

**American River Operations Group
(ARG)
Meeting Notes
June 2009 – September 2010**

American River Operations Group

DRAFT Meeting Notes

Date 18 June 2009

Attendees

Bonnie Van Pelt, Russ Yaworsky, and Carol Nicolos, Reclamation; Jeanine Phillips and Robert Vincik, DFG; Felix Smith, SARA; Nick Hindman, FWS; Brian Ellrott, NMFS; and Roland Pang, City of Sacramento.

Handouts

- Daily CVP Water Supply Report (Run Date June 18, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Temperature Operation Plan Scenarios – June 18, 2009; based on June 90% exceedence outlook and 2001-2008 mean weekly inflow temperature.
- Summary for Folsom Lake and Lower American River – June 2009

Fishery Update

With the expected water releases to be over 4,000 cfs and then dropping back below this threshold some time later in the summer Robert Vincik suggested we may have to revisit the isolation pools, checking for possible fish stranding. Robert asked if releases in July can be maintained at the 4,000 cfs level with August releases being a little higher than forecasted to even the releases out. Russ Yaworsky replied that releases may end up being adjusted in such a way, but it will depend upon delta exports.

Operations

Russ Yaworsky reported releases were 1,750 cfs at Nimbus with the 15 year median being 3,400 cfs. Folsom Reservoir storage is above 90% of capacity; this is 112% of 15 year average storage (918,000 AF). Release amounts will be increased to 2,500 cfs in two steps beginning June 20, 2009 to help meet demands and Delta outflow requirements. It is possible the releases will be going to 3,500 – 4,000 cfs by next week. The end of May storage for Folsom is 933,000 AF and end-of-September storage is expected to be near 490,000 AF. Shasta storage is still low, so more water is expected to come from Folsom to meet demands this year.

Brian Ellrott expressed that he'd benefit from a presentation to explain the basics on how projections are made regarding CVO's release schedules (i.e., Delta Requirements, CVP M & I deliveries, etc.).

Temperature

Temperature shutters are in and ready to go when needed. Under the 67 °F temperature target at Watt Avenue, the volume of cold water below 60 °F is estimated to be 120,000 AF by the end of September. Temperature target scenarios (66° and 67°F at Watt Avenue) were submitted to the National Marine Fisheries Service (NMFS). As a result of unexpected precipitation in May the current Temperature Operation Plan scenario is to target water temperatures of 67°F at Watt Avenue; this allows the target to be met through the temperature operation season with the possibility of reserving the lowest set of shutters for fall-run Chinook salmon.

There was discussion with regard to how the recently released Biological Opinion might alter CVO operations. Brian Ellrott stated that the Reasonable and Prudent Alternatives

are flexible with regard to maintaining the temperature target; whereas, the process that's defined in the Biological Opinion includes discussions at the ARG to determine what temperatures can be attained with repeat updates to the status of operations to revise the Temperature Management Plan, if necessary. Ideally, the temperature target would be 65°F or colder, but because of today's water supply issues it is understood that a 67 °F target is likely the coldest target that can be achieved for steelhead over summer rearing in 2009, while also preserving cold water to support fall-run Chinook salmon immigration and spawning. The idea is for the ARG to arrive at a consensus on what temperature target is acceptable given the current conditions (hydrology and storage).

General

Temperature analyses are performed monthly throughout the temperature operation season.

Russ announced that there will be a power plant test on June 23; it is a Folsom black-start test, so all releases will be through Nimbus spillway gates during that time. Hatchery personnel received an email notifying them of the test and test time.

Next Meeting

Date: Thursday, 23 July 2009

Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: 302

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

JUNE 17, 2009

RUN DATE: June 18, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2008	WY 2009	15 YR MEDIAN
TRINITY	LEWISTON	1,968	698	699
SACRAMENTO	KESWICK	12,362	10,366	13,521
FEATHER	OROVILLE (SWP)	3,000	1,500	3,500
AMERICAN	NIMBUS	4,019	1,762	3,368
STANISLAUS	GOODWIN	406	321	590
SAN JOAQUIN	FRIANT	301	0	304

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2008	WY 2009	% OF 15- YR AVG
TRINITY	2,448	2,107	1,621	1,289	61
SHASTA	4,552	3,869	2,619	2,964	77
OROVILLE (SWP)	3,538	2,983	1,658	2,181	73
FOLSOM	977	817	548	918	112
NEW MELONES	2,420	1,787	1,317	1,323	74
FED. SAN LUIS	966	564	252	87	15
MILLERTON	520	432	390	0	0
TOT. N. CVP	11,360	9,145	6,357	6,581	72

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	762	184	2,377	1,369	56
SHASTA	3,870	1,935	9,613	5,606	69
FOLSOM	1,652	292	5,465	2,588	64
NEW MELONES	680	0	2,095	973	70
MILLERTON	966	164	3,134	1,358	71

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	23.52	12.76	54.65	31.41 (47)	75	0.00
SACRAMENTO AT SHASTA DAM	55.20	17.24	112.33	61.12 (52)	90	0.00
AMERICAN AT BLUE CANYON	64.73	15.64	103.88	63.89 (34)	101	0.00
STANISLAUS AT NEW MELONES	23.78	0.00	45.33	26.35 (31)	90	0.00
SAN JOAQUIN AT HUNTINGTON LK	33.94	17.20	81.40	41.91 (34)	81	0.00

Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

		Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Trinity	1291	1233	1122	1013	936	941	926	890	868	876	921	967	897
	Elev.	2279	2268	2257	2248	2248	2247	2242	2240	2241	2246	2251	2243
Whiskeytown	239	238	238	238	238	206	206	206	206	206	206	238	238
	Elev.	1209	1209	1209	1209	1199	1199	1199	1199	1199	1199	1209	1209
Shasta	3119	2748	2236	1890	1716	1542	1532	1621	1769	1996	2343	2459	2296
	Elev.	996	971	951	940	928	928	934	943	957	976	982	974
Folsom	933	852	620	492	491	456	378	356	358	390	470	450	375
	Elev.	454	431	415	415	411	400	396	397	402	413	410	399
New Melones	1333	1289	1204	1117	1059	1063	1071	1080	1088	1103	1114	1077	1012
	Elev.	979	969	958	950	951	952	953	954	956	958	953	944
San Luis	211	10	-12	-1	86	212	340	469	574	598	695	648	522
	Elev.	364	352	344	365	386	412	440	462	462	469	458	423
Total		6369	5407	4748	4526	4420	4453	4621	4862	5169	5750	5838	5340

Monthly River Releases (TAF/cfs)

Trinity	TAF	47	28	28	27	23	18	18	18	17	18	32	180
	cfs	783	450	450	450	373	300	300	300	300	300	540	2,924
Clear Creek	TAF	9	5	5	9	12	12	12	12	11	12	12	12
	cfs	150	85	85	150	200	200	200	200	200	200	200	200
Sacramento	TAF	637	738	553	357	369	238	200	200	180	200	357	523
	cfs	10700	12000	9000	6000	6000	4000	3250	3250	3250	3250	6000	8500
American	TAF	193	308	202	72	76	122	77	61	72	90	227	246
	cfs	3241	5007	3291	1207	1240	2047	1250	1000	1293	1464	3822	4000
Stanislaus	TAF	33	24	22	14	11	11	11	11	9	16	45	45
	cfs	556	396	352	240	177	177	175	175	157	268	763	734

Trinity Diversions (TAF)

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
rk. PP	81	93	82	50	-21	10	39	35	30	23	59	36
	75	87	75	40	0	0	30	30	30	30	30	30

Delta Summary (TAF)

	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Tracy	100	265	268	256	260	193	175	150	110	200	83	88
USBR Banks	0	42	16	4	0	0	0	0	0	0	0	0
Contra Costa	7.6	5.9	6.7	7.6	8.4	10.1	11	11	8.4	8.4	7.6	7.6
Total USBR	108	313	291	268	268	203	186	161	118	208	90	96
COA Balance	0	0	0	6	21	21	21	21	21	21	23	23

Old/Middle River Std.												
Old/Middle R. calc.	-2,234	-6,958	-6,135	-6,401	-5,444	-4,858	-4,948	-3,946	-2,010	-2,889	-1,367	-1,661

Computed DOI	7094	4994	3497	3009	4002	4505	4604	7662	11400	11403	11397	11078
Excess Outflow	0	0	0	0	0	0	98	3156	0	0	0	2635
% Export/Inflow	19%	49%	56%	63%	63%	58%	63%	40%	18%	23%	12%	15%
% Export/Inflow std.	35%	65%	65%	65%	65%	65%	65%	65%	45%	35%	35%	35%

Hydrology

Water Year Inflow (TAF)	Clair Engle	Shasta	Folsom	New Melones
	824	4,360	1,984	839
Year to Date + Forecasted % of mean	68%	79%	73%	79%

Summary for Folsom Lake and Lower American River - May 2009

Day	Mean Daily Water Temperature (° F)									EOP Stor (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB	Folsom	Nimbus	
1	52.5	50.3	52.6	A(36)	A(23)	A(41)	53.3	53.7	54.3	780.0	4,485	60
2	50.3	51.3	52.7	A(27)	A(45)	A(28)	53.1	53.6	54.2	793.2	4,362	58
3	48.9	50.6	52.3	A(39)	A(32)	A(29)	53.0	53.5	54.2	809.1	4,514	63
4	49.4	50.6	52.3	A(30)	A(30)	A(40)	53.3	54.0	54.8	825.6	4,461	63
5	50.4	52.4	51.8	A(33)	A(41)	A(26)	53.3	54.4	55.6	848.6	4,549	69
6	52.0	52.4	51.6	A(32)	A(28)	A(40)	53.4	54.6	55.8	865.8	4,484	69
7	53.0	53.0	51.8	A(34)	A(41)	A(25)	53.7	54.8	56.0	877.5	3,918	70
8	54.4	N	51.4	A(31)	A(27)	A(42)	53.8	54.8	56.1	887.2	3,959	73
9	54.9	N	51.4	A(33)	A(33)	A(34)	53.4	54.8	56.2	895.1	3,949	72
10	55.8	N	51.4	A(31)	A(30)	A(39)	53.4	54.6	56.0	901.0	3,792	73
11	56.3	N	51.5	A(32)	A(36)	A(32)	53.3	54.7	56.0	908.0	3,866	71
12	56.3	N	51.9	A(26)	A(37)	A(37)	53.7	54.6	55.8	912.3	3,818	66
13	55.8	N	51.6	A(39)	A(21)	A(40)	53.6	54.6	55.8	915.1	3,940	71
14	56.1	N	51.8	A(0)	A(60)	A(40)	53.3	54.7	56.1	917.9	3,947	72
15	57.2	N	51.9	A(38)	A(48)	A(14)	53.9	55.1	56.4	919.6	3,932	75
16	58.7	N	51.8	A(36)	A(17)	A(47)	54.0	55.5	57.0	921.6	3,832	81
17	60.1	N	51.9	A(24)	A(34)	A(42)	54.0	55.5	57.0	924.5	3,930	84
18	60.7	N	52.1	A(35)	A(42)	A(23)	53.9	55.4	56.9	927.1	3,883	79
19	60.6	N	52.4	A(55)	A(0)	A(45)	54.1	55.5	56.9	930.6	3,470	73
20	59.2	N	52.3	A(24)	A(33)	A(43)	54.5	55.7	57.0	935.0	3,408	71
21	58.8	N	52.2	A(47)	A(31)	A(22)	54.5	56.3	57.2	938.7	3,407	73
22	58.9	N	52.5	A(24)	A(32)	A(44)	54.5	56.3	57.2	941.2	3,298	71
23	59.2	N	52.7	A(40)	A(37)	A(23)	54.7	56.3	57.0	941.7	3,345	65
24	59.4	N	52.8	A(24)	A(42)	A(34)	54.9	56.4	57.1	942.4	3,455	65
25	60.1	N	52.8	A(21)	A(33)	A(46)	54.9	56.6	57.4	942.0	3,392	68
26	61.5	N	52.8	A(49)	A(25)	A(26)	55.0	56.8	57.7	942.0	3,437	77
27	61.9	N	52.9	A(0)	A(47)	A(53)	55.0	57.2	58.3	941.8	3,460	80
28	63.4	N	53.1	A(24)	A(46)	A(30)	55.3	57.0	58.2	940.6	3,377	77
29	63.9	N	53.3	A(32)	A(28)	A(40)	55.4	56.9	58.3	938.6	3,441	72
30	64.6	N	53.3	A(23)	A(41)	A(36)	55.7	57.0	58.2	936.2	3,426	69
31	65.5	N	53.4	A(41)	A(27)	A(32)	55.7	57.1	58.3	933.1	3,459	68
Avg	57.4	51.5	52.3				54.1	55.4	56.6		3,806	71
Tot af											234,040	

! Incomplete or estimated

Station out of service

* See note on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (in parentheses represents approximate % total daily load)

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

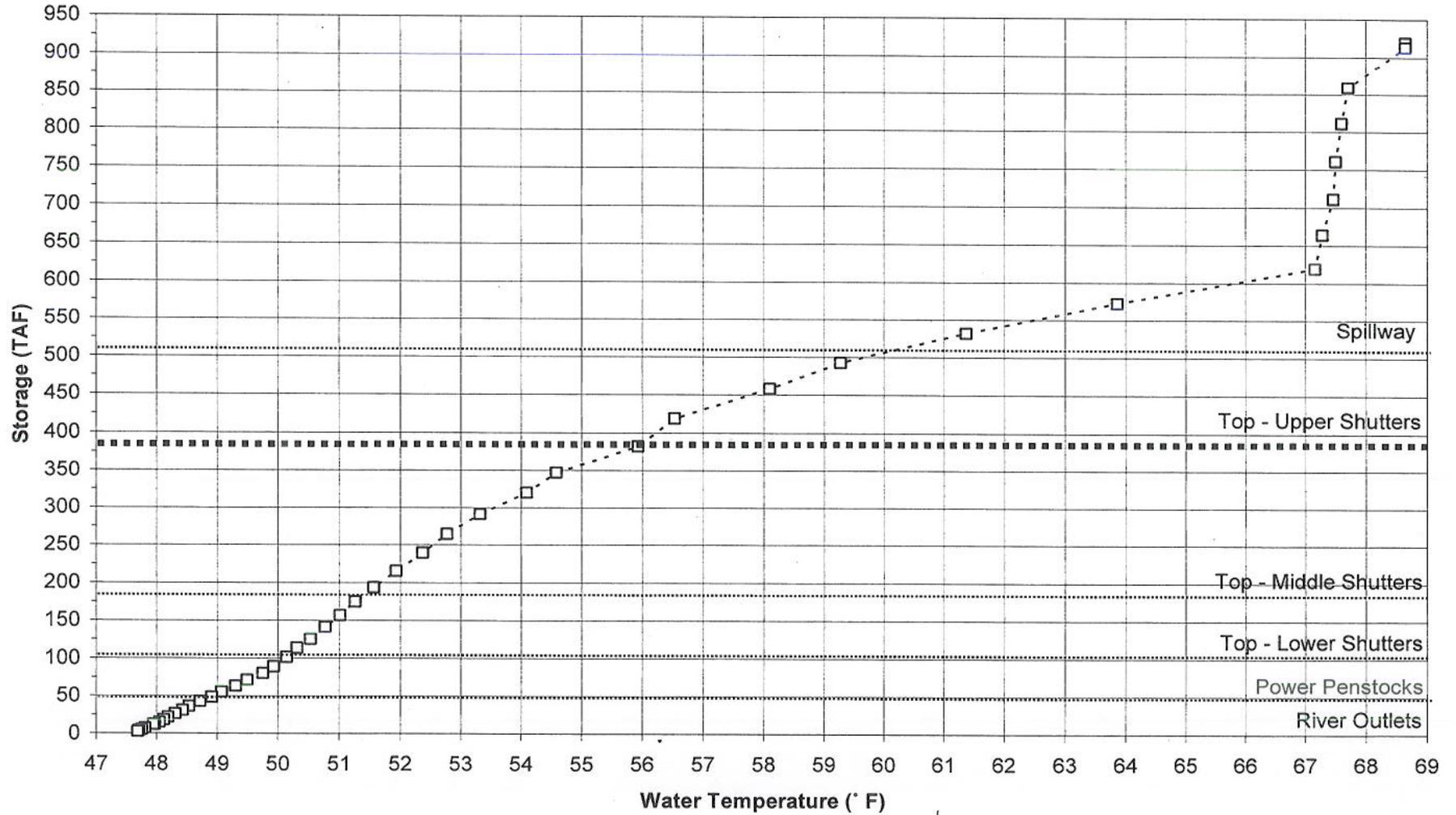
AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

AWB - American River below Watt Avenue Bridge

Folsom Lake Temperature Profile June 15, 2009



Temperature Operation Plan Scenarios – June 18, 2009

Historical Conditions (2001-2008)

Year	End of May		All Upper Shutters Lowered by	End of September		Watt Avenue Target (°F)
	Storage (TAF)	CWP Volume < 58°F (TAF)		Storage (TAF)	CWP Volume < 60°F (TAF)	
2001**	696	275	30 Mar	368	30	65-71
2002**	822	455	04 Mar	510	50	65-69
2003	962	640	02 Apr	658	135	65-67
2004	635	300	05 Mar	376	30	69
2005	959	705	15 Mar	652	140	65
2006	928	670	29 Mar	639	125	65
2007**	787	355	21 Mar	323	30	68
2008**	617	250	None Lowered	270	25	69-70
June 2009 90%-Exceedence Outlook						
2009	933	550	12 Mar	490	120	67

