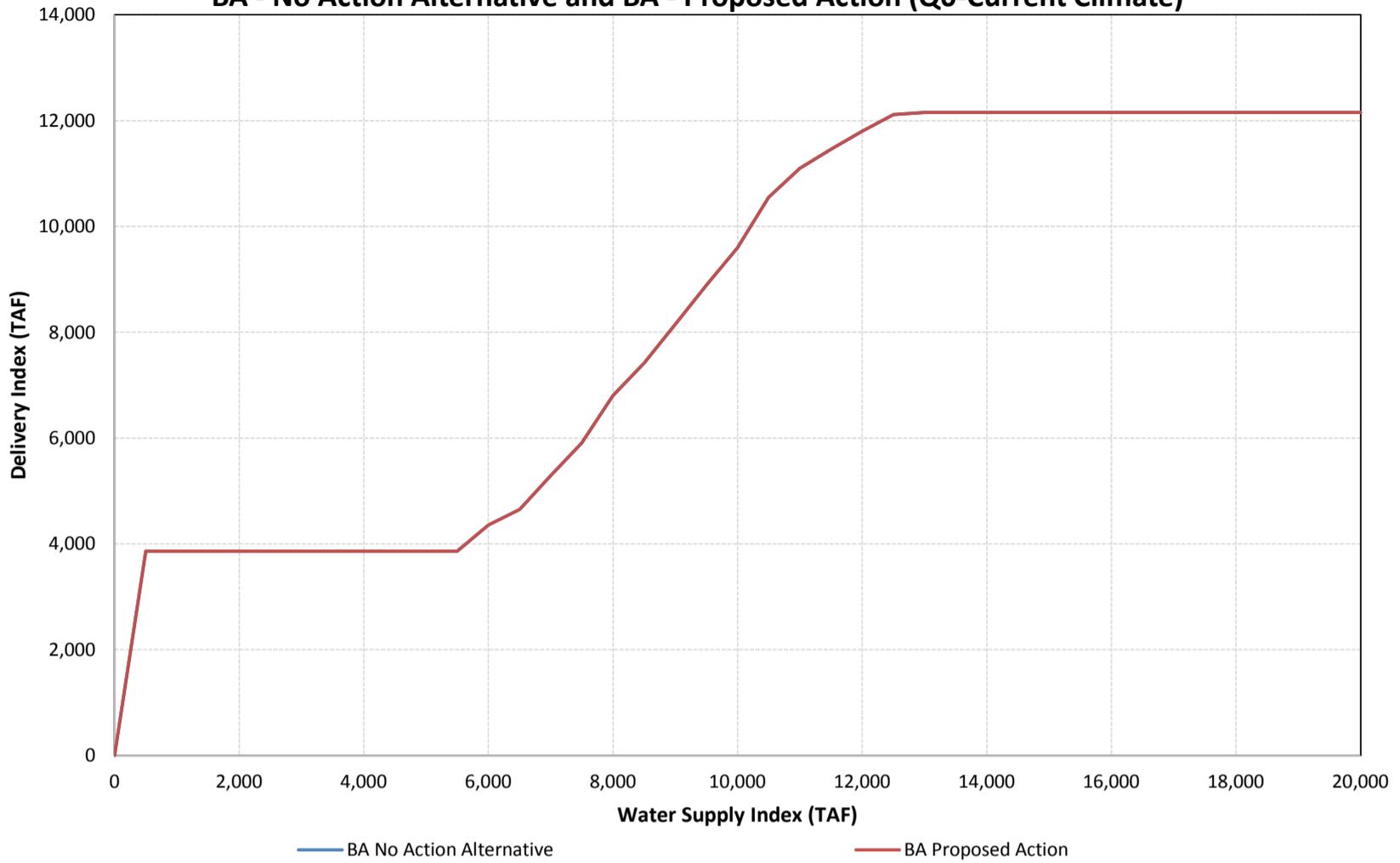
Water Year Type	Month	End-of-Month Folsom Storage		Difference (TAF)
		Case-in-Chief - No Action Alternative (TAF)	Case-in-Chief - H4 Alternative (TAF)	
Water Year 1981 - Dry Year	October 1980	538	494	-44
	November 1980	437	441	4
	December 1980	420	424	4
	January 1981	423	426	3
	February 1981	425	428	3
	March 1981	563	566	3
	April 1981	641	642	2
	May 1981	640	641	1
	June 1981	542	355	-187
	July 1981	411	235	-176
	August 1981	377	233	-144
September 1981	370	247	-123	
Water Year 1982 - Wet Year	October 1981	358	271	-86
	November 1981	546	546	0
	December 1981	433	433	0
	January 1982	459	459	0
	February 1982	402	402	0
	March 1982	590	590	0
	April 1982	792	792	0
	May 1982	967	967	0
	June 1982	967	967	0
	July 1982	905	859	-45
	August 1982	792	728	-64
	September 1982	667	632	-36



**Comparison of CVP WSI-DI Curves for
Case-in-Chief (CIC) - No Action Alternative, Alternative H3 and Alternative H4**



**Comparison of CVP WSI-DI Curves for
BA - No Action Alternative and BA - Proposed Action (Q0-Current Climate)**



**Comparison of CVP WSI-DI Curves for
BA - No Action Alternative and BA - Proposed Action (Q5-Central Tendency)**

