KINGS RIVER WATER ASSOCIATION

Presentation to

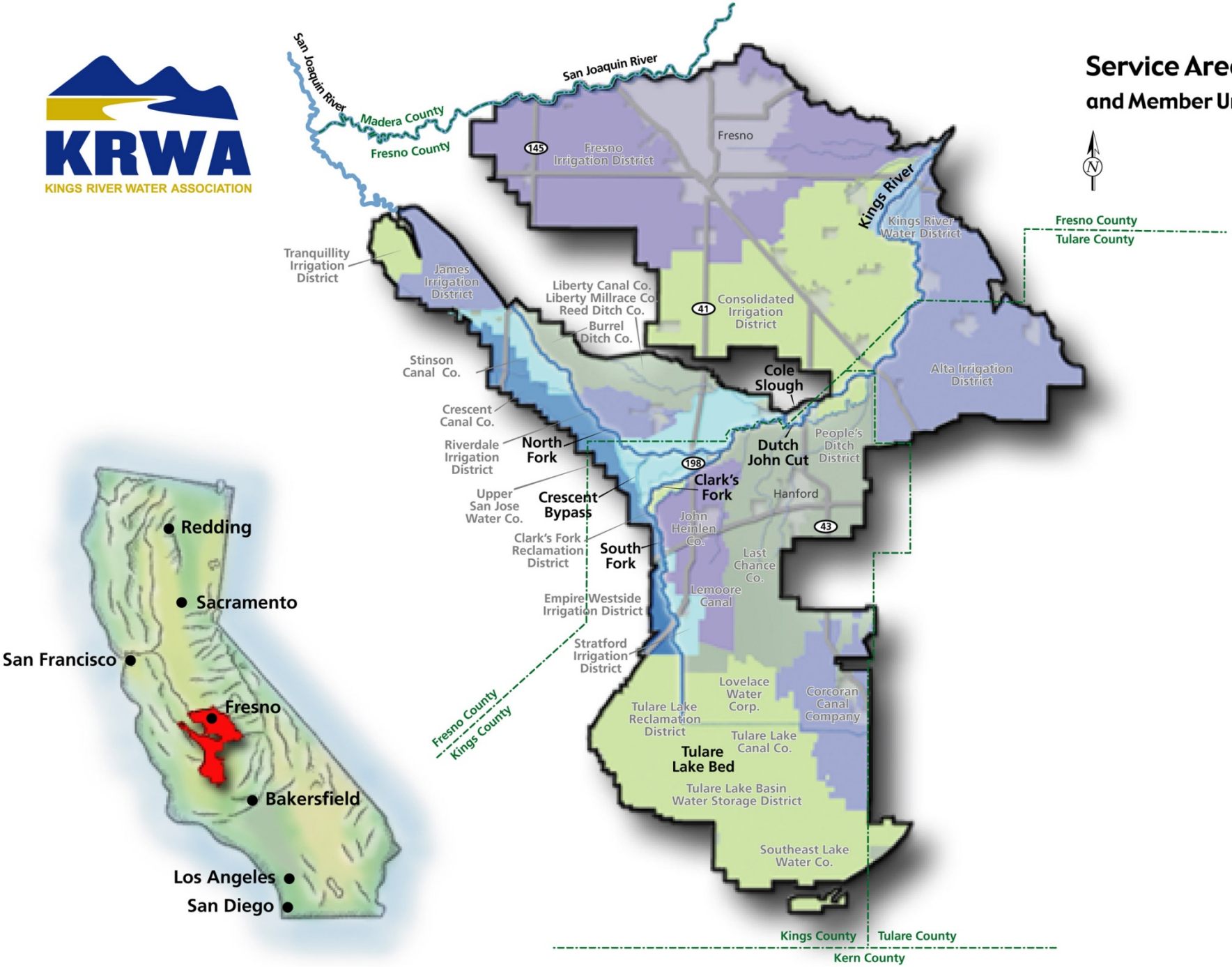
Drought Worrkshop

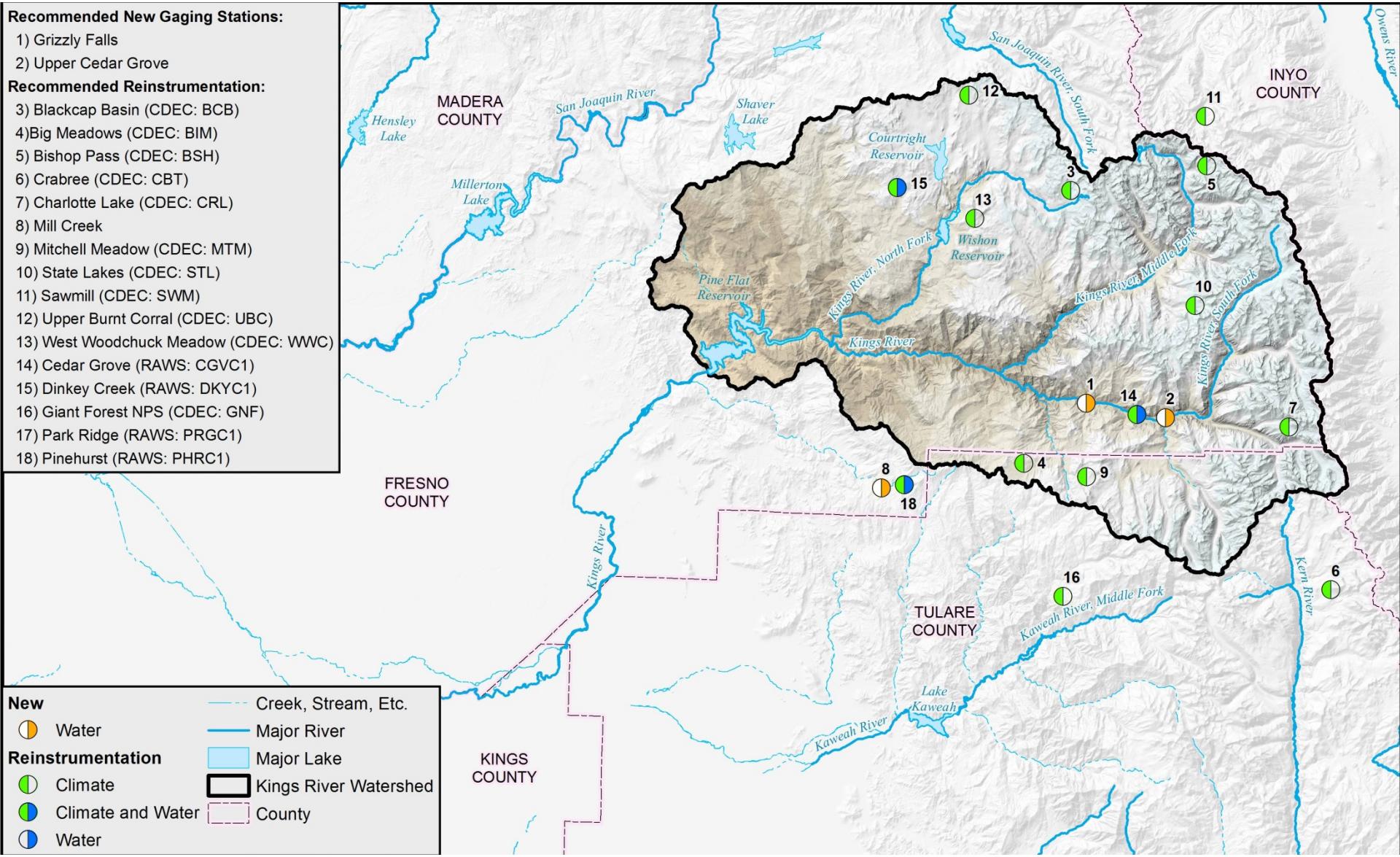
October 12, 2016

Steven Haugen, Watermaster
Kings River Water Association

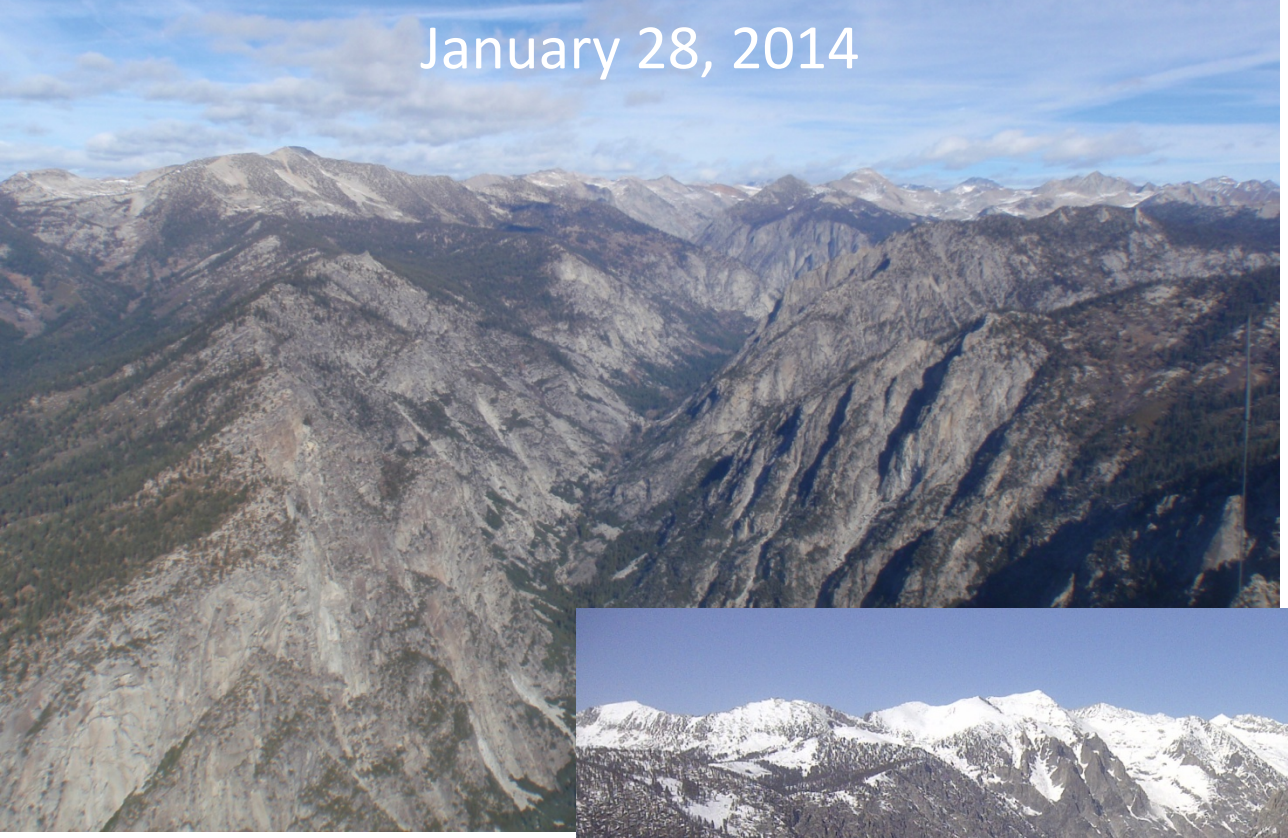
KRWA
KINGS RIVER WATER ASSOCIATION

Service Area and Member Units



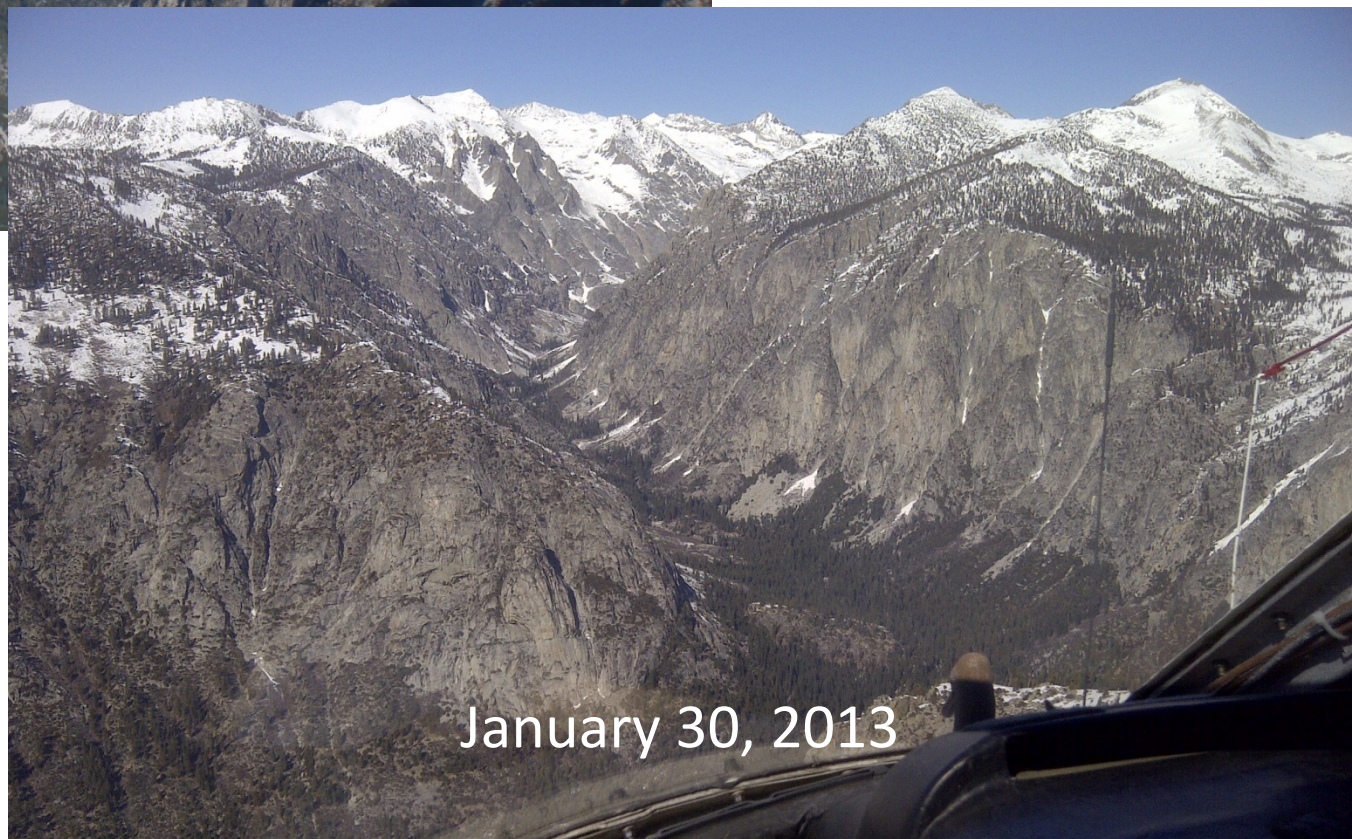