** Denotes fall power bypass years.

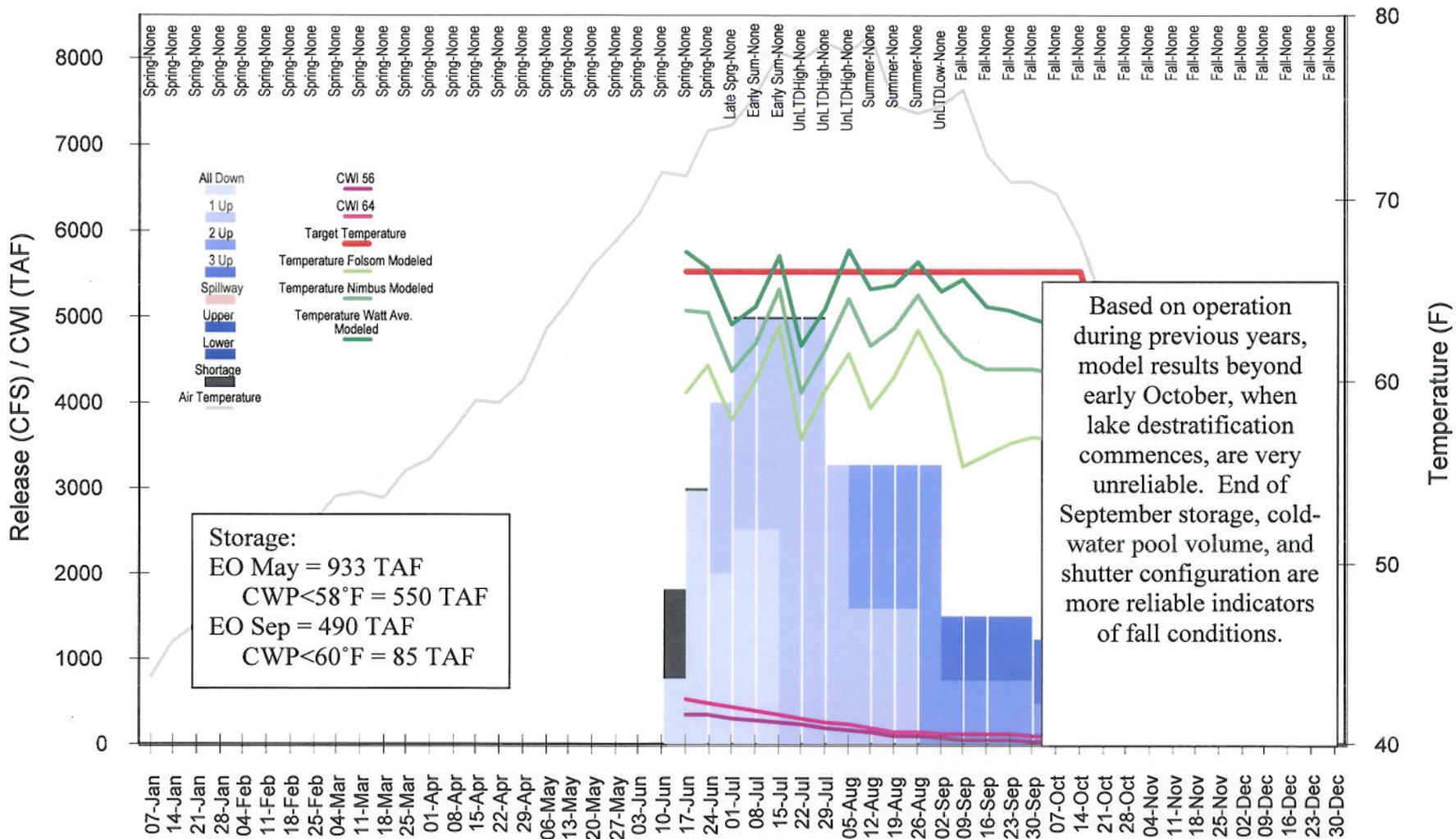
Temperature Operation Scenarios

Scenario	Target	Scenario Results ¹
1	67°F @ Watt Ave	Current temperature operation plan; Target is met throughout the temperature operation season; Lowest set of temperature shutters are reserved for fall-run.
2	66°F @ Watt Ave	Target is met throughout the temperature operation season; Lowest set of temperature shutters are raised in early September and therefore are NOT reserved for fall-run; Operation results in an end-of-September cold-water pool volume that is about 30% less than Scenario 1.

¹ The temperature operation scenarios are based on the June 2009 90%-exceedence outlook, and 2001-2008 mean weekly inflow temperature.

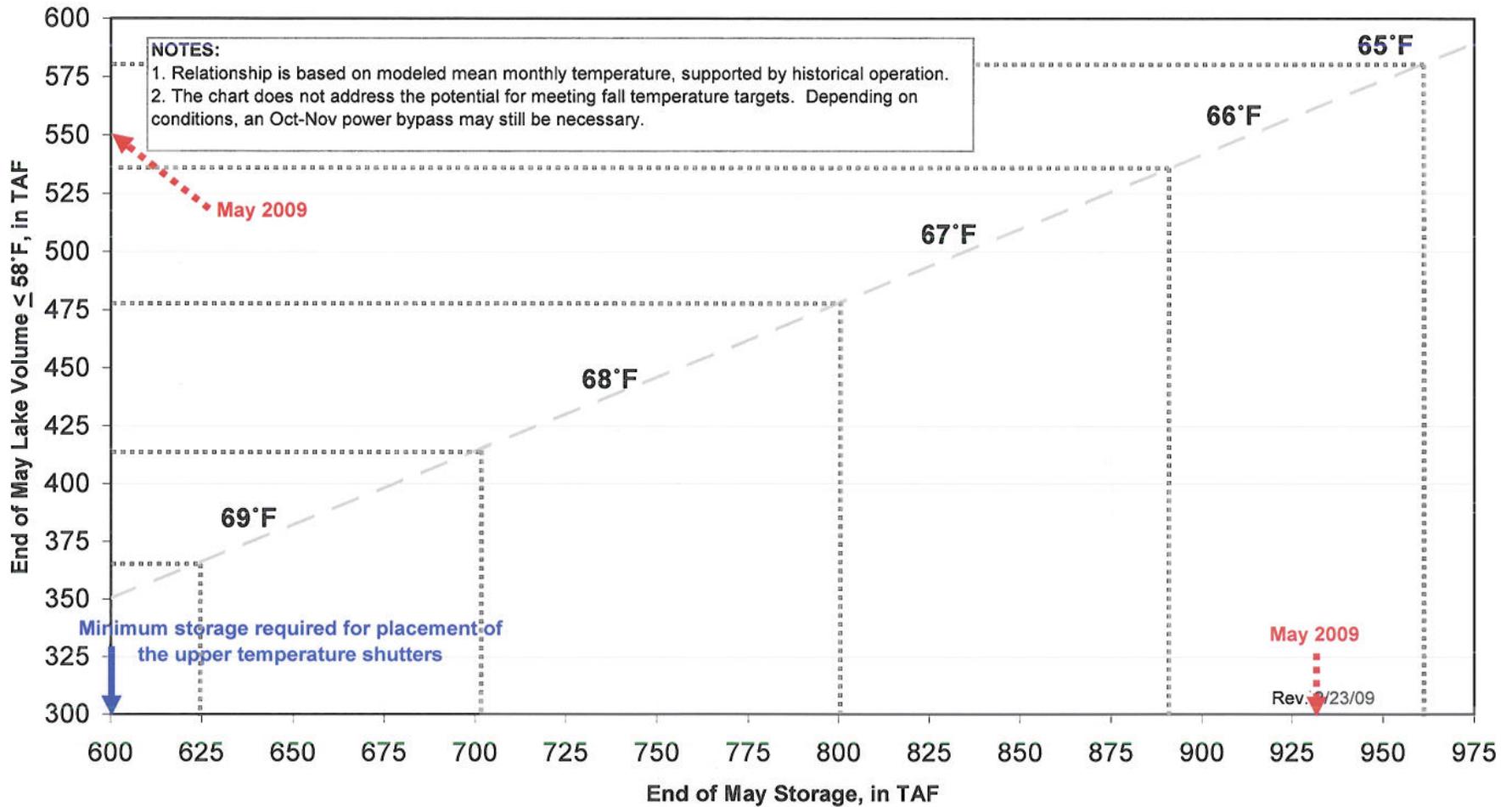
June 90% Forecast - 66 Target

TCD on Folsom Water Supply Intake



Scenario 2

Folsom Lake End of May Storage Potential for Meeting Summer Temperature Targets (Jun-Sep) at Watt Avenue



Meeting Attendance Record

Date: 6-18-2009

Time: 1300

Place: CVO Room 302

Subject of Meeting: American River Group

Name	Organization	Phone Number
Russ Yaworsky ✓	Reclamation - CVO	916-979-0268 ryaworsky@usbr.gov
JEANINE PHILLIPS	DFG	916 358 2030 jphillips@dfg.ca.gov
ROBERT VINCIK	DFG	916-358-2933 rvincik@dfg.ca.gov
Bonnie Van Pelt ✓	Reclamation	916-989-4127 bvanpelt@usbr.gov
Felix E Smith	SARA	916-966-2081 felixsmith@sbcglobal.net
Carol Nicolos ✓	BOR	916 989-7276 cnicolos@usbr.gov
Nick Hindman	FWS	916-414-6543 nick.hindman@fws.gov
BRIAN ELLROTT	NMFS	930-3612 Brian.Ellrott@noaa.gov
ROLAND PANG	City of Sacramento	on file

American River Operations Group

DRAFT Meeting Notes

Date 23 July 2009

Attendees

Bonnie Van Pelt, Russ Yaworsky and Carol Nicolos, BOR; Jeanine Phillips and Robert Vincik, DFG; Nick Hindman, FWS; Brian Ellrott, NMFS, Roland Pang, City of Sacramento; Rod Hall, Water Forum; Gary Estes, ARWI; Paul Olmstead, SMUD and Tom Boardman, SLDMWA.

Handouts

- Daily CVP Water Supply Report (Run Date July 23, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Temperature Operation Plan Scenarios – July 23, 2009; based on July 90% exceedance outlook (<http://www.usbr.gov/mp/cvo/data/Jul90b2.pdf>) and 2001-2008 mean weekly inflow temperature.
- Summary for Folsom Lake and Lower American River – July 2009
- USGS Fair Oaks Flow gage data

Fishery Update

Robert Vincik reported that currently there are no fisheries monitoring efforts. Jeanine Phillips said that DFG checked to see if the pile driving construction activities associated with the Hazel Avenue widening project were affecting steelhead. Steelhead fingerlings were sent to the DFG Fish Health lab and they determined there were no impacts to the fish from noise. DFG placed steelhead in cages/live cars under the bridge, near the entrance to the fish ladder, near the hatchery outfall, and 100 yards down from the weir. Only a couple fish fatalities were discovered and they may not have been a result of the construction. The construction should be completed by October 1-15 2009.

Operations

Russ Yaworsky reported Folsom storage at 97 percent of the 15-year average (674,000 AF). On the 7th of July the upper temperature shutter of penstock unit 3 was raised for temperature management and on 22nd of July flows were reduced from 5,000 cfs to 3,000 cfs for removal of some woody debris that had proven to be a hazard for boaters. Flows were ramped up to 5,000 cfs by 4:00 PM yesterday (Average monthly releases of 5,000 cfs for July—see 90% exceedance HO).

Rod Hall indicated that the Gravel Augmentation Project is set to take place in mid-August with ideal releases being 2,500 cfs during that time. Russ indicated that this release amount shouldn't be a problem as long as the temperature target of 67° is being maintained. (A release of 2,500 cfs is consistent with meeting the temperature target; however, it was not stated that releases would be at 2,500 cfs by mid-August.)

Brian Ellrott expressed that Reclamation should show how they plan on keeping flows as constant as possible around the 4,000 cfs flow threshold specified in the NMFS Biological Opinion. If operations require flows above 4,000 cfs, Brian recommended they remain at that level for a few days rather than jumping above and below the 4,000 cfs threshold. Brian noted that the projected releases of 1,200 cfs in September seemed kind of low --- is there a way to implement rules regarding limits on high and low cfs?

Russ said that was a good question. The projections are based on a monthly model of “current” conditions which are in constant flux.

The scheduled transfer of 20,000 AF of PCWA Middle Fork Project water to San Diego County Water Authority may begin soon.

Temperature

Russ Yaworsky reported that the Temperature Management Plan target of 67°F is still likely to be maintained throughout the season. The average temperature at Watt Avenue was 63.3° F. We are targeting temperatures not to exceed 67° F, which may require higher releases from shutter unit 3 to begin blending operations (starting to tap into warmer water). At issue, is how much volume will remain in the cold water pool by the end of September; i.e., projected end of September reservoir storage of 490,000 AF and cold water pool volume of 120,000 AF. Demands in the system over the summer months and inflow amounts all affect the outcome of the actual reservoir and cold water pool storage levels. Weather and other variables will play a role in whether we can maintain the temperature target; if not, the last pair of temperature may be used. If a power bypass is necessary this year to support Chinook salmon spawning it can be implemented.

Brian Ellrott stated we should anticipate the need for a bypass to eliminate any scheduling issues. Russ indicated that if a bypass is required it would be implemented around early November.

General

The group agreed that the next flow reduction to 3,500 cfs would warrant monitoring of the isolation pools. Brian Ellrott indicated that the threshold flow in the NMFS BO is based on the 2001 DFG isolation pool report and the subsequent evaluation in 2004. Brian wondered what data we had now to support this threshold flow. Nick Hindman thought we should examine the seasonality of fish activity in conjunction with flow fluctuations.

Rod Hall stated one potential problem with the gravel augmentation project is that clearance has not been granted as of yet so there is a slight possibility of a delay to mid-September. The project will put 9,000 tons of gravel downstream from the Sailor Bar site that was augmented last year. The gravel is intended to support Chinook salmon spawning, but steelhead also like it.

Russ confirmed a flow gage issue at the Lake Natoma penstocks, as per Rod Hall’s notification earlier in the week (see flow gage data in HO). Operators were notified on 22 July and are looking into the problem.

USGS forwarded a message to Russ regarding the possibility that they may need to move the AFD gage due to the spillway construction. Russ stressed the need to maintain our ability to measure the release temperatures out of Folsom—not surface temperatures on Lake Natoma.

There will be a release out of the Nimbus spillway gates to clean the trash racks next week (18 hour period). Flows will be maintained at 5,000 cfs total.

Next Meeting

Date: Thursday, 27 August 2009

Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: 302

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

AGENDA
American River Group

Date: July 23, 2009
Time: 1:00 PM
Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821
Room: Room 302

Update on Fish Monitoring - DFG

Operations Forecast - USBR

Temperature Management Plan - USBR

Status Reports - Group

Fair Oaks gage changes (July) - Water Forum question

Schedule Next Meeting

Adjourn

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

JULY 22, 2009

RUN DATE: July 23, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2008	WY 2009	15 YR MEDIAN
TRINITY	LEWISTON	725	421	450
SACRAMENTO	KESWICK	12,465	12,019	14,770
FEATHER	OROVILLE (SWP)	1,800	2,500	5,000
AMERICAN	NIMBUS	2,545	4,049	3,507
STANISLAUS	GOODWIN	355	403	400
SAN JOAQUIN	FRIANT	297	0	275

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2008	WY 2009	% OF 15 YR AVG
TRINITY	2,448	1,973	1,444	1,184	60
SHASTA	4,552	3,353	2,032	2,467	74
OROVILLE (SWP)	3,538	2,626	1,350	1,678	64
FOLSOM	977	694	375	674	97
NEW MELONES	2,420	1,748	1,226	1,247	71
FED. SAN LUIS	966	353	81	2	1
MILLERTON	520	357	248	0	0
TOT. N. CVP	11,360	8,121	5,158	5,574	69

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	788	195	2,736	1,465	54
SHASTA	4,133	2,146	10,119	5,939	70
FOLSOM	1,748	299	6,131	2,779	63
NEW MELONES	755	0	2,573	1,098	69
MILLERTON	1,172	249	4,079	1,669	70

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	23.52	13.70	55.19	31.77 (47)	74	0.00
SACRAMENTO AT SHASTA DAM	55.20	17.28	112.58	61.67 (52)	90	0.00
AMERICAN AT BLUE CANYON	64.74	15.70	103.88	64.15 (34)	101	0.00
STANISLAUS AT NEW MELONES	23.64	0.00	45.33	26.43 (31)	89	0.00
SAN JOAQUIN AT HUNTINGTON LK	34.69	17.20	81.40	42.34 (34)	82	0.00

Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Trinity		1264	1151	1042	965	946	935	919	897	905	950	992	1010	934
	Elev.	2271	2260	2251	2249	2248	2246	2243	2244	2249	2254	2256	2248	
Whiskeytown		238	238	238	238	230	225	206	206	206	206	238	238	238
	Elev.	1209	1209	1209	1207	1205	1199	1199	1199	1199	1209	1209	1209	
Shasta		2797	2254	1908	1734	1560	1550	1639	1787	2014	2361	2476	2314	1981
	Elev.	972	952	941	930	929	935	944	958	977	983	975	956	
Folsom		855	622	503	502	467	389	367	369	401	481	493	572	487
	Elev.	431	417	417	412	401	398	398	403	414	416	425	415	
New Melones		1300	1212	1125	1067	1071	1079	1088	1096	1111	1123	1085	1020	929
	Elev.	970	959	952	952	953	954	955	957	959	954	945	932	
San Luis		0.8	1	5	92	217	346	474	579	603	700	621	459	218
	Elev.	368	360	378	397	421	449	470	470	477	463	421	355	
Total		5479	4820	4598	4491	4524	4692	4933	5240	5821	5905	5612	4788	

Monthly River Releases (TAF/cfs)

Trinity	TAF	28	28	27	23	18	18	18	17	18	36	92	47
	cfs	450	450	450	373	300	300	300	300	300	600	1,498	783
Clear Creek	TAF	7	5	9	12	12	12	12	11	12	12	12	9
	cfs	120	85	150	200	200	200	200	200	200	200	200	150
Sacramento	TAF	768	553	357	369	238	200	200	180	200	357	523	637
	cfs	12500	9000	6000	6000	4000	3250	3250	3250	3250	6000	8500	10700
American	TAF	307	194	72	76	122	77	61	72	90	195	92	153
	cfs	5000	3161	1207	1240	2047	1250	1000	1293	1464	3285	1500	2569
Stanislaus	TAF	24	22	14	11	11	11	11	9	16	45	45	33
	cfs	396	352	240	177	177	175	175	157	268	763	734	556

Trinity Diversions (TAF)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Carr PP	95	82	50	3	5	19	35	30	23	59	36	82
Spring Crk. PP	87	75	40	0	0	30	30	30	30	30	30	75

Delta Summary (TAF)

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Tracy	230	268	256	260	193	175	150	110	200	51	52	60
USBR Banks	8	8	4	0	0	0	0	0	0	0	0	0
Contra Costa	5.9	6.7	7.6	8.4	10.1	11	11	8.4	8.4	7.6	7.6	7.6
Total USBR	244	283	268	268	203	186	161	118	208	58	60	68
COA Balance	28	28	34	49	49	49	49	49	49	51	51	72

