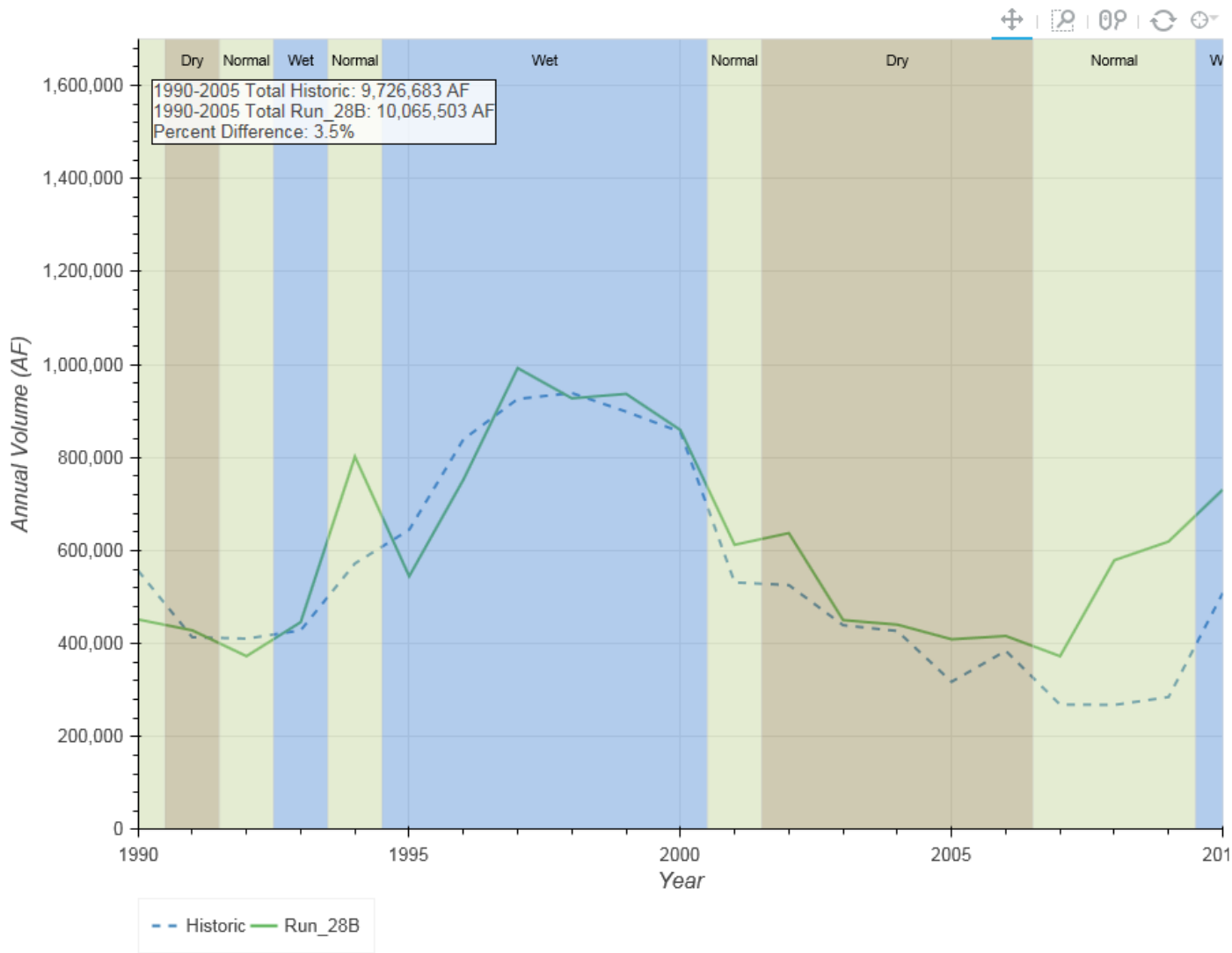


## Integrated Model Calibration Results – Canal Diversions and Returns

Appendix 8-B contains integrated model calibration results for the canal diversions and returns. Figures include annual and daily simulated and historic flows plotted for each canal diversion and return for the period 1990-2010. Daily plots include the cumulative differences between historic and modeled daily flow for each diversion and gaged return as well (simulated – historic; positive cumulative difference represents an over prediction by the model). The shaded background in the figures represents the annual wet/dry/normal hydrologic classification of the Platte River basin as determined by US F&WS and is included to assess model performance over varying hydrologic conditions. Finally, a summary table displays the total historic diversion, total calculated (modeled) diversion, and percent difference for the period 1990-2005. Diversion and return locations include the following:

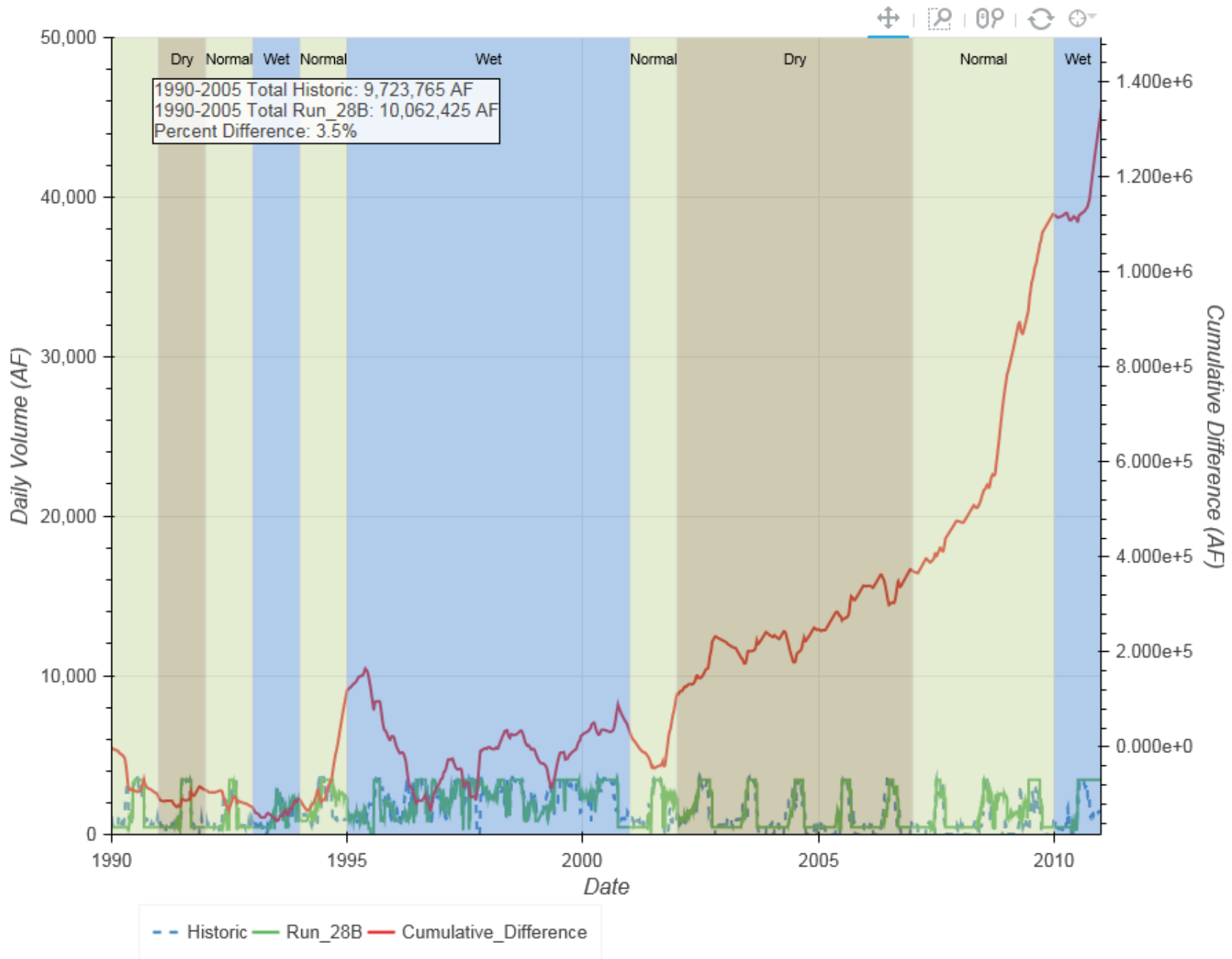
- Keystone Diversion
- North Platte Canals (Total)
- Keith Lincoln Diversion
- North Platte Diversion
- Paxton Hershey Diversion
- Suburban Diversion
- Cody Dillon Diversion
- Birdwood Diversion
- Western Diversion
- Kory Diversion
- Tri County Diversion
- Gothenburg Diversion
- Thirty Mile Diversion
- Six Mile Diversion
- Cozad Diversion
- Dawson Diversion
- Orchard Alfalfa Diversion
- Kearney Diversion
- E-65 Diversion
- E-67 Diversion
- Phelps Diversion
- Jeffrey Return
- Johnson Return
- Sutherland Return

# Keystone Diversion



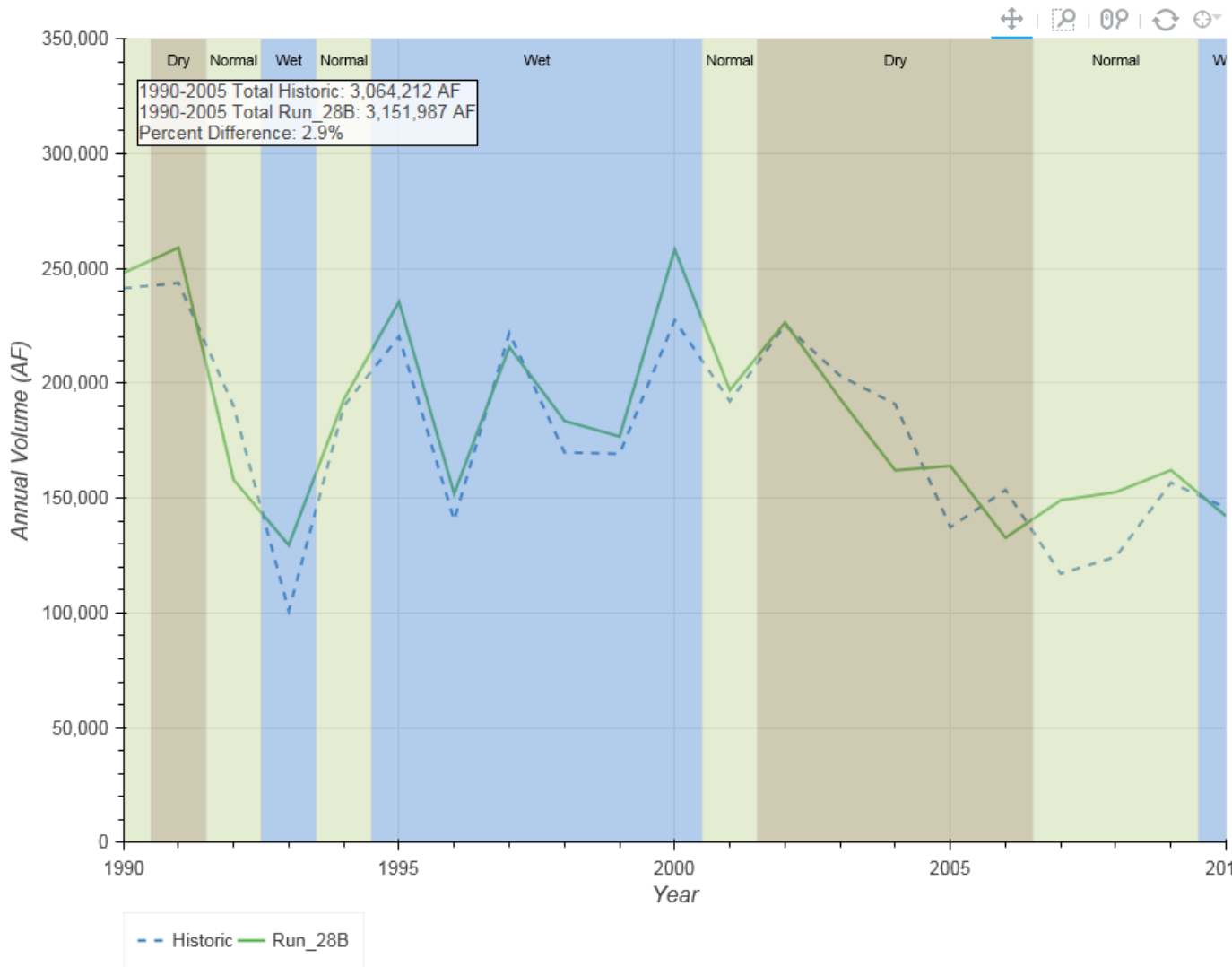
Year	Historic	Run_28B
1990	557,045	451,784
1991	413,726	428,570
1992	410,580	372,905
1993	428,536	446,166
1994	572,278	802,095
1995	644,727	544,730
1996	839,111	752,685
1997	926,044	992,438
1998	938,770	927,460
1999	898,766	937,015
2000	855,219	859,245
2001	531,576	612,414
2002	525,841	637,543
2003	439,570	450,482
2004	427,043	440,756
2005	317,851	409,215
2006	384,522	416,378
2007	268,869	372,892
2008	268,163	579,208
2009	284,977	619,345
2010	508,667	731,078
Total	11,441,881	12,784,404

# Keystone Diversion



# North Platte Canals (Total)

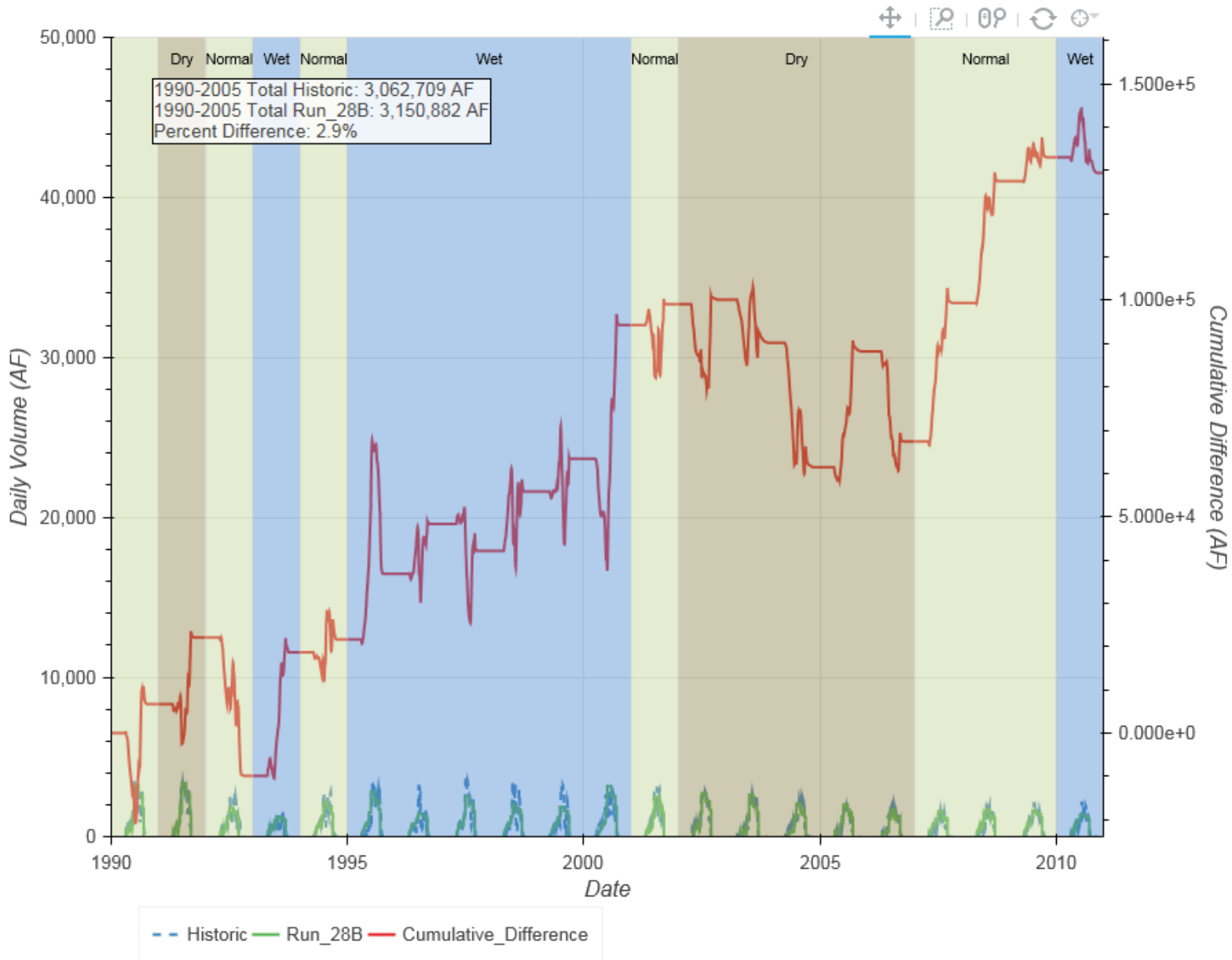
Keith Lincoln, North Platte, Paxton Hershey, Suburban, Cody Dillon