Recommended New Gaging Stations:
1) Grizzly Falls
2) Upper Cedar Grove
Recommended Reinstrumentation:
3) Blackcap Basin (CDEC: BCB)
4)Big Meadows (CDEC: BIM)
5) Bishop Pass (CDEC: BSH)
6) Crabree (CDEC: CBT)
7) Charlotte Lake (CDEC: CRL)
8) Mill Creek
9) Mitchell Meadow (CDEC: MTM)
10) State Lakes (CDEC: STL)
11) Sawmill (CDEC: SWM)
12) Upper Burnt Corral (CDEC: UBC)
13) West Woodchuck Meadow (CDEC: WWC)
14) Cedar Grove (RAWS: CGVC1)
15) Dinkey Creek (RAWS: DKYC1)
16) Giant Forest NPS (CDEC: GNF)
17) Park Ridge (RAWS: PRGC1)
18) Pinehurst (RAWS: PHRC1)
MADERA COUNTY
INYO COUNTY
FRESNO COUNTY
TULARE COUNTY
KINGS COUNTY
Hensley Lake
Millerton Lake
San Joaquin River
Shaver Lake
Courtright Reservoir
Wishon Reservoir
Pine Flat Reservoir
San Joaquin River, South Fork
Kings River, North Fork
Kings River, Middle Fork
Kings River, South Fork
Kings River
Kaweah River, Middle Fork
Kaweah River
Lake Kaweah
Kern River
Owens River
New
Water
Reinstrumentation
Climate
Climate and Water
Water
Creek, Stream, Etc.
Major River
Major Lake
Kings River Watershed
County

