

**RECLAMATION DISTRICT NO. 1601  
TWITCHELL ISLAND  
BOARD OF TRUSTEES MEETING  
TUESDAY, MAY 16, 2023  
9:00 AM  
ENGINEER'S REPORT**

**I. DELTA LEVEE SUBVENTIONS PROJECT -SPECIAL PROJECTS  
MULTI-BENEFIT PSP**

- A. Review status of Full Proposal Application.
- B. Seek passage of resolution from the Board of Trustees for authority of KSN Inc. to submit the application on behalf of RD 1601. Seek a statement from the District its intent to enter into a Project Funding Agreement with DWR. Seek and obtain a resume from a qualified Biologist endorsing the project (KSN working on with our biologist who designed the project with GEI). Seek and obtain statement from the District's Project Biologist discussing how our project meets the requirements of the Water Code (KSN working on with our biologist who designed the project with GEI). A letter of commitment from DWR, the landowner whose land the project will be built on agreeing to establishment of the project, (KSN will need assistance of the DWR Trustees on the Board to acquire this letter of commitment).

***EXHIBIT A: Section 5B from the PSP that describes requirements for the Full Application and highlighted resolutions and commitments for the Board and DWR***

**II. DELTA LEVEE SUBVENTIONS PROGRAM 2023 HIGH WATER EVENT**

- A. Review status of FEMA claim for flood related expenses. KSN Inc. on behalf of RD 1601 met with FEMA representatives on April 25, 2023, in their kickoff meeting to review parameters of the District's claim and discuss any environmental impacts. No adverse environmental impacts were identified and KSN Inc. is now moving forward with preparing the formal application for disaster assistance funding with the FEMA team.
- B. Review current hydrology conditions in the South Delta for ongoing high winter run-off into August.

***EXHIBIT B: Report dated 5/8/23 from DWR Weekly Flood Operation Center & USACE of coordinated reservoir operations on the San Joaquin River.***

**III. 2023-2024 ASSESSMENT BY LANDOWNER SUMMARIES**

- A. Review the Districts Draft Assessment summaries calculated for 100%, 90%, and 80%, of the **\$700,000** approved assessment.

***EXHIBIT C: Assessment summaries 100% (UNDER SEPARATE COVER)***

***EXHIBIT D: Assessment summaries 90% (UNDER SEPARATE COVER)***

***EXHIBIT E: Assessment summaries 80% (UNDER SEPARATE COVER)***

# Exhibit A

---

## Christopher H. Neudeck

---

**From:** Erik E. Almaas  
**Sent:** Wednesday, May 10, 2023 6:23 AM  
**To:** Christopher H. Neudeck  
**Subject:** Twitchell PSP  
**Attachments:** Pages from 2023 Multi Benefit PSP.Final.pdf

Chris,

Attached is Section 5B from the PSP that describes the requirements for a full application. I've highlighted in yellow the resolution needed by the Board and the necessary landowner commitment. I've also included Appendix 4 which is a sample resolution. I've highlighted in blue the requirements for a statement of intent to enter into a PFA. I'm thinking that we can just include this statement in our application narrative and that no further action is needed from the Board. I've also highlighted in green the requirements for a statement from a biologist, and I've already reached out to Ascent to obtain this information.

## 5B. FULL APPLICATIONS

Successful applicants who receive a written invitation to the second phase may submit a Full Application, which must include<sup>4</sup>:

- A cover sheet that provides an overview of the project;
- A statement by the LMA identifying the applicant's representatives, including the Engineer, Project Biologist, and anyone authorized to provide information on the LMA's behalf;
- A completed Local Agency Information Sheet (Appendix 3);
- A resolution adopted by the LMA authorizing submission of the application and designating a representative to sign the application (Appendix 4);
- A statement of the LMA's intent to enter into a Project Funding Agreement (PFA) with the Department of Water Resources (DWR), to implement a project under the Special Projects Program, and to provide local cost share for the project after signing a contract with DWR.
- A detailed project description.<sup>5</sup> The description must clearly explain the proposed work and its location(s) and include maps and drawings that illustrate the plan so major components are clear. The project description must include sufficient information to clearly identify and describe the following components that are applicable to the category of project:
  - the levee improvement portion of the project including a description of improvements to levee integrity;
  - the habitat enhancement portion of the project including a description and map of benefits to the Delta ecosystem and flood protection, and how it will provide a net habitat improvement and net benefit to aquatic species of the Delta;
  - a description of the types and amount of habitat present on-site, potentially impacted by the project;
  - how the project will improve export water supply reliability from the Delta for the State and federal Water Projects;
- A checklist of the materials required and a statement certifying that the project description is accurate, the cost estimate is reasonable, that the levee stability improvements are reasonable, and that the water supply reliability benefits are

---

<sup>4</sup> Applicants with questions about what to provide are encouraged to consult with DWR Delta Levees Program staff.

<sup>5</sup>The level of detail provided in the project description is at the discretion of the applicant, but it is in the applicant's best interest to offer as much detail and documentation as possible as the eligibility and ranking criteria in the Guidelines require a great deal of specific information. Descriptions may be limited to a discussion of elements/objectives.

realistic and a statement explaining the public assets protected shall be completed by a professional civil engineer licensed in California;