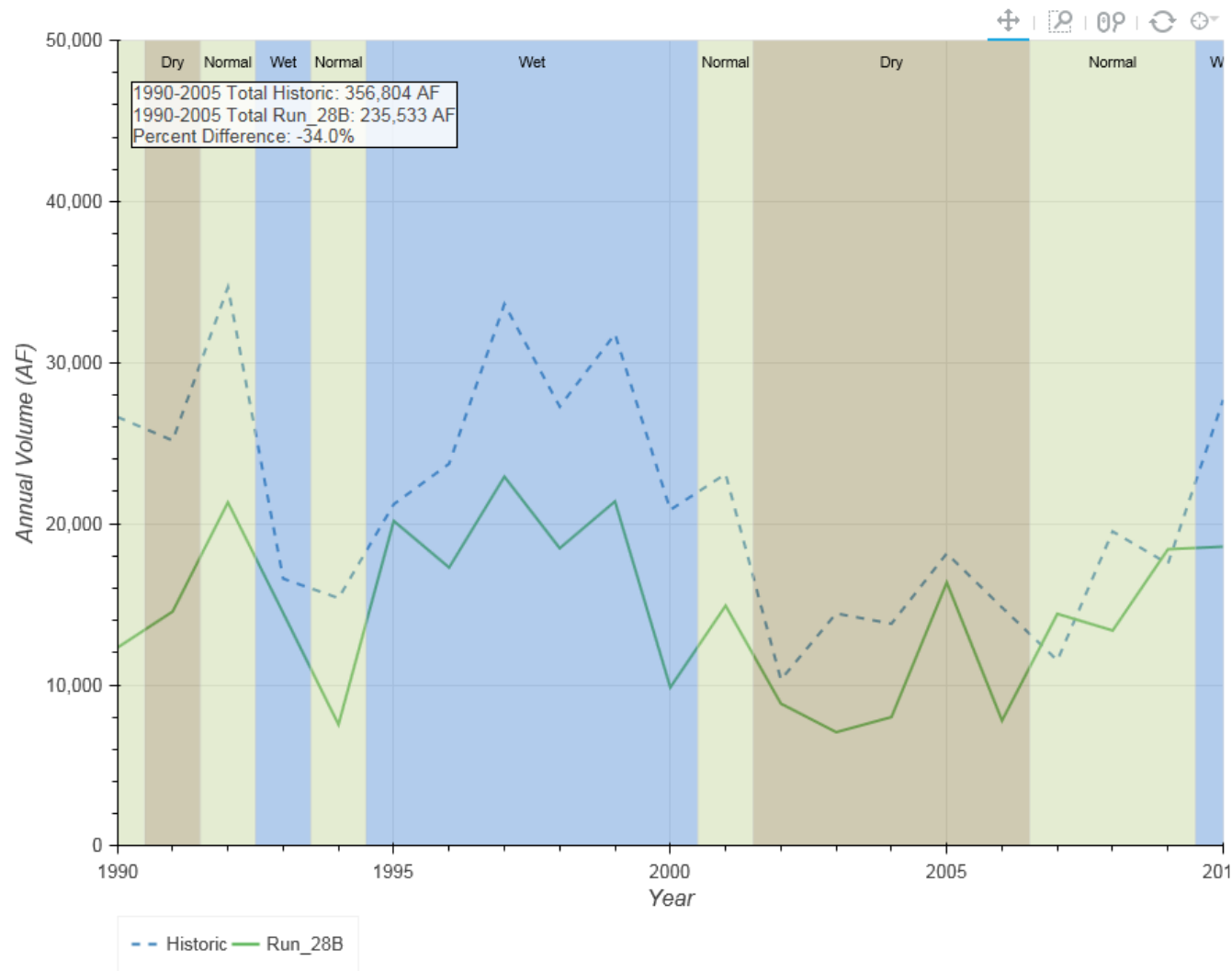
Year	Historic	Run_28B
1990	241,328	248,010
1991	243,661	259,030
1992	189,986	157,976
1993	100,955	129,500
1994	190,056	193,007
1995	220,343	235,499
1996	140,365	151,857
1997	221,969	215,742
1998	169,900	183,619
1999	169,278	176,805
2000	227,401	258,286
2001	192,149	196,953
2002	225,391	226,427
2003	203,250	193,199
2004	190,860	162,079
2005	137,320	163,998
2006	153,539	132,738
2007	117,094	149,059
2008	124,447	152,572
2009	156,692	162,186
2010	145,752	142,098
Total	3,761,736	3,890,640

# North Platte Canals (Total)

Keith Lincoln, North Platte, Paxton Hershey, Suburban, Cody Dillon

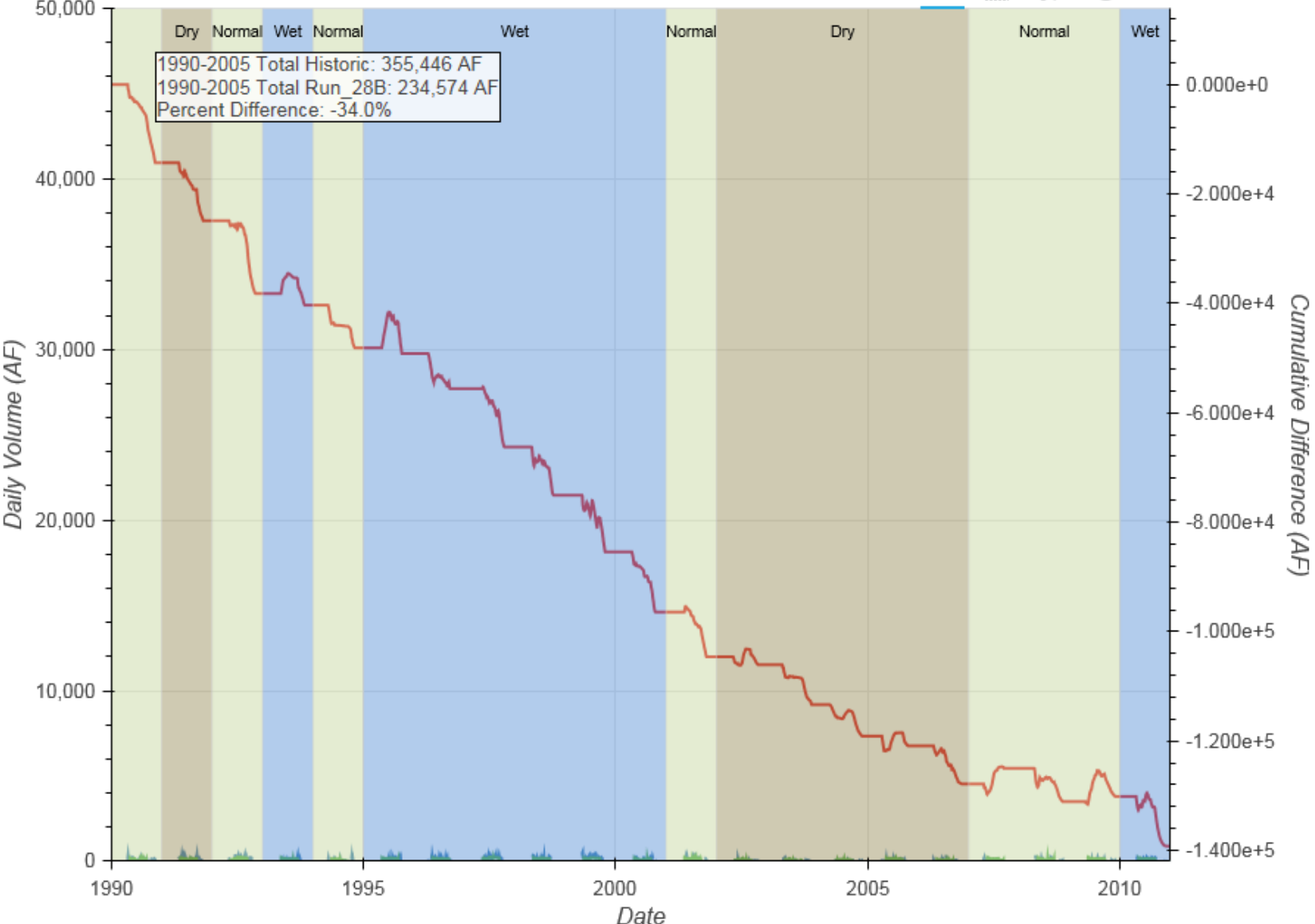


# Western Diversion



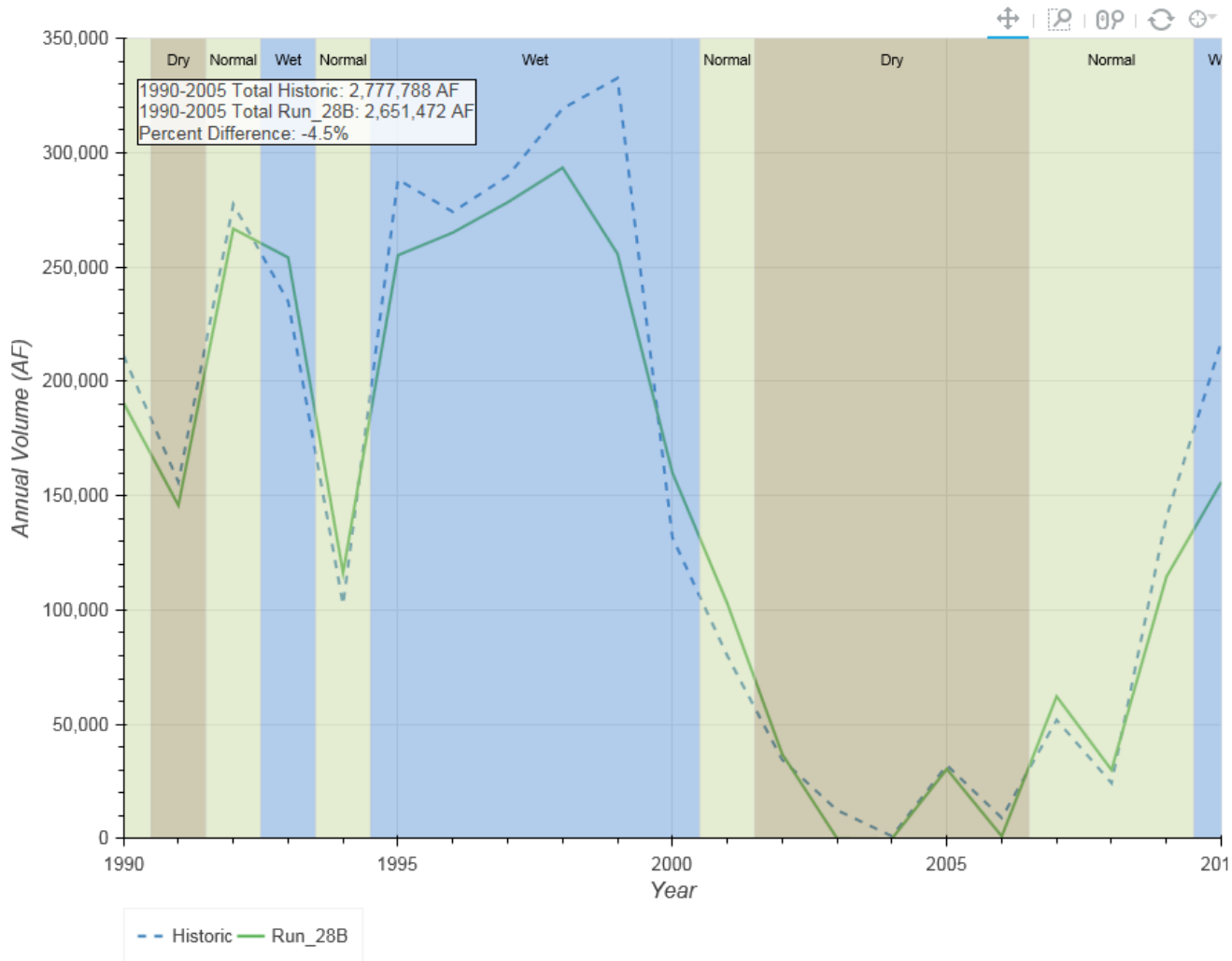
Year	Historic	Run_28B
1990	26,634	12,312
1991	25,172	14,555
1992	34,679	21,332
1993	16,597	14,463
1994	15,393	7,547
1995	21,219	20,175
1996	23,728	17,288
1997	33,634	22,930
1998	27,277	18,485
1999	31,779	21,392
2000	20,864	9,848
2001	23,095	14,919
2002	10,330	8,845
2003	14,440	7,072
2004	13,803	8,008
2005	18,160	16,362
2006	14,811	7,789
2007	11,523	14,416
2008	19,525	13,379
2009	17,527	18,423
2010	27,695	18,586
Total	447,885	308,126