Old/Middle River Std.												
Old/Middle R. calc.	-7,108	-6,035	-6,401	-5,444	-4,858	-4,948	-3,946	-2,010	-2,889	-953	-765	-1,716

Computed DOI	5319	3497	3009	4002	4505	4604	7662	11400	11403	11397	9744	7094
Excess Outflow	325	0	0	0	0	98	3156	0	0	0	1301	0
% Export/Inflow	49%	55%	63%	63%	58%	63%	40%	18%	23%	9%	10%	15%
% Export/Inflow std.	65%	65%	65%	65%	65%	65%	65%	45%	35%	35%	35%	35%

Hydrology

Water Year Inflow (TAF)	Clair Engle	Shasta	Folsom	New Melones
Year to Date + Forecasted	806	4,429	1,970	834
% of mean	67%	80%	72%	79%

Temperature Operation Plan Scenarios – July 23, 2009

Historical Conditions (2001-2008)

Year	End of May		All Upper Shutters Lowered by	End of September		Watt Avenue Target (°F)
	Storage (TAF)	CWP Volume < 58°F (TAF)		Storage (TAF)	CWP Volume < 60°F (TAF)	
2001**	696	275	30 Mar	368	30	65-71
2002**	822	455	04 Mar	510	50	65-69
2003	962	640	02 Apr	658	135	65-67
2004	635	300	05 Mar	376	30	69
2005	959	705	15 Mar	652	140	65
2006	928	670	29 Mar	639	125	65
2007**	787	355	21 Mar	323	30	68
2008**	617	250	None Lowered	270	25	69-70
July 2009 90%-Exceedence Outlook						
2009	933	550	12 Mar	490	120	67

** Denotes fall power bypass years.

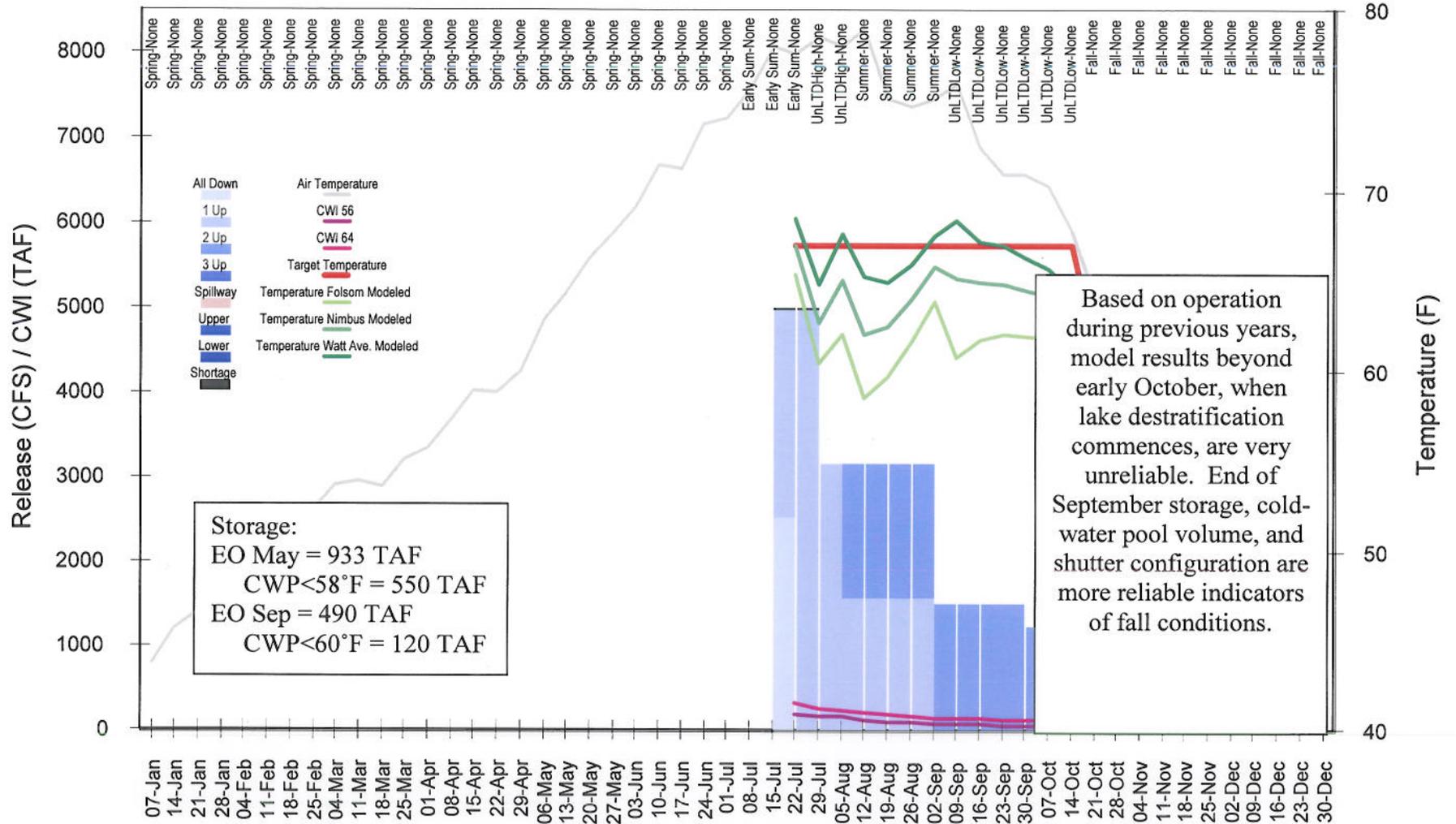
Temperature Operation Scenario

Scenario	Target	Scenario Results ¹
1	67°F @ Watt Ave	Current temperature operation plan; Target is met throughout the temperature operation season; Lowest sets of temperature shutters are likely reserved for fall-run.

¹ The temperature operation scenarios are based on the July 2009 90%-exceedence outlook, and 2001-2008 mean weekly inflow temperature.

July 90% Forecast - 67 Target

TCD on Folsom Water Supply Intake



Scenario 1

July 23, 2009

Summary for Folsom Lake and Lower American River - July 2009

Day	Mean Daily Water Temperature (° F)							EOP Stor (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus
1	71.9	N	57.8	A(39)	A(33)	A(28)	59.6	60.6	61.5	846.0	4,845	78
2	71.3	N	58.1	A(26)	A(33)	A(41)	59.7	60.7	61.6	838.1	4,896	77
3	67.8	N	58.6	A(39)	A(28)	A(33)	59.9	60.8	61.6	829.5	4,950	76
4	67.3	N	58.8	A(28)	A(32)	A(40)	60.3	61.2	62.0	821.1	4,994	73
5	67.7	N	59.0	A(41)	A(31)	A(28)	60.3	61.1	61.8	811.8	5,030	69
6	67.4	N	59.7	A(32)	A(27)	A(41)	60.3	61.1	61.8	803.0	4,964	73
7	64.8	N	* 58.0	A(35)	A(44)	U(21)	61.1	61.7	62.3	794.3	4,881	73
8	64.3	N	57.4	A(40)	A(32)	U(28)	60.4	61.5	62.4	785.3	5,154	75
9	66.0	N	57.6	A(30)	A(41)	U(29)	60.0	61.0	61.9	776.5	5,028	75
10	64.6	N	58.6	A(44)	A(34)	U(22)	60.3	61.0	61.7	768.3	5,139	75
11	63.7	N	59.8	A(35)	A(49)	U(16)	60.9	61.4	62.0	760.3	5,080	78
12	64.2	N	59.2	A(45)	A(35)	U(20)	61.2	62.2	62.8	752.3	5,056	78
13	64.2	N	59.8	A(34)	A(46)	U(20)	61.8	62.4	63.0	743.4	5,132	79
14	64.6	N	60.4	A(43)	A(38)	U(19)	62.2	63.0	63.9	735.7	5,336	83
15	66.3	N	61.0	A(38)	A(48)	U(14)	62.4	63.4	64.3	727.8	5,051	86
16	67.9	N	59.4	A(49)	A(16)	U(35)	62.7	63.9	64.7	719.2	5,066	83
17	68.1	N	61.8	A(39)	A(49)	U(12)	62.4	63.1	64.0	711.6	5,163	86
18	67.3	N	61.9	A(47)	A(39)	U(14)	63.7	64.5	65.3	704.1	5,007	88
19	68.2	N	62.1	A(38)	A(46)	U(16)	64.1	65.0	65.9	696.8	4,967	87
20	68.3	N	62.3	A(48)	A(38)	U(14)	64.2	65.0	65.8	689.2	5,033	80
21	67.6	N	62.4	A(47)	A(38)	U(15)	64.2	64.9	65.7	681.1	5,013	76
22	66.9	N	* 62.7	A(31)	A(55)	U(14)	64.4	65.3	66.1	674.4	4,049	77
23												
24												
25												
26												
27												
28												
29												
30												
31												
Avg	66.8		59.8				61.6	62.5	63.3		4,992	78
Tot af											217,851	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

Summary for Folsom Lake and Lower American River - June 2009

Day	Mean Daily Water Temperature (° F)									Storage (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB	Folsom	Nimbus	
1	66.0	N	53.6	A(24)	A(39)	A(37)	55.7	56.9	58.0	931.1	3,459	70
2	65.1	N	53.6	A(36)	A(34)	A(30)	55.8	56.5	57.5	928.7	3,496	70
3	64.3	N	53.5	A(42)	A(32)	A(26)	55.5	56.5	57.7	926.9	3,548	73
4	61.8	N	53.8	A(22)	A(38)	A(40)	55.5	56.7	57.9	926.4	3,498	65
5	59.6	N	54.0	A(42)	A(57)	A(1)	55.7	56.3	57.3	926.0	3,035	65
6	58.0	N	54.0	A(3)	A(49)	A(48)	55.7	57.2	58.3	925.4	2,535	67
7	58.1	N	54.1	A(51)	A(48)	A(1)	56.5	57.9	59.3	925.8	2,475	69
8	60.1	N	54.3	A(5)	A(44)	A(51)	57.0	58.5	59.9	926.3	2,471	69
9	61.8	N	54.2	A(54)	A(1)	A(45)	57.3	58.5	59.7	924.0	2,471	66
10	62.4	N	54.4	A(0)	A(49)	A(51)	57.0	59.0	60.1	923.1	2,046	68
11	63.1	N	54.4	A(71)	A(1)	A(28)	57.0	59.1	60.6	922.3	1,994	70
12	62.8	N	54.7	A(0)	A(48)	A(52)	57.3	59.0	60.3	921.2	1,934	68
13	63.3	N	54.4	A(0)	A(35)	A(65)	57.2	59.6	61.1	921.5	1,766	69
14	63.4	N	54.9	A(46)	A(1)	A(53)	58.1	60.1	61.5	920.7	1,766	69
15	64.2	N	55.2	A(0)	A(51)	A(49)	58.1	60.3	61.9	919.5	1,763	69
16	64.4	N	55.4	A(61)	A(38)	A(1)	58.1	60.5	62.2	918.9	1,764	71
17	64.7	N	55.2	A(0)	A(50)	A(50)	58.3	60.6	62.5	917.7	1,762	74
18	65.7	N	55.0	A(49)	A(1)	A(50)	59.5	62.2	63.9	917.8	1,695	81
19	65.7	N	55.0	A(0)	A(51)	A(49)	59.0	61.9	64.1	915.8	2,410	80
20	66.1	N	55.5	A(0)	A(39)	A(61)	58.4	59.7	61.2	911.5	2,946	70
21	66.4	N	56.2	A(42)	A(58)	A(0)	58.6	59.8	60.8	907.6	2,971	69
22	67.6	N	55.7	A(54)	A(0)	A(46)	58.5	59.9	61.1	903.3	2,967	74
23	68.7	N	55.9	A(16)	A(43)	A(41)	58.3	60.2	61.6	899.3	2,990	79
24	69.3	N	56.1	A(43)	A(57)	A(0)	58.2	60.0	61.4	894.4	3,422	80
25	69.6	N	56.6	A(39)	A(33)	A(28)	58.7	59.8	60.9	888.4	3,877	74
26	69.9	N	56.8	A(28)	A(40)	A(32)	59.0	59.9	60.9	880.9	3,876	77
27	71.0	N	56.7	A(27)	A(28)	A(45)	59.0	60.3	61.4	874.1	3,876	86
28	72.8	N	57.0	A(32)	A(45)	A(23)	59.1	60.5	61.7	867.9	3,807	89
29	73.3	N	57.3	A(33)	A(24)	A(43)	59.3	60.6	61.8	862.6	4,001	85
30	71.6	N	57.8	A(24)	A(43)	A(33)	59.6	60.7	61.6	855.3	3,996	79
Avg	65.4		55.2				57.7	59.3	60.6		2,821	73
Tot af											167,834	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

NOTES:

Jul 7 – The upper set of temperature shutters on penstock unit #3 was raised.

Jul 22 – Flows were temporarily reduced to remove hazardous debris from the LAR. Flows were back to 5,000 cfs by 4:00 PM.

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

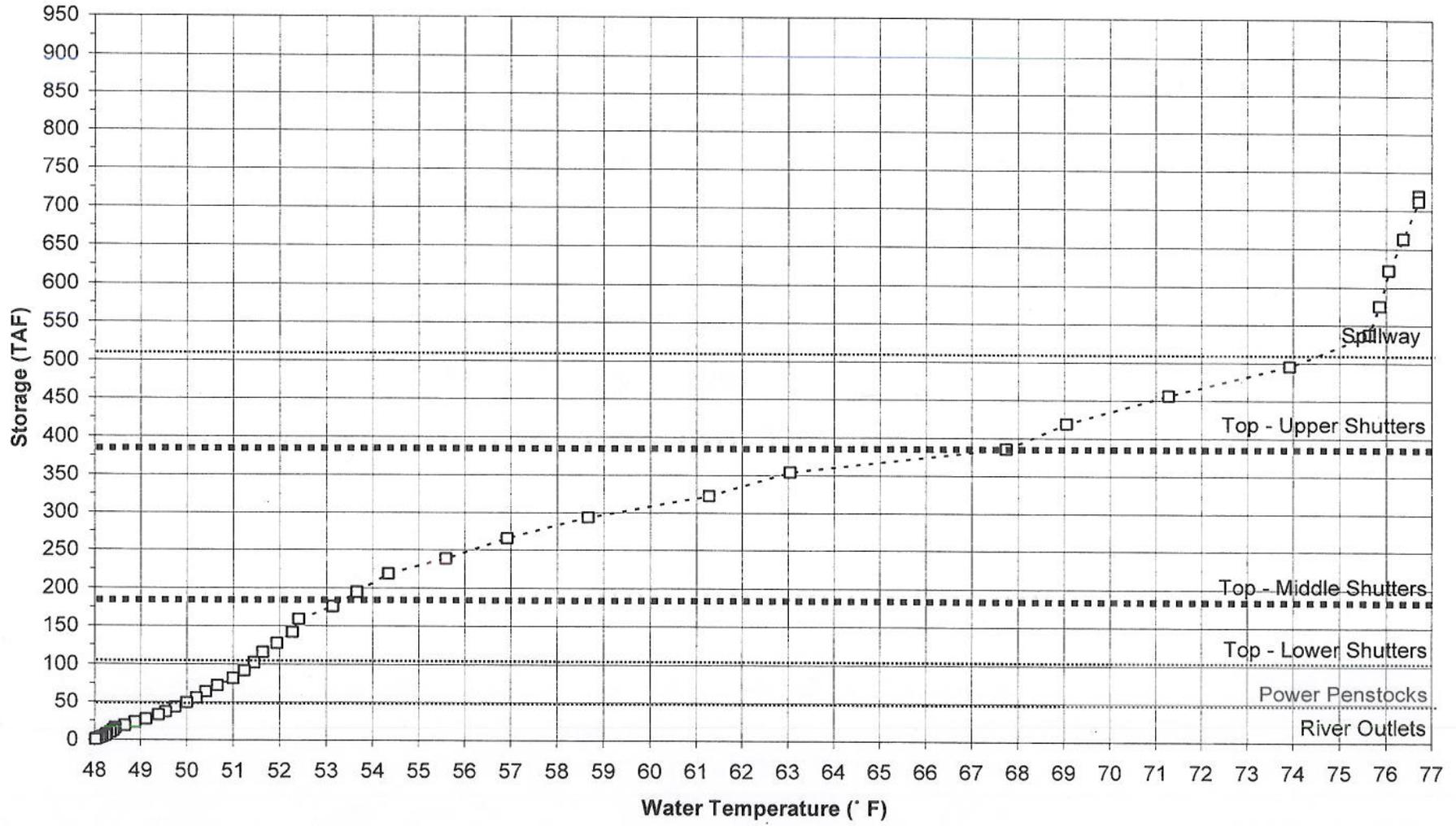
AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

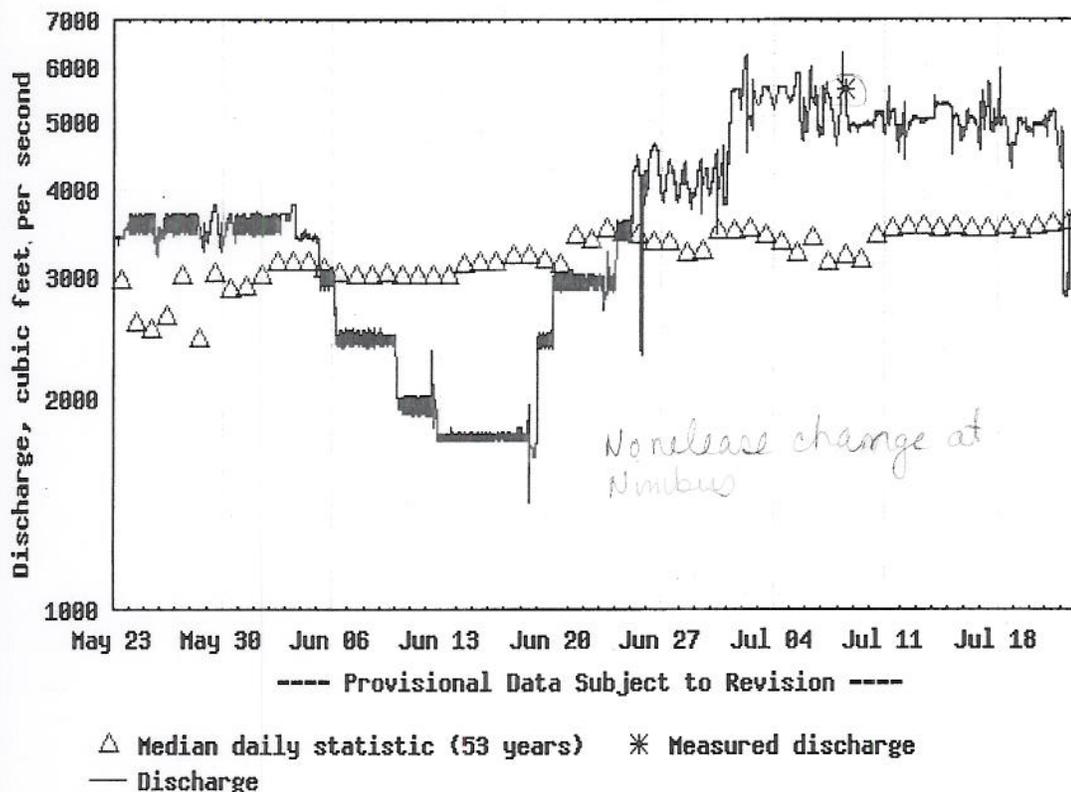
AWB - American River below Watt Avenue Bridge

