

State of California
 State Water Resources Control Board
DIVISION OF WATER RIGHTS
P.O. Box 2000, Sacramento, CA 95812-2000
 Info: (916) 657-2170, FAX: (916) 657-1485, Web: http://www.waterrights.ca.gov

**PETITION FOR LONG TERM TRANSFER
 OF WATER/WATER RIGHTS**

Pursuant to the following Water Code section ___ 382, or X 1735

Point of Diversion Point of Rediversion Place of Use Purpose of Use

BASIS OF RIGHT:

Application No(s). 5632 Permit 15026 License _____

I (We) hereby petition the State Water Resources Control Board (State Water Board) under the provisions of Water Code (WC) section 1735 et seq. and in conformance with the specific requirements of California Code of Regulations (CCR) section 794, for change(s) to the water right application(s) noted above for the purpose of a long term transfer of water. The changes are **shown on the accompanying map and described as follows:**

Amount of Water to be Transferred Yearly is up to 200,000 Acre-feet (AF). If the basis of right is direct diversion, the average rate of diversion for the maximum 30 day period of use is _____ cubic feet per second (cfs).

Proposed New User

See supplement

Person or Company name	Contact person	Telephone No.

Address	City	State	Zip Code

E-MAIL (For noticing purposes)

Point of Diversion or Rediversion (Give coordinate distances from section corner or other ties as allowed by CCR section 715, and the 40-acre subdivision in which the present & proposed points lie.

Present See supplement
 Proposed _____

Place of Use

Present See supplement
 Proposed _____

STATE WATER RESOURCES CONTROL BOARD
 2007 APR 27 PM 12:05
 Petition No. 07-00000000

Purpose of Use

Present See supplement

Proposed _____

Season of Use

Direct Use (cfs)

Storage (ac-ft)

Present No changes

Proposed _____

Period of Transfer/Exchange This transfer is to be effective from January 1 to December 31 of each year, beginning on January 1, 2008 (date/year) and concluding on December 31, 2025 (date/year).

It is understood that the precise effect of a transfer on other legal users or instream beneficial uses is difficult to determine in advance of such a transfer. However, please answer the following questions to the best of your knowledge:

Is this transfer likely to cause substantial injury to any legal user of water? Yes _____ No X

Remarks: _____

Are there any persons taking water from the stream between the present point of diversion or return flow and the proposed point of diversion or return flow? Yes (yes/no). If the answer is yes, provide the name and address. Also provide the name and address of other persons known to you who may be affected by the proposed change.

See the records of the Division of Water Rights

Consult with the California Department of Fish and Game pursuant to CCR 794(b) concerning the proposed change. State the name and phone number of the person(s) contacted and their opinion concerning the potential effect(s) of the proposed temporary change on fish, wildlife, or other instream beneficial uses, and state any measures recommended for mitigation. See supplement

Is this transfer likely to cause any unreasonable effect on fish, wildlife or other instream beneficial uses?

Yes _____ No X Remarks: See supplement

Will this transfer unreasonably effect the overall economy of the area from which the water is being transferred (Water Code Section 386.) No

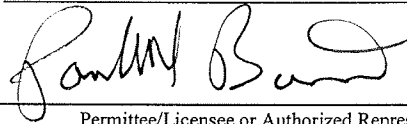
Consult with staff of the applicable Regional Water Quality Control Board concerning the proposed change. State the name and phone number of person(s) contacted. Summarize their opinion concerning compliance with CCR 794(b) and any Regional Board requirements. This will be addressed in the EIR/EIS for this transfer.

State the conditions that are the basis of this transfer. See supplement

THIS TRANSFER OF WATER/WATER RIGHTS DOES NOT INVOLVE AN INCREASE IN THE AMOUNT OF THE RIGHT OR SEASON OF USE. FOLLOWING THE EXPIRATION OF THE TRANSFER PERIOD, ALL RIGHTS SHALL AUTOMATICALLY REVERT TO THE ORIGINAL HOLDERS OF SUCH RIGHT WITHOUT ANY ACTION BY THE STATE WATER BOARD.

I (We) declare under penalty of perjury that the above is true and correct to the best of my (our) knowledge and belief.

Dated: April 24, 2007 at Sacramento, California.