# Western Diversion



-- Historic    Run\_28B    Cumulative\_Difference

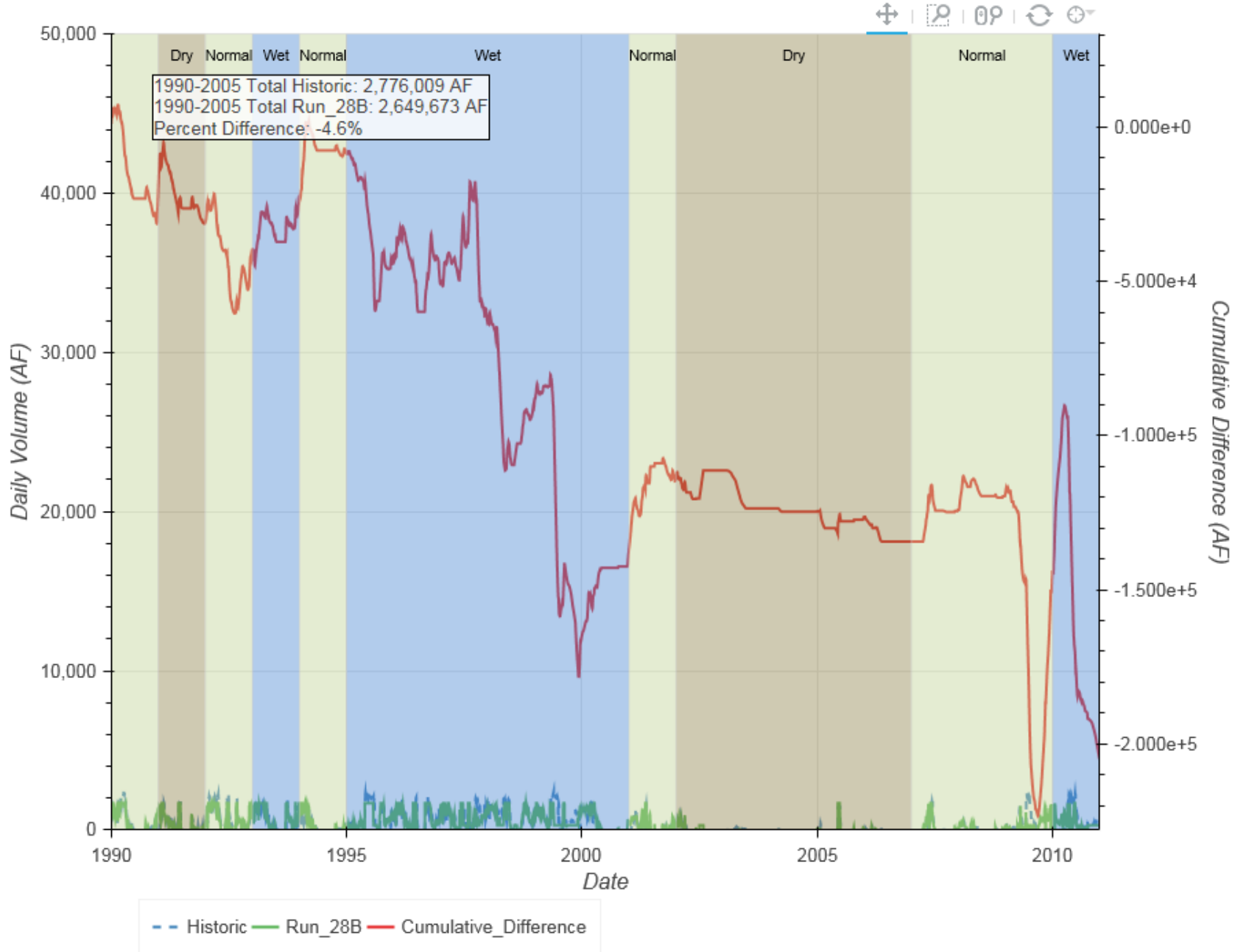
# Korty Diversion



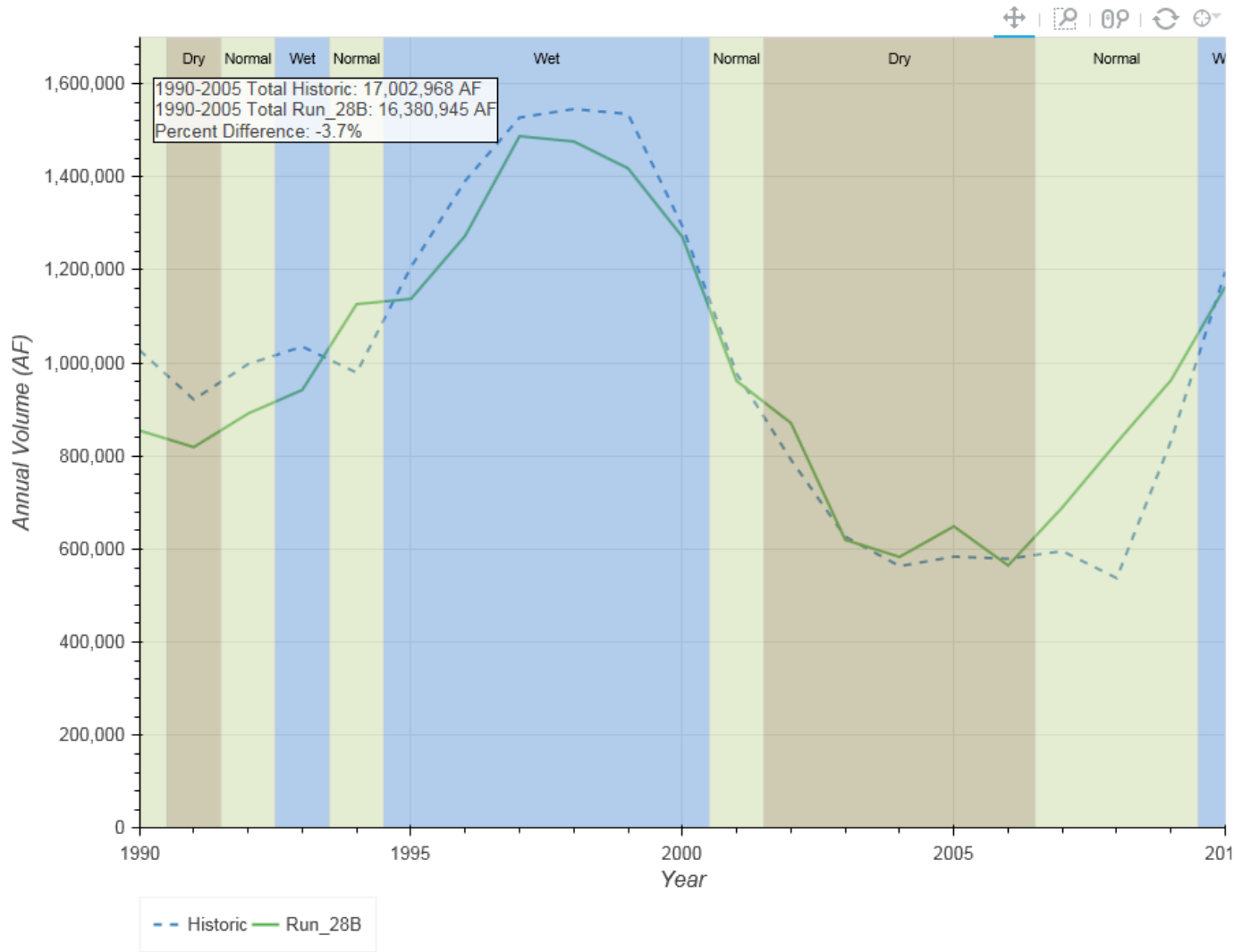
Year	Historic	Run_28B
1990	211,309	190,619
1991	155,924	145,713
1992	277,408	266,704
1993	234,918	254,147
1994	102,319	116,274
1995	288,265	255,123
1996	274,121	265,022
1997	289,710	278,282
1998	319,307	293,412
1999	332,568	255,732
2000	131,704	160,011
2001	79,987	102,831
2002	34,569	37,044
2003	12,469	117
2004	1,092	0
2005	32,118	30,441
2006	9,118	1,035
2007	51,938	62,222
2008	24,312	30,047
2009	140,581	114,537
2010	217,051	155,945
Total	3,220,788	3,015,258



# Korty Diversion

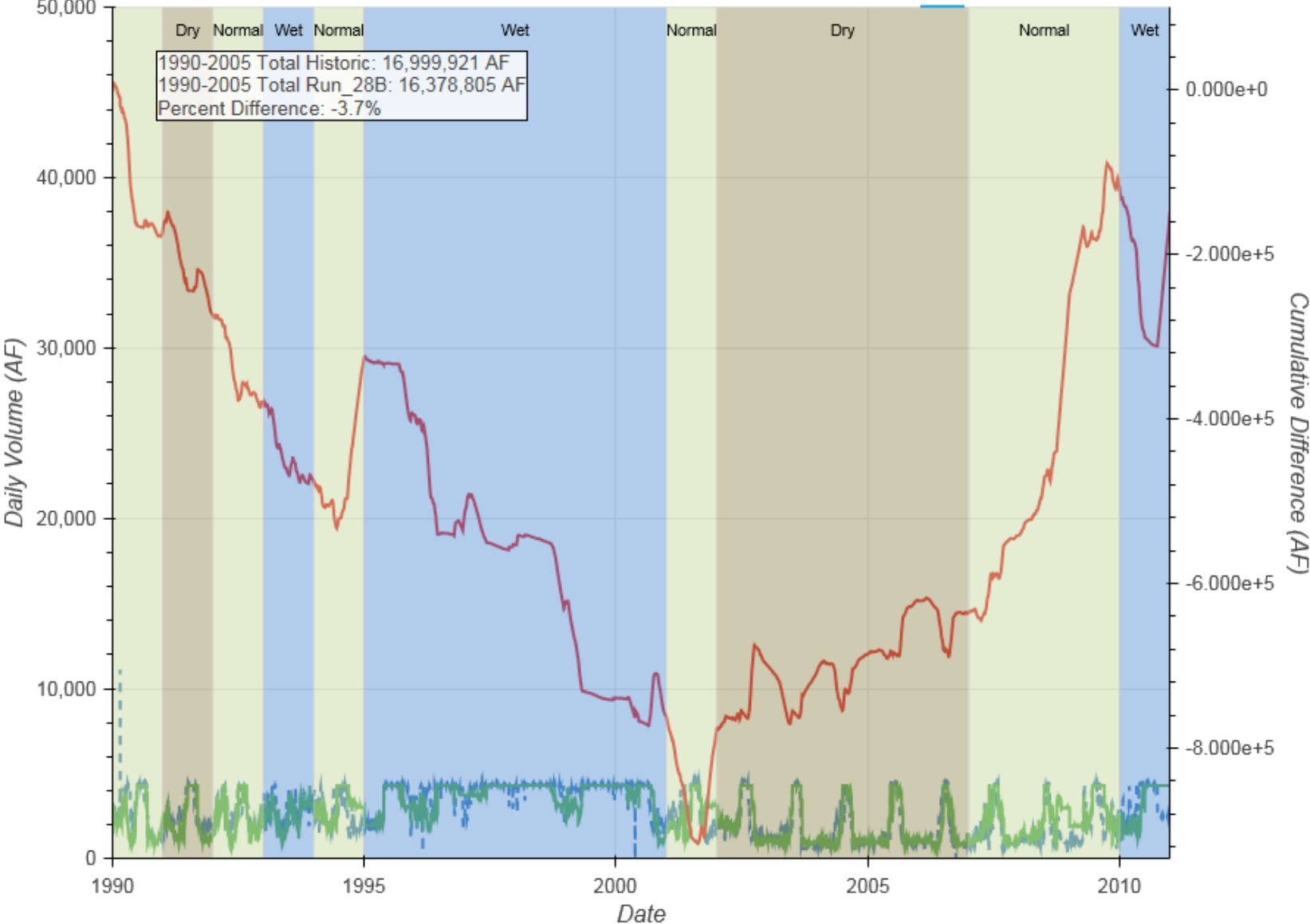


# Tri County Diversion



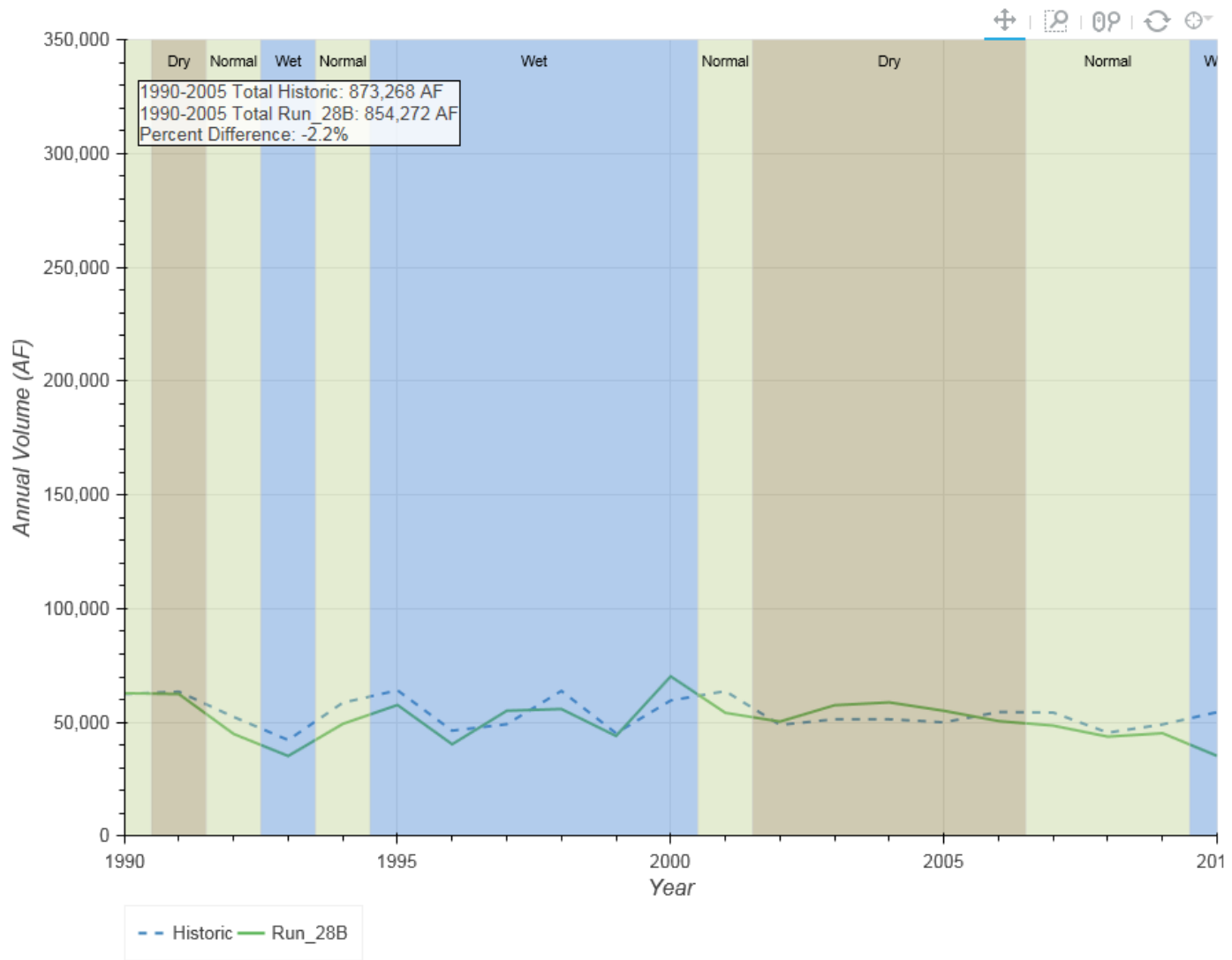
Year	Historic	Run_28B
1990	1,027,420	854,867
1991	921,316	819,117
1992	997,678	891,216
1993	1,035,191	942,203
1994	979,094	1,126,366
1995	1,205,982	1,137,635
1996	1,391,438	1,273,276
1997	1,527,253	1,487,294
1998	1,545,679	1,475,905
1999	1,534,849	1,418,104
2000	1,293,657	1,270,879
2001	977,244	961,168
2002	792,061	870,839
2003	626,925	619,979
2004	563,315	583,243
2005	583,866	648,854
2006	579,171	564,776
2007	595,705	689,768
2008	537,643	828,795
2009	832,306	962,823
2010	1,195,433	1,164,177
Total	20,743,226	20,591,284

# Tri County Diversion



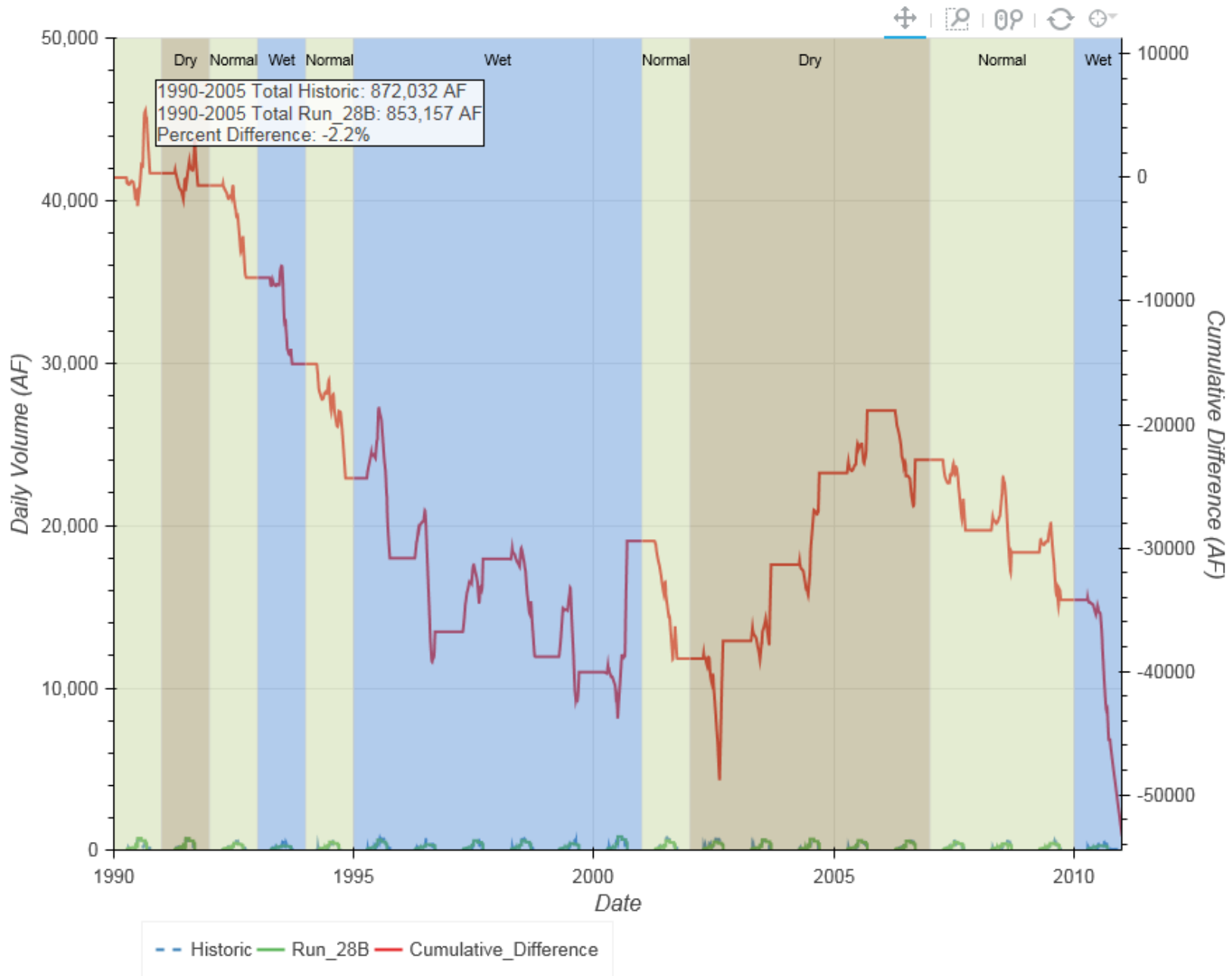
--- Historic    — Run\_28B    — Cumulative\_Difference