South Fork Kings from Cedar Grove - January 26, 2011

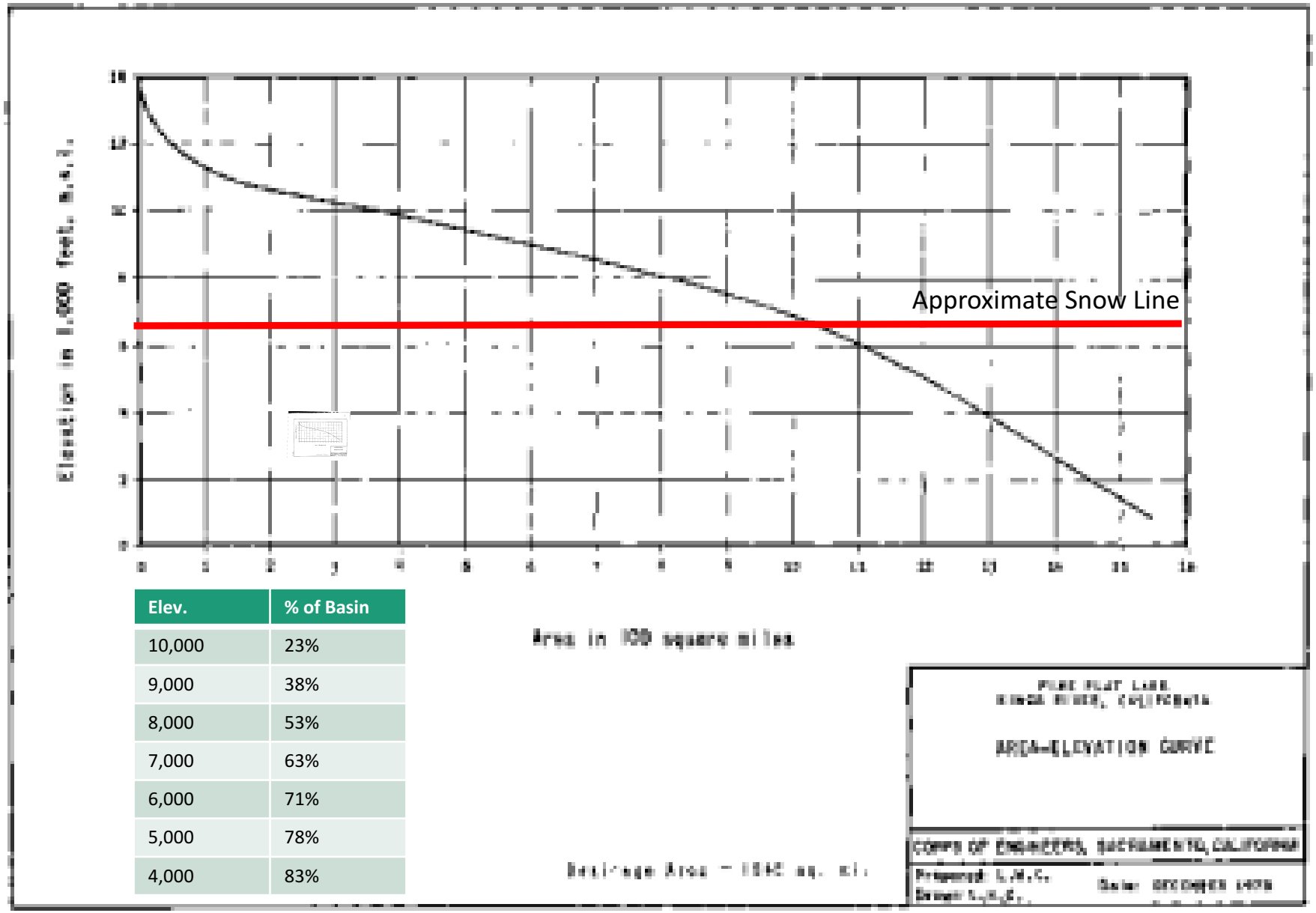


South Fork Kings River

Looking from Cedar Grove

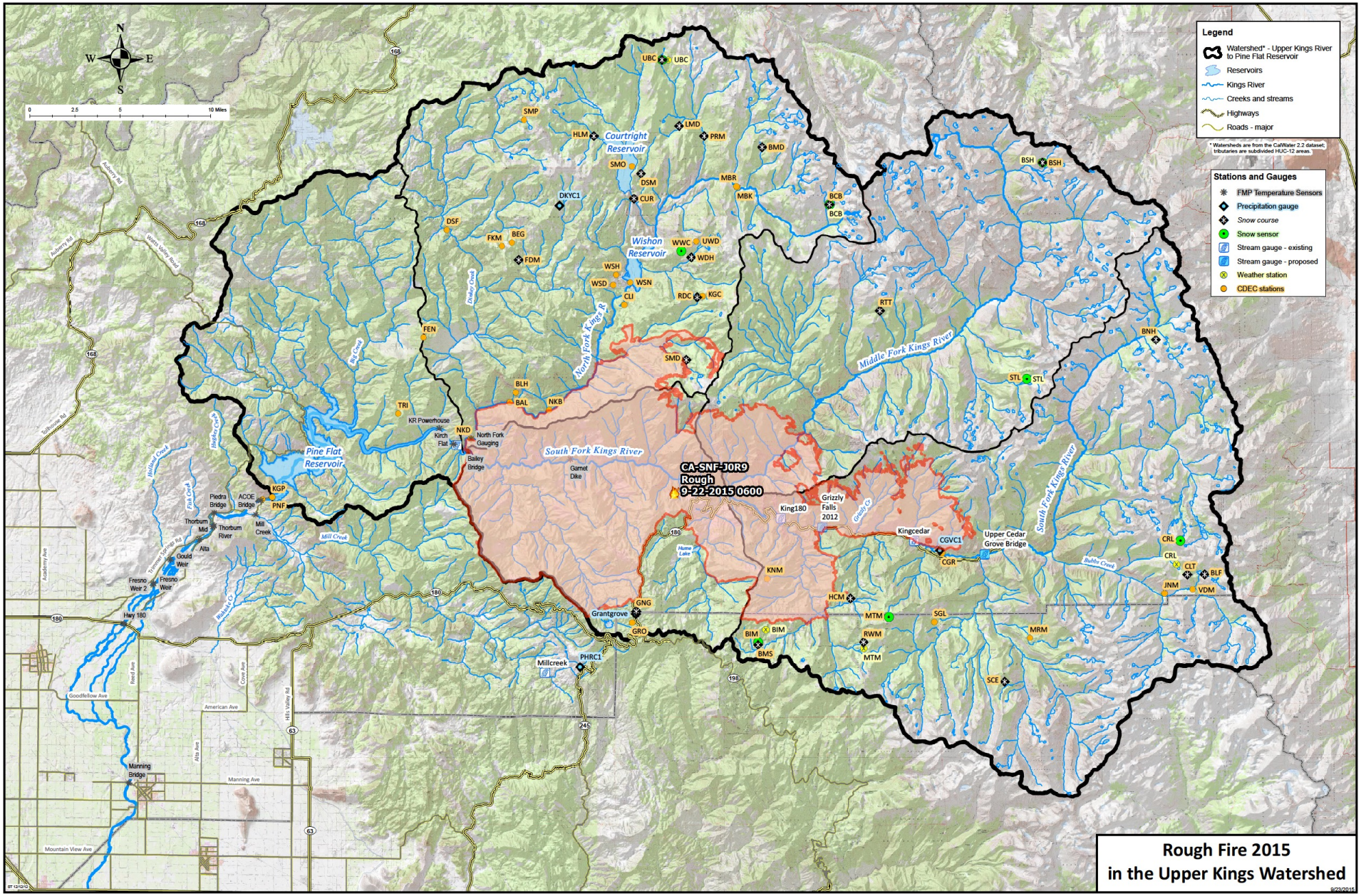


Kearsarge Pass Looking West, April 2, 2015, Elevation 11,700 ft



Elev.	% of Basin
10,000	23%
9,000	38%
8,000	53%
7,000	63%
6,000	71%
5,000	78%
4,000	83%