- The curriculum vitae from a qualified biologist or restoration ecologist acting on behalf of the District (cited here as Project Biologist) who has endorsed the project. The Project Biologist shall provide a statement discussing how the project intends to meet the requirements of Water Code Section 12314(b), which requires no net long-term loss of habitat;
- A statement prepared by the Project Biologist discussing how the project intends to meet the requirements of Water Code Section 12314(d), which requires net habitat improvement and net benefit to aquatic species of the Delta. This should include a description of benefits of any habitat creation and/or improvements;
- A draft of the CEQA checklist, completed by the Project Biologist, identifying all potential project impacts, typical of "Appendix G" to CEQA Guidelines;
- A detailed discussion of the environmental permits required for the project, and a schedule for permit completion; a description of any environmental or habitat impacts that may occur, an estimate of the corresponding acreage, and a description of how the mitigation cost estimate was calculated;
- A detailed discussion and map of any enhancement proposal to provide clarity on how the enhancement will be achieved, including, but not limited to: a planting plan, clear performance standards, maintenance activities, monitoring and reporting requirements, and long-term management.
- Any landside habitat proposed must be within the LMA's easement or a letter of commitment from the landowner agreeing to establishment of planned habitat on their property must be included with the application.
- A detailed discussion of how the project defines, anticipates, and addresses climate change impacts, including a description of the method and data used to assess the potential impacts of flooding and/or sea level rise on the proposed project. See also Appendix 7 to provide the information requested in the Climate Risk in Investments Survey questions (note that responses to these questions do not affect scoring).
- A project financing plan, including grants, loans, or bonds from other sources that are necessary for completing the proposed work; and
- A completed checklist of the application contents and materials required.

#### Submission of Full Applications

Potential Applicants are encouraged to contact the Special Projects Program with any questions or to set up meetings regarding their Full Applications.

Applicants shall submit one hard copy and one electronic copy of all documents comprising their Full Applications by the deadline on the first page of this PSP. All copies and attachments must be legible and suitable for copying.

**Applications shall be submitted to:**

Andrea L. Lobato, P.E., Manager  
Delta Levees Program  
Division of Multi-Benefit Initiatives  
Department of Water Resources  
Post Office Box 942836  
Sacramento, CA 94236-0001

Full Applications that do not meet the deadline will not be reviewed. Applications received by the deadline will be reviewed for eligibility and completeness. Applications that are not substantially complete as determined by DWR will not be reviewed beyond completeness. DWR may contact and ask for additional information for those Full Applications that are substantially complete but missing some items. If an applicant is contacted by DWR with a request for more information, the applicant will have one week from the date of contact to provide all requested information in full.

Completed Full Applications will be scored and ranked using the Full Application Scoring Criteria in this PSP. Applications will then be selected for participation in the Special Projects Program. Following the selection, DWR will notify all applicants of their standing. Once the selection process is complete, the selected applicants will be requested to enter into a Project Funding Agreement (PFA) with DWR.

Funding for the Projects will be broken up into two phases with separate PFAs. The Phase 1 PFA will provide for planning, design, and permitting, while Phase 2 PFA will provide for construction, construction engineering and inspections, mitigation costs associated with construction, and project close out. DWR will not enter into Phase 2 funding until Phase 1 has been completed; however, successful completion of Phase 1 will not guarantee Phase 2 funding. Phase 2 funds will be available on a first come first served basis, depending upon available funding. The Program may give priority to Projects that do not receive Phase 2 funding through a Directed Action when additional funding becomes available. Funds for either Phase 1 or Phase 2 shall be disbursed only after execution of a PFA.

The total allowable cost for a Phase 1 grant shall not exceed 20%<sup>6</sup> of the construction cost. Phase 1 grants will be based on the District Engineer's initial estimate but may ultimately be revised based on actual bid amounts. If the Phase 1 PFA amount exceeds the maximum allowable percent, the Phase 2 grant will be adjusted accordingly.

---

<sup>6</sup> It is the sole discretion of the Department to adjust the maximum allowable percentage as deemed appropriate.

## Appendix 4 Authorizing Resolution Template

RESOLUTION NO. [xxxx]

A RESOLUTION OF THE [GOVERNING BODY] OF THE [AGENCY NAME]  
AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION  
FOR THE [PROJECT TITLE]

WHEREAS, [Agency Name] proposes to implement [Project Title];

WHEREAS, [Agency Name] has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, [Agency Name] intends to apply for grant funding from the California Department of Water Resources for the [Project Title];

THEREFORE, BE IT RESOLVED by the [Governing Body] of the [Agency Name] as follows:

1. That pursuant and subject to all of the terms and provisions of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Pub. Resources Code, § 75001 et seq.) and the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Wat. Code, § 79700 et seq.), the [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions as necessary or appropriate to obtain grant funding.
2. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding and fulfill the requirements of the funding agreement.

CERTIFICATION I hereby certify that the foregoing Resolution was duly and regularly adopted by the [Governing Body Name] of the [agency name] at the meeting held on [date], motion by [member name] and seconded by [member name], motion passed by the following vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:

Attest:

---

[Printed Name]  
[Title], [Governing Body]

---

[Printed Name]  
[Secretary/Clerk]



## Christopher H. Neudeck

---

**From:** Erik E. Almaas  
**Sent:** Wednesday, May 10, 2023 6:23 AM  
**To:** Christopher H. Neudeck  
**Subject:** Twitchell PSP  
**Attachments:** Pages from 2023 Multi Benefit PSP.Final.pdf

Chris,

Attached is Section 5B from the PSP that describes the requirements for a full application. I've highlighted in yellow the resolution needed by the Board and the necessary landowner commitment. I've also included Appendix 4 which is a sample resolution. I've highlighted in blue the requirements for a statement of intent to enter into a PFA. I'm thinking that we can just include this statement in our application narrative and that no further action is needed from the Board. I've also highlighted in green the requirements for a statement from a biologist, and I've already reached out to Ascent to obtain this information.