Permittee/Licensee or Authorized Representative Signature

PAUL M. BARTKIEWICZ

Bartkiewicz, Kronick & Shanahan

Attorneys for Yuba ^{Title} County Water Agency

NOTE: This petition shall be accompanied by the Environmental Information Form and appropriate fees before the SWRCB will consider acceptance of the petition which requests changes to facilitate the long term transfer/exchange.

Fees: The following fees must accompany the petition:

1. A minimum filing fee of \$100, for each application listed in the petition, shall be submitted with the petition (WC 1547). The fee is made payable to the State Water Resources Control Board.
 - a) W.C. section 1547.1 requires an additionally fee of 25% of the amount computed by using the fee schedule in Article 1 (commencing with W.C. Section 1525) for use of water outside of the basin from which the water transfer originates. The fee is based on that portion of water transferred under the existing direct diversion or storage right(s) for each application identified in the petition. For direct diversion rights, the rate is typically computed based on the average rate of diversion (cfs) for the maximum 30-day period of use (AF).
 - b) If the petitioner relies on Water Code section 382, the total filing fee shall be based on the amount necessary to cover the reasonable costs of the SWRCB to evaluate and process the petition (WC 386). Please contact the Division if you would like an estimate of the potential cost.
2. An \$850 environmental filing fee, made payable to the Department of Fish and Game, must accompany a petition for change (Public Resources Code 10005).

**SUPPLEMENT TO PETITION OF YUBA COUNTY WATER AGENCY
FOR A LONG-TERM TRANSFER OF WATER FOR YUBA RIVER ACCORD UNDER
WATER CODE 1735**

Proposed New Users

Add the following:

1. The CALFED Environmental Water Account (administered by the California Department of Water Resources), Attention: Chief, State Water Project Analysis Office, 1416 Ninth Street, P.O. Box 942836, Sacramento, CA 95814.
2. The California Department of Water Resources, Chief, State Water Project Analysis Office, 1416 Ninth Street, P.O. Box 942836, Sacramento, CA 95814.
3. The United States Bureau of Reclamation, attention: Regional Director, Mid-Pacific Region, 2800 Cottage Way, Sacramento, CA 95825-1898.

Proposed New Points of Rediversion

Add the following:

Clifton Court Forebay (State Water Project) and Tracy Pumping Plant (Central Valley Project).

Proposed New Place of Use

Add the following:

The service areas of the State Water Project (as shown on maps 1878-1, 2, 3 and 4 on file with Application No. 5629) and the Central Valley Project (as shown on map 214-208-12581 on file with Application No. 5626).

Purpose of Use

Present: irrigation, domestic, industrial, recreational, and fish mitigation and enhancement.

Proposed: present purposes of use and municipal, salinity control and water quality control.

Other Changes in Permit Terms Required to Accomplish the Proposed Long-Term Changes

The Agency and 16 other parties have developed the proposed Lower Yuba River Accord ("Yuba Accord"), which consists of the: (a) the Proposed Lower Yuba River Fisheries Agreement ("Yuba Accord Fisheries Agreement") among the Agency, the California Department of Fish and Game, the South Yuba River Citizens League, Friends of the River, Trout Unlimited and The Bay Institute to implement long-term instream-flow requirements and other provisions; (b) the proposed Yuba Accord Conjunctive Use Agreements, under which the Agency and the Agency's Member Units will implement programs to conjunctively use available surface water and groundwater supplies to ensure that local water supplies are not reduced to implement the Yuba Accord; (c) the proposed Yuba Accord Water Purchase Agreement among the Agency, the California Department of Water Resources ("DWR") and the United States Bureau of Reclamation ("Reclamation"), under which the Agency will transfer water, including water made available by the instream-flow schedules in the Yuba Accord Fisheries Agreement, on a long-term basis to DWR and Reclamation, and DWR and Reclamation will make payments to the Agency that the Agency will use to make payments to the River Management Fund under the Yuba Accord Fisheries Agreement, to Member Units under the Conjunctive Use Agreements, and to fund flood-control and water-supply projects in Yuba County; and (d) a modification of the 1966 Pacific Gas & Electric Company/Agency Power Purchase Contract so that the Agency can implement the Yuba Accord Fisheries Agreement, the Yuba Accord Conjunctive Use Agreements and the Yuba Accord Water Purchase Agreement.