# Gothenburg Diversion

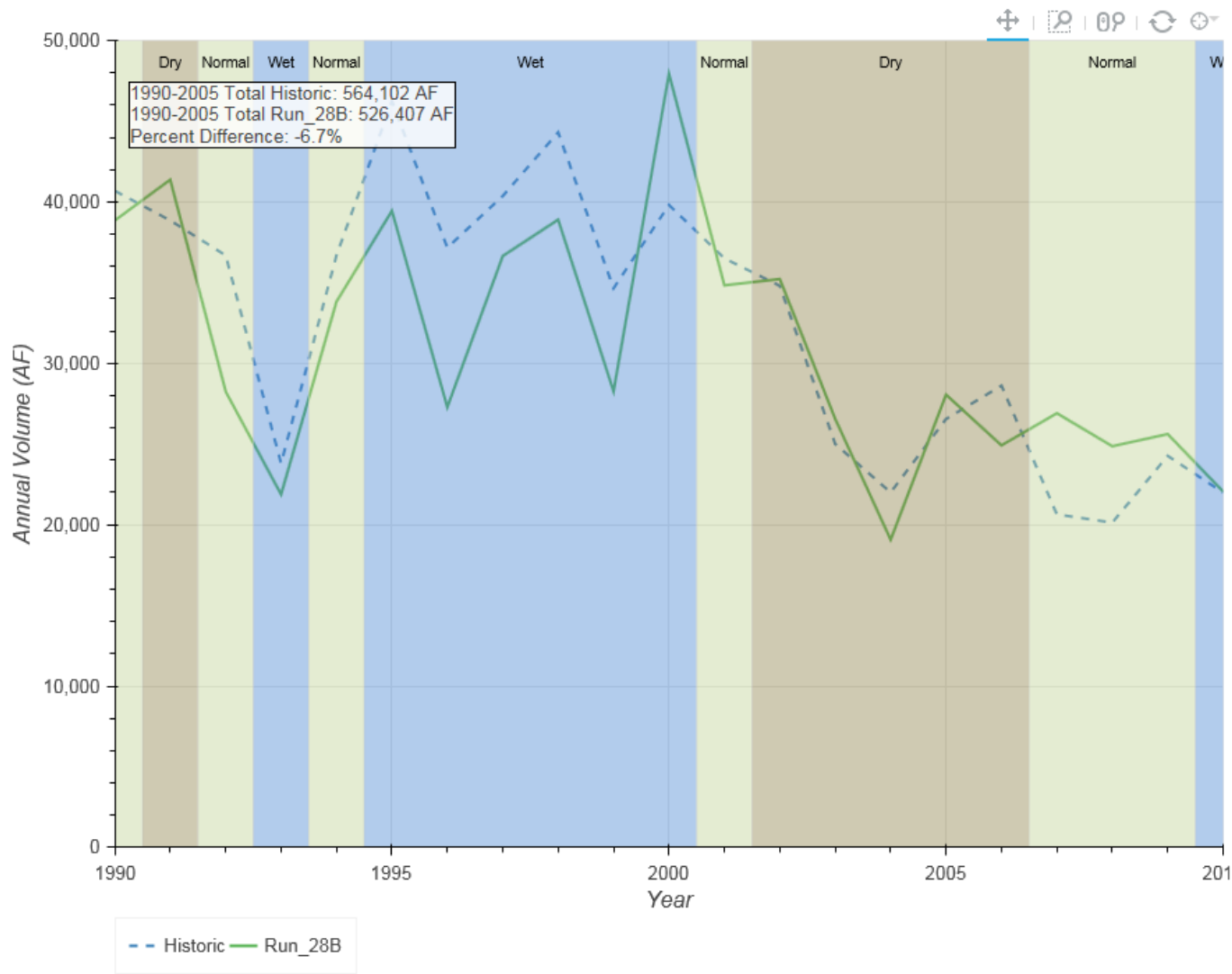


Year	Historic	Run_28B
1990	62,522	62,843
1991	63,488	62,473
1992	52,438	44,967
1993	42,257	35,253
1994	58,661	49,365
1995	64,123	57,649
1996	46,381	40,407
1997	49,205	55,124
1998	63,842	55,882
1999	45,260	44,041
2000	59,634	70,241
2001	63,749	54,219
2002	48,912	50,356
2003	51,377	57,555
2004	51,380	58,793
2005	50,039	55,104
2006	54,574	50,580
2007	54,328	48,598
2008	45,502	43,731
2009	49,105	45,260
2010	54,510	35,276
Total	1,131,287	1,077,717

# Gothenburg Diversion

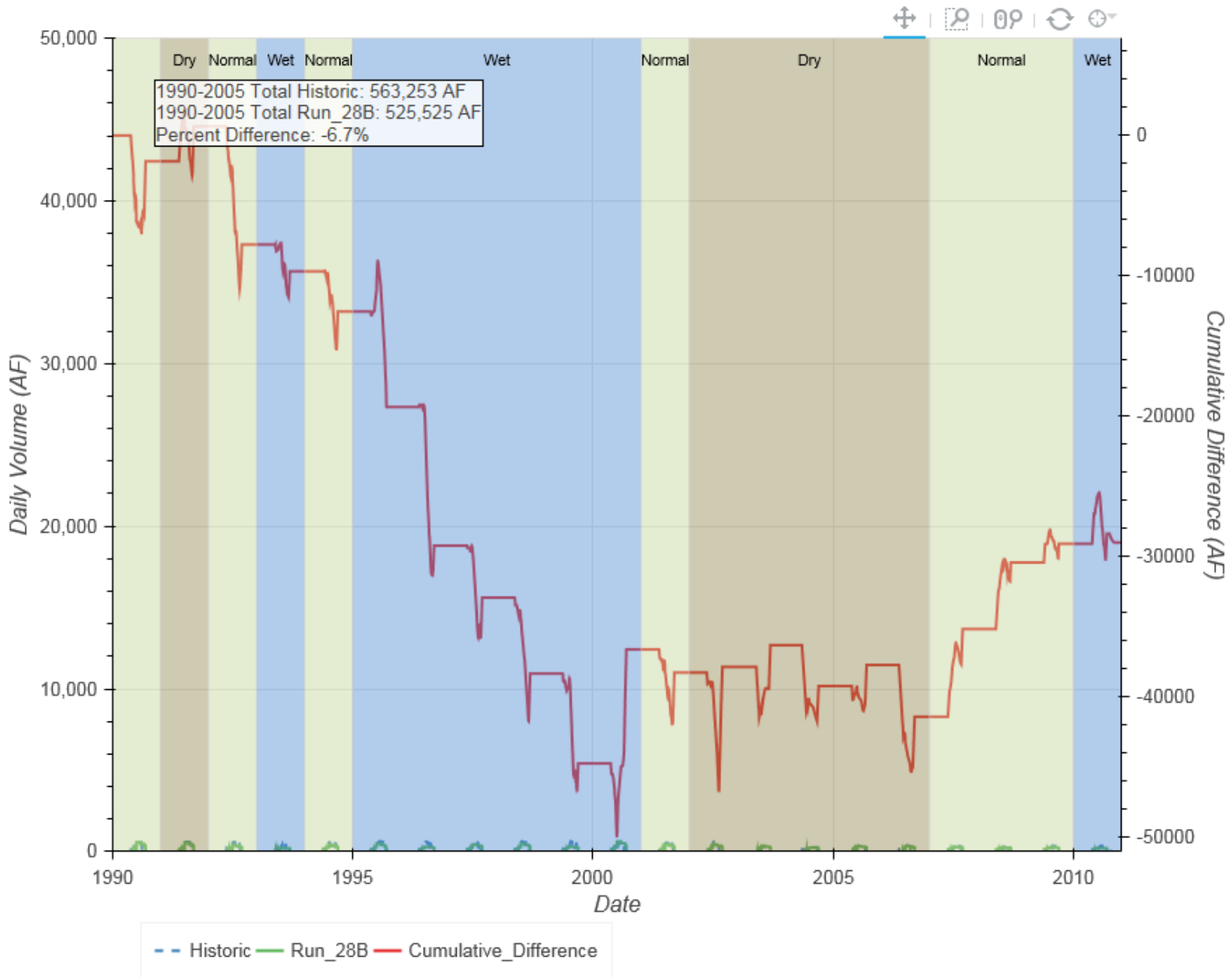


# Thirty Mile Diversion

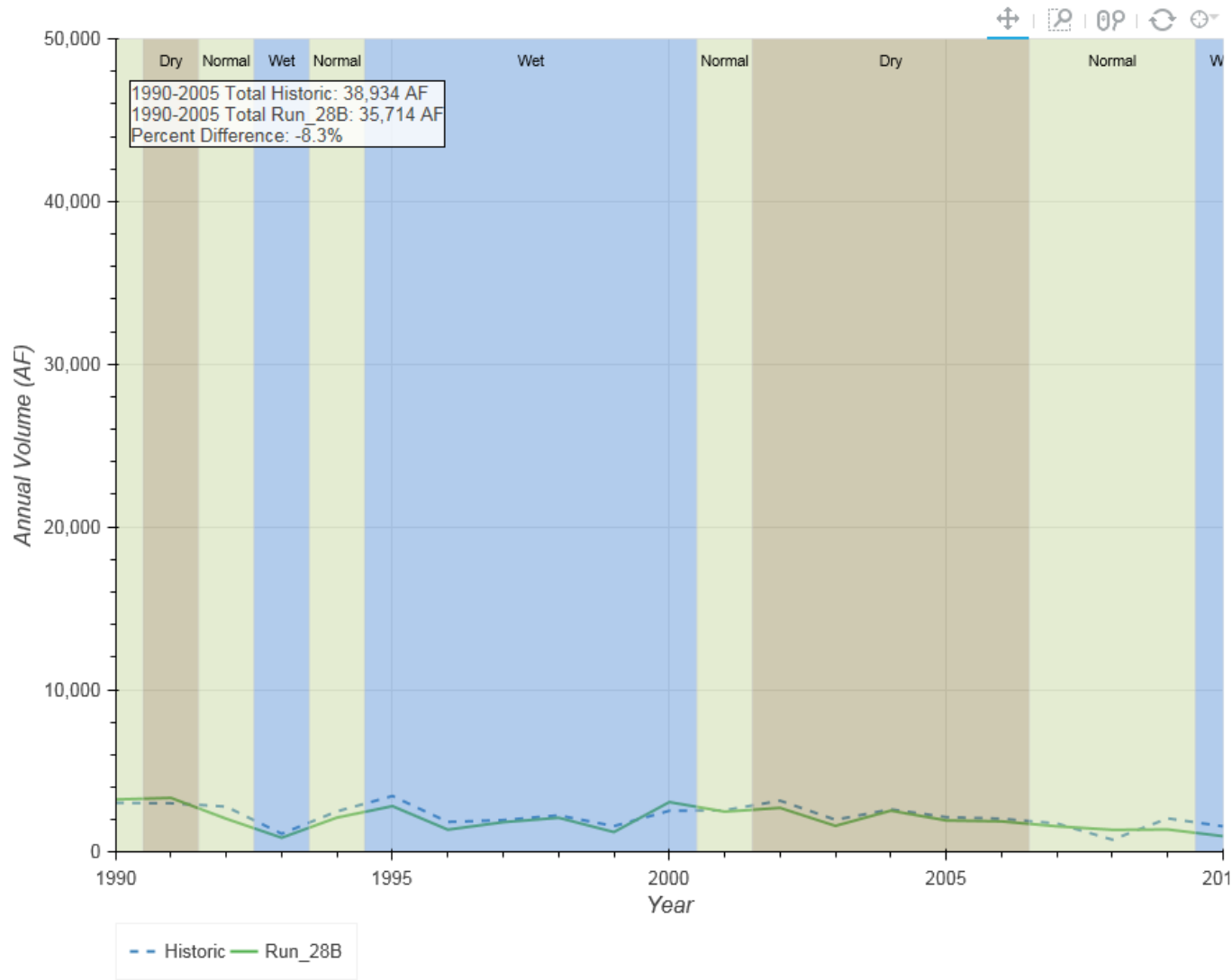


Year	Historic	Run_28B
1990	40,684	38,851
1991	38,850	41,376
1992	36,686	28,257
1993	23,801	21,881
1994	36,692	33,821
1995	46,228	39,444
1996	37,164	27,282
1997	40,365	36,645
1998	44,313	38,899
1999	34,650	28,266
2000	39,810	47,939
2001	36,501	34,833
2002	34,801	35,222
2003	25,003	26,557
2004	22,004	19,077
2005	26,550	28,057
2006	28,617	24,916
2007	20,639	26,908
2008	20,134	24,863
2009	24,271	25,617
2010	21,991	22,056
Total	679,754	650,767

# Thirty Mile Diversion



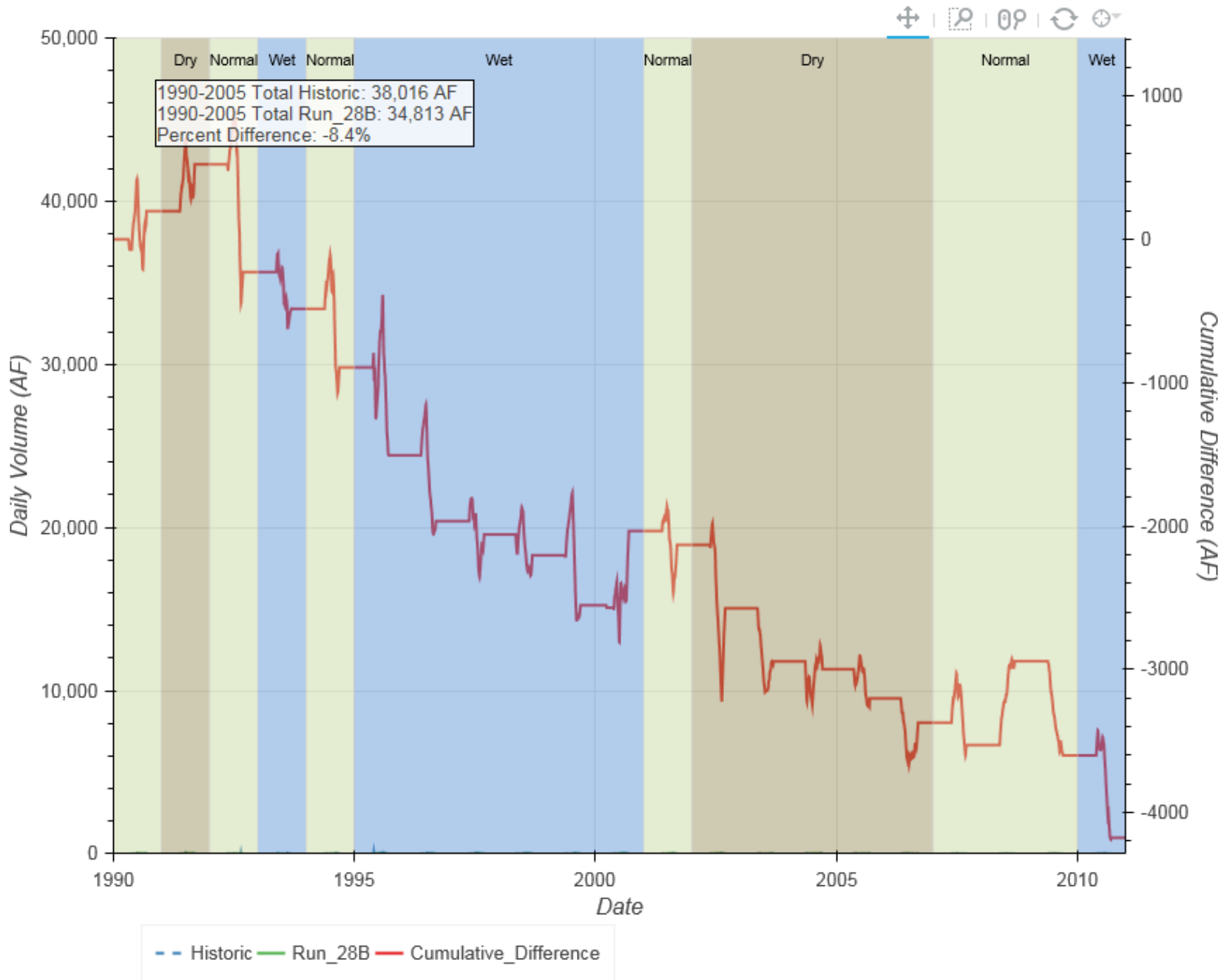
# Six Mile Diversion



Year	Historic	Run_28B
1990	3,045	3,256
1991	3,025	3,351
1992	2,815	2,069
1993	1,147	905
1994	2,525	2,142
1995	3,467	2,846
1996	1,872	1,401
1997	1,987	1,859
1998	2,280	2,130
1999	1,618	1,254
2000	2,559	3,093
2001	2,593	2,506
2002	3,181	2,737
2003	2,006	1,632
2004	2,645	2,567
2005	2,169	1,966
2006	2,071	1,906
2007	1,777	1,606
2008	785	1,387
2009	2,091	1,410
2010	1,604	998
Total	47,262	43,021