## 5B. FULL APPLICATIONS

Successful applicants who receive a written invitation to the second phase may submit a Full Application, which must include<sup>4</sup>:

- A cover sheet that provides an overview of the project;
- A statement by the LMA identifying the applicant's representatives, including the Engineer, Project Biologist, and anyone authorized to provide information on the LMA's behalf;
- A completed Local Agency Information Sheet (Appendix 3);
- A resolution adopted by the LMA authorizing submission of the application and designating a representative to sign the application (Appendix 4);
- A statement of the LMA's intent to enter into a Project Funding Agreement (PFA) with the Department of Water Resources (DWR), to implement a project under the Special Projects Program, and to provide local cost share for the project after signing a contract with DWR.
- A detailed project description.<sup>5</sup> The description must clearly explain the proposed work and its location(s) and include maps and drawings that illustrate the plan so major components are clear. The project description must include sufficient information to clearly identify and describe the following components that are applicable to the category of project:
  - the levee improvement portion of the project including a description of improvements to levee integrity;
  - the habitat enhancement portion of the project including a description and map of benefits to the Delta ecosystem and flood protection, and how it will provide a net habitat improvement and net benefit to aquatic species of the Delta;
  - a description of the types and amount of habitat present on-site, potentially impacted by the project;
  - how the project will improve export water supply reliability from the Delta for the State and federal Water Projects;
- A checklist of the materials required and a statement certifying that the project description is accurate, the cost estimate is reasonable, that the levee stability improvements are reasonable, and that the water supply reliability benefits are

---

<sup>4</sup> Applicants with questions about what to provide are encouraged to consult with DWR Delta Levees Program staff.

<sup>5</sup>The level of detail provided in the project description is at the discretion of the applicant, but it is in the applicant's best interest to offer as much detail and documentation as possible as the eligibility and ranking criteria in the Guidelines require a great deal of specific information. Descriptions may be limited to a discussion of elements/objectives.

realistic and a statement explaining the public assets protected shall be completed by a professional civil engineer licensed in California;

- The curriculum vitae from a qualified biologist or restoration ecologist acting on behalf of the District (cited here as Project Biologist) who has endorsed the project. The Project Biologist shall provide a statement discussing how the project intends to meet the requirements of Water Code Section 12314(b), which requires no net long-term loss of habitat;
- A statement prepared by the Project Biologist discussing how the project intends to meet the requirements of Water Code Section 12314(d), which requires net habitat improvement and net benefit to aquatic species of the Delta. This should include a description of benefits of any habitat creation and/or improvements;
- A draft of the CEQA checklist, completed by the Project Biologist, identifying all potential project impacts, typical of "Appendix G" to CEQA Guidelines;
- A detailed discussion of the environmental permits required for the project, and a schedule for permit completion; a description of any environmental or habitat impacts that may occur, an estimate of the corresponding acreage, and a description of how the mitigation cost estimate was calculated;
- A detailed discussion and map of any enhancement proposal to provide clarity on how the enhancement will be achieved, including, but not limited to: a planting plan, clear performance standards, maintenance activities, monitoring and reporting requirements, and long-term management.
- Any landside habitat proposed must be within the LMA's easement or a letter of commitment from the landowner agreeing to establishment of planned habitat on their property must be included with the application.
- A detailed discussion of how the project defines, anticipates, and addresses climate change impacts, including a description of the method and data used to assess the potential impacts of flooding and/or sea level rise on the proposed project. See also Appendix 7 to provide the information requested in the Climate Risk in Investments Survey questions (note that responses to these questions do not affect scoring).
- A project financing plan, including grants, loans, or bonds from other sources that are necessary for completing the proposed work; and
- A completed checklist of the application contents and materials required.

#### Submission of Full Applications

Potential Applicants are encouraged to contact the Special Projects Program with any questions or to set up meetings regarding their Full Applications.

Applicants shall submit one hard copy and one electronic copy of all documents comprising their Full Applications by the deadline on the first page of this PSP. All copies and attachments must be legible and suitable for copying.

**Applications shall be submitted to:**

Andrea L. Lobato, P.E., Manager  
Delta Levees Program  
Division of Multi-Benefit Initiatives  
Department of Water Resources  
Post Office Box 942836  
Sacramento, CA 94236-0001

Full Applications that do not meet the deadline will not be reviewed. Applications received by the deadline will be reviewed for eligibility and completeness. Applications that are not substantially complete as determined by DWR will not be reviewed beyond completeness. DWR may contact and ask for additional information for those Full Applications that are substantially complete but missing some items. If an applicant is contacted by DWR with a request for more information, the applicant will have one week from the date of contact to provide all requested information in full.

Completed Full Applications will be scored and ranked using the Full Application Scoring Criteria in this PSP. Applications will then be selected for participation in the Special Projects Program. Following the selection, DWR will notify all applicants of their standing. Once the selection process is complete, the selected applicants will be requested to enter into a Project Funding Agreement (PFA) with DWR.

Funding for the Projects will be broken up into two phases with separate PFAs. The Phase 1 PFA will provide for planning, design, and permitting, while Phase 2 PFA will provide for construction, construction engineering and inspections, mitigation costs associated with construction, and project close out. DWR will not enter into Phase 2 funding until Phase 1 has been completed; however, successful completion of Phase 1 will not guarantee Phase 2 funding. Phase 2 funds will be available on a first come first served basis, depending upon available funding. The Program may give priority to Projects that do not receive Phase 2 funding through a Directed Action when additional funding becomes available. Funds for either Phase 1 or Phase 2 shall be disbursed only after execution of a PFA.

The total allowable cost for a Phase 1 grant shall not exceed 20%<sup>§</sup> of the construction cost. Phase 1 grants will be based on the District Engineer's initial estimate but may ultimately be revised based on actual bid amounts. If the Phase 1 PFA amount exceeds the maximum allowable percent, the Phase 2 grant will be adjusted accordingly.

---

<sup>§</sup> It is the sole discretion of the Department to adjust the maximum allowable percentage as deemed appropriate.