The implementation of the proposed Yuba Accord will require approval of this long-term water transfer petition and a separate petition to amend the terms of the Agency's water-right permits and some provisions of the State Board's Revised Decision 1644 in the manner provided for in the Yuba Accord Fisheries Agreement. Pursuant to the Yuba Accord Fisheries Agreement, the Agency will operate the Yuba River Project to provide the minimum instream flows in the Lower Yuba River that are specified in Exhibits 1, 2, 3, 4 and 5 of the Yuba Accord Fisheries Agreement from April 1, 2008 through the term of the Yuba Accord Fisheries Agreement. Copies of these exhibits are attached to this supplement. The Agency will be contractually committed to provide the instream flows required under the Yuba Accord Fisheries Agreement during the period of the proposed long-term transfer under this petition. The minimum instream flows specified in the Yuba Accord Fisheries Agreement are comparable to the minimum instream flows that the Agency has been contractually obligated to provide under the 2006 Yuba Accord Pilot Program and the 2007 Yuba Accord Pilot Program, which were subject to temporary change petitions that were approved by the State Board's Orders WR 2006-0009, 2006-0010-DWR, 2007-0002-DWR and 2007-0012-DWR.

The Agency is the CEQA lead agency, and the United States Bureau of Reclamation ("Reclamation") is the NEPA lead agency, for preparation of the environmental impact report/environmental impact statement ("EIR/EIS") for the Yuba Accord. The Agency will submit a copy of this EIR/EIS to the State Board when it is completed.

7021/Yuba Accord/D041107pmbYRASWRCBLTPetition
4/11/07

In accordance with section 3 of the April 2005 Statement of Support for Proposed Lower Yuba River Fisheries Agreement, the Agency requests that the SWRCB include in its order approving this petition: (1) all mitigation measures in the EIR/EIS (except for any mitigation measures that the Agency finds, and the other parties to the Yuba Accord Fisheries Agreement concur, are infeasible under section 15091(a)(3) of the CEQA Guidelines) concerning this long-term transfer petition that concern matters within the SWRCB's jurisdiction; (2) a specific reservation of jurisdiction to add, amend, revise, supplement or delete terms and conditions in the SWRCB's order; and (3) a specification that the SWRCB will review its order before May 2016 or during the Clean Water Action section 401 process for the Agency's FERC relicensing, whichever is earlier, to determine whether, and if so, how, to exercise this jurisdiction, after notice to interested parties and opportunity for a hearing.

Water to be Transferred

The total quantity of water to be transferred under this petition will be up to 200,000 acre feet per year. The Agency will make water available for this transfer from stored water released from New Bullards Bar Reservoir and through the substitution of groundwater for transferred surface water supplies consistent with the terms of the Yuba Accord Fisheries Agreement, Water Purchase Agreement and Conjunctive Use Agreements.

Exhibit B-2 of the Yuba Accord Water Purchase Agreement includes refill criteria for transfer water made available through releases from storage to mitigate for impacts to downstream water supplies.

Authorized Agents

The authorized agents of Yuba County Water Agency for this transfer petition are:

1. Curt Aikens
General Manager
Yuba County Water Agency
Marysville CA 95901
530-741-6278
facsimile: 530-741-6541
caikens@ycwa.com

2. Paul M. Bartkiewicz
Bartkiewicz, Kronick & Shanahan
1011 22nd Street
Sacramento CA 95816-4907
916-446-4254
facsimile: 916-446-4018
pmb@bkslawfirm.com

EXHIBITS TO THIS SUPPLEMENT

Exhibits 1, 2, 3, 4 and 5 of the Yuba Accord Fisheries Agreement

Exhibit 1. Instream Flow Requirements.

Marysville Gage (cfs)

Schedule	OCT		NOV	DEC	JAN	FEB	MAR	APR		MAY		JUN		JUL	AUG	SEP	Total Annual Volume (AF)
	1-15	16-31	1-30	1-31	1-31	1-29	1-31	1-15	16-30	1-15	16-31	1-15	16-30	1-31	1-31	1-30	
1	500	500	500	500	500	500	700	1000	1000	2000	2000	1500	1500	700	600	500	574200
2	500	500	500	500	500	500	700	700	800	1000	1000	800	500	500	500	500	429066
3	500	500	500	500	500	500	500	700	700	900	900	500	500	500	500	500	398722
4	400	400	500	500	500	500	500	600	900	900	600	400	400	400	400	400	361944
5	400	400	500	500	500	500	500	500	600	600	400	400	400	400	400	400	334818
6	350	350	350	350	350	350	350	350	500	500	400	300	150	150	350	350	232155

* Indicated flows represent average volumes for the specified time period. Actual flows may vary from the indicated flows according to established criteria.