Folsom Lake Temperature Profile July 16, 2009





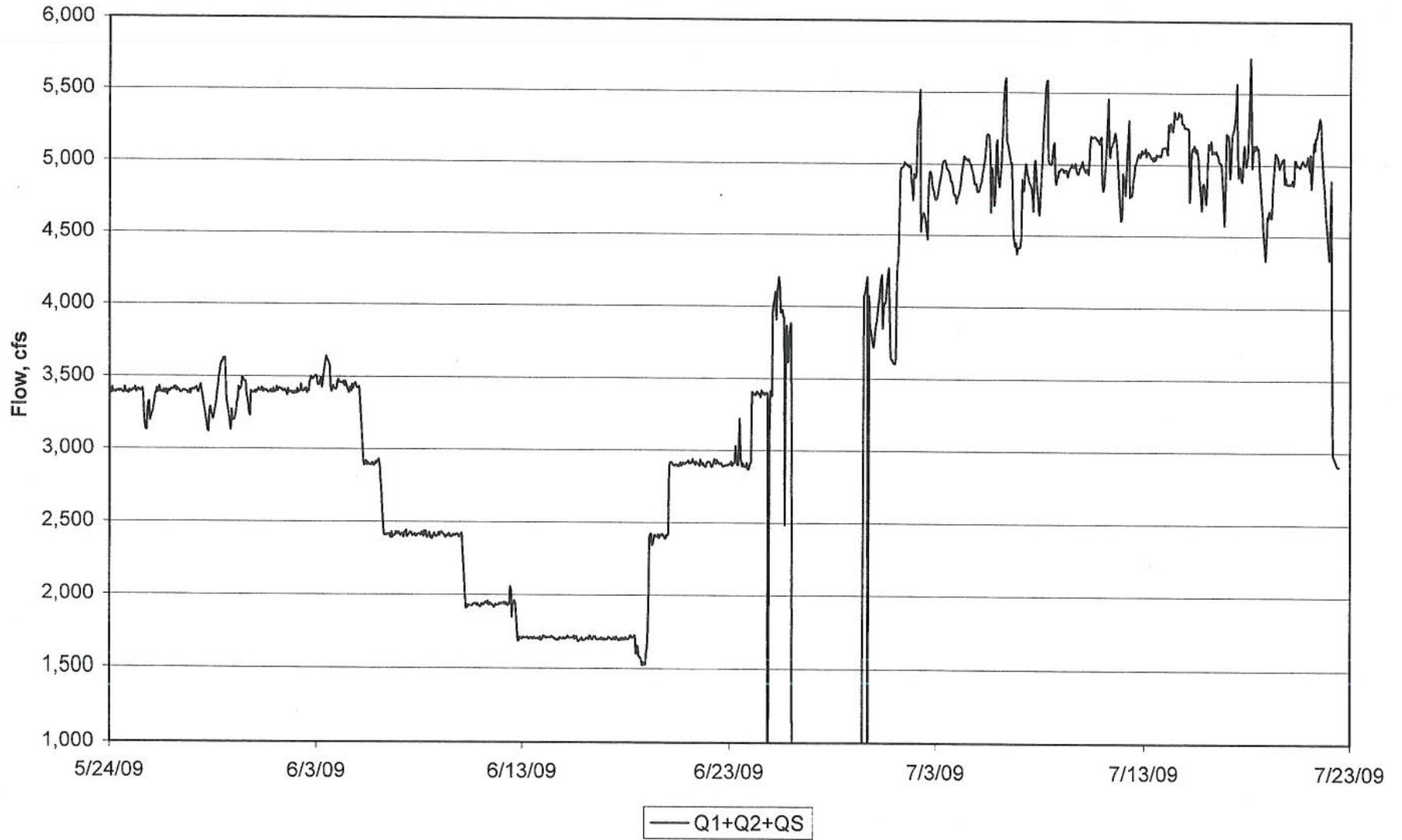
USGS 11446500 AMERICAN R A FAIR OAKS CA



*Issue at Lake Natoma (Penstocks)
(Gauging issue)*

*Operators looking into this issue
(Notified yesterday 22 July)*

American River - Nimbus Dam Release (HAR)



American River Operations Group

DRAFT Meeting Notes

Date 27 August 2009

Attendees

Rob Schroeder, Bonnie Van Pelt, Russ Yaworsky, Liz Vasquez, Melissa Harris and Carol Nicolos, BOR; Jeanine Phillips and Robert Vincik, DFG; Nick Hindman and Beth Campbell, FWS; Roland Pang, City of Sacramento; Rod Hall, Water Forum; Gary Estes, ARWI; Paul Olmstead, SMUD; Felix Smith, SARA and Michael Vecchio, HDR.

Handouts

- Daily CVP Water Supply Report (Run Date August 27, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Temperature Operation Plan Scenarios – August 27, 2009; based on August 90% exceedence outlook and 2001-2008 mean weekly inflow temperature.
- Summary for Folsom Lake and Lower American River (LAR) – August 2009
- EPA Proposed Plan for OU-5 Clean-up (Aerojet General Superfund Site)

Fishery Update

Jeanine Phillips surveyed the five pool sites designated as possible risk sites for incidence of salmonid isolation on Thursday, August 13th. On this date, only the Paradise Beach site was completely isolated at 3,500 cfs. Rod Hall then checked four of the pools at flows of 3,000 cfs, on Monday, August, 17th, and found that the pool at Lower Sunrise and the one at Watt Avenue were the only ones not isolated. According to Jeanine, water temperatures varied from low 70s to the 80^o F mark making it unlikely that fish, outside of warm water species would be located in any of the pools.

Robert Vincik stated that the Knights Landing Carcass survey would be starting at the end of September and should last through the third week of October. They are currently beginning the hiring process.

Operations

Russ Yaworsky reported releases are currently at 3,000 cfs at Nimbus with additional reductions possible by next week. Water storage in Folsom Reservoir as of August 26th, is 470,000 AF; 79% of the 15-year average. Accumulated inflow for Folsom as of August 27th, is at 1,846 AF which is 64% of the 15-year average. Precipitation for the year is averaging 89% for all locations.

September releases will work nicely for the anticipated Gravel Augmentation Project, which is set to take place September 10th through September 25th. Projected estimated releases for November (~1,500 cfs) will depend upon environmental conditions and project operations—after September, CVO uses a 70% inflow forecast.

Temperature

Russ indicated that there were two shutter changes this month for temperature blending operations (see Summary for Folsom Lake and LAR HO). Average mean temperature is

just below 65° by tapping into the cold water pool. Inflows have been between 1,500 and 1,600 cfs. Temperatures at the North Fork of the American River have dropped from 66° to 59.4°F (as of August 26th).

The latest Folsom Profile on August 21 was used for the temperature run. Temperature operation plan scenarios still look good for maintaining the target temperature of 67 °F at Watt Avenue. At this point, it doesn't look like all shutters will remain unused; at least one shutter may have to be lifted in September to maintain the 67° F temperature target.

There is a good volume of cold water for the beginning of the upcoming season (above historical averages). Therefore, there is still a chance that no power bypass will be needed for fall-run Chinook salmon spawning. If it looks like temperatures will creep above the 67°F temperature target some lower shutters may be raised.

General

Due to reasonably mild summer conditions in California this year, power operations are lower this year.

On September 8th, releases will be reduced to 500 cfs for removal of a kayak on the weir. If the removal cannot be completed within 1.5 hours levels will be ramped back up to 2,000 cfs until a plan of action for removal of the kayak can be accomplished. The weir replacement will occur after the removal of the kayak and may take upwards of two days; weir frames are being delivered from a nearby storage area, rather than picking them from a nice neat lineup under the cable.

Bonnie passed out EPA's Proposed Plan for OU-5 Cleanup (Aerojet General Superfund Site). Bonnie stated this was for one phase of the superfund cleanup and that while the handout has the comment period listed as September 1, 2009 that has been extended to November 1, 2009. It was asked that individuals forward the report around to those who may be interested in commenting on the Proposed Plan.

The American River at Folsom Dam temperature station (i.e., AFD gage) is being permanently moved just down stream of Folsom Prison property. Dave Robinson is organizing the relocation of the gage with the USGS contact. This site was chosen due to the ease of access. It was asked if both gages could be operating for a period of time for purposes of calibration. Russ said he will check into it, but wasn't sure it would be an option.

As per Rod's inquiry regarding a discrepancy between the Fair Oaks gage and what Reclamation reports at Nimbus Dam, Russ indicated that the problem stemmed from new equipment installation requiring new software. The new software has arrived and is being installed. Since the install, readings have returned to pre-fix conditions.

It was suggested that the next meeting be conducted near the Gravel Augmentation site as this project will be on-going at that time. Robert suggested we meet at DFG's Region 2 office.

Next Meeting

Date: Tuesday, 22 September 2009

Location: Department of Fish and Game
Region 2 office
1701 Nimbus Road
Rancho Cordova, CA 95670

(Note: DFG's Region 2 office is located on the American River Parkway off of Gold Country west of Hazel Avenue; turn down the 2nd driveway when traveling west past Hazel Avenue.)

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

AUGUST 26, 2009

RUN DATE: August 27, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2008	WY 2009	15YR MEDIAN
TRINITY	LEWISTON	481	1,430	450
SACRAMENTO	KESWICK	9,117	10,067	9,677
FEATHER	OROVILLE (SWP)	1,900	2,000	4,000
AMERICAN	NIMBUS	1,453	2,966	2,004
STANISLAUS	GOODWIN	253	231	285
SAN JOAQUIN	FRIANT	224	216	268

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15YR AVG	WY 2008	WY 2009	% OF 15 YR AVG
TRINITY	2,448	1,793	1,288	1,044	58
SHASTA	4,552	2,880	1,607	1,982	69
OROVILLE (SWP)	3,538	2,278	1,149	1,398	61
FOLSOM	977	595	308	470	79
NEW MELONES	2,420	1,660	1,139	1,166	70
FED. SAN LUIS	966	231	25	11	5
MILLERTON	520	283	223	350	124
TOT. N. CVP	11,360	7,159	4,367	4,673	65

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	799	206	2,846	1,485	54
SHASTA	4,340	2,372	10,459	6,206	70
FOLSOM	1,846	327	6,366	2,907	64
NEW MELONES	811	0	2,683	1,165	70
MILLERTON	1,306	322	4,470	1,837	71

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	24.07	14.16	56.20	32.07 (47)	75	0.00
SACRAMENTO AT SHASTA DAM	54.90	17.55	114.16	62.05 (52)	88	0.00
AMERICAN AT BLUE CANYON	64.80	16.96	103.88	64.48 (34)	100	0.00
STANISLAUS AT NEW MELONES	26.68	0.00	45.73	26.58 (31)	100	0.00
SAN JOAQUIN AT HUNTINGTON LK	34.69	17.50	83.00	42.66 (34)	81	0.00

Storages

Federal End of the Month Storage/Elevation (TAF/Feet)

		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Trinity	1150	1041	972	945	934	918	896	904	949	991	1009	933	823
	Elev.	2260	2252	2249	2248	2246	2243	2244	2249	2254	2256	2247	2234
Whiskeytown	238	238	230	230	225	206	206	206	206	238	238	238	238
	Elev.	1209	1207	1207	1205	1199	1199	1199	1199	1209	1209	1209	1209
Shasta	2326	1979	1805	1631	1621	1710	1858	2085	2432	2547	2384	2052	1557
	Elev.	956	946	934	934	940	949	962	981	987	978	960	929
Folsom	601	478	461	426	377	354	357	389	485	496	575	490	221
	Elev.	414	412	407	400	396	396	401	415	416	426	415	372
New Melones	1224	1135	1077	1081	1089	1098	1106	1121	1132	1095	1030	939	840
	Elev.	960	953	953	954	956	957	959	960	955	946	934	919
San Luis	-2	5	63	142	242	370	475	499	580	501	339	98	91
	Elev.	374	386	399	419	447	468	469	473	460	417	349	336
Total		4876	4609	4455	4488	4655	4897	5203	5784	5868	5575	4750	3769

Monthly River Releases (TAF/cfs)

Trinity	TAF	28	27	23	18	18	18	17	18	36	92	47	28
	cfs	450	450	373	300	300	300	300	300	600	1,498	783	450
Clear Creek	TAF	5	9	12	12	12	12	11	12	12	12	9	7
	cfs	85	150	200	200	200	200	200	200	200	200	150	120
Sacramento	TAF	553	357	369	238	200	200	180	200	357	523	637	768
	cfs	9000	6000	6000	4000	3250	3250	3250	3250	6000	8500	10700	12500
American	TAF	198	88	76	94	77	61	72	74	195	92	153	307
	cfs	3226	1476	1240	1576	1250	1000	1293	1204	3285	1500	2569	5000
Stanislaus	TAF	22	14	11	11	11	11	9	16	45	45	33	24
	cfs	352	240	177	177	175	175	157	268	763	734	556	396

Trinity Diversions (TAF)

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Carr PP	81	42	11	5	19	35	30	23	59	36	82	95
Spring Crk. PP	75	40	0	0	30	30	30	30	30	30	75	87

Delta Summary (TAF)

	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Tracy	268	256	260	165	175	150	110	184	51	52	60	230
USBR Banks	12	20	0	0	0	0	0	0	0	0	0	0
Contra Costa	6.7	7.6	8.4	10.1	11	11	8.4	8.4	7.6	7.6	7.6	5.9
Total USBR	287	284	268	175	186	161	118	192	58	60	68	236
COA Balance	0	6	21	21	21	21	21	21	23	23	44	44

Old/Middle River Std.												
Old/Middle R. calc.	-6,085	-6,608	-5,444	-4,495	-4,948	-3,946	-2,010	-2,688	-953	-765	-1,716	-7,008

Computed DOI	3497	3009	4002	4505	4604	7662	11400	11403	11397	9744	7094	5450
Excess Outflow	0	0	0	0	98	3156	0	0	0	1301	0	455
% Export/Inflow	55%	63%	63%	56%	63%	40%	18%	22%	9%	10%	15%	48%
% Export/Inflow std.	65%	65%	65%	65%	65%	65%	45%	35%	35%	35%	35%	65%

Hydrology

	Clair Engle	Shasta	Folsom	New Melones
Water Year Inflow (TAF)	804	4,486	1,949	842
Year to Date + Forecasted % of mean	67%	81%	72%	80%

August 27, 2009

Summary for Folsom Lake and Lower American River - August 2009

Day	Mean Daily Water Temperature (° F)							EOP Stor (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus
1	66.3	N	58.2	U(42)	U(35)	U(23)	60.1	61.0	61.9	593.5	4,983	74
2	67.1	N	58.7	U(22)	U(32)	U(46)	60.4	61.3	62.1	586.4	4,569	73
3	66.8	N	59.1	U(27)	U(32)	U(41)	60.7	61.5	62.3	580.0	4,264	73
4	65.2	N	59.3	U(32)	U(23)	U(45)	61.0	61.9	62.7	572.9	4,246	75
5	65.0	N	59.6	U(34)	U(22)	U(44)	61.4	62.3	63.1	567.7	4,011	74
6	62.7	N	60.1	U(36)	U(41)	U(23)	61.6	62.3	62.9	562.0	3,992	72
7	60.1	N	60.7	U(23)	U(35)	U(42)	61.8	62.6	63.3	555.7	3,996	72
8	60.6	N	60.9	U(41)	U(33)	U(26)	62.7	63.4	64.1	550.2	3,996	78
9	61.9	N	61.3	U(24)	U(32)	U(44)	62.9	63.8	64.6	544.4	4,095	81
10	61.8	N	61.6	U(42)	U(23)	U(35)	63.3	64.2	65.0	538.4	3,990	83
11	61.5	N	61.9	U(22)	U(43)	U(35)	63.5	64.3	65.1	533.4	3,698	79
12	61.0	N	62.2	U(24)	U(37)	U(39)	64.1	64.8	65.6	528.2	3,697	83
13	61.7	N	* 61.2	M(20)	U(33)	U(47)	64.1	65.2	66.2	523.5	3,475	81
14	61.6	N	61.9	M(19)	U(49)	U(32)	63.7	64.7	65.7	518.8	3,227	77
15	60.4	N	62.3	M(18)	U(31)	U(51)	63.8	64.5	65.2	513.8	3,211	78
16	60.6	N	62.9	M(20)	U(45)	U(35)	63.8	64.8	65.7	509.4	2,983	78
17	61.2	N	62.9	M(20)	U(35)	U(45)	64.0	65.0	65.9	504.7	2,994	80
18	61.1	N	62.7	M(21)	U(44)	U(35)	64.0	65.1	66.0	501.1	2,999	80
19	61.3	N	62.8	M(19)	U(31)	U(50)	64.2	65.4	66.4	497.4	3,025	77
20	61.7	N	63.2	M(23)	U(39)	U(38)	64.6	65.4	66.1	493.1	2,946	73
21	60.7	N	62.8	M(33)	U(43)	U(24)	65.0	65.9	66.7	489.9	2,962	80
22	60.8	N	62.0	M(43)	U(29)	U(28)	64.5	65.8	66.8	486.1	2,966	81
23	60.8	N	63.5	M(29)	U(41)	U(30)	64.0	64.6	65.3	482.1	2,962	71
24	60.0	N	62.9	M(43)	U(27)	U(30)	64.8	65.5	66.0	477.6	2,963	72
25	59.8	N	* 62.6	M(51)	M(1)	U(48)	64.1	64.8	65.6	473.6	2,966	73
26	59.4	N	62.3	M(28)	M(25)	U(47)	64.2	65.1	65.9	470.0	2,966	78
27												
28												
29												
30												
31												
Avg	62.0		61.5				63.2	64.0	64.9		3,545	77
Tot af											182,839	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