## Appendix 4 Authorizing Resolution Template

RESOLUTION NO. [xxxx]

A RESOLUTION OF THE [GOVERNING BODY] OF THE [AGENCY NAME]  
AUTHORIZING THE GRANT APPLICATION, ACCEPTANCE, AND EXECUTION  
FOR THE [PROJECT TITLE]

WHEREAS, [Agency Name] proposes to implement [Project Title];

WHEREAS, [Agency Name] has the legal authority and is authorized to enter into a funding agreement with the State of California; and

WHEREAS, [Agency Name] intends to apply for grant funding from the California Department of Water Resources for the [Project Title];

THEREFORE, BE IT RESOLVED by the [Governing Body] of the [Agency Name] as follows:

1. That pursuant and subject to all of the terms and provisions of the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Pub. Resources Code, § 75001 et seq.) and the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Wat. Code, § 79700 et seq.), the [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to prepare and file an application for funding with the Department of Water Resources, and take such other actions as necessary or appropriate to obtain grant funding.
2. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to execute the funding agreement with the Department of Water Resources and any amendments thereto.
3. The [Agency Name] [Title of Authorized Representative], or designee is hereby authorized and directed to submit any required documents, invoices, and reports required to obtain grant funding and fulfil the requirements of the funding agreement.

CERTIFICATION I hereby certify that the foregoing Resolution was duly and regularly adopted by the [Governing Body Name] of the [agency name] at the meeting held on [date], motion by [member name] and seconded by [member name], motion passed by the following vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:

Attest:

---

[Printed Name]  
[Title], [Governing Body]

---

[Printed Name]  
[Secretary/Clerk]

# Exhibit B

---

**SJ Basin Forecasted Spring Flows (based on May 7-8 data)**

Vernalis Flow (cfs)	April	May	June	July
90% scenario	29000-30000	24000-28000	24000-28000	10000-15000
50% scenario	29000-30000	25000-30000	30000-32000	15000-25000
10% scenario	29000-30000	30000-34000	33000-36000	25000-30000

New Melones (cfs)	April	May	June	July
90% scenario	1500	500-1000	500-1000	500-1000
50% scenario	1500	1000	1000	1000
10% scenario	1500	2000	1500-2000	1000-2000

Don Pedro Releases (cfs)	April	May	June	July
90% scenario	10500	8500-10500	7500-8500	0-2000
50% scenario	10500	10500	9500	0-4000
10% scenario	10500	10500	9500-10500	2000-7500

Exchequer Releases (cfs)	April	May	June	July
90% scenario	7000	5000	4000-5000	0-2000
50% scenario	7000	5000	5000	2000
10% scenario	7000	5000-6000	5000-6000	0-4000

Eastside Bypass El Nido (cfs)	April	May	June	July
90% scenario	11000	6000-8000	7000-8000	2000-5000
50% scenario	11000	6000-9000	8000-9000	4000-8000
10% scenario	11000	6000-10000	9000-12000	4000-11000

Friant Releases (cfs)	April	May	June	July
90% scenario	8500	6000-8000	8000	2000-6000
50% scenario	8500	6000-9000	9000	4000-9000
10% scenario	8500	6000-10000	9000-12000	4000-12000

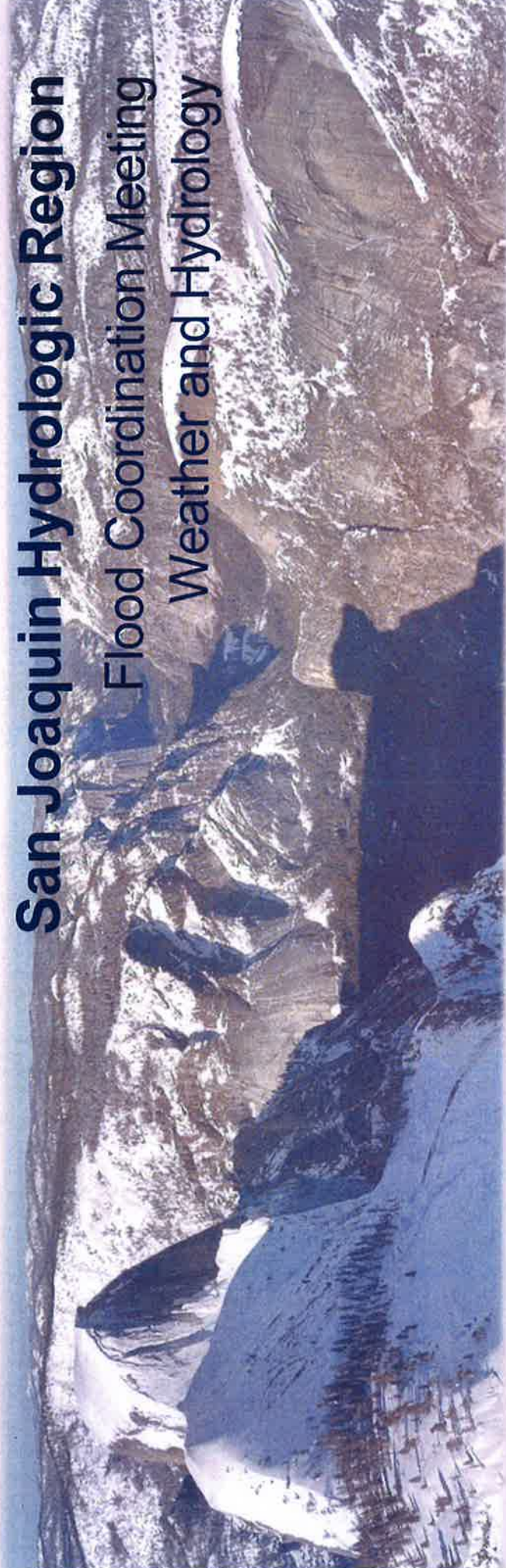
Pine Flat Releases (cfs)	April	May	June	July
90% scenario	4750	4750	4750	0-4750
50% scenario	4750	4750	4750	0-4750
10% scenario	4750	4750	4750	2500-4750