* Indicated Schedule 6 flows do not include an additional 30 TAF available from groundwater substitution to be allocated according to established criteria.

Smartville Gage (cfs)

Schedule	OCT		NOV	DEC	JAN	FEB	MAR	APR		MAY		JUN		JUL	AUG	SEP	Total Annual Volume (AF)
	1-15	16-31	1-30	1-31	1-31	1-29	1-31	1-15	16-30	1-15	16-31	1-15	16-30	1-31	1-31	1-30	
A	700	700	700	700	700	700	700	700	-	-	-	-	-	-	-	700	-
B	600	600	600	550	550	550	550	600	-	-	-	-	-	-	-	500	-

* Schedule A used with Schedules 1, 2, 3 and 4 at Marysville.

* Schedule B used with Schedules 5 and 6 at Marysville.

Exhibit 2

FLOW SCHEDULE YEAR TYPES BASED ON THE NORTH YUBA INDEX FOR ESTABLISHING REQUIRED FLOWS IN THE LOWER YUBA RIVER FISHERIES AGREEMENT

The water year hydrologic classification for the Yuba River to determine the flow requirements of Yuba County Water Agency's water right permits shall be based on the North Yuba Index. Determinations of a year's flow schedule year type shall be made in February, March, April, and May and for any subsequent updates.

Flow Schedule Year Type	North Yuba Index Thousand Acre-Feet (TAF)
Schedule 1	Equal to or greater than 1400
Schedule 2	Equal to or greater than 1040 and less than 1400
Schedule 3	Equal to or greater than 920 and less than 1040
Schedule 4	Equal to or greater than 820 and less than 920
Schedule 5	Equal to or greater than 693 and less than 820
Schedule 6	Equal to or greater than 500 and less than 693
Conference Year	Less than 500

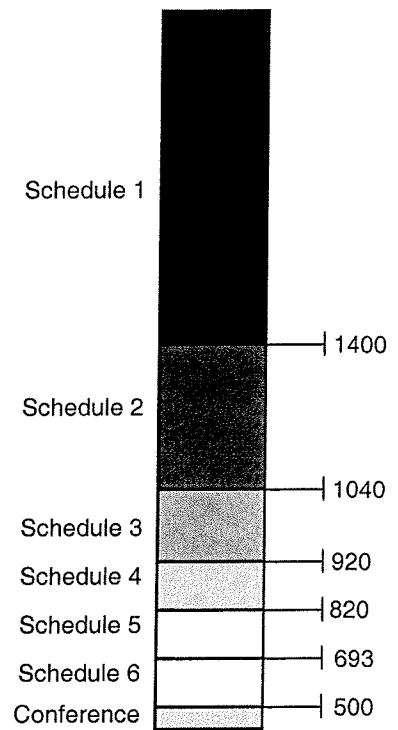


Exhibit 3. Dry Year Storage Adjustments To Instream-Flow Requirements

- In some dry years with Schedule 5 instream-flow requirements, the September 30 New Bullards Bar Reservoir storage may be very low.
- To ensure sufficient carryover storage in the event of a subsequent very dry year, a dry-year storage adjustment will be made.
- The dry-year storage adjustment will be made as follows:
 - If the September 30 New Bullards Bar Reservoir storage is less than 400,000 acre-feet, then the Marysville Gage instream-flow requirement will be 400 cfs from October 1 until the next February Bulletin 120 forecasts are available.
 - If the September 30 New Bullards Bar Reservoir storage is less than 450,000 acre-feet but greater than or equal to 400,000 acre-feet, then, the River Management Team may decide to adjust the Marysville Gage instream-flow requirement to 400 cfs from October 1 until the next February Bulletin 120 forecasts are available.
 - When the next February Bulletin 120 forecasts are available, the instream-flow requirements will be based on those forecasts.