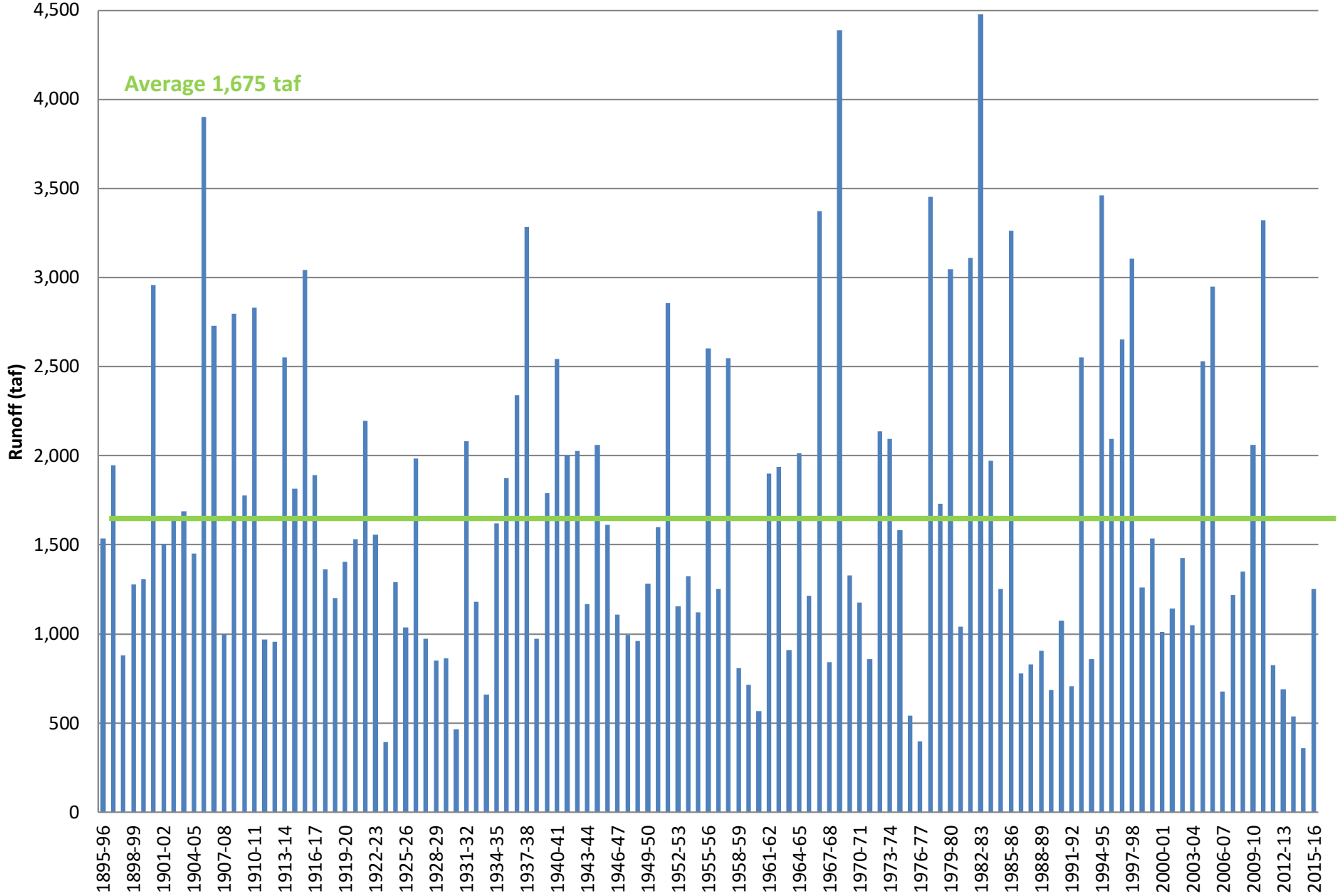
Rough Fire 2015



Rough Fire 2015
in the Upper Kings Watershed

8/23/2015

Historical Kings River Water Year Runoff



Kings River Runoff

Water Year	Runoff (acre-feet)	Historic Percentage
2010-11	3,319,800	198%
2011-12	825,700	49%
2012-13	691,300	41%
2013-14	536,900	32%
2014-15	361,000	21%
2015-16	1,251,100	75%

Water Year	Runoff (acre-feet)	Historic Percentage
2011-2016	3,666,000	44%
1987-1992	4,199,300	50%
1926-1931	5,134,100	61%
1946-1951	5,945,600	70%