Note: Reservoir releases are reported after removal of irrigation demands  
 Don Pedro releases are for Tuolumne R @ Modesto  
 Exchequer releases are for Merced R @ Stevinson  
 Friant releases are for the SJ R @ the bifurcation structure  
 Pine Flat releases are for the flow @ Crescent Weir (towards Mendota Pool)

CALIFORNIA DEPARTMENT OF WATER RESOURCES

# San Joaquin Hydrologic Region

## Flood Coordination Meeting Weather and Hydrology



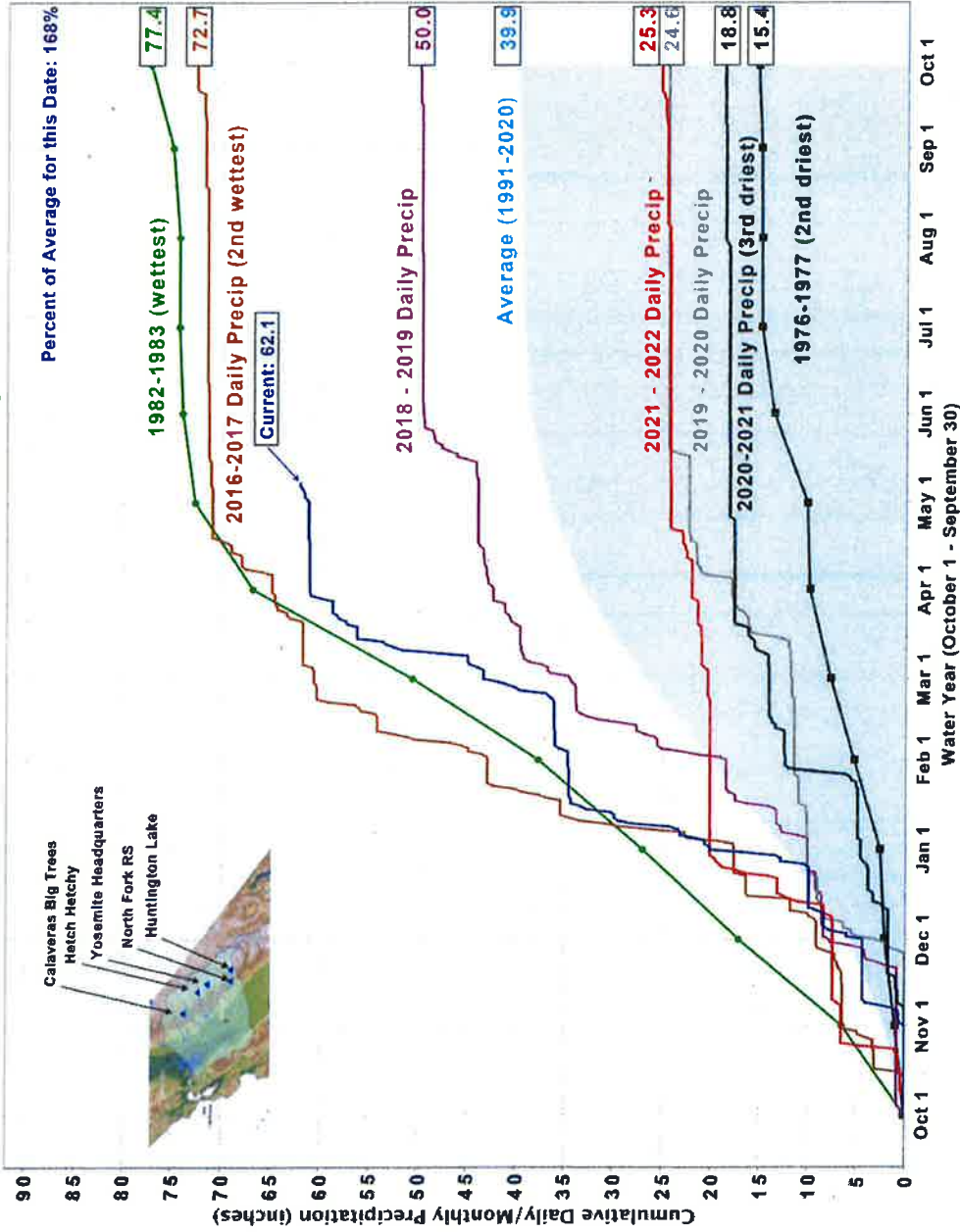
DWR FOC Intel Unit

May 8, 2023





### San Joaquin Precipitation: 5-Station Index, May 08, 2023

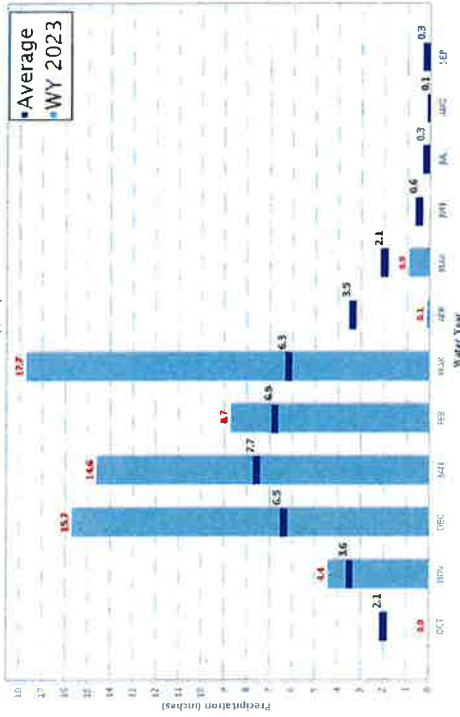


### San Joaquin 5-Station

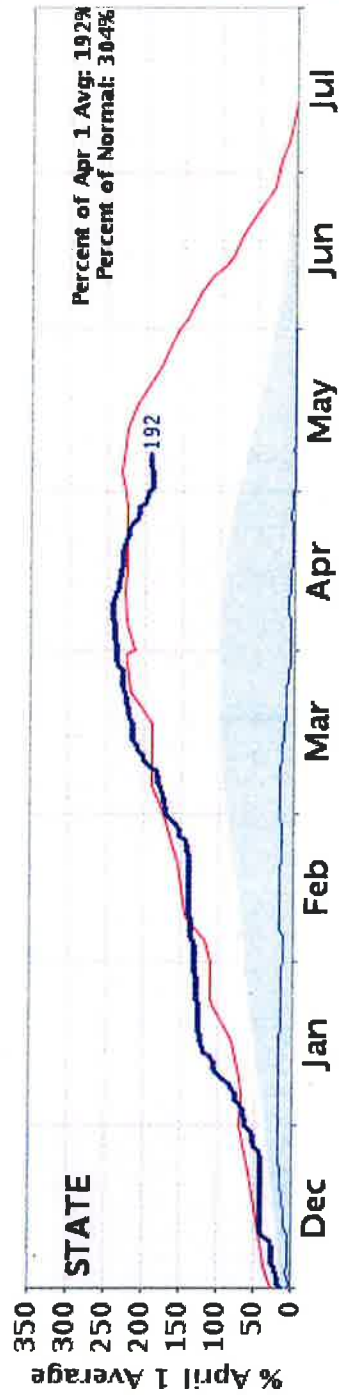
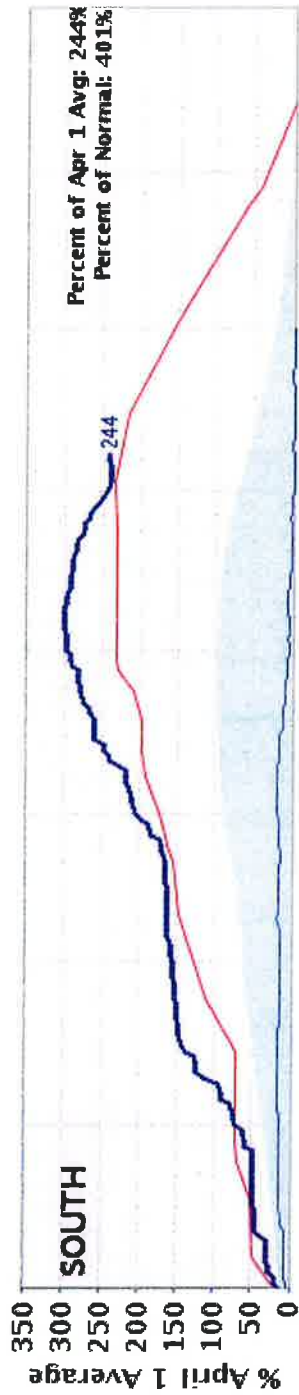