EXHIBIT 4

DEFINITION OF THE **NORTH YUBA INDEX**

The North Yuba Index is an indicator of the amount of water available in the North Yuba River at New Bullards Bar Reservoir that can be utilized to achieve flows on the Lower Yuba River through operations of New Bullards Bar Reservoir. The index is comprised of two components: (1) active storage in New Bullards Bar Reservoir at the commencement of the current water year and; (2) total inflow to New Bullards Bar Reservoir for the current water year, including diversions from the Middle Yuba River and Oregon Creek to New Bullards Bar Reservoir. The following is the definition of the index and the procedure for determining the index for each water year.

$$\text{North Yuba Index} = Sa^{\text{NBB}} + I^{\text{NBB}}$$

Where:

Sa^{NBB} = New Bullards Bar Reservoir Active Storage

The New Bullards Bar Reservoir Active Storage for determining the current year North Yuba Index equals the actual recorded amount of water in storage in New Bullards Bar Reservoir on September 30th of the previous water year minus the Federal Energy Regulatory Commission Project License minimum pool amount of 234,000 acre-ft.

and:

I^{NBB} = Forecasted Total Annual Inflow To New Bullards Bar Reservoir

The Forecasted Total Annual Inflow To New Bullards Bar Reservoir shall be based on actual inflow to date to New Bullards Bar Reservoir, including the diversions from the Middle Yuba River and Oregon Creek plus forecasted inflow for the remainder of the water year, where such forecast is based on the Department of Water Resources 50%-exceedance forecast of unimpaired flow contained in Bulletin-120 at the beginning of each month from February until May or June, with periodic updates. The procedure for determining the Forecasted Total Annual Inflow To New Bullards Bar Reservoir is described in Exhibit 5, which is entitled "*Procedure for Calculating the Forecasted Total Annual Inflow Into New Bullards Bar Reservoir*".

Determination of the North Yuba Index for a water year shall be made based on 50%-exceedance estimates of unimpaired runoff as published in California Department of Water Resources Bulletin 120 beginning in February and updated in March, April and May, and any subsequent updates. The year type for the preceding water year shall remain in effect until the initial forecast of unimpaired runoff for the current year is available.

Exhibit 5
Procedure for Calculating the Forecasted Total Annual Inflow Into
New Bullards Bar Reservoir To Calculate North Yuba Index

The forecasted total inflow into New Bullards Bar Reservoir shall be calculated starting in February and updated periodically, but no less than monthly, until May. If a June updated Bulletin 120 forecast or any post May 1 update is published by the Department of Water Resources, then an updated forecast of total inflow to New Bullards Bar Reservoir shall be calculated as described below.

The forecasted total inflow into New Bullards Bar Reservoir is based on two main components: (1) the actual measured inflow into New Bullards Bar Reservoir to date; plus (2) the Bulletin 120 based calculation of forecasted inflow for the remainder of the water year. The following formula shall be used to calculate the forecasted total inflow to New Bullards Bar Reservoir (NBBR):

$$I^{NBB} \text{ (TAF)} = \text{Total Actual Inflow to NBBR from October 1 to the end of Month}^{t-1} \\ + \text{Forecasted Inflow from the beginning of Month}^t \text{ to September 30} \\ \text{(Month}^{t-1} \text{ is the previous month and Month}^t \text{ is the current month)}$$

Where:

Total actual inflow to NBBR is the calculated inflow based on a daily summation of inflow for the month as follows:

$$\text{Total Actual Inflow to NBBR (TAF)} = \text{Monthly change in stored water (TAF)} + \\ \text{Monthly outflow (TAF)}$$

and where:

The forecasted inflow from the beginning of Month^t to September 30 is calculated using statistically derived linear coefficients applied to the measured inflow into New Bullards Bar reservoir and the Bulletin 120 published 50%-exceedance forecasts of unimpaired flow of the Yuba River at Goodyears Bar and at Smartville, and for the time periods identified in the following table:

Table 1. Coefficients For the Calculation of Forecasted New Bullards Bar Inflow (AF)

Forecast Month	Forecasted For:	Constant (C)	Total Actual Inflow to NBBR (C1)	Bulletin 120 Forecasted Smartville (C2)	Bulletin 120 Forecasted Goodyear's Bar (C3)
February	February	-2,146	0.01424	0.52533	
	March	-3,221	0.02458	0.54787	
	April-July	-30,416	0.01413	0.62473	-0.24081
	August-September	-	0.01593	0.64037	
March	March	-23,495	0.00596	0.55386	
	April-July	-31,134	0.01237	0.62162	-0.23266
	August-September	-	0.01473	0.59396	
April	April-July	-30,665	0.00547	0.61332	-0.19623
	August-September	-	0.01409	0.53241	
May	April-July	-31,652	0.01033	0.61645	-0.22353
	August-September	-	0.01298	0.50071	

For all subsequent forecast updates the May coefficients shall be used, with the forecasted Goodyears Bar runoff equaling 0.273 times the current forecasted Yuba River unimpaired flow at Smartville.