Summary for Folsom Lake and Lower American River - July 2009

Day	Mean Daily Water Temperature (° F)							EOP Stor (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)			
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus	
1	71.9	68.5	57.8	A(39)	A(33)	A(28)	59.6	60.6	61.5	846.0	4,845	78	
2	71.3	66.9	58.1	A(26)	A(33)	A(41)	59.7	60.7	61.6	838.1	4,896	77	
3	67.8	68.6	58.6	A(39)	A(28)	A(33)	59.9	60.8	61.6	829.5	4,950	76	
4	67.3	68.4	58.8	A(28)	A(32)	A(40)	60.3	61.2	62.0	821.1	4,994	73	
5	67.7	67.6	59.0	A(41)	A(31)	A(28)	60.3	61.1	61.8	811.8	5,030	69	
6	67.4	67.5	59.7	A(32)	A(27)	A(41)	60.3	61.1	61.8	803.0	4,964	73	
7	64.8	67.7	* 58.0	A(35)	A(44)	U(21)	61.1	61.7	62.3	794.3	4,881	73	
8	64.3	68.3	57.4	A(40)	A(32)	U(28)	60.4	61.5	62.4	785.3	5,154	75	
9	66.0	70.1	57.6	A(30)	A(41)	U(29)	60.0	61.0	61.9	776.5	5,028	75	
10	64.6	68.6	58.6	A(44)	A(34)	U(22)	60.3	61.0	61.7	768.3	5,139	75	
11	63.7	67.8	59.8	A(35)	A(49)	U(16)	60.9	61.4	62.0	760.3	5,080	78	
12	64.2	68.1	59.2	A(45)	A(35)	U(20)	61.2	62.2	62.8	752.3	5,056	78	
13	64.2	67.5	59.8	A(34)	A(46)	U(20)	61.8	62.4	63.0	743.4	5,132	79	
14	64.6	68.6	60.4	A(43)	A(38)	U(19)	62.2	63.0	63.9	735.7	5,336	83	
15	66.3	66.9	61.0	A(38)	A(48)	U(14)	62.4	63.4	64.3	727.8	5,051	86	
16	67.9	68.4	59.4	A(49)	A(16)	U(35)	62.7	63.9	64.7	719.2	5,066	83	
17	68.1	68.7	61.8	A(39)	A(49)	U(12)	62.4	63.1	64.0	711.6	5,163	86	
18	67.3	66.9	61.9	A(47)	A(39)	U(14)	63.7	64.5	65.3	704.1	5,007	88	
19	68.2	65.6	62.1	A(38)	A(46)	U(16)	64.1	65.0	65.9	696.8	4,967	87	
20	68.3	65.6	62.3	A(48)	A(38)	U(14)	64.2	65.0	65.8	689.2	5,033	80	
21	67.6	66.3	62.4	A(47)	A(38)	U(15)	64.2	64.9	65.7	681.1	5,013	76	
22	66.9	68.3	* 62.7	A(31)	A(55)	U(14)	64.4	65.3	66.1	674.4	4,049	77	
23	66.6	70.1	62.7	A(47)	A(38)	U(15)	64.8	65.3	65.8	666.0	5,133	75	
24	65.1	N	61.0	A(24)	A(48)	U(28)	64.6	65.4	66.1	657.8	5,046	70	
25	65.5	N	60.5	A(39)	A(23)	U(38)	63.6	64.5	65.3	649.4	5,014	77	
26	66.4	N	60.7	A(21)	A(41)	U(38)	63.5	64.3	65.2	641.2	5,205	80	
27	66.9	N	61.0	A(41)	A(19)	U(40)	63.6	64.6	65.5	633.8	4,654	83	
28	66.4	N	* 59.3	A(40)	U(19)	U(41)	63.9	64.7	65.5	626.1	4,856	77	
29	66.3	N	* 56.9	U(20)	U(44)	U(36)	62.2	63.7	64.8	617.9	4,824	73	
30	66.9	N	57.4	U(41)	U(24)	U(35)	59.8	61.1	62.3	609.2	5,056	73	
31	67.5	N	57.9	U(40)	U(38)	U(22)	59.7	60.7	61.7	601.0	4,992	75	
Avg	66.7	67.9	59.8				62.0	62.9	63.7			4,988	78
Tot af												306,670	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

NOTES:

Jul 7 – The upper set of temperature shutters on penstock unit #3 was raised.

Jul 22 – Flows were temporarily reduced to remove hazardous debris from the lower American River. Flows were back to 5,000 cfs by 4:00 PM.

Jul 28 – The upper set of temperature shutters on penstock unit #2 was raised.

Jul 29 – The upper set of temperature shutters on penstock unit #1 was raised.

Aug 13 – The middle set of temperature shutters on penstock unit #1 was raised.

Aug 25 – The middle set of temperature shutters on penstock unit #2 was raised.

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

AWB - American River below Watt Avenue Bridge

Temperature Operation Plan Scenarios – August 27, 2009

Historical Conditions (2001-2008)

Year	End of May		All Upper Shutters Lowered by	End of September		Watt Avenue Target (°F)
	Storage (TAF)	CWP Volume < 58°F (TAF)		Storage (TAF)	CWP Volume < 60°F (TAF)	
2001**	696	275	30 Mar	368	30	65-71
2002**	822	455	04 Mar	510	50	65-69
2003	962	640	02 Apr	658	135	65-67
2004	635	300	05 Mar	376	30	69
2005	959	705	15 Mar	652	140	65
2006	928	670	29 Mar	639	125	65
2007**	787	355	21 Mar	323	30	68
2008**	617	250	None Lowered	270	25	69-70
August 2009 90%-Exceedence Outlook						
2009	933	550	12 Mar	385	90	67

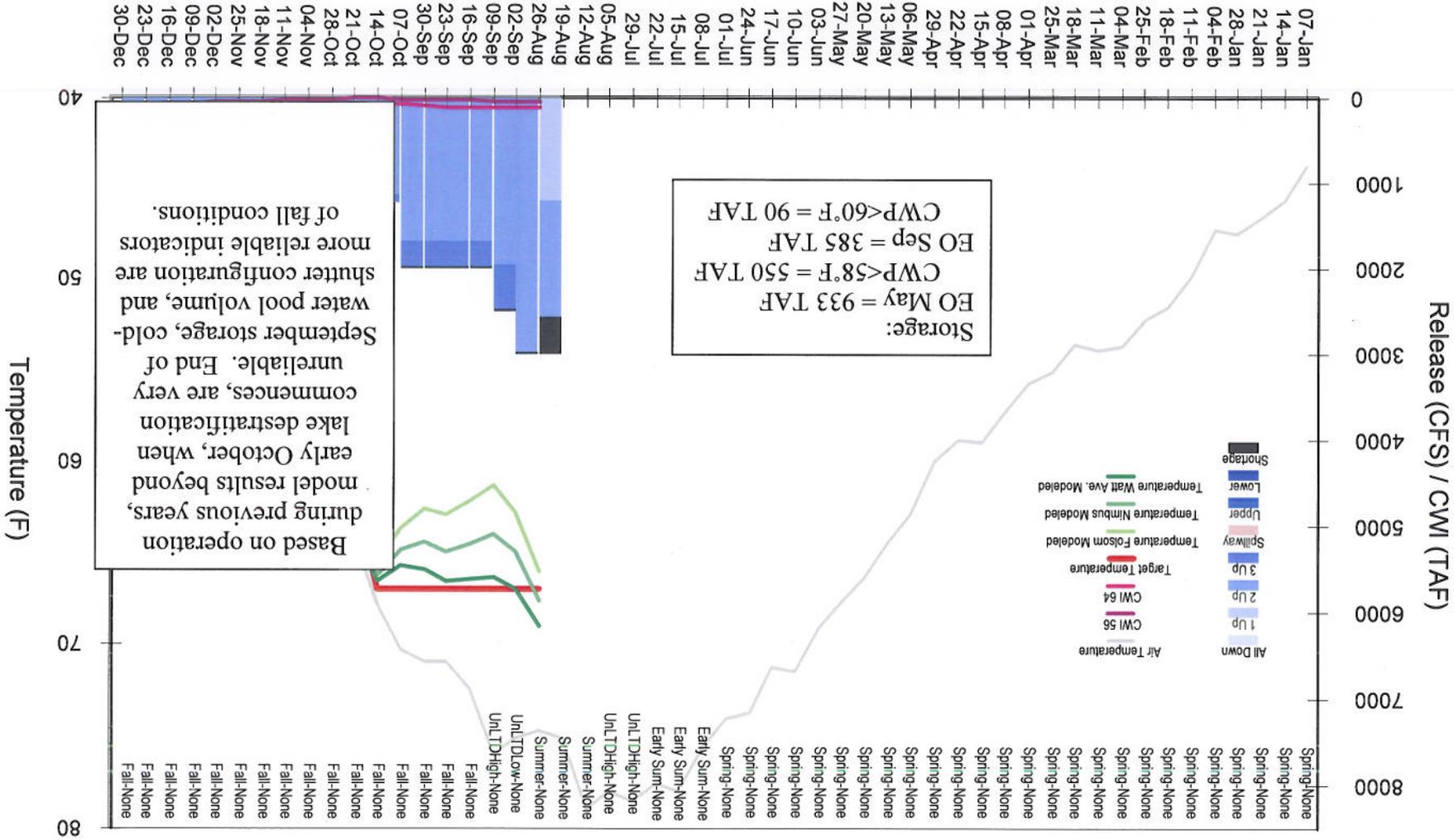
** Denotes fall power bypass years.

Temperature Operation Scenario

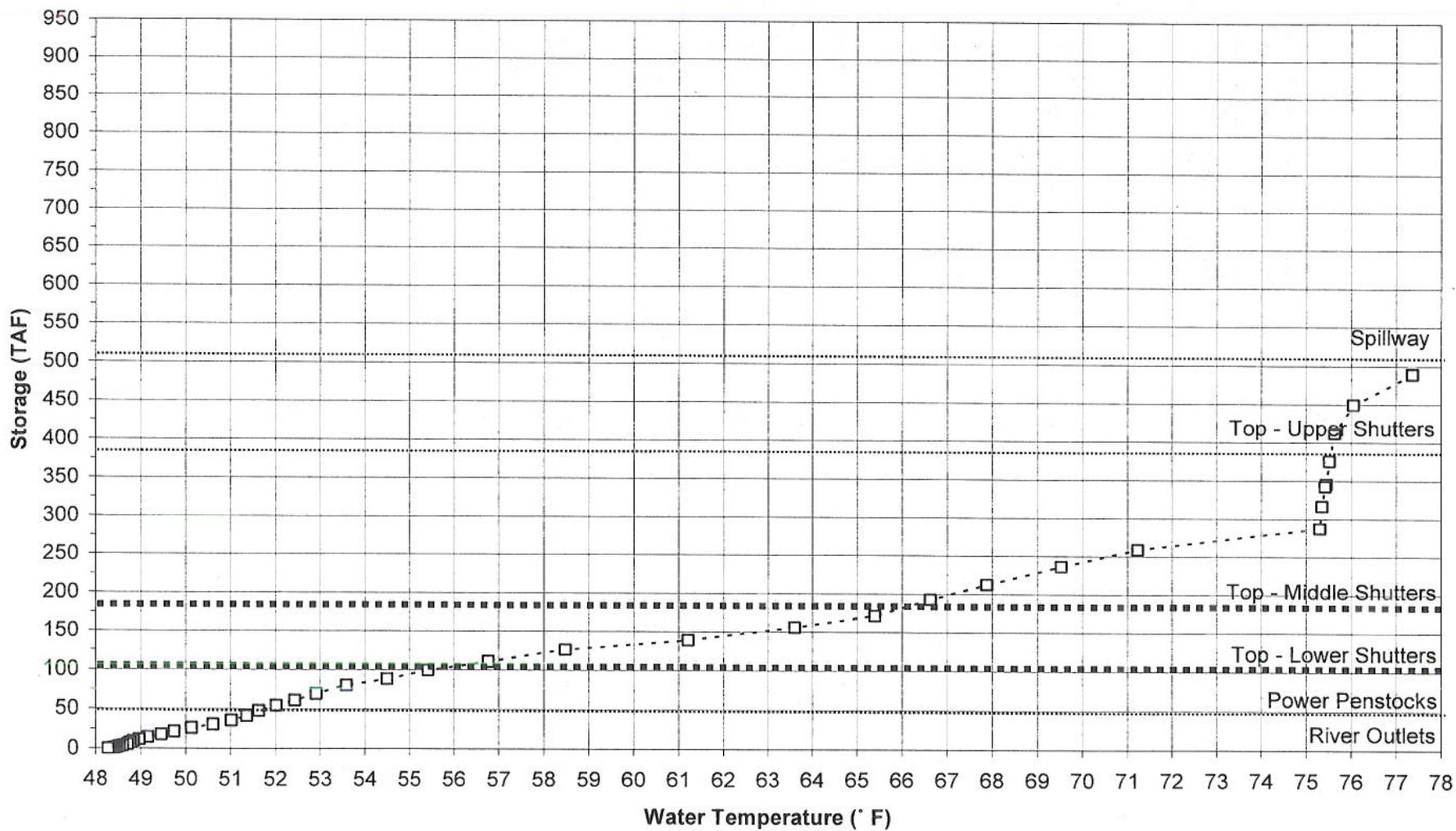
Scenario	Target	Scenario Results ¹
1	67°F @ Watt Ave	Current temperature operation plan; Target is met throughout the temperature operation season.

¹ The temperature operation scenarios are based on the August 2009 90%-exceedence outlook, and 2001-2008 mean weekly inflow temperature.

August 90% Forecast - 67 Target
TCD on Folsom Water Supply Intake



Folsom Lake Temperature Profile August 21, 2009



Meeting Attendance Record

Date: 8-27-2009

Time: 1300

Place: CVD Room 302

Subject of Meeting: AMERICAN RIVER GROUP

Name	Organization	Phone Number
• Carol Nicolas	BOR	9897276 cnicolas@usbr.gov
• Bonnie Van Pelt	BOR	989-7127 buanpelt@usbr.gov
• Jeanine Phillips	DFG	358 2030 jphillips@dfg.ca.gov
• Robert Vincik	DFG	358-2933 rvincik@dfg.ca.gov
• Rod Hall	Water Forum	716-631-2643 rodmhall@comcast.net
• Paul Olmstead	SMUD	7325716 polmste@smud.orc
Felix E Smith	SARA	
Michael Vecchio	HDR	569-1026 mvecchio@hdrinc.com
• Nick Hindman	FWS	414-6543 nick-hindman@FWS.gov
• Russ Yaworsky	Reclamation	979-0268 ryaworsky@usbr.gov

Meeting Attendance Record

Date: Aug 27, 2009 Time: 1300 Place: CVO Room 302

Subject of Meeting: American River Group

Name	Organization	Phone Number
• Beth Campbell	FWS	209 334-2968 ext 402
• LIZ Vasquez	USBR	916 289-7192
• Melissa Harris	USBR	916 989-7162
• Rob Schroeder	USBR	" " 7279
• GARY ESTES	ARWI	530-889-9025
• ROLAND PANG	CITY OF SACRAMENTO	916-808-1309

American River Operations Group

DRAFT Meeting Notes

Date 22 September 2009

Attendees

Bonnie Van Pelt, Russ Yaworsky, John Hannon and Carol Nicolos, Reclamation; Jeanine Phillips and Robert Vincik, DFG; Nick Hindman, FWS; Felix E. Smith, SARA; Rod Hall, Water Forum; Gary Estes, ARWI; and Dave Ford, NCCFFF.

Handouts

- Daily CVP Water Supply Report (Run Date September 22, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Temperature Summary for Folsom Lake and Lower American River – September 2009 (through the 21st) and August 2009
- Folsom Lake Temperature Profile (September 21, 2009)
- Temperature Operation Plan Scenarios – based on August 2009 90% exceedence forecast

Fishery Update

Chinook salmon have been spotted in the Lower American River, according to John Hannon.

Robert Vincik reported that the interviews for the carcass survey crews will begin tomorrow. The actual carcass survey will begin about the 3rd week of October. There were many more applicants this year so crew quality will be good.

Operations

Russ Yaworsky reported releases are currently at 1,750 cfs. Releases are expected to remain at or around this level for the remainder of September into October. As of the 21st of September water storage at Folsom was 421,000 AF (76% of the 15-year average) — storage was 450,000 AF at the beginning of the month. Russ explained that we are operating to the Flow Management Standard (FMS) currently; however, releases would probably be the same due to requirements in the Delta. The recent decrease in releases has also enabled us to conserve storage. Accumulated inflow in Folsom is between 1,500 and 1,750 TAF and water temperatures are fairly cool for this time of year.

Temperature

Penstock Unit 1 is currently off-line for scheduled maintenance. This unit is expected to remain off-line until about the middle of October.

The middle and lower sets of temperature shutters on Unit 3 were raised on September 10th. Currently, all shutters on Unit 3 are now raised for temperature blending operations. Russ indicated that CVO is trying not to use Unit 3 too much in an effort to maintain cold water levels, but they are maintaining maximum efficiency on this unit; i.e., 25% of total releases used at Folsom. Cold water pool storage is currently between 60,000-65,000 AF; and is due in part to the temperature blending operations that are

helping to maintain water temperatures below the 67°F target (see the Temperature Operation Plan Scenarios HO for the end-of-September forecast). By the end of September, expected storage for Folsom is 410,000 AF with a cold water pool volume of 55 TAF (below 60 °F).

The issue now is whether to proceed ahead in planning for a power bypass given the level of uncertainty regarding cold water pool (CWP) storage to support Chinook salmon spawning. The CWP storage numbers this year are similar to the 2002 operations year when we also were border line in terms of CWP storage and the temperature target at Watt Avenue was roughly the same (see the Temperature Operation Plan Scenarios HO). The group recommended that we plan for a bypass this year, as well. Robert Vincik stated that he would initiate the letter from DFG requesting a power bypass. Russ indicated the bypass would more than likely occur sometime in late October to mid-November.