# Six Mile Diversion

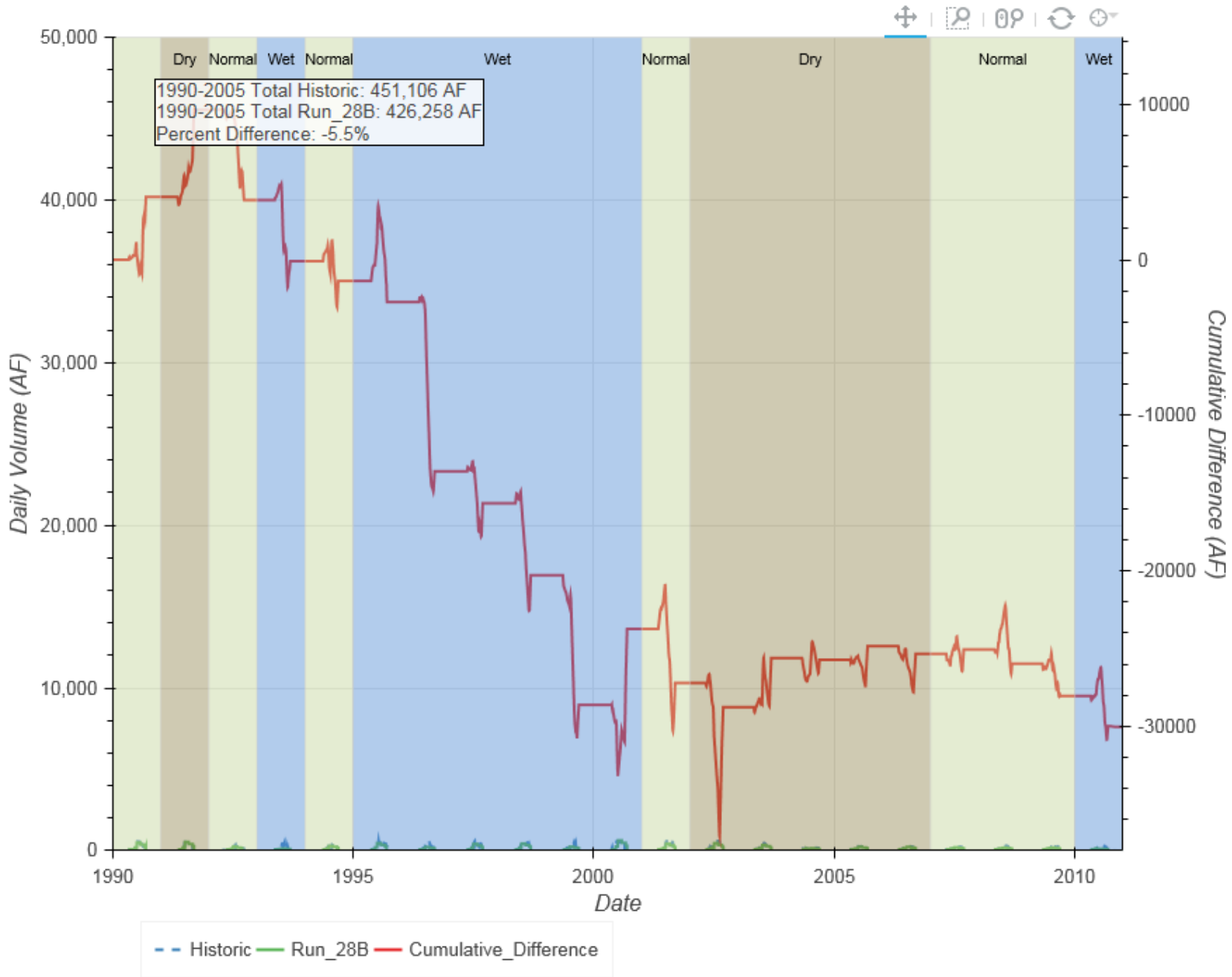


# Cozad Diversion

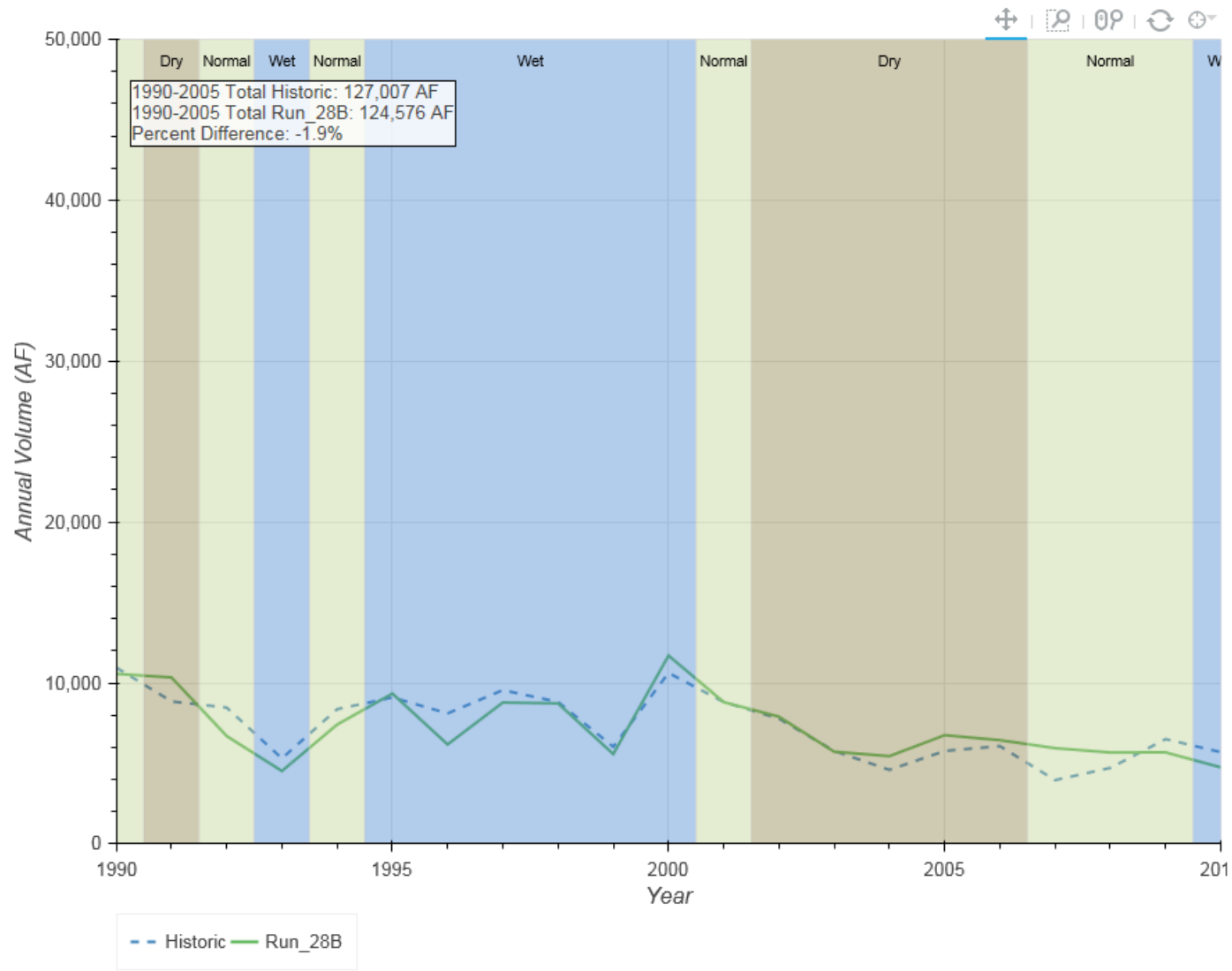


Year	Historic	Run_28B
1990	30,189	34,239
1991	31,121	36,727
1992	25,036	19,223
1993	16,446	12,532
1994	23,699	22,431
1995	34,151	32,804
1996	28,858	17,988
1997	32,231	30,210
1998	36,245	31,650
1999	27,492	19,145
2000	38,312	43,204
2001	34,692	31,248
2002	35,162	33,614
2003	23,639	26,789
2004	14,888	14,759
2005	19,808	20,703
2006	20,704	20,195
2007	17,986	18,288
2008	17,831	16,928
2009	19,205	17,156
2010	15,063	13,045
Total	542,758	512,878

# Cozad Diversion

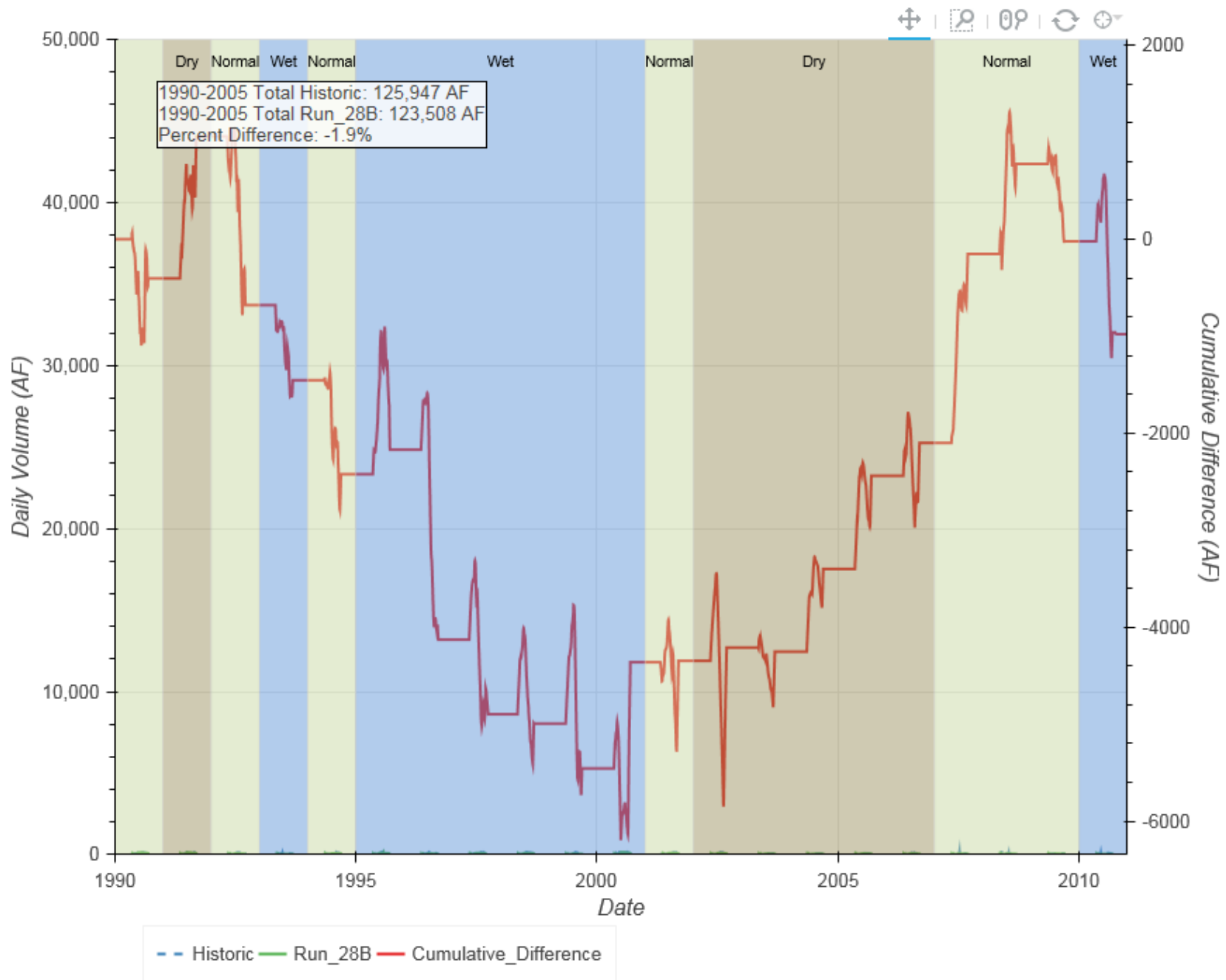


# Orchard Alfalfa Diversion

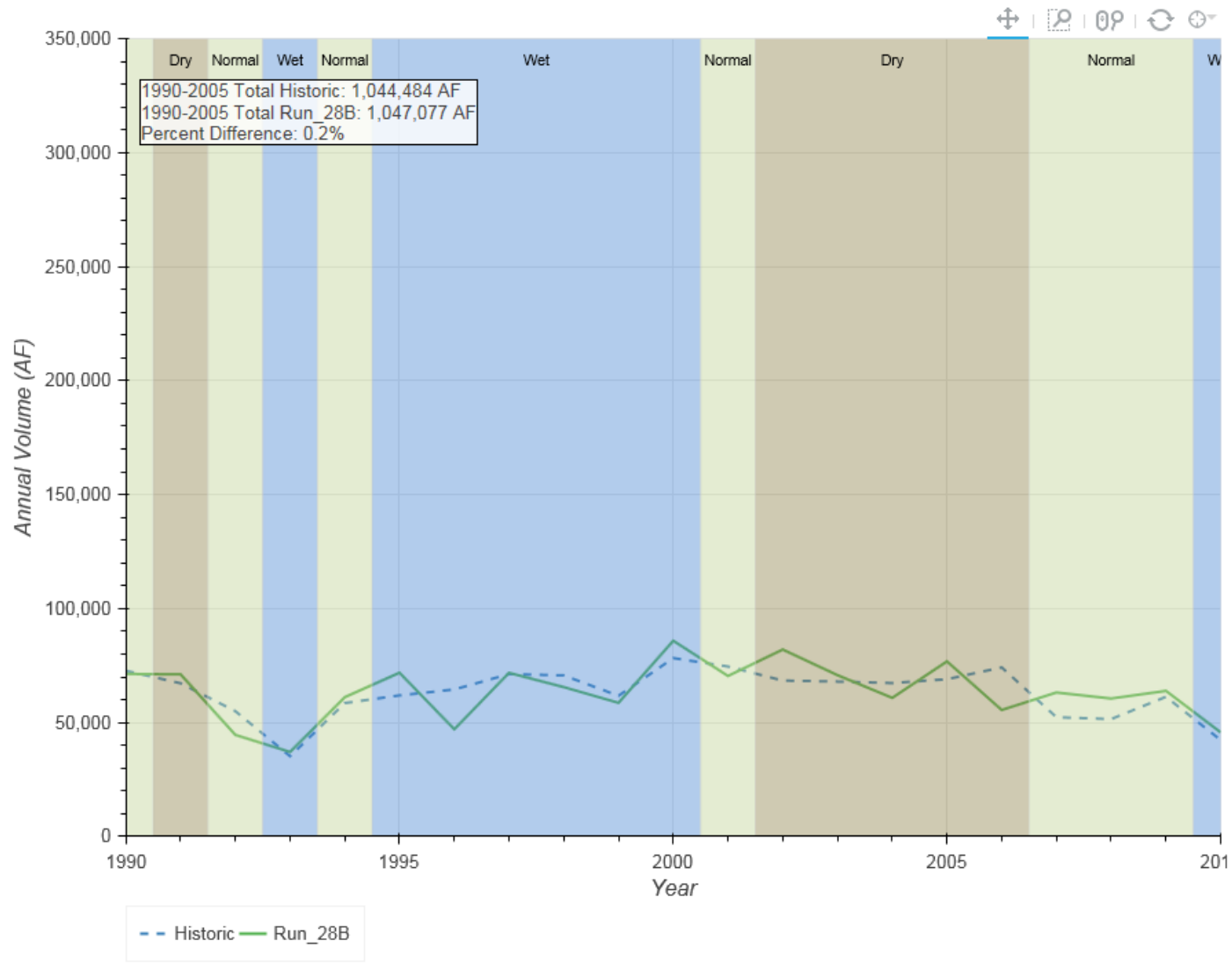


Year	Historic	Run_28B
1990	10,962	10,569
1991	8,857	10,348
1992	8,473	6,705
1993	5,317	4,532
1994	8,374	7,419
1995	9,104	9,345
1996	8,112	6,184
1997	9,560	8,787
1998	8,822	8,735
1999	6,038	5,584
2000	10,628	11,705
2001	8,818	8,812
2002	7,782	7,907
2003	5,778	5,729
2004	4,604	5,457
2005	5,778	6,758
2006	6,079	6,449
2007	3,966	5,951
2008	4,724	5,680
2009	6,513	5,692
2010	5,707	4,755
Total	153,996	153,103