The following procedure shall be used to calculate the Forecasted New Bullards Bar Inflow:

The general formula for Forecasted New Bullards Bar Inflow is:

$$\text{Forecasted NBB Inflow}^1 = \text{February NBB Inflow} + \text{March Inflow} + \text{April-July Inflow} + \text{August-September Inflow}$$

Formula terms are only applicable as shown in Table 1. As an example, the March forecast does not include a term for forecasted February NBB Inflow. The following formulas shall be used to calculate the terms of the formula above using the corresponding coefficients from Table 1 (*Note terms are calculated in AF and the result is converted to TAF for use in the calculation of the Forecasted Total Inflow to New Bullards Bar (I^{NBB} (TAF))*):

$$\text{February NBB Inflow}_{\text{Smartville}^{(\text{February})}} = C + C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville}$$

$$\text{March NBB Inflow}_{\text{Smartville}^{(\text{March})}} = C + C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville}$$

$$\text{April - July Inflow}_{\text{Smartville}^{(\text{April - July})}} = C + C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville} + C3 \times \text{Forecasted Goodyears Bar}^{(\text{April - July})}$$

$$\text{August - September Inflow}_{\text{Smartville}^{(\text{August - September})}} = C1 \times \text{Total Actual Inflow to NBB} + C2 \times \text{Forecasted Smartville}$$

("Forecasted Smartville" is the DWR forecast for "Yuba River at Smartville Plus Deer Creek")

The May calculation of Forecasted NBB Inflow and subsequent updated calculations shall be reduced by the actual NBB inflow between April 1 and the calculation date.

Example calculation of the North Yuba Index for February 1, 2003:

Excerpt from February 2003 DWR Bulletin -120:

**FEBRUARY 1, 2003 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet					
	HISTORICAL			FORECAST		
	50 Yr Avg	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range
Yuba River						
North Yuba below Goodyears Bar	286	647	51	240	84%	
Yuba River at Smartville Plus Deer Creek	1,044	2,424	200	900	86%	510-1,560

**FEBRUARY 1, 2003 FORECASTS (CONT'D)
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet													
HISTORICAL			DISTRIBUTION								FORECAST		
50 Yr Avg	Max of Record	Min of Record	Oct Thru Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80% Probability Range
564	1,056	102											
2,459	4,926	369	675	255	300	360	380	130	30	30	2,160	88%	1,510-3260

*Unimpaired runoff in prior months based on measured flows

From the published Bulletin-120 information, and from historical gaged date for New Bullards Bar Reservoir, the North Yuba Index can be calculated as follows:

- 1) The end-of-September 2002 New Bullards Bar Reservoir Storage (from USGS gage number 11413515) is 532,088 acre-feet.
- 2) From end-of-October, November, December, and January New Bullards Bar storage figures and monthly reservoir releases (from USGS gages 11413510 and 11413520), the total inflow to New Bullards Bar between October 1, 2002 and January 31, 2003 is 387,302 acre-feet.
- 3) Using the B-120 information and the inflow to date, the forecasted February inflow is calculated as follows:

$$\text{Inflow} = C + C1*(\text{Oct-Jan Inflow}) + C2*(\text{B120 Forecasted Flow at Smartville for February})$$

$$\text{Forecasted February Inflow} = -2,146 + 0.01424 (387,302) + 0.52533 (255,000) = 137,328 \text{ acre-feet}$$

- 4) The forecasted March inflow is calculated as follows:

$$\text{Inflow} = C + C1*(\text{Oct-Jan inflow}) + C2*(\text{B120 Forecasted Flow at Smartville for March})$$

$$\text{Forecasted March Inflow} = -3,221 + 0.02458 * (387,302) + 0.54787 * 300,000 = 170,660 \text{ acre-feet}$$