General

Russ reported that we lost the AFD gage on September 1 (see Temperature Summary HO). A data logger was installed just downstream of the Folsom Prison on the same day, so there was little lapse in data (this data logger is tracking reasonably well).

The Sailor Bar Gravel Augmentation Project is in process now and will be completed on September 25th. After the scheduled meeting most participants walked over to the river and observed the gravel operations.

Releases were reduced to approximately 850 cfs for removal of a kayak on the weir on September 9th.

Next Meeting

Date: Tuesday, 20 October 2009

Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: 302

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

AGENDA
American River Group

Date: September 22, 2009

Time: 1:00 PM

*Please note the change of location

Location: Department of Fish and Game
Region 2 office
1701 Nimbus Road
Rancho Cordova, CA 95670

(Note: DFG's Region 2 office is located on the American River Parkway off of Gold Country west of Hazel Avenue; turn down the 2nd driveway when traveling west past Hazel Avenue.)

Update on Fish Monitoring - DFG

Operations Forecast - USBR

Temperature Management Plan - USBR

Status Reports - Group

Schedule Next Meeting

American River Spawning Gravel project overview - meeting at Sailor Bar with John Hannon (USBR) (2:15 PM)

Adjourn

Meeting Attendance Record

Date: 22 Sep 2009 Time: 1300 Place: DFG

Subject of Meeting: ARG

Name	Organization	Phone Number
Carol Nicolas	BOR	916 9897276 cnicolos@usbr.gov
Rod Hall	Water Forum	916-631-2643 rodinhell@comcast.net
Russ Yaworsky	Reclamation	916-979-0268 rpyaworsky@usbr.gov
Bonnie Van Delt	BOR	916-989-7127 bvandelt@usbr.gov
Felix E. Smith	SARA	916-966-2081 felixsmith@stcglobal.com
Robert Vincik	DFG	916 358-2933 Rvincik@dfg.ca.gov
JEANINE PHILLIPS	DFG	916 358 2030
Nick Hindman	FWS	(916) 414-6543 Nick.Hindman@FWS.gov
Joha Henson	USBR	916-978-5524 jhenson@usbr.gov
GARY ESTES	ARWI	530-889-9025 gary32@DG4135.US

UNITED STATES DEPARTMENT OF THE INTERIOR
 U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

SEPTEMBER 21, 2009

RUN DATE: September 22, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2008	WY 2009	15 YR MEDIAN
TRINITY	LEWISTON	459	461	450
SACRAMENTO	KESWICK	7,033	6,270	8,004
FEATHER	OROVILLE (SWP)	1,900	1,325	3,000
AMERICAN	NIMBUS	1,254	1,739	1,739
STANISLAUS	GOODWIN	112	702	253
SAN JOAQUIN	FRIANT	206	195	225

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15 YR AVG	WY 2008	WY 2009	% OF 15 YR AVG
TRINITY	2,448	1,669	1,174	949	57
SHASTA	4,552	2,689	1,422	1,802	67
OROVILLE (SWP)	3,538	2,135	1,102	1,346	63
FOLSOM	977	555	277	421	76
NEW MELONES	2,420	1,615	1,105	1,125	70
FED. SAN LUIS	966	267	37	163	61
MILLERTON	520	254	204	352	139
TOT. N. CVP	11,360	6,795	4,015	4,460	66

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	801	217	2,878	1,492	54
SHASTA	4,484	2,543	10,707	6,395	70
FOLSOM	1,936	351	6,495	2,997	65
NEW MELONES	853	0	2,733	1,210	71
MILLERTON	1,400	364	4,640	1,930	73

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2009	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	24.56	15.43	56.67	32.51 (47)	76	0.00
SACRAMENTO AT SHASTA DAM	54.92	24.23	114.50	62.96 (52)	87	0.00
AMERICAN AT BLUE CANYON	64.96	17.57	104.10	65.10 (34)	100	0.00
STANISLAUS AT NEW MELONES	27.08	0.00	46.38	26.81 (31)	101	0.00
SAN JOAQUIN AT HUNTINGTON LK	34.69	17.60	83.20	43.24 (34)	80	0.00

Summary for Folsom Lake and Lower American River - August 2009

Day	Mean Daily Water Temperature (° F)							Storage (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus
1	66.3	66.1	58.2	U(42)	U(35)	U(23)	60.1	61.0	61.9	593.5	4,983	74
2	67.1	65.0	58.7	U(22)	U(32)	U(46)	60.4	61.3	62.1	586.4	4,569	73
3	66.8	65.3	59.1	U(27)	U(32)	U(41)	60.7	61.5	62.3	580.0	4,264	73
4	65.2	66.1	59.3	U(32)	U(23)	U(45)	61.0	61.9	62.7	572.9	4,246	75
5	65.0	63.2	59.6	U(34)	U(22)	U(44)	61.4	62.3	63.1	567.7	4,011	74
6	62.7	62.4	60.1	U(36)	U(41)	U(23)	61.6	62.3	62.9	562.0	3,992	72
7	60.1	63.7	60.7	U(23)	U(35)	U(42)	61.8	62.6	63.3	555.7	3,996	72
8	60.6	63.6	60.9	U(41)	U(33)	U(26)	62.7	63.4	64.1	550.2	3,996	78
9	61.9	64.1	61.3	U(24)	U(32)	U(44)	62.9	63.8	64.6	544.4	4,095	81
10	61.8	65.3	61.6	U(42)	U(23)	U(35)	63.3	64.2	65.0	538.4	3,990	83
11	61.5	62.4	61.9	U(22)	U(43)	U(35)	63.5	64.3	65.1	533.4	3,698	79
12	61.0	65.0	62.2	U(24)	U(37)	U(39)	64.1	64.8	65.6	528.2	3,697	83
13	61.7	61.9	* 61.2	M(20)	U(33)	U(47)	64.1	65.2	66.2	523.5	3,475	81
14	61.6	62.9	61.9	M(19)	U(49)	U(32)	63.7	64.7	65.7	518.8	3,227	77
15	60.4	63.0	62.3	M(18)	U(31)	U(51)	63.8	64.5	65.2	513.8	3,211	78
16	60.6	62.8	62.9	M(20)	U(45)	U(35)	63.8	64.8	65.7	509.4	2,983	78
17	61.2	63.0	62.9	M(20)	U(35)	U(45)	64.0	65.0	65.9	504.7	2,994	80
18	61.1	63.0	62.7	M(21)	U(44)	U(35)	64.0	65.1	66.0	501.1	2,999	80
19	61.3	61.6	62.8	M(19)	U(31)	U(50)	64.2	65.4	66.4	497.4	3,025	77
20	61.7	64.1	63.2	M(23)	U(39)	U(38)	64.6	65.4	66.1	493.1	2,946	73
21	60.7	61.6	62.8	M(33)	U(43)	U(24)	65.0	65.9	66.7	489.9	2,962	80
22	60.8	62.1	62.0	M(43)	U(29)	U(28)	64.5	65.8	66.8	486.1	2,966	81
23	60.8	63.0	63.5	M(29)	U(41)	U(30)	64.0	64.6	65.3	482.1	2,962	71
24	60.0	62.6	62.9	M(43)	U(27)	U(30)	64.8	65.5	66.0	477.6	2,963	72
25	59.8	N	* 62.6	M(51)	M(1)	U(48)	64.1	64.8	65.6	473.6	2,966	73
26	59.4	N	62.3	M(28)	M(25)	U(47)	64.2	65.1	65.9	470.0	2,966	78
27	58.9	N	61.9	M(43)	M(21)	U(36)	64.2	65.1	65.9	466.2	2,971	80
28	59.3	N	61.6	M(51)	M(20)	U(29)	63.8	64.6	65.5	462.2	2,979	80
29	59.2	N	62.3	M(27)	M(37)	U(36)	63.6	64.8	65.8	459.6	2,969	86
30	59.9	N	61.5	M(35)	M(42)	U(23)	63.9	64.8	65.7	455.7	2,966	79
31	59.8	N	62.2	M(35)	M(38)	U(27)	63.5	64.4	65.1	451.6	2,963	74
Avg	61.6	63.5	61.6				63.3	64.2	65.0		3,453	77
Tot af											212,290	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

NOTES:

Aug 13 – The middle set of temperature shutters on penstock unit #1 was raised.

Aug 25 – The middle set of temperature shutters on penstock unit #2 was raised.

Sep 1 – At 7:00 a.m., the Folsom Dam temperature gage (AFD) was removed due to ongoing Folsom Dam spillway construction. The USGS has posted a notice on their website regarding the gage removal. The USGS hopes to have the new station up and running as soon as possible. **Mean Daily temperature reported after September 1st was estimated from temperature data collected by a temporary data logger installed at the new gage site.**

Sep 8 & 9 – Lower American River flows were temporarily reduced to remove debris and install the hatchery weir.

Sep 10 – The middle and lower sets of temperature shutters on penstock unit #3 were raised.

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

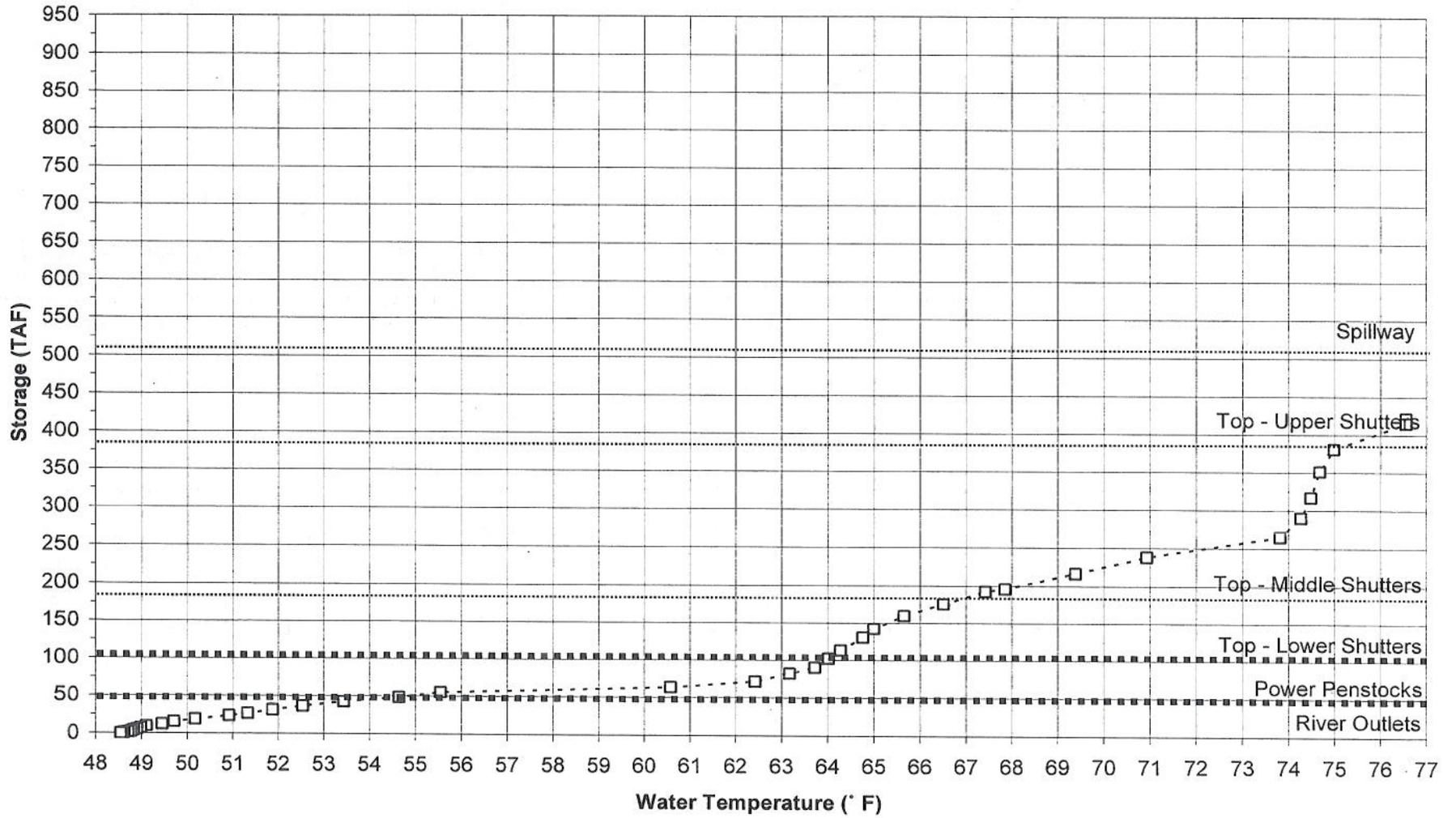
AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

AWB - American River below Watt Avenue Bridge

Folsom Lake Temperature Profile September 21, 2009



Temperature Operation Plan Scenarios – September 21, 2009

Historical Conditions (2001-2008)

Year	End of May		All Upper Shutters Lowered by	End of September		Watt Avenue Target (°F)
	Storage (TAF)	CWP Volume < 58°F (TAF)		Storage (TAF)	CWP Volume < 60°F (TAF)	
2001**	696	275	30 Mar	368	30	65-71
2002**	822	455	04 Mar	510	50	65-69
2003	962	640	02 Apr	658	135	65-67
2004	635	300	05 Mar	376	30	69
2005	959	705	15 Mar	652	140	65
2006	928	670	29 Mar	639	125	65
2007**	787	355	21 Mar	323	30	68
2008**	617	250	None Lowered	270	25	69-70
August 2009 90%-Exceedence Outlook						
2009	933	550	12 Mar	410	55	67

** Denotes fall power bypass years.

American River Operations Group

DRAFT Meeting Notes

Date 20 October 2009

Attendees

Bonnie Van Pelt, Russ Yaworsky, Louis Moore and Carol Nicolos, BOR; Jeanine Phillips and Robert Vincik, DFG; Nick Hindman, Beth Campbell, Dan Cox, FWS; Felix E. Smith, SARA; Rod Hall, Water Forum; Mike Laing, Granite Bay Flycasters; Paul Olmstead, SMUD; Roland Pang, City of Sacramento; and Dave Ford, NCCFFF.

Handouts

- Daily CVP Water Supply Report (Run Date October 20, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Summary for Folsom Lake and Lower American River – September 2009 and October 1-19, 2009
- Folsom Lake Temperature Profile; October 9, 2009
- Temperature Operation Plan Scenarios, October 20, 2009

Fishery Update

According to Robert Vincik, today was the first day of the Chinook salmon carcass survey. In terms of the survey, there's not much to report at this point as it is still pretty early in the run. Any fish caught on the weir are tagged with flagging tape, so they aren't counted again during the carcass survey.

Operations

Russ Yaworsky reported releases of 1,800 cfs at Nimbus. Releases are expected to remain around that level for the remainder of October into November. The minimum flow required at this time of year according to the Flow Management Standard is 1,790 cfs (based on end-of-September four reservoir index). There is no plan to decrease flows below the current 1,800 cfs. As of October 20th, water storage in Folsom Reservoir is 381,000 AF, 77% of the 15-year average. Accumulated inflow in Folsom is at 62,000 AF, credited in part to the recent rainstorm which dropped up to 10 inches of precipitation in some areas (see Daily CVP Water Supply Report HO). The preliminary outlook for end-of-December storage is 225,000-230,000 AF (90% forecast).

Paul Olmstead reported that the Upper Basin October precipitation through 0700 hours on October 14, 2009 was 3.58 inches; 124% of October average of 2.89 inches (see HO attached). Precipitation for the 2010 water year is 3.58 inches, which is 6% of the yearly average of 57.62 inches. Shasta Reservoir storage is at 65% of capacity. Average historical storage is 57% for this time of year. A year ago, we were at 63% capacity. Runoff into the storage upper reservoir basins is 152% of median through October 14. The runoff is receding rapidly from peak flows due to the storm last week. Snowpack is 0% of average at selected snow sensors.

Temperature

Russ Yaworsky reported inflow temperatures of about 57°F (North Fork of American River Station)—nice and cool. Mixing is starting to occur in the lake, which is a good sign.

Russ provided a status on the AFD Gage. The AFD gage was removed and relocated just downstream of the Folsom Prison. A data logger (tidbit) was installed in September, but unfortunately the data logger battery died on October 1st. According to the data recorded on the logger, the temperature pattern seems to be tracking well with the previous location. Russ checked with Dave Robinson (CCAO), and according to Dave the housing and conduit were installed on the 15th of October. Russ indicated that the new AFD gage would provide data to the CA Data Exchange Center (CDEC) and the USGS. They are very close in comparison; however, CDEC does not eliminate erroneous readings so they are included in the daily averages.

Power Bypass

Robert Vincik indicated that a letter requesting a power bypass is currently circulating DFG for signature. The letter requests temperatures of 58°F or less at Hazel Avenue by November 13, 2009. We discussed the possibility of raising the last set of shutters on Penstock Units 1 and/or 2, to further cool the river, prior to the anticipated power bypass. As of October 19th, all shutters on Penstock Unit 3 were raised until it was taken off-line for scheduled annual maintenance (through 19 November). Releases on October 19th out of Folsom were estimated at 62°F (See temperature summary HO). Russ indicated we could probably achieve 59°F at Hazel Avenue if we raise all shutters now. The temperature compliance point is 67 °F at Watt Avenue and that is what we are operating to. We decided to have an agency conference call, including DFG, NMFS, and FWS representatives, to discuss the merits of raising the last pair of shutters prior to the power bypass and the preferred timing of the raise to conserve cold water. Russ recalled that by this time last year all temperature shutters had already been raised. The situation this year presents us with some added flexibility. Russ projected that we would need to begin the power bypass on or about November 9th or 10th to achieve 58°F at Hazel Avenue by November 13th. There is approximately 30,000 AF of cold water accessible for a bypass this year (see Temperature Ops Plan scenarios summary HO). Russ estimated that the power bypass would operate at approximately 1,000 AF per day for two to three weeks.

Questions

- Has anyone monitored the Yuba? Robert Vincik responded that there is no active monitoring occurring on the Yuba right now. Beth Campbell added that although DFG is not monitoring, Pacific States Marine Fisheries Commission has been contracted to monitor the Yuba with Duane Massa (ex-DFG biologist) as crew leader. Robert commented that the spawning season for Chinook salmon continues to get later and later in the year; spawning historically occurred around the beginning of October.
- Nick Hindman asked what the new AFD gage would be called in CDEC. Russ responded that the name would remain the same.