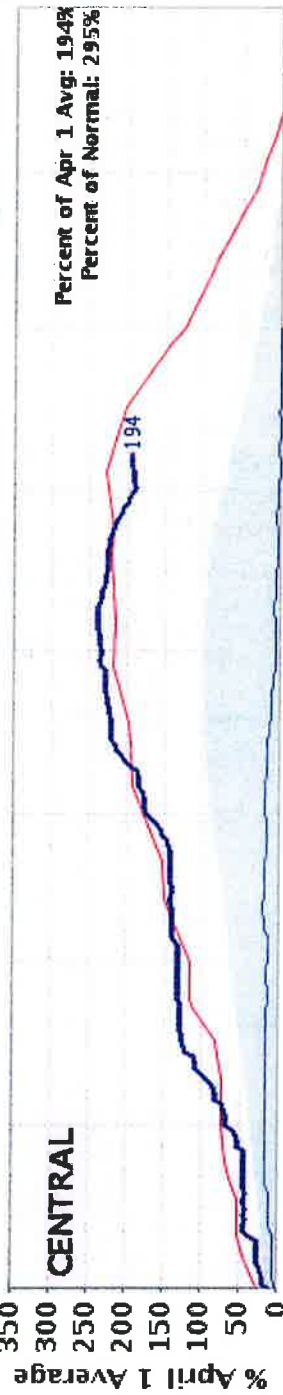
Precipitation Index for Water Year 2023 - Updated on May 8, 2023 12:33 PM

Note: Monthly totals may not add up to seasonal total because of rounding.

Water Year Monthly totals are calculated based on daily precipitation data from 12am to 12am PST.



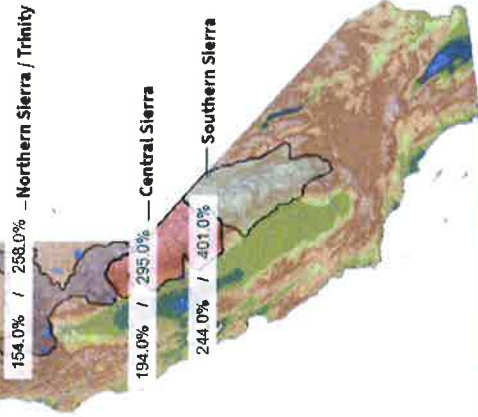
# CA Snow Water Content - Percent of April 1 Average For: 08-May-2023



Average — 1982-1983 (max) — 2014-2015 (min) — 2022-2023 (current)

Data For: 08-May-2023

% Apr 1 Avg. / % Normal for this Date



## CENTRAL

Data For: 08-May-2023

Number of Stations Reporting	42
Average snow water equivalent	49.8"
Percent of April 1 Average	194%
Percent of normal for this date	295%