May Scheduled Entitlement

Flow	LA	MS	FS	LE	PE	LC	CO	LT	AA	LY	CT	SN	BU	JS	TY	CN	CF	SJ	HN	EM	2E	1L	2L	CB
100	15	15	66					4																50
200	15	15	94	70				6																70
300	15	15	94	85	85			6																100
400	15	15	94	90	180			6																110
450	15	15	94	91	183	46		6																110
500	15	15	141	91	183	46		9																120
600	15	15	235	91	183	46		15																130
700	15	15	329	91	183	46		21																130
800	15	15	423	91	183	46		27																130
900	15	15	517	91	183	46		33																130
1000	15	15	610	91	183	46		40																130
1100	15	15	704	91	183	46		46																130
1200	15	15	798	91	183	46		52																130
1300	15	15	892	91	183	46		58																135
1400	15	15	986	91	183	46		64																140
1500	15	15	1079	91	183	46		71																142
1600	15	15	1126	93	185	92		74																144
1700	15	15	1126	118	235	117		74																146
1800	15	15	1173	130	260	130		77																148
1900	15	15	1220	143	285	142		80																150
2000	15	15	1220	168	335	167		80																150
2100	15	15	1266	168	335	167	50	84																150
2200	15	15	1266	168	335	167	150	84																150
2300	15	15	1266	168	335	167	200	84	50															150
2400	15	15	1266	168	335	167	200	84	150															150
2500	15	15	1266	168	335	167	200	84	250															150
2600	15	15	1266	168	335	167	300	84	250															150
2700	15	15	1266	168	335	167	400	84	250															150
2800	15	15	1266	168	335	167	500	84	250															150
2900	15	15	1266	168	335	167	500	84	350															150
3000	25	25	1313	175	350	175	500	87	350															150
3100	25	25	1313	175	350	175	500	87	450															150
3200	25	25	1313	175	350	175	600	87	450															150
3300	25	25	1313	175	350	175	700	87	450															150
3400	25	25	1313	175	350	175	700	87	550															150
3500	25	25	1360	175	350	175	700	90	600															150
3600	25	25	1360	175	350	175	700	90	700															150
3700	25	25	1360	175	350	175	750	90	750															150
3800	25	25	1360	175	350	175	850	90	750															150
3900	25	25	1360	175	350	175	900	90	800															150
4000	50	50	1360	200	350	200	900	90	800															150
4100	50	50	1360	200	350	200	900	90	900															150
4200	50	50	1360	200	350	200	1000	90	900															150
4300	50	50	1360	200	350	200	1100	90	900															150
4400	50	50	1360	225	400	225	1100	90	900															150
4500	75	75	1360	250	400	250	1100	90	900															150
4600	125	125	1360	250	400	250	1100	90	900															150
4700	175	175	1360	250	400	250	1100	90	900															150
4800	200	200	1360	300	400	250	1100	90	900															150
4900	300	200	1360	300	400	250	1100	90	900															150
5000	300	200	1360	300	400	250	1100	90	1000															150
5100	300	200	1360	300	400	250	1200	90	1000															150
5200	300	200	1360	300	500	250	1200	90	1000															150
5300	300	200	1360	300	500	250	1300	90	1000															150
5400	350	250	1360	300	500	250	1300	90	1000															150
5500	350	250	1360	300	500	250	1300	90	1000	100														150
5600	350	250	1360	300	500	250	1300	90	1000	100	100													150
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5800	361	257	1360	309	515	258	1300	90	1000	100	150	100												150
5900	361	257	1360	309	515	258	1300	90	1000	100	150	150	50											150
6000	361	257	1360	309	515	258	1300	90	1000	100	150	150	50	67	33									150
6100	361	257	1360	309	515	258	1300	90	1100	100	150	150	50	67	33									150
6200	361	257	1360	309	515	258	1300	90	1100	100	150	150	50	133	67									150
6300	361	257	1360	309	515	308	1350	90	1100	100	150	150	50	133	67									150
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6500	411	307	1360	309	515	308	1400	90	1100	100	150	150	50	167	83									150
6600	400	300	1360	400	500	300	1450	90	1100	100	150	150	50	167	83									150
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7500	450	300	1360	400	500	300	1450	90	1200	100	200	200	125	242	133		30	50	70	206	74	20		150
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7900	450	400	1360	450	525	325	1550	90	1200	100	200	200	125	242	133		30	50	70	256	124	20		150
8000	450	400	1360	450	525	325	1550	90	1200	100	200	200	125	242	133		30	50	70	256	224	20		150
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