- Rod Hall wondered about the status of the Fair Oaks gage recalibration. Russ indicated there hasn't been any word yet.

Next Meeting

Date: Tuesday, 17 November 2009

Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: 302

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

AGENDA
American River Group

Date: Tuesday, October 20, 2009
Time: 1:00 PM
Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: Room 302

Update on Fish Monitoring - DFG

Operations Forecast - USBR

Temperature Management Plan - USBR

Status Reports - Group

Schedule Next Meeting

Adjourn

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

OCTOBER 19, 2009

RUN DATE: October 20, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2009	WY 2010	15YR MEDIAN
TRINITY	LEWISTON	326	298	300
SACRAMENTO	KESWICK	7,477	6,014	6,002
FEATHER	OROVILLE (SWP)	1,700	2,000	2,400
AMERICAN	NIMBUS	1,006	1,807	1,948
STANISLAUS	GOODWIN	403	1,252	407
SAN JOAQUIN	FRIANT	179	348	180

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15YR AVG	WY 2009	WY 2010	% OF 15 YR AVG
TRINITY	2,448	1,575	1,072	909	58
SHASTA	4,552	2,602	1,329	1,743	67
OROVILLE (SWP)	3,538	2,048	1,087	1,319	64
FOLSOM	977	492	252	381	77
NEW MELONES	2,420	1,597	1,099	1,116	70
FED. SAN LUIS	966	340	72	267	79
MILLERTON	520	233	185	360	155
TOT. N. CVP	11,360	6,606	3,824	4,416	67

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2010	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	12	5	5	5	223
SHASTA	179	140	146	148	121
FOLSOM	62	41	65	40	154
NEW MELONES	33	0	31	30	113
MILLERTON	58	20	94	44	134

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2010	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	1.82	0.13	0.39	0.75 (47)	244	0.00
SACRAMENTO AT SHASTA DAM	5.95	0.07	0.24	1.25 (52)	478	0.00
AMERICAN AT BLUE CANYON	4.90	0.87	0.73	1.30 (34)	376	0.00
STANISLAUS AT NEW MELONES	2.31	0.00	0.30	0.51 (31)	457	0.00
SAN JOAQUIN AT HUNTINGTON LK	0.00	1.20	0.00	0.74 (34)	0	0.00

Van Pelt, Bonnie L

From: Paul Olmstead [polmste@smud.org]
Sent: Monday, October 19, 2009 8:44 AM
To: Van Pelt, Bonnie L
Subject: RE: ARG meeting; Tuesday, October 20th at CVO (1:00 PM)

Bonnie

for the AROG meeting tomorrow ---

October precipitation through 0700 hrs 10/14/09 is 3.58 in., which is 124% of the October average of 2.89 in. Precipitation for the water year to date is 3.58 in. which is 6% of average and 6% of the entire water year average of 57.62 in.

Reservoir storage is 65% of capacity. Historical average storage is 57%. A year ago, we were at 63% capacity.

Runoff into the storage reservoir basins is 152% of median to date through October 14. The snowpack is 0% of average at selected snow sensors.

outlook

The runoff is receding rapidly from the peak flows last week.

Paul Olmstead
Water and Power Resource Specialist
Sacramento Municipal Utility District
916-732-5716

-----Original Message-----

From: Bonnie Van Pelt [<mailto:BVanPelt@usbr.gov>]
Sent: Wednesday, October 14, 2009 8:54 AM
To: Paul Olmstead
Subject: ARG meeting; Tuesday, October 20th at CVO (1:00 PM)

Hi all,

Attached please find the meeting agenda for next Tuesday's ARG meeting at CVO. Thanks.

Bonnie Van Pelt

Bureau of Reclamation
Central CA Area Office
phone: 916-989-7127

October 20, 2009

Summary for Folsom Lake and Lower American River - October 2009

Day	Mean Daily Water Temperature (° F)							Storage (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus
1	55.3	56.3	*	M(0)	M(72)	L(28)	62.8	63.2	63.5	409.2	2,209	66
2	55.6	56.8	#	M(26)	M(47)	L(27)	62.8	63.3	63.7	406.9	2,225	69
3	56.1	56.5	#	M(46)	M(29)	L(25)	62.9	63.3	63.6	404.7	2,209	65
4	55.7	55.8	#	M(65)	M(12)	L(23)	63.1	63.0	62.9	402.2	2,223	58
5	54.8	54.8	#	M(34)	M(45)	L(21)	62.6	62.8	62.8	398.9	2,242	57
6	55.2	54.7	#	M(49)	M(32)	L(19)	62.8	62.9	62.9	397.7	2,129	63
7	55.8	N	#	M(44)	M(39)	L(17)	63.0	63.2	63.3	395.1	2,227	65
8	55.8	N	#	M(40)	M(38)	L(22)	63.3	63.4	63.5	391.6	2,235	63
9	56.1	N	#	M(35)	M(55)	L(10)	63.2	63.5	63.7	389.2	2,235	67
10	56.5	N	#	M(49)	M(39)	L(12)	63.4	63.7	64.0	386.8	2,242	65
11	56.4	N	#	M(37)	M(51)	L(12)	63.6	63.3	63.3	385.7	2,240	57
12	56.0	N	#	M(52)	M(38)	L(10)	62.9	62.8	62.8	383.7	2,235	60
13	55.9	N	#	M(31)	M(52)	L(17)	62.3	61.6	61.3	385.8	2,244	60
14	58.4	N	#	M(52)	M(41)	L(7)	62.0	62.5	62.7	385.0	2,253	67
15	59.9	N	#	M(48)	M(51)	L(1)	62.8	63.3	63.8	385.2	2,360	68
16	60.5	N	#	M(42)	M(45)	L(13)	63.6	64.2	64.7	385.0	2,017	70
17	60.3	N	#	M(50)	M(50)	L(0)	63.6	64.5	65.1	384.7	1,806	71
18	60.2	N	#	M(52)	M(47)	L(1)	63.5	63.7	64.3	383.8	1,797	66
19	59.4	N	#	M(44)	M(56)	L(0)	63.3	62.9	62.6	381.3	1,807	58
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
31												
Avg	57.1	55.8					63.0	63.2	63.4		2,154	64
Tot af											81,193	

! Incomplete or estimated
 # Station out of service
 * See notes on next page

N Data not recorded or collected
 Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)
 Penstock Unit Blending (value in parentheses represents approximate % total daily load)

Summary for Folsom Lake and Lower American River - September 2009

Day	Mean Daily Water Temperature (° F)									Storage (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB	Folsom	Nimbus			
1	60.0	59.6	*		M(27)	M(44)	U(29)	63.8	64.9	65.6	449.4	2,529	79	
2	59.8	58.7	#	61.0	M(48)	M(29)	U(23)	64.6	65.5	66.2	447.5	2,465	82	
3	59.0	59.7	#	61.9	M(30)	M(40)	U(30)	64.3	65.8	66.9	445.6	2,474	84	
4	59.5	60.2	#	61.7	M(35)	M(36)	U(29)	64.6	65.5	66.3	442.8	2,475	77	
5	59.0	60.3	#	61.9	M(33)	M(37)	U(30)	64.8	65.5	66.0	439.8	2,470	74	
6	59.6	60.6	#	62.1	M(30)	M(40)	U(30)	64.9	65.5	66.3	436.3	2,470	72	
7	59.1	59.7	#	62.2	M(43)	M(29)	U(28)	65.0	65.8	66.4	433.7	2,473	73	
8	58.4	60.1	*	62.3	M(20)	M(48)	U(32)	64.9	66.4	66.8	432.4	1,670	75	
9	58.4	59.8	*	62.4	M(59)	M(12)	U(29)	65.1	66.4	67.6	431.5	1,665	77	
10	58.9	60.0	*	59.4	M(52)	M(16)	L(32)	65.6	66.6	67.6	429.9	1,993	78	
11	59.4	58.4	#	59.1	M(0)	M(65)	L(35)	64.8	66.9	68.0	429.1	1,993	81	
12	59.1	57.0	#	58.8	M(0)	M(64)	L(36)	62.6	64.3	65.5	428.6	2,001	74	
13	58.3	58.4	#	59.5	M(69)	M(0)	L(31)	61.5	62.9	63.6	426.8	1,998	68	
14	58.6	57.9	#	59.9	M(0)	M(69)	L(31)	62.4	63.8	64.5	426.2	2,002	70	
15	58.3	57.0	#	59.1	M(0)	M(55)	L(45)	62.6	64.3	65.1	425.9	1,781	74	
16	58.9	58.2	#	60.0	M(0)	M(73)	L(27)	62.5	64.4	65.5	425.9	1,754	76	
17	59.3	58.4	#	59.4	M(0)	M(64)	L(36)	63.3	64.6	65.6	425.1	1,752	77	
18	59.6	58.7	#	60.0	M(0)	M(73)	L(27)	62.8	65.1	66.3	424.7	1,707	81	
19	59.6	59.6	#	60.2	M(0)	M(74)	L(26)	62.8	64.9	66.1	424.1	1,591	79	
20	59.5	59.1	#	60.6	M(0)	M(75)	L(25)	63.5	64.8	66.0	423.0	1,632	78	
21	59.2	61.2	#	60.5	M(0)	M(76)	L(24)	63.8	65.6	66.7	421.5	1,739	79	
22	58.9	59.7	#	60.7	M(0)	M(77)	L(23)	63.5	65.1	66.2	420.3	1,737	80	
23	59.0	57.4	#	60.7	M(0)	M(76)	L(24)	63.8	65.2	66.1	420.4	1,757	80	
24	58.7	58.0	#	60.9	M(0)	M(77)	L(23)	63.5	65.1	66.2	420.0	1,760	78	
25	59.2	59.6	#	60.9	M(0)	M(76)	L(24)	64.2	65.1	66.0	419.0	1,763	78	
26	60.2	59.8	#	61.0	M(0)	M(78)	L(22)	64.2	65.8	66.7	417.1	1,764	81	
27	59.8	59.1	#	61.1	M(0)	M(78)	L(22)	64.1	65.7	66.7	416.1	1,763	83	
28	59.0	58.3	#	61.1	M(0)	M(78)	L(22)	63.6	64.8	65.7	415.1	1,760	72	
29	57.5	58.2	#	61.4	M(0)	M(77)	L(23)	63.6	63.5	63.7	413.0	1,757	65	
30	55.6	56.3	#	61.2	M(0)	M(76)	L(24)	63.2	63.4	63.6	411.6	1,749	63	
Avg	59.0	59.0		60.7				63.8	65.1	66.0		1,948		76
Tot af												115,921		

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

NOTES:

Sep 1 – At 7:00 a.m. on September 1st, the Folsom Dam temperature gage (AFD) was removed due to ongoing Folsom Dam spillway construction. The USGS has posted a notice on their website regarding the gage removal. The USGS hopes to have the new station up and running as soon as possible. **Mean daily temperature reported after September 1st was estimated from temperature data collected by a temporary data logger installed at the new gage site.**

Sep 8 & 9 – Lower American River flows were temporarily reduced to remove debris and install the hatchery weir.

Sep 10 – The middle and lower sets of temperature shutters on penstock unit #3 were raised.

Oct 1 - The data logger battery died.

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

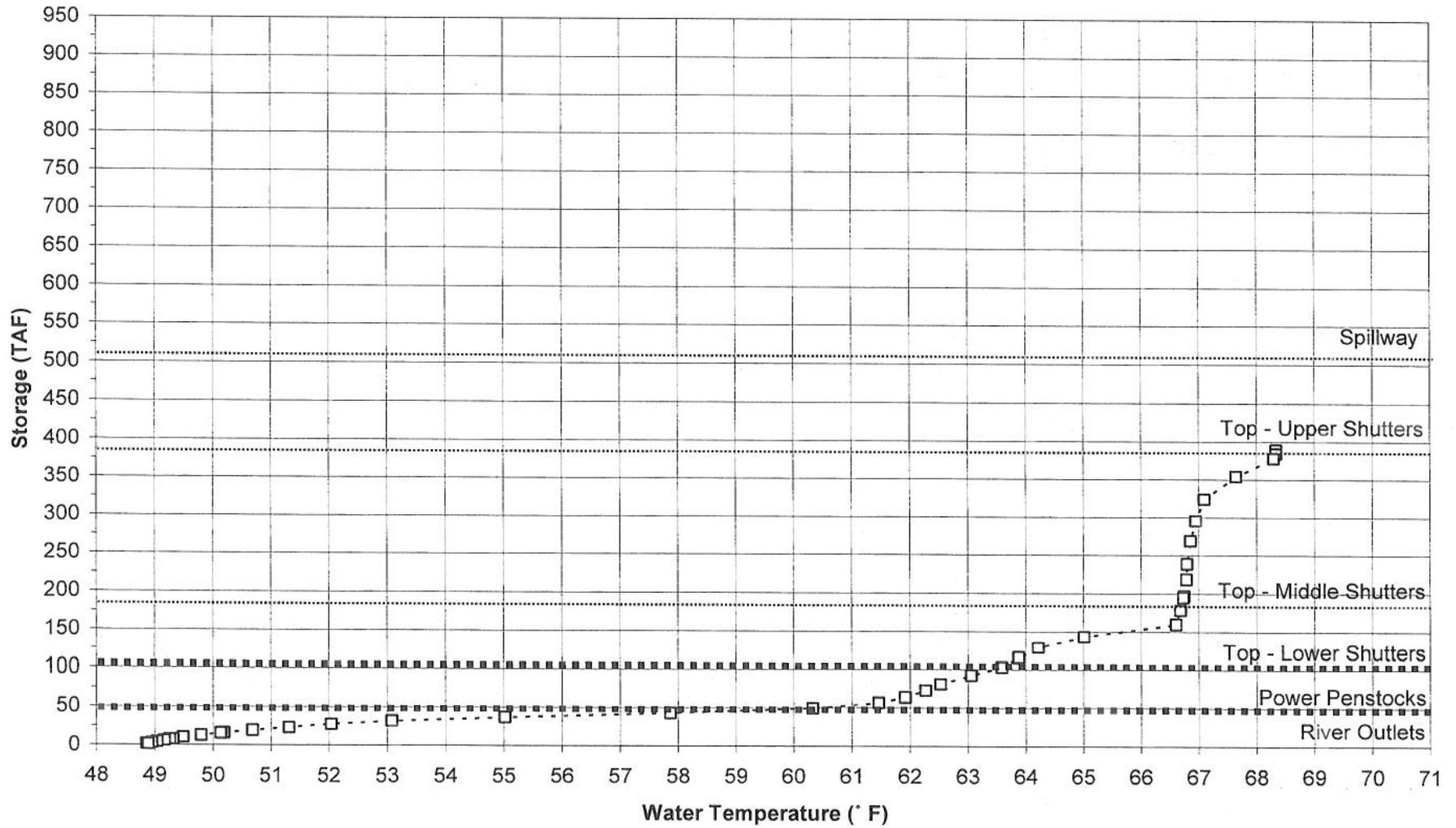
AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

AWB - American River below Watt Avenue Bridge

Folsom Lake Temperature Profile October 9, 2009



Temperature Operation Plan Scenarios – October 20, 2009

Historical Conditions (2001-2008)

Year	End of May		All Upper Shutters Lowered by	End of September		Watt Avenue Target (°F)
	Storage (TAF)	CWP Volume < 58°F (TAF)		Storage (TAF)	CWP Volume < 60°F (TAF)	
2001**	696	275	30 Mar	368	30	65-71
2002**	822	455	04 Mar	510	50	65-69
2003	962	640	02 Apr	658	135	65-67
2004	635	300	05 Mar	376	30	69
2005	959	705	15 Mar	652	140	65
2006	928	670	29 Mar	639	125	65
2007**	787	355	21 Mar	323	30	68
2008**	617	250	None Lowered	270	25	69-70
2009	933	550	12 Mar	412	60	67

** Denotes fall power bypass years.

Meeting Attendance Record

Date: Oct 20 2009

Time: 1300

Place: CVO RM302

Subject of Meeting: ARC

Name	Organization	Phone Number
Carol Nicolas	BOR	cnicolas@usbr.gov 916 989 7276
Rod Hall	Water Forum	rodhall@comcast.net 916-631-7643
Dave Ford	NCCFFF	916 967 3847
Nick Hinoman	FWS	Nick.hinoman@fws.gov 414-6543
Bonnie Van Pelt	BOR	bvanpelt@usbr.gov 916-989-7127
Beth Campbell	FWS	elizabeth_campbell@fws.gov 209 334 2968 x402
Felix E. Smith	SARA	felicesmith@sbcglobal.net 916-966-2081
Russ Yaworsky	USBR-CVO	ryaworsky@usbr.gov 916-979-0268
DAN COX	USFWS	dan_cox@fws.gov (916) 414-6539
ROLAND PANG	CITY OF SACRAMENTO	rpang@cityofsacramento.org (916) 808-1309

Meeting Attendance Record

Date: 20 OCT 2009

Time: 1300

Place: CVO

Subject of Meeting: ARG

Name	Organization	Phone Number
PAUL ULMSTEAD	SMUD	palmstc@smud.org
LOUIS MOORE	BOR	WMOORE@USBR.GOV
Mike Laing	No Cal Fed Flycasters Granite Bay Flycasters	MWLAING@AOL.COM
JEANINE PHILLIPS	DFG	jphillips@dfg.ca.gov
ROBERT VINCIK	DFG	rvincik@dfg.ca.gov

American River Operations Group

DRAFT Meeting Notes

Date 17 November 2009

Attendees

Bonnie Van Pelt, Russ Yaworsky and Carol Nicolos, BOR; Jeanine Phillips and Robert Vincik, DFG; Nick Hindman, FWS; Felix E. Smith, SARA; Rod Hall, Water Forum; Paul Olmstead, SMUD; Brian Ellrott, NMFS; Tom Boardman, SCDMWA; and Dave Ford, MCCFFF.

Handouts

- Daily CVP Water Supply Report (Run Date November 17, 2009); link is <http://www.usbr.gov/mp/cvo/vungvari/dayrpt.pdf>
- Summary for Folsom Lake and Lower American River –October-November 16, 2009
- Folsom Lake Temperature Profile; November 9, 2009
- Change Order Email from Russ—discontinuing power bypass

Fishery Update

196 Chinook salmon have been counted in the carcass survey and 36 of these were coded wire tagged fish. 35 of those tagged fish are considered grilse. The survey is conducted in 3 mile segments: 75% of the fish were noted between the weir and El Manto, approximately 3 miles; 20% between El Manto and Goethe, approximately 3 miles; and between Goethe and Watt, approximately 6 miles (~4%). Of the female carcasses processed approximately 1/3 were partially spawned and only one had not spawned at all. The first spawning fish were sighted on November 12th. Robert Vincik will send the carcass survey updates through email.