## SOUTH

Data For: 08-May-2023

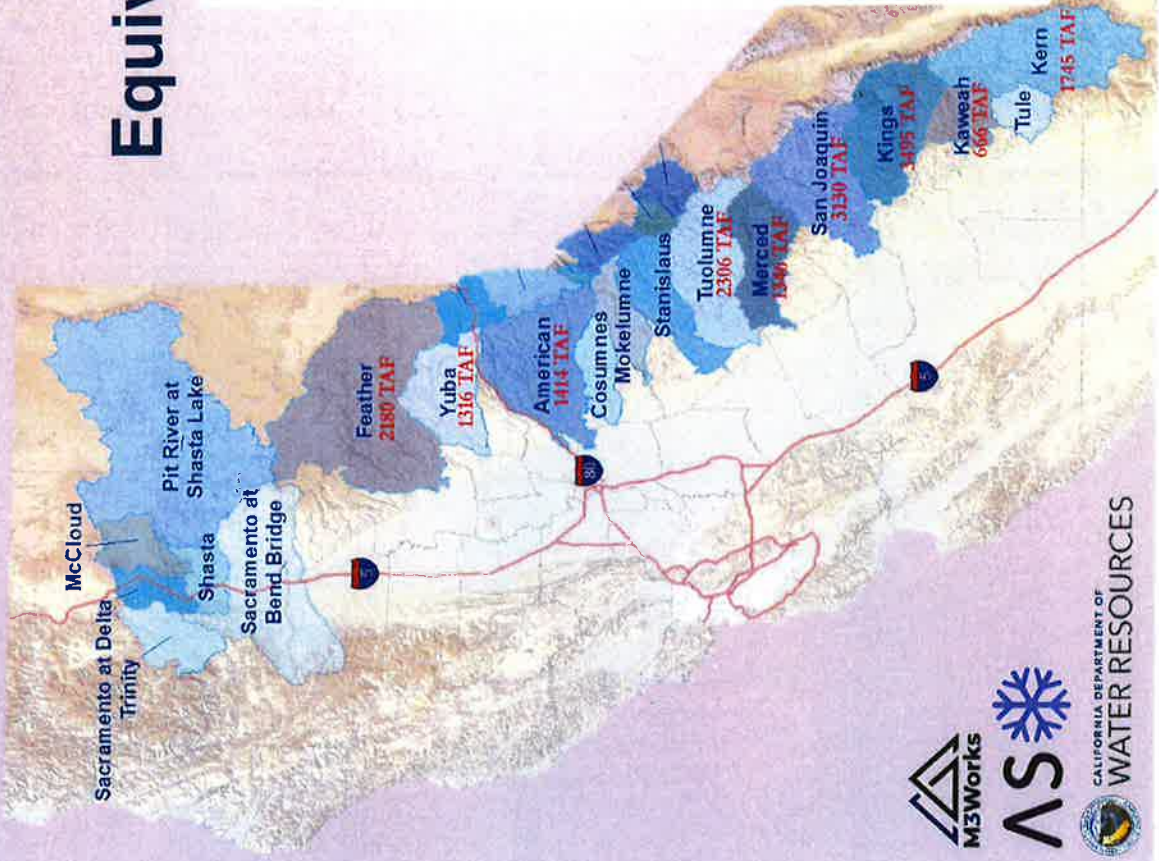
Number of Stations Reporting	22
Average snow water equivalent	50.4"
Percent of April 1 Average	244%
Percent of normal for this date	401%

## STATEWIDE SUMMARY

Data For: 08-May-2023

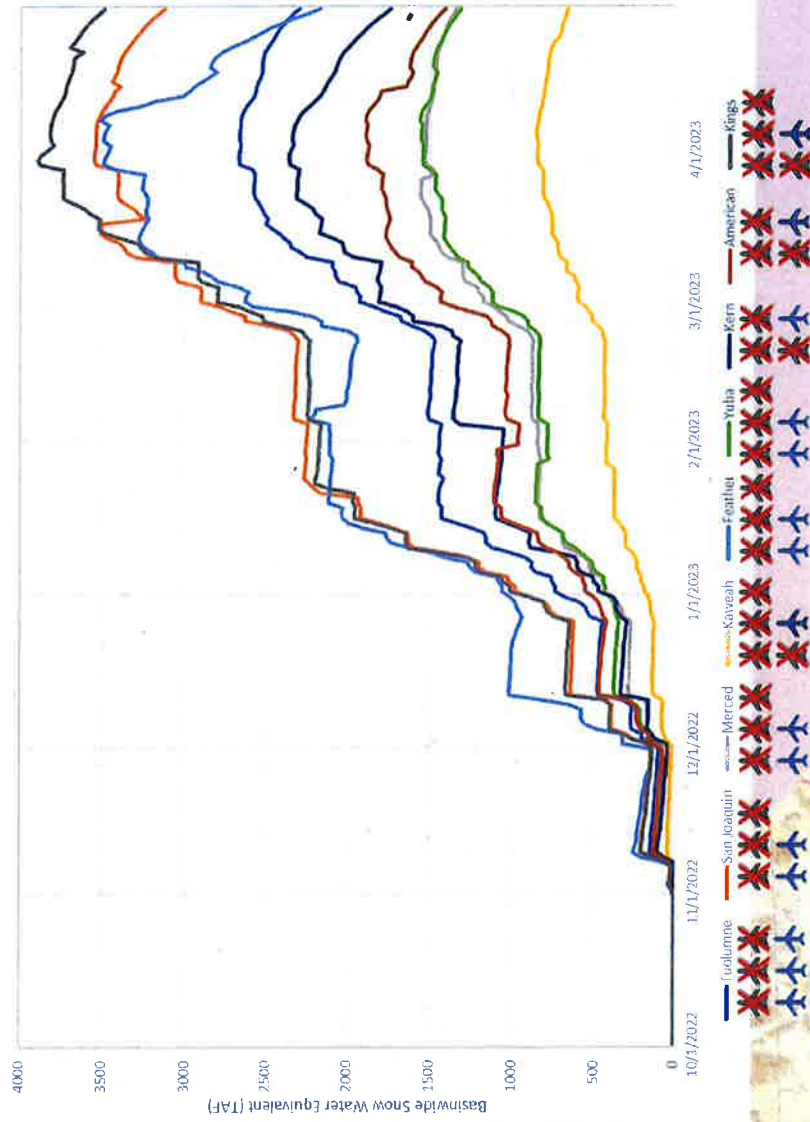
Number of Stations Reporting	88
Average snow water equivalent	48.8"
Percent of April 1 Average	192%
Percent of normal for this date	304%