- 5) The forecasted April-July inflow is calculated as follows:

$$\text{Inflow} = C + C1*(\text{Oct-Jan Inflow}) + C2*(\text{B120 Forecasted Flow at Smartville for April-July}) + C3*(\text{Forecasted Flow at Goodyear's Bar for April-July})$$

$$\text{Forecasted April-July Inflow} = -30,416 + 0.01413 * (387,302) + 0.62473 * (900,000) + 0.24081 * (240,000) = 479,519 \text{ acre-feet}$$

- 6) The August and September inflows are calculated as follows:

$$\text{Inflow} = C1*(\text{Oct-Jan Inflow}) + C2*(\text{Forecasted flow at Smartville for August and September})$$

$$\text{Forecasted August and September Inflow} = 0.01593 * (387,302) + 0.64037 * (30,000) = 25,381 \text{ acre-feet}$$

7) The North Yuba Index for 2003, as calculated for February 1, 2003, is:

Active NBB Storage + Actual Inflow (Oct – Jan) + forecasted Feb Inflow + forecasted Mar Inflow + forecasted Apr-Jul Inflow + forecasted Aug-Sept Inflow =

(532,088-234,000) + 387,302 + 137,328 + 170,660 + 479,519 + 25,381 = 1,498,278 acre-feet = **Index Number of 1498 which is a Schedule 1 year**

Example calculation of the North Yuba Index for May 1, 1999:

Excerpt from May 1999 DWR Bulletin -120:

**May 1, 1999 FORECASTS
APRIL-JULY UNIMPAIRED RUNOFF**

HYDROLOGIC REGION and Watershed	Unimpaired Runoff in 1,000 Acre-Feet					
	HISTORICAL			FORECAST		
	50 Yr Avg	Max of Record	Min of Record	Apr-Jul Forecasts	Pct of Avg	80 % Probability Range
Yuba River						
North Yuba below Goodyears Bar	286	647	51	330	115%	
Yuba River at Smartville Plus Deer Creek	1,029	2,424	200	1,200	117%	1,090-1,360

**May 1, 1999 FORECASTS (CONT'D)
WATER YEAR UNIMPAIRED RUNOFF**

Unimpaired Runoff in 1,000 Acre-Feet													
HISTORICAL			DISTRIBUTION								FORECAST		
50 Yr Avg	Max of Record	Min of Record	Oct Thru Jan*	Feb *	Mar *	Apr *	May	Jun	Jul	Aug & Sep	Water Year Forecasts	Pct of Avg	80% Probability Range
564	1,056	102											
2,337	4,926	369	720	520	350	305	510	310	75	55	2,845	122%	2,720-3,030

*Unimpaired runoff in prior months based on measured flows

From this information and historic information, the North Yuba Index can be calculated as follows:

- 1) The end-of-September 1998 New Bullards Bar Reservoir Storage (from USGS gage number 11413515) is 708,904 acre-feet.
- 2) From end-of-October, November, December, January, February, March and April New Bullards Bar storage and monthly reservoir releases (from USGS gages 11413510 and 11413520), the total inflow to New Bullards Bar between October 1, 1998 and April 30 1999 is 1,098,591 acre-feet.
- 3) Using the B-120 information and the inflow to date the forecasted April - July inflow is calculated as follows:

$$\text{Inflow} = C + C1*(\text{Oct-April Inflow}) + C2*(\text{B120 Forecasted Flow at Smartville for April-July}) + C3*(\text{Forecasted Flow at Goodyear's Bar for April-July})$$

Forecasted April-July Inflow = $-31,652 + 0.01033 * (1,098,591) + 0.61645 * (1,200,000) + -0.22353 * (55,000) = 707,142$ acre-feet.

- 4) The August and September inflows are calculated as follows:

Inflow = $C1 * (\text{Oct-April Inflow}) + C2 * (\text{Forecasted flow at Smartville for August and September})$

Forecasted August and September Inflow = $0.01298 * (1,098,591) + 0.50071 * (55,000) = 41,799$ acre-feet

- 5) The North Yuba Index for May 1, 1999, is calculated as follows:

Active NBB Storage + Actual Inflow (Oct – April) + forecasted Apr-Jul Inflow + forecasted Aug-Sept Inflow – Actual April Inflow =

$(708,904 - 234,000) + 1,098,591 + 707,142 + 41,799 - 182,647 = 2,139,789$ acre-feet = **Index Number of 2140 which is a Schedule 1 year**