# Orchard Alfalfa Diversion

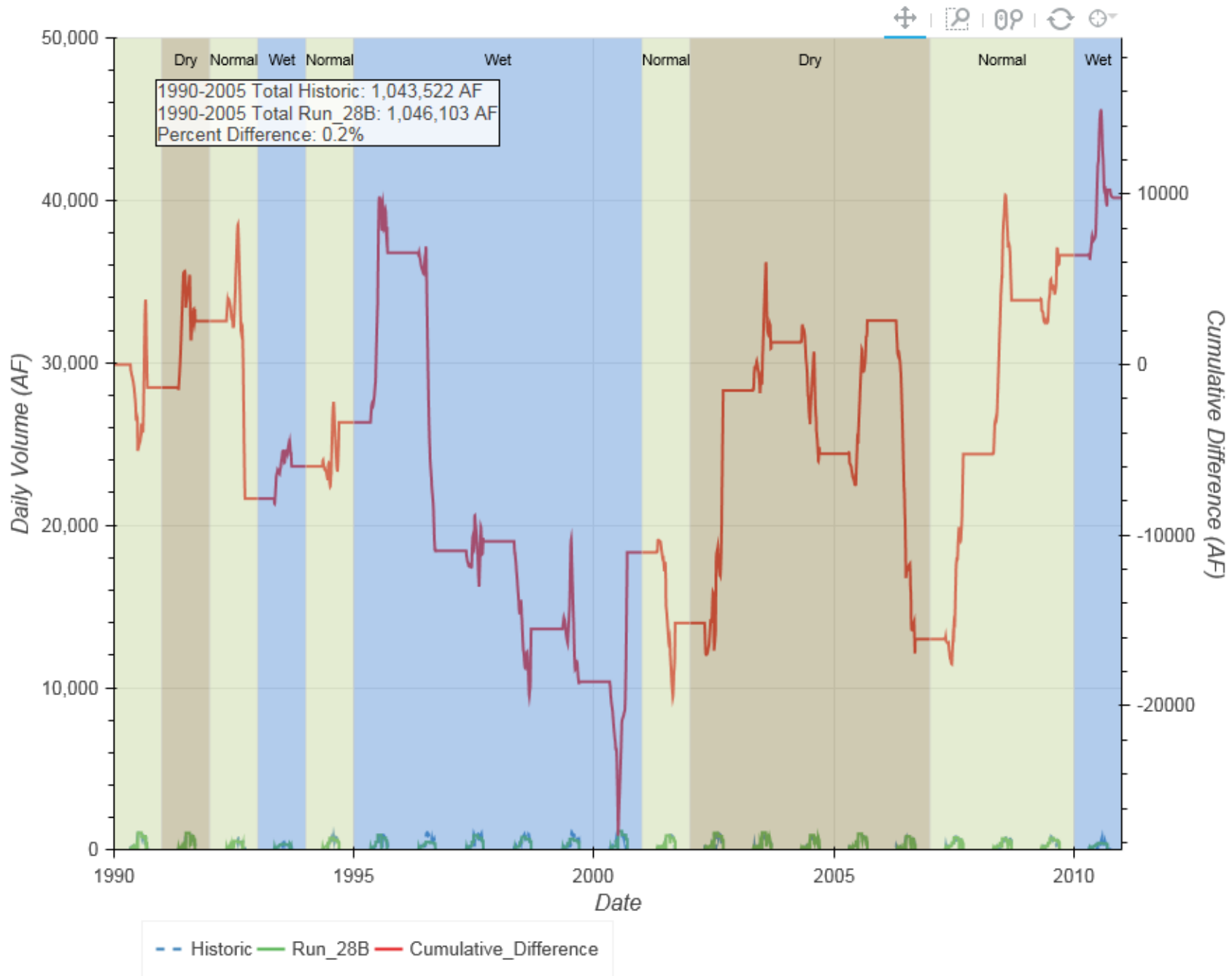


# Dawson Diversion

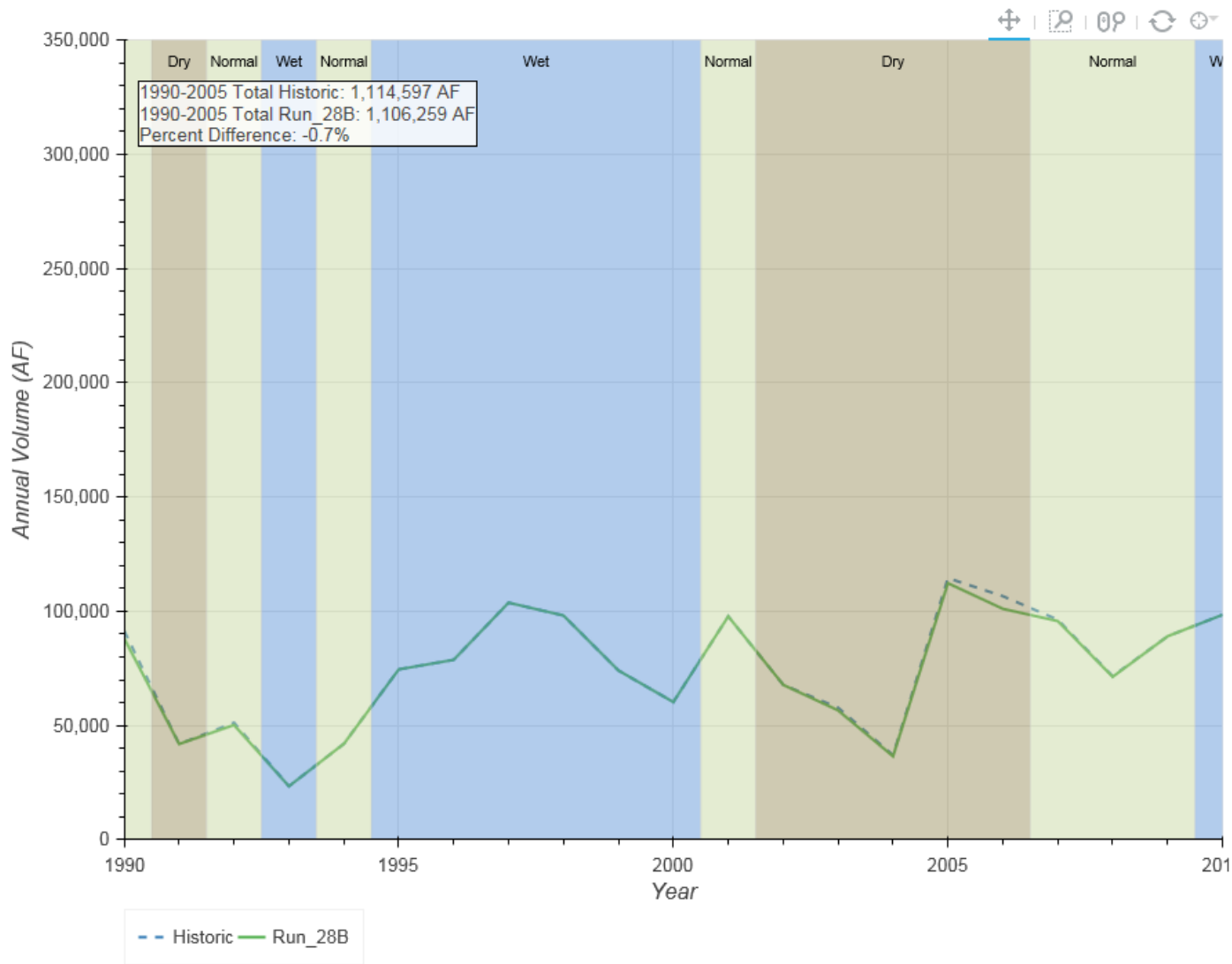


Year	Historic	Run_28B
1990	72,702	71,343
1991	67,245	71,147
1992	55,009	44,602
1993	35,244	37,101
1994	58,546	61,140
1995	61,921	71,860
1996	64,510	47,050
1997	71,278	71,823
1998	70,677	65,557
1999	61,745	58,647
2000	78,269	85,870
2001	74,580	70,435
2002	68,419	82,031
2003	67,978	70,800
2004	67,342	60,845
2005	69,019	76,826
2006	74,194	55,524
2007	52,345	63,192
2008	51,533	60,551
2009	61,295	63,907
2010	42,342	45,709
<b>Total</b>	<b>1,326,193</b>	<b>1,335,960</b>

# Dawson Diversion



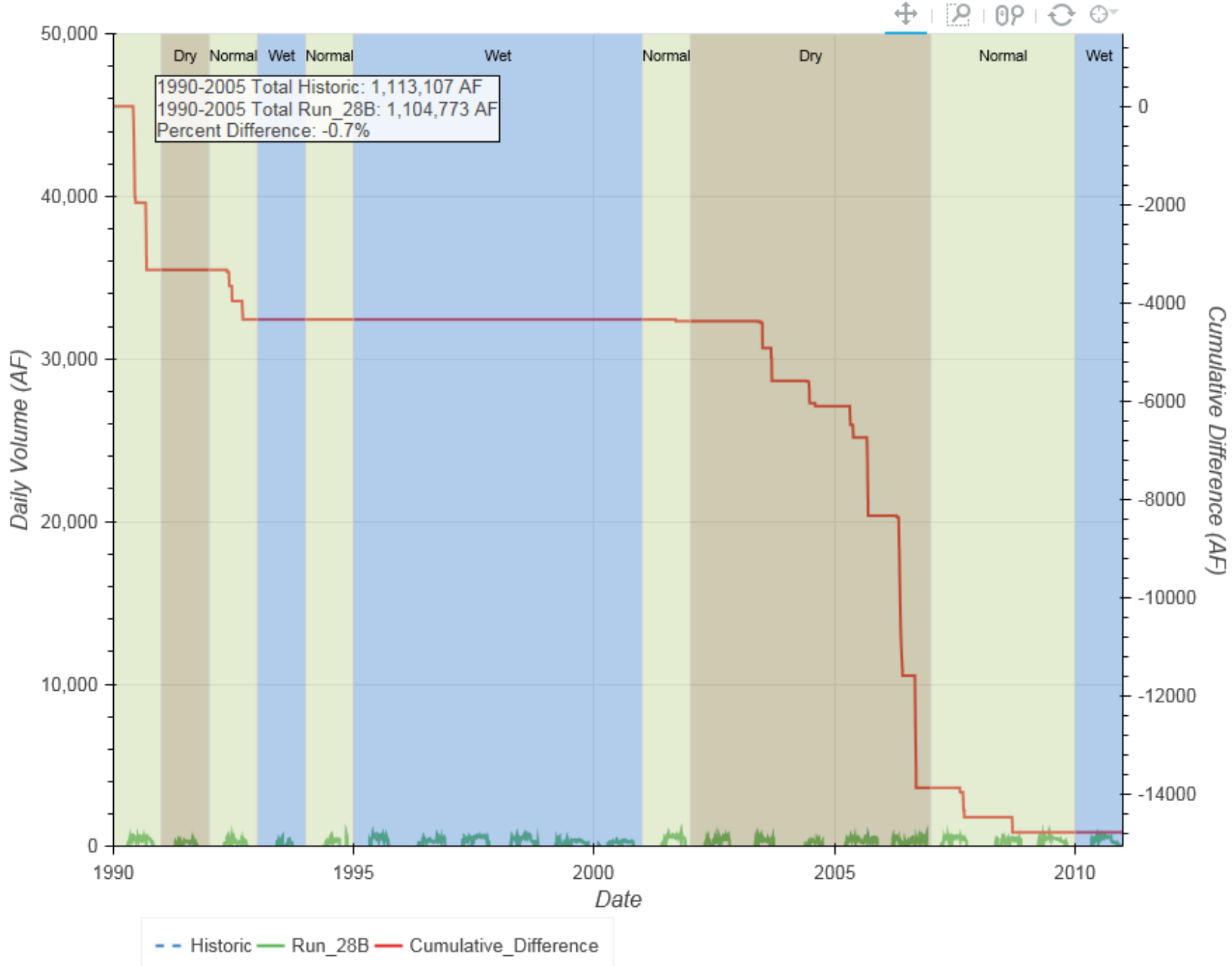
# Kearney Diversion



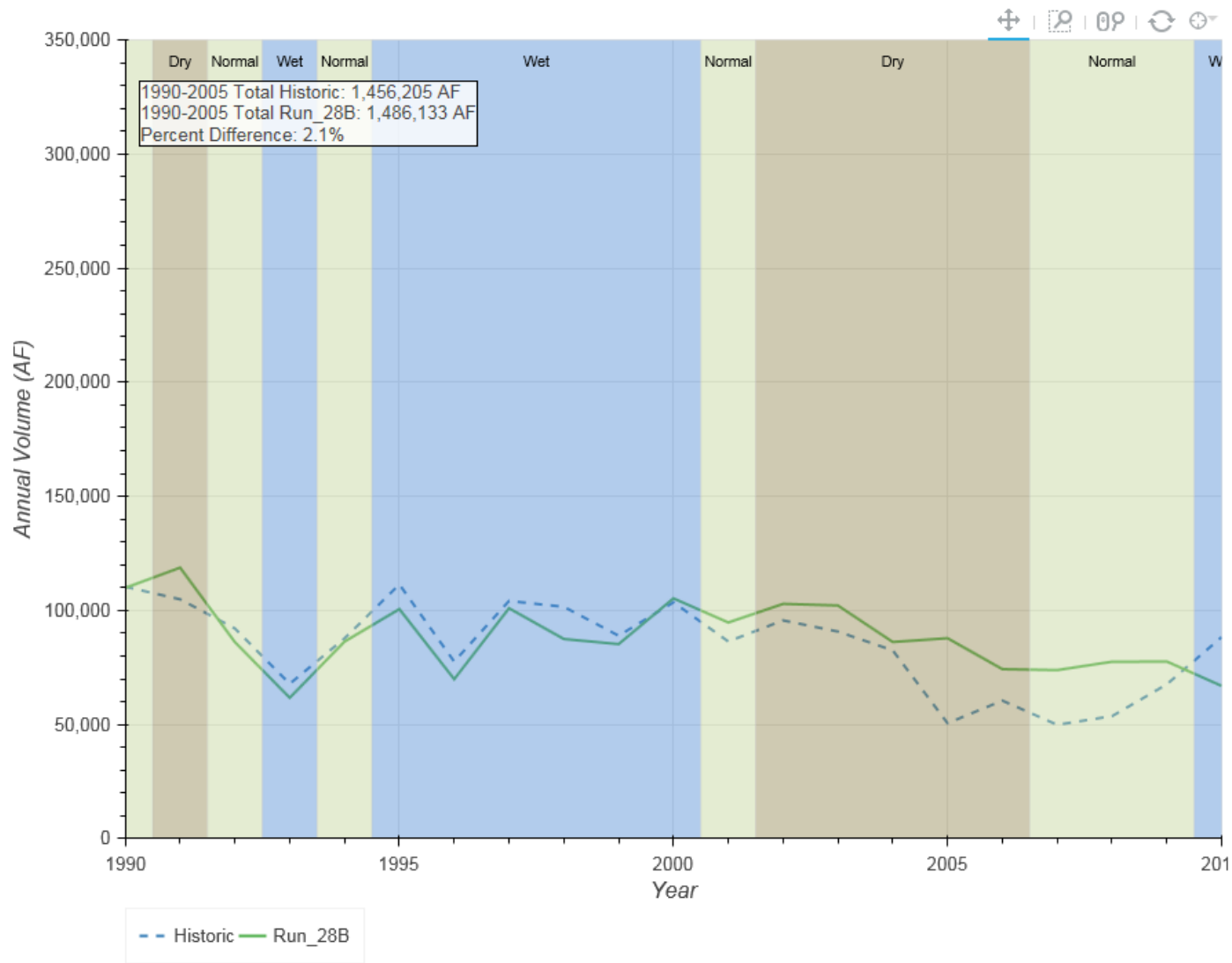
Year	Historic	Run_28B
1990	91,450	88,122
1991	41,904	41,904
1992	51,234	50,220
1993	23,451	23,451
1994	42,000	42,000
1995	74,568	74,568
1996	78,761	78,761
1997	103,758	103,758
1998	98,120	98,120
1999	74,097	74,097
2000	60,279	60,279
2001	97,782	97,748
2002	67,818	67,818
2003	57,828	56,611
2004	37,050	36,537
2005	114,497	112,265
2006	106,595	101,059
2007	96,315	95,714
2008	71,606	71,302
2009	89,040	89,040
2010	98,488	98,450
Total	1,576,641	1,561,824



# Kearney Diversion

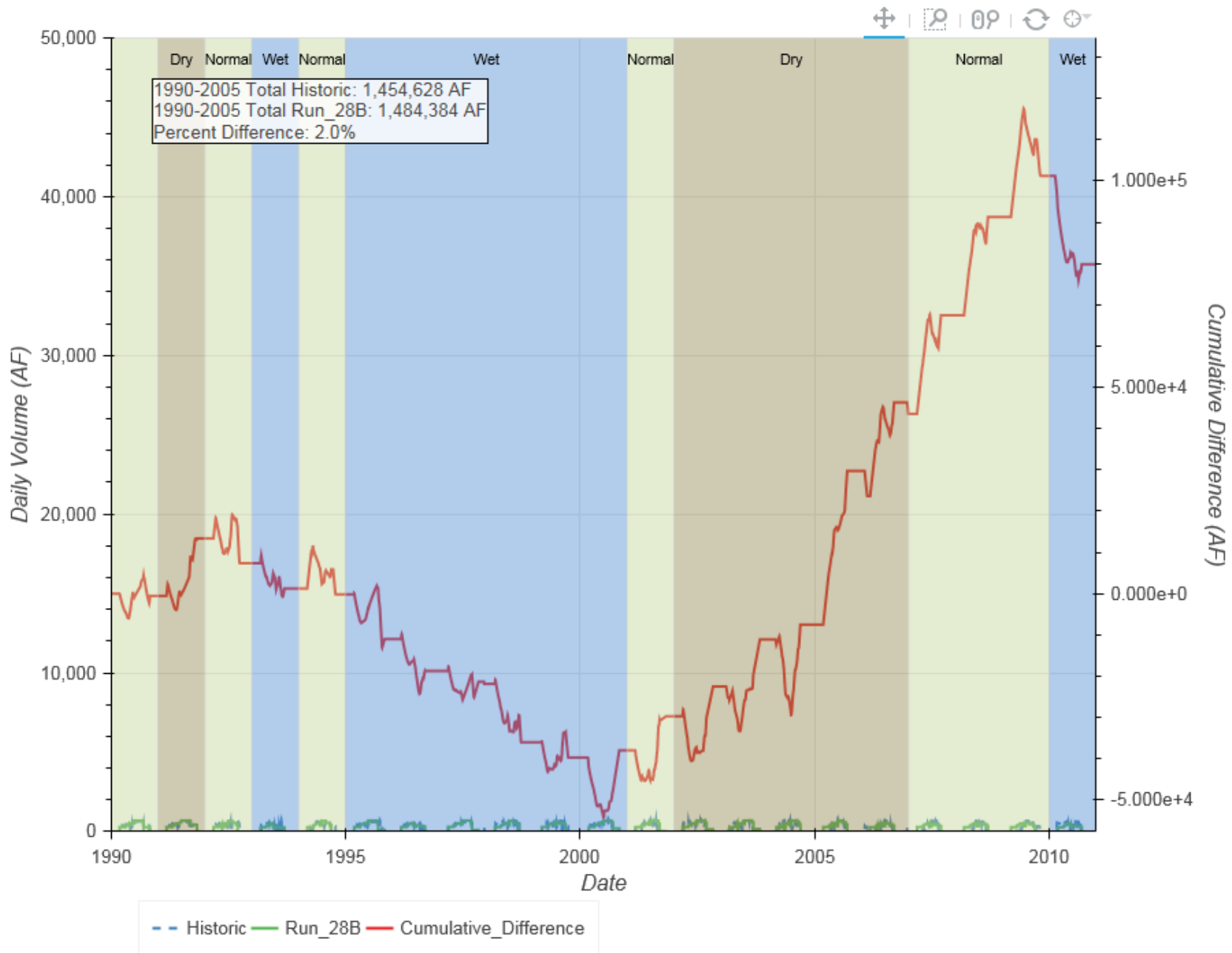


# E65 Diversion



Year	Historic	Run_28B
1990	110,394	109,863
1991	104,892	118,761
1992	92,105	86,132
1993	67,870	61,741
1994	87,747	86,356
1995	111,410	100,601
1996	77,612	69,877
1997	104,160	100,973
1998	101,604	87,506
1999	88,935	85,243
2000	103,558	105,303
2001	86,413	94,726
2002	95,646	102,880
2003	90,758	102,178
2004	82,505	86,165
2005	50,596	87,828
2006	60,487	74,292
2007	49,911	73,871
2008	53,690	77,543
2009	67,653	77,614
2010	88,325	66,940
Total	1,776,271	1,856,393