Robert commented that the season seems to be getting later. Possible reasons for this include higher temperatures, previous years of low flow conditions, and changing water conditions. There are a lot more grilse this year compared to last year; this could mean there will be a good run next year.

Upper Basin Update

Paul Olmstead reported that a storm is expected to arrive on Friday; we could see up to one-inch of precipitation in the valley with snow in the Sierras (elevation 4,000 ft). Reservoir storage is 60% of capacity; historical average storage is 54%. A year ago, we were at 61% capacity. There has been 4.42 inches of precipitation to date, 66% of average (early in season). The weather is expected to remain cool and dry for the most part.

Operations

Russ Yaworsky reported releases at 1,800 cfs and foresees these remaining steady through December. This release level is consistent with the Flow Management Standard (FMS). Beginning in January the FMS prescribes a cutback in releases of approximately

15%; i.e., ~ 1,500 cfs. Any changes in releases between now and the next meeting in January will be communicated through change orders that are sent through the list serv. Folsom Reservoir storage is at 301,000 AF today, and assuming constant releases through December the end-of-December storage was estimated at 215,000 AF. Last year the low point in storage was 199,000 AF in mid-December.

Temperature

Russ Yaworsky reported that on November 5th, the lower sets of shutters on penstocks units # 1 and #2 were raised and the temperature in the river dropped ~1.25°. On November 10th releases through the lower tier river outlets began (i.e., power bypass) and the temperature at Watt Avenue had dropped ~ 3° (55.8° F) as of November 16th (see Temperature Summary HO). According to Russ, the power bypass will likely be discontinued in about a week. The goal is for Folsom Dam release temperatures to be below 58°F without the bypass. The cold water pool storage will still be in good shape after the bypass. A total of ~15,000-20,000 AF will have been released through the bypass. Russ said he would send an email notifying everyone when the bypass was being discontinued--see the attached email dated November 20th to discontinue the bypass on November 25th). Russ will include final bypass release amounts in a subsequent email.

Other

Announcements: There will be a fish group meeting on December 9, 2009 at 1:00pm.

HAPPY HOLIDAYS, EVERYONE!

Next Meeting

Date: Thursday, 21 January 2010

Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: 302

Time: 1300

Notes by: Carol Nicolos and Bonnie Van Pelt

AGENDA
American River Group

Date: Tuesday, November 17, 2009
Time: 1:00 PM
Location: Central Valley Operations Office
3310 El Camino Ave.
Sacramento, CA 95821

Room: Room 302

Update on Fish Monitoring - DFG

Operations Forecast - USBR

Temperature Management Plan - USBR

Status Reports - Group

Schedule Next Meeting

Adjourn

UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. BUREAU OF RECLAMATION-CENTRAL VALLEY PROJECT-CALIFORNIA

DAILY CVP WATER SUPPLY REPORT

NOVEMBER 16, 2009

RUN DATE: November 17, 2009

RESERVOIR RELEASES IN CUBIC FEET/SECOND

RESERVOIR	DAM	WY 2009	WY 2010	15YR MEDIAN
TRINITY	LEWISTON	298	317	300
SACRAMENTO	KESWICK	4,199	4,666	5,212
FEATHER	OROVILLE (SWP)	1,050	1,800	2,400
AMERICAN	NIMBUS	1,109	1,776	1,999
STANISLAUS	GOODWIN	259	250	299
SAN JOAQUIN	FRIANT	140	357	145

STORAGE IN MAJOR RESERVOIRS IN THOUSANDS OF ACRE-FEET

RESERVOIR	CAPACITY	15YR AVG	WY 2009	WY 2010	% OF 15 YR AVG
TRINITY	2,448	1,547	1,016	901	58
SHASTA	4,552	2,572	1,324	1,666	65
OROVILLE (SWP)	3,538	1,972	1,021	1,215	62
FOLSOM	977	437	223	301	69
NEW MELONES	2,420	1,602	1,114	1,107	69
FED. SAN LUIS	966	474	159	392	83
MILLERTON	520	231	173	230	100
TOT. N. CVP	11,360	6,632	3,836	4,367	66

ACCUMULATED INFLOW FOR WATER YEAR TO DATE IN THOUSANDS OF ACRE-FEET

RESERVOIR	CURRENT WY 2010	DRIEST WY 1977	WETTEST WY 1983	15 YR AVG	% OF 15 YR AVG
TRINITY	23	14	59	25	93
SHASTA	378	360	433	393	96
FOLSOM	98	70	262	104	94
NEW MELONES	58	0	134	65	89
MILLERTON	69	40	174	95	72

ACCUMULATED PRECIPITATION FOR WATER YEAR TO DATE IN INCHES

RESERVOIR	CURRENT WY 2010	DRIEST WY 1977	WETTEST WY 1983	AVG (N YRS)	% OF AVG	LAST 24 HRS
TRINITY AT FISH HATCHERY	2.43	1.22	4.63	4.14 (47)	59	0.00
SACRAMENTO AT SHASTA DAM	8.42	1.63	6.49	7.29 (52)	116	0.00
AMERICAN AT BLUE CANYON	6.09	3.19	10.92	6.37 (34)	96	0.00
STANISLAUS AT NEW MELONES	2.43	0.00	5.20	2.77 (31)	88	0.01
SAN JOAQUIN AT HUNTINGTON LK	6.12	1.80	9.60	4.17 (34)	147	0.00

November 17, 2009

Summary for Folsom Lake and Lower American River - November 2009

Day	Mean Daily Water Temperature (° F)							Storage (TAF)	Release (cfs)	Sacramento Mean Daily		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB	Folsom	Nimbus	Air Temperature (° F)
1	55.0	N	61.1	M(61)	M(39)	L(0)	61.3	61.3	61.5	344.3	1,734	62
2	55.5	N	61.1	M(58)	M(42)	L(0)	61.4	61.5	61.8	340.9	1,805	66
3	55.6	N	61.0	M(45)	M(55)	L(0)	61.5	61.5	61.8	337.6	1,806	63
4	55.3	N	60.8	M(51)	M(49)	L(0)	61.4	61.3	61.6	334.2	1,803	62
5	54.9	N	* 59.6	L(41)	L(59)	L(0)	61.3	61.1	61.3	331.0	1,806	61
6	54.9	N	59.5	L(37)	L(63)	L(0)	61.0	61.0	61.2	327.6	1,800	60
7	56.1	N	59.6	L(60)	L(40)	L(0)	60.4	60.5	61.0	324.8	1,801	58
8	55.0	N	59.4	L(47)	L(53)	L(0)	59.9	59.5	59.4	321.9	1,852	53
9	53.0	N	59.4	L(59)	L(41)	L(0)	59.3	58.8	58.6	318.8	1,797	51
10	53.1	N	* 58.6	L(34)	L(66)	L(0)	59.2	59.0	59.0	315.8	1,794	57
11	53.7	N	57.0	L(45)	L(55)	L(0)	59.3	59.0	59.0	312.9	1,791	58
12	53.8	N	56.7	L(94)	L(6)	L(0)	58.6	58.8	59.1	310.0	1,792	54
13	52.5	N	56.7	L(57)	L(43)	L(0)	57.7	57.2	57.2	307.5	1,765	50
14	51.0	N	56.8	L(72)	L(28)	L(0)	56.9	56.5	56.6	305.1	1,798	51
15	50.2	N	56.2	L(38)	L(62)	L(0)	56.5	55.9	55.8	302.5	1,796	49
16	49.1	N	56.6	L(99)	L(1)	L(0)	56.2	55.8	55.8	300.9	1,775	52
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30												
Avg	53.7		58.8				59.5	59.3	59.4		1,795	57
Tot af											56,955	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

Summary for Folsom Lake and Lower American River - October 2009

Day	Mean Daily Water Temperature (° F)							Storage (TAF)	Release (cfs)	Sacramento Mean Air Temperature (° F)		
	NFA	ARP	AFD	Penstock Units 1-3			AHZ	AWP	AWB		Folsom	Nimbus
1	55.3	56.3	*	M(0)	M(72)	L(28)	62.8	63.2	63.5	409.2	2,209	66
2	55.6	56.8	#	M(26)	M(47)	L(27)	62.8	63.3	63.7	406.9	2,225	69
3	56.1	56.5	#	M(46)	M(29)	L(25)	62.9	63.3	63.6	404.7	2,209	65
4	55.7	55.8	#	M(65)	M(12)	L(23)	63.1	63.0	62.9	402.2	2,223	58
5	54.8	54.8	#	M(34)	M(45)	L(21)	62.6	62.8	62.8	398.9	2,242	57
6	55.2	54.7	#	M(49)	M(32)	L(19)	62.8	62.9	62.9	397.7	2,129	63
7	55.8	N	#	M(44)	M(39)	L(17)	63.0	63.2	63.3	395.1	2,227	65
8	55.8	N	#	M(40)	M(38)	L(22)	63.3	63.4	63.5	391.6	2,235	63
9	56.1	N	#	M(35)	M(55)	L(10)	63.2	63.5	63.7	389.2	2,235	67
10	56.5	N	#	M(49)	M(39)	L(12)	63.4	63.7	64.0	386.8	2,242	65
11	56.4	N	#	M(37)	M(51)	L(12)	63.6	63.3	63.3	385.7	2,240	57
12	56.0	N	#	M(52)	M(38)	L(10)	62.9	62.8	62.8	383.7	2,235	60
13	55.9	N	#	M(31)	M(52)	L(17)	62.3	61.6	61.3	385.8	2,244	60
14	58.4	N	#	M(52)	M(41)	L(7)	62.0	62.5	62.7	385.0	2,253	67
15	59.9	N	#	M(48)	M(51)	L(1)	62.8	63.3	63.8	385.2	2,360	68
16	60.5	N	*	M(42)	M(45)	L(13)	63.6	64.2	64.7	385.0	2,017	70
17	60.3	N	62.6	M(50)	M(50)	L(0)	63.6	64.5	65.1	384.7	1,806	71
18	60.2	N	62.3	M(52)	M(47)	L(1)	63.5	63.7	64.3	383.8	1,797	66
19	59.4	N	62.6	M(44)	M(56)	L(0)	63.3	62.9	62.6	381.3	1,807	58
20	58.5	N	62.5	M(55)	M(45)	L(0)	62.4	62.8	63.0	378.8	1,800	62
21	58.8	N	62.4	M(44)	M(56)	L(0)	62.7	62.7	63.0	376.2	1,800	64
22	59.0	N	62.4	M(59)	M(41)	L(0)	62.9	63.1	63.4	373.6	1,802	65
23	59.5	N	62.4	M(40)	M(60)	L(0)	63.0	63.4	63.8	372.0	1,800	67
24	59.9	N	62.3	M(55)	M(45)	L(0)	63.2	63.5	63.9	368.3	1,801	66
25	59.8	N	62.3	M(40)	M(60)	L(0)	63.2	63.3	63.7	365.4	1,797	66
26	59.6	N	62.3	M(59)	M(41)	L(0)	63.0	63.4	63.7	362.7	1,800	68
27	58.7	N	62.5	M(56)	M(44)	L(0)	62.6	61.6	61.7	359.2	1,802	60
28	55.8	N	61.7	M(53)	M(47)	L(0)	61.2	60.1	59.6	355.9	1,793	55
29	53.8	N	61.3	M(56)	M(44)	L(0)	60.4	59.7	59.5	353.0	1,795	58
30	53.8	N	61.2	M(60)	M(40)	L(0)	60.7	60.5	60.4	350.5	1,629	60
31	54.2	N	61.1	M(44)	M(56)	L(0)	61.1	60.8	60.8	347.3	1,804	61
Avg	57.3	55.8	62.1				62.7	62.8	62.9		2,012	63
Tot af											123,684	

! Incomplete or estimated

Station out of service

* See notes on next page

N Data not recorded or collected

Shutter Position (U-Upper raised; M-Middle raised; L-Lower raised; A-All lowered; O-Unit Offline)

Penstock Unit Blending (value in parentheses represents approximate % total daily load)

NOTES:

Oct 1 - The data logger battery died.

Oct 16 – The USGS completed installation of the new Folsom Dam temperature station and the gage began reporting.

Nov 5 - The lower set of temperature shutters on penstock units #1 and #2 were raised.

Nov 10 – A power bypass was initiated to blend power penstock releases with cooler water released through the lower-tier river outlets, at a rate of about 500 cfs.

CDEC Station ID:

NFA - North Fork American River at Auburn Dam

ARP - South Fork American River near Pilot Hill

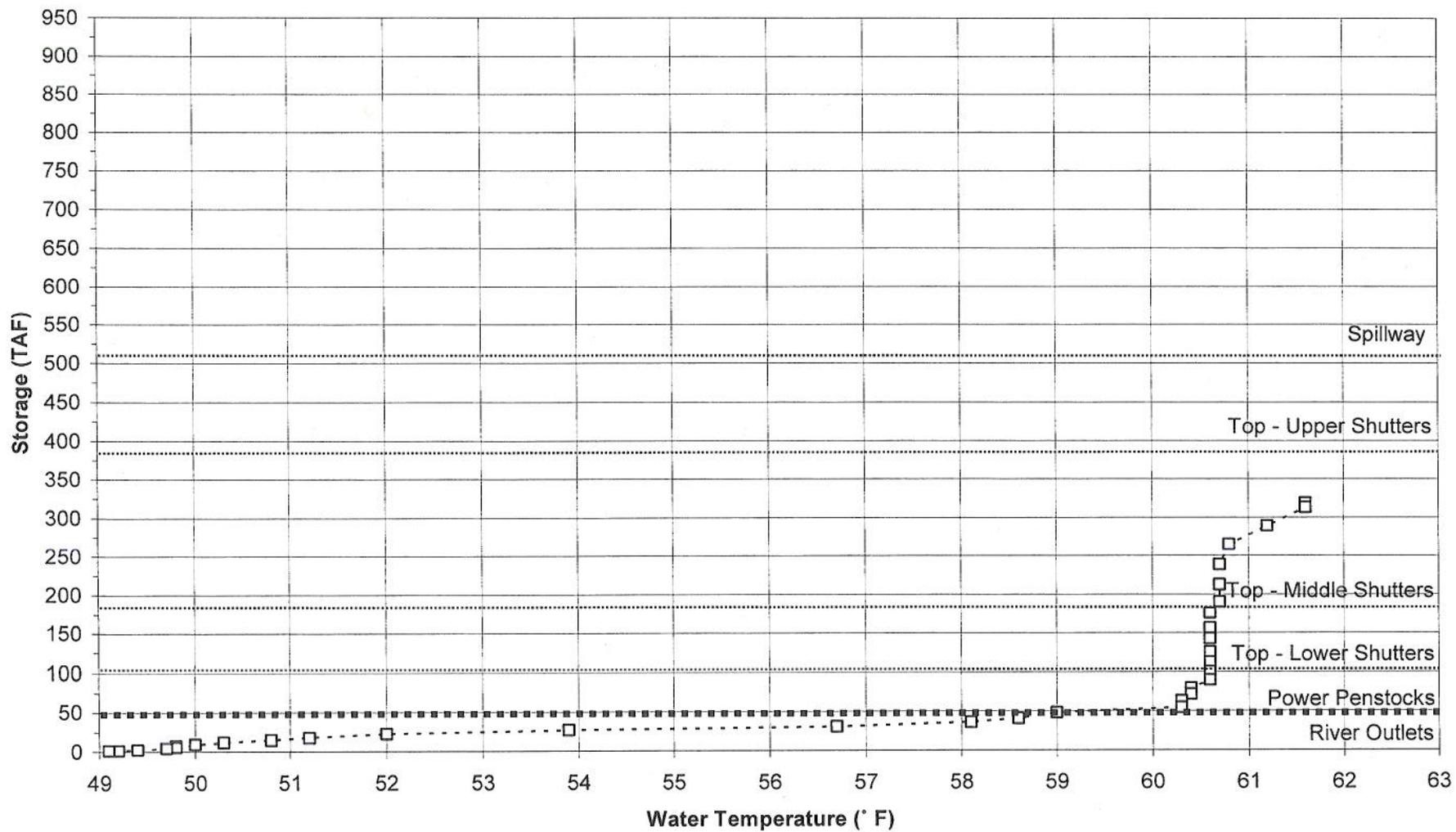
AFD - American River below Folsom Dam

AHZ - American River at Hazel Avenue Bridge, below Nimbus Dam

AWP - American River at William Pond Park

AWB - American River below Watt Avenue Bridge

Folsom Lake Temperature Profile November 9, 2009





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Folsom Power Bypass

Russell Yaworsky [rpyaworsky@usbr.gov]

Sent: Friday, November 20, 2009 8:52 AM

To: [Van Pelt, Bonnie L](#)

Project: Folsom Power Bypass

On Wednesday, 11/25/09, please terminate the 500 cfs bypass release through the lower-tier river c

Comment: Improving Folsom cold-water pool conditions and river temperatures.

Issued by: Russ Yaworsky

You are currently subscribed to arog as: BVANPELT@usbr.gov.

To unsubscribe send a blank email to leave-arog-2267H@listserver.usbr.gov

Meeting Attendance Record

Date: 17 Nov 2009

Time: 1300

Place: CUO

Subject of Meeting: ARG

Name	Organization	Phone Number
Jeanine Phillips	DFG	JPhillips@dfg.ca.gov 916 358 2030
Robert Vincik	DFG	rvincik@dfg.ca.gov 916 358-2933
Dave Ford	NCCFF F	916 967-3847
BRIAN ELLROTT	NMFS	916 930 3612
Carol Nicolas	BOR	916 9897276 cnicolas@usbr.gov
Felix E. Smith	SARA- WF	916-966-2081
Russ Yaworsky	Reclamation	916-979-0268 ryaworsky@usbr.gov
PAUL OLMSTEAD	SMUD	916-732-5716 palmste@smud.org
Rod Hall	Water Forum	916-631-7643 rodmhall@comcast.net
Bonnie V. Pelt	BOR	916. 989- 7127 bvorpelt@usbr.gov
Nick Hindman	USFWS	916. 414- 6543
Tom Boardman	SLDMWA	Nick_hindman@FWS.gov tboardman@apex.net 916-990-0317