# E65 Diversion

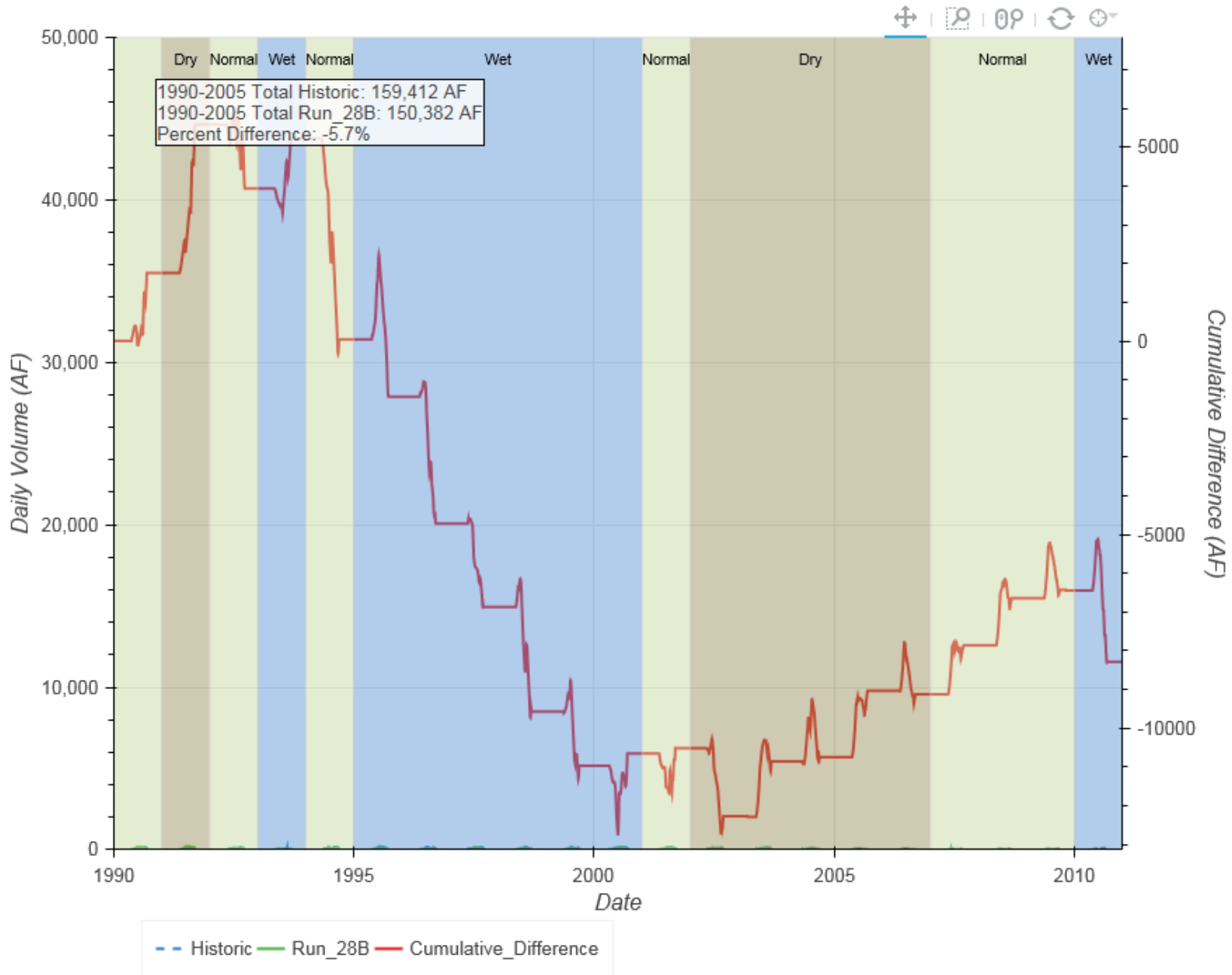


# E67 Diversion

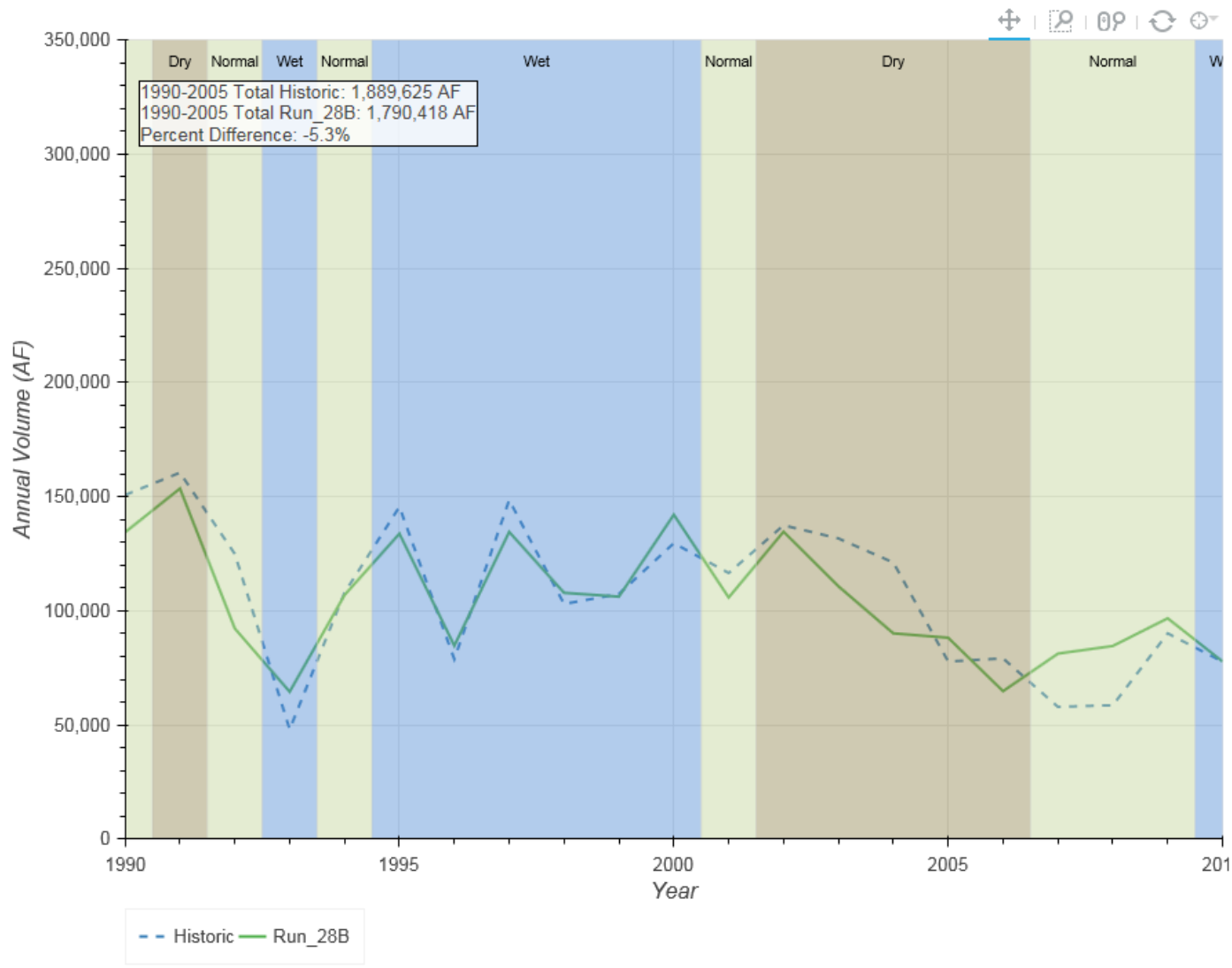


Year	Historic	Run_28B
1990	11,557	13,320
1991	10,847	14,663
1992	10,996	9,335
1993	4,649	5,953
1994	14,427	9,233
1995	13,311	11,827
1996	10,159	6,901
1997	14,051	11,883
1998	11,958	9,254
1999	10,448	9,041
2000	12,370	12,650
2001	10,738	10,865
2002	9,423	7,663
2003	6,456	7,903
2004	5,629	5,729
2005	3,387	5,128
2006	3,761	3,694
2007	1,867	3,137
2008	2,434	3,689
2009	3,492	3,718
2010	4,089	2,259
Total	176,049	167,845

# E67 Diversion

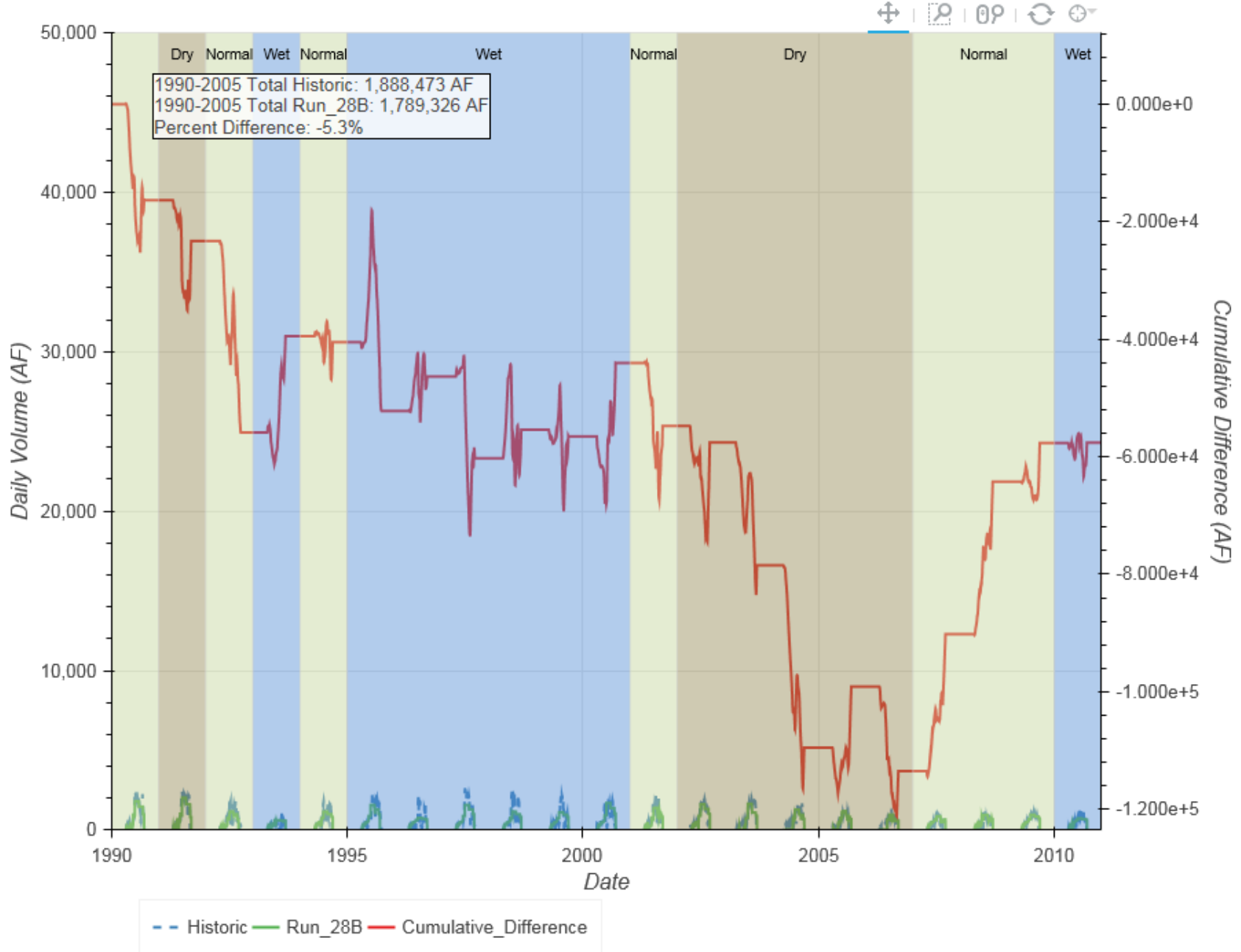


# Phelps Diversion

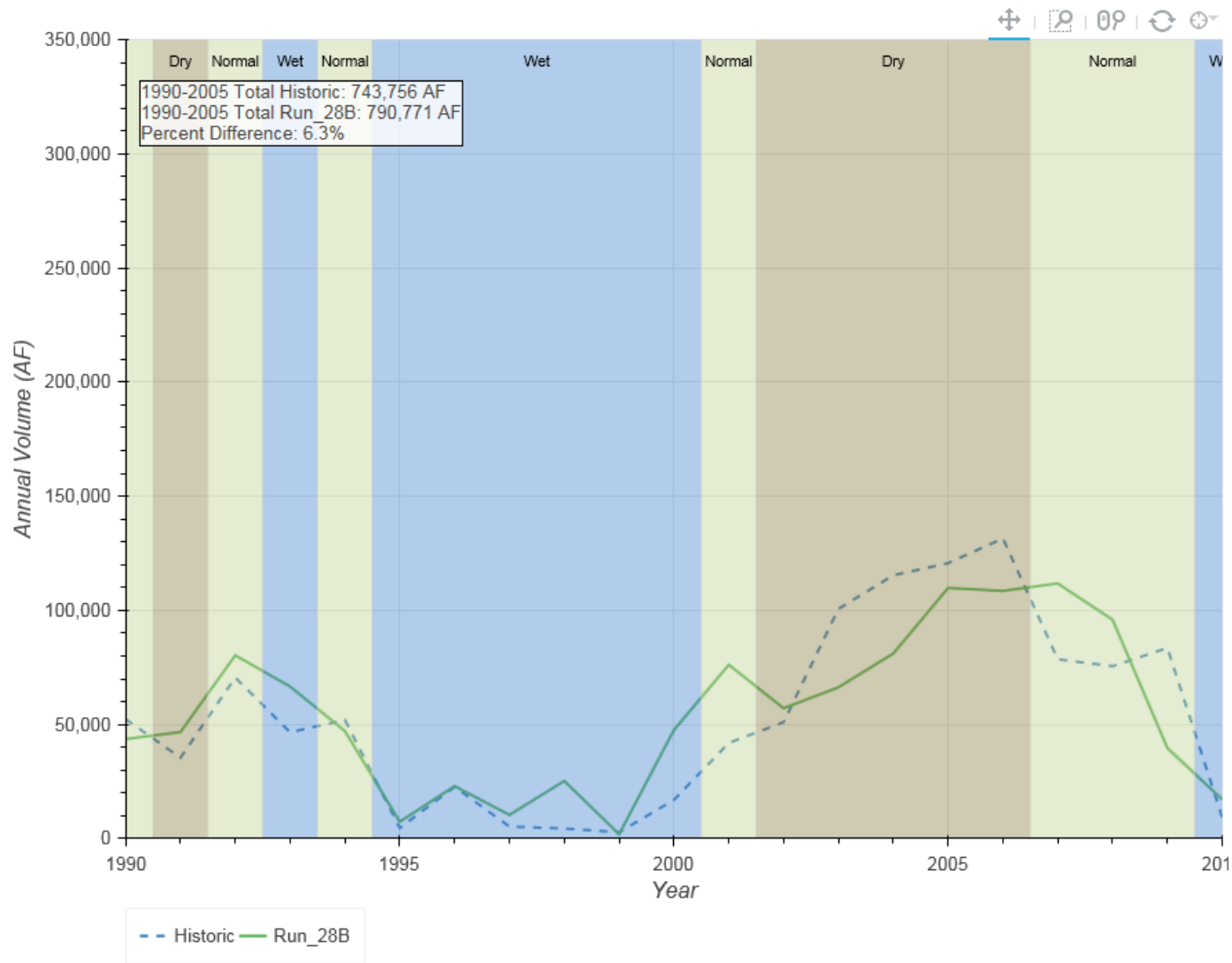


Year	Historic	Run_28B
1990	150,706	134,349
1991	160,482	153,550
1992	124,909	92,280
1993	48,122	64,554
1994	107,966	106,920
1995	145,527	133,792
1996	78,846	84,730
1997	148,450	134,550
1998	102,997	107,877
1999	107,379	106,227
2000	129,594	142,078
2001	116,558	105,821
2002	137,451	134,638
2003	131,673	110,732
2004	121,155	90,124
2005	77,810	88,196
2006	79,161	64,815
2007	57,928	81,269
2008	58,661	84,606
2009	90,126	96,717
2010	77,724	77,814
Total	2,253,225	2,195,639

# Phelps Diversion



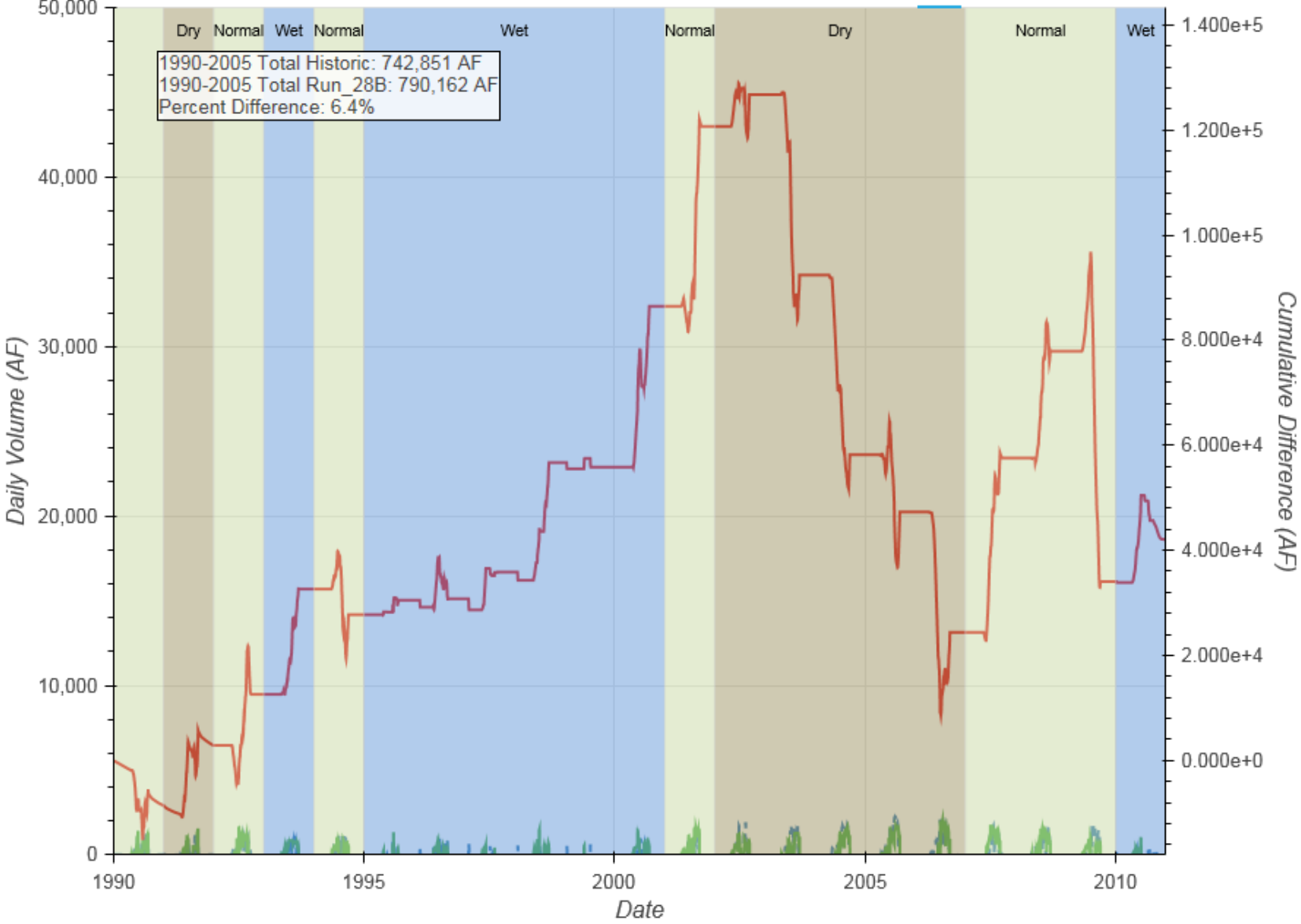
# Jeffrey Return



Year	Historic	Run_28B
1990	52,370	43,665
1991	35,464	46,706
1992	70,619	80,314
1993	46,600	66,637
1994	51,992	47,144
1995	4,701	7,434
1996	22,732	23,026
1997	5,299	10,403
1998	4,466	25,299
1999	2,828	1,977
2000	16,968	47,604
2001	41,942	76,176
2002	51,060	57,125
2003	100,655	66,327
2004	115,372	81,116
2005	120,688	109,818
2006	131,510	108,540
2007	78,614	111,795
2008	75,550	95,898
2009	83,551	39,701
2010	9,245	17,161
Total	1,122,226	1,163,866



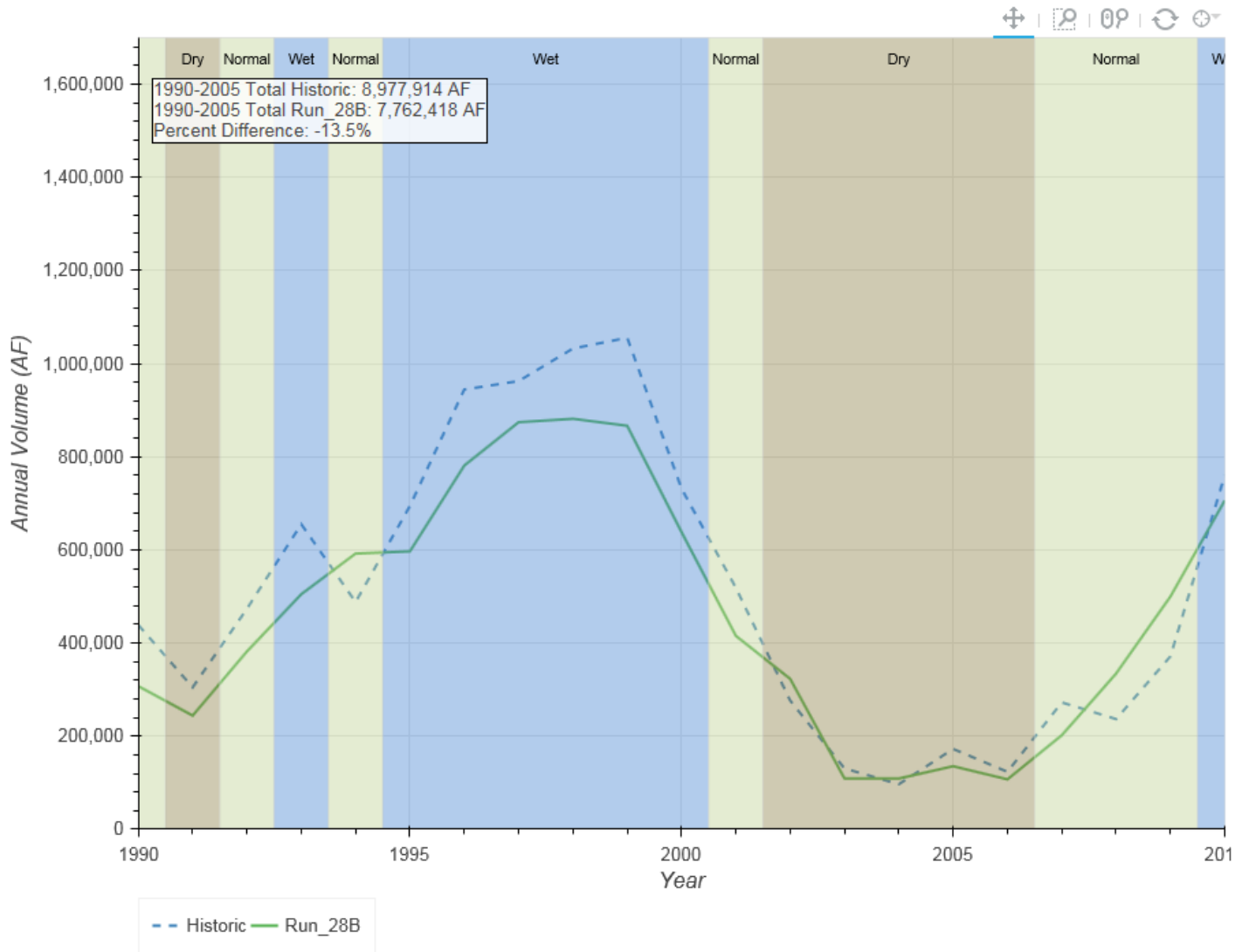
# Jeffrey Return



1990-2005 Total Historic: 742,851 AF  
1990-2005 Total Run\_28B: 790,162 AF  
Percent Difference: 6.4%

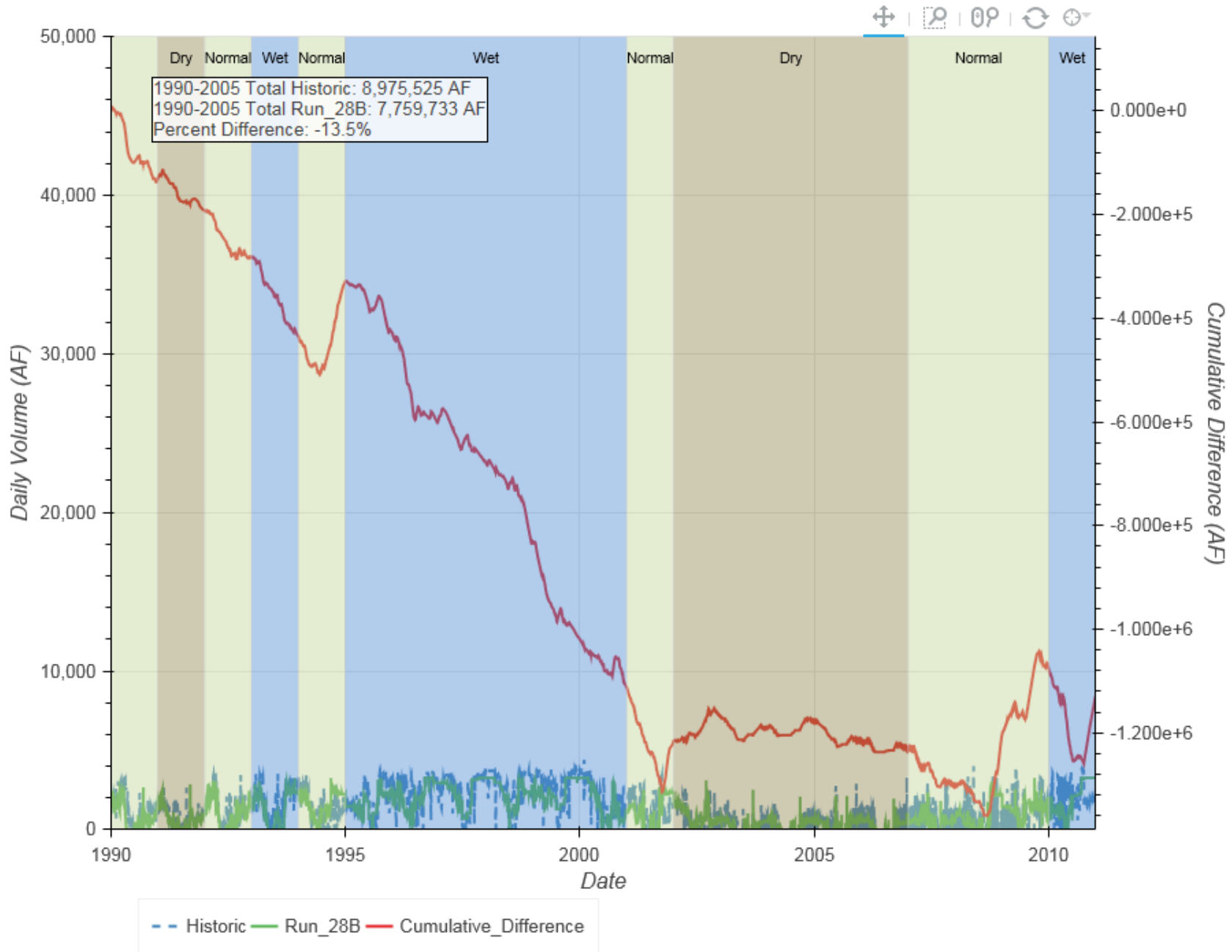
- - Historic
- Run\_28B
- Cumulative\_Difference

# J2 Return

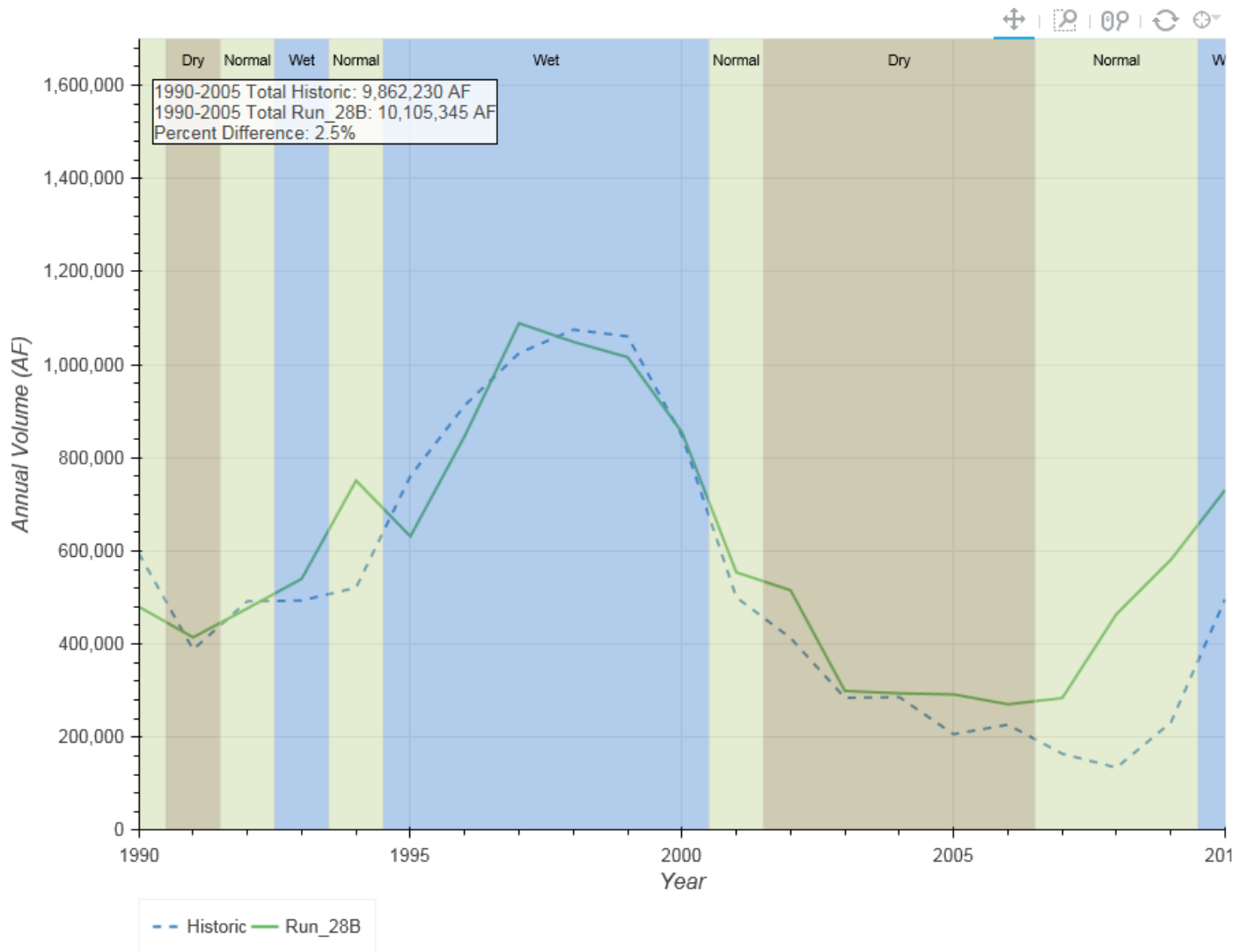


Year	Historic	Run_28B
1990	438,825	307,367
1991	304,948	244,249
1992	473,833	382,139
1993	655,263	504,911
1994	488,048	592,268
1995	694,544	596,924
1996	944,542	781,135
1997	962,564	874,294
1998	1,032,519	881,619
1999	1,055,684	866,637
2000	731,696	638,327
2001	518,763	415,546
2002	276,525	323,127
2003	130,770	109,316
2004	96,785	109,037
2005	172,605	135,522
2006	123,435	107,295
2007	272,592	202,005
2008	236,770	334,569
2009	371,450	499,826
2010	760,123	706,129
Total	10,742,284	9,612,242

# J2 Return



# Sutherland Return



Year	Historic	Run_28B
1990	594,991	480,321
1991	388,274	414,345
1992	492,150	476,688
1993	493,477	540,377
1994	521,186	751,260
1995	760,688	631,331
1996	912,723	846,856
1997	1,024,861	1,089,110
1998	1,075,298	1,049,145
1999	1,060,901	1,015,987
2000	847,409	854,828
2001	500,366	554,167
2002	412,978	515,482
2003	284,473	299,361
2004	286,109	294,175
2005	206,346	291,912
2006	226,829	270,636
2007	164,380	284,035
2008	134,634	464,646
2009	231,665	581,238
2010	496,450	730,970
<b>Total</b>	<b>11,116,188</b>	<b>12,436,870</b>

# Sutherland Return