# Current Basinwide Snow Water Equivalent Volumes as of April 30, 2023



Aerial Remote Sensing of Snow Program

Basinwide Snow Water Equivalent WY2023 through April 30, 2023



Data courtesy of M3Works' iSnoPal models with ASO ingested flight data



CALIFORNIA DEPARTMENT OF WATER RESOURCES



# ASO + M3Works Modeling as of April 30

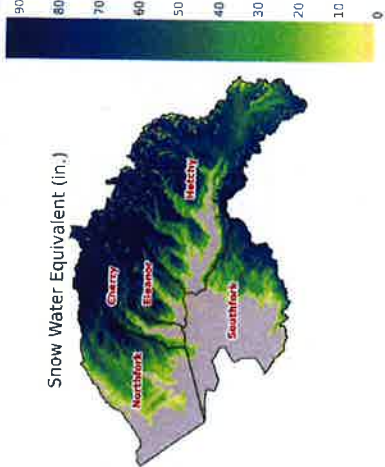
San Joaquin Region Basinwide SWE = ~8.3 MAF as of April 30

Summation of Stanislaus, Tuolumne, Merced, San Joaquin watersheds  
 Note: Stanislaus (Snohal) model is DWR-internal model and not constrained with ASO flights

## Tuolumne

Basinwide SWE = 2.3 MAF

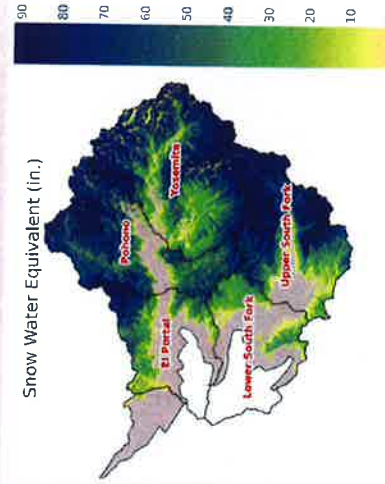
Last ASO flight: April 27  
 Next ASO flight: end of May



## Merced

Basinwide SWE = 1.3 MAF

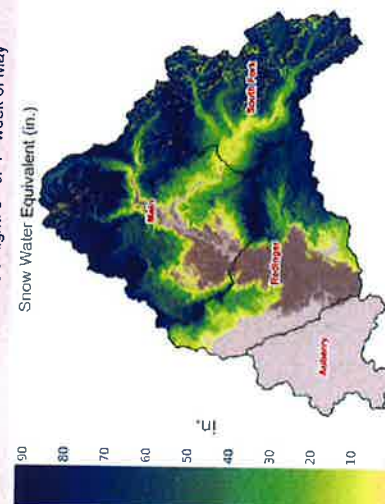
Last ASO flight: March 26-27  
 Next ASO flight: mid May



## San Joaquin

Basinwide SWE = 3.1 MAF

Last ASO flight: April 14-15  
 Next ASO flight: 3rd or 4th week of May



## Kings

Basinwide SWE = 3.5 MAF

Last ASO flight: April 21-22  
 Next ASO flight: end of May

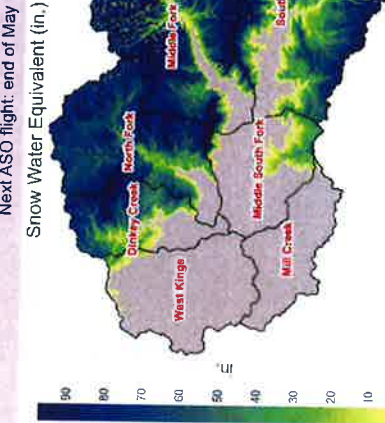


Fig.5 Snow Water Equivalent as of 2023-04-18

Total Snow Water Equivalent (TAF) per Elevation band

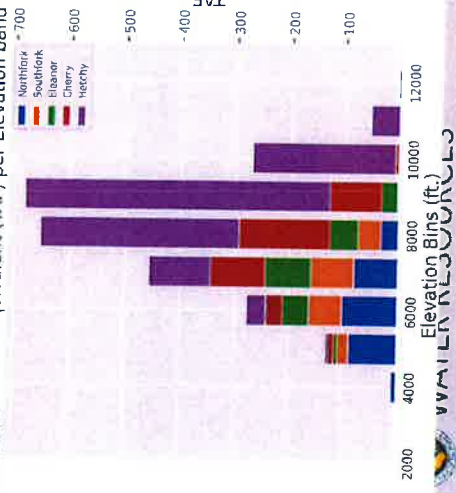


Fig.5 Snow Water Equivalent as of 2023-04-18

Total Snow Water Equivalent (TAF) per Elevation band

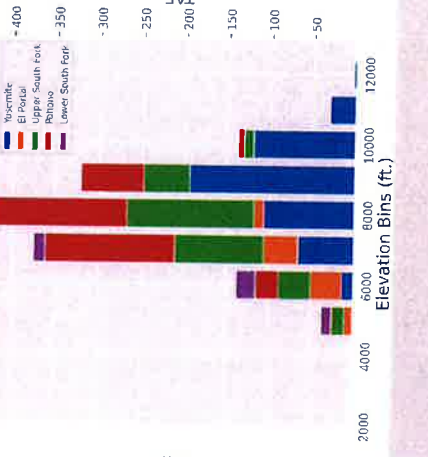


Fig.5 Snow Water Equivalent as of 2023-04-15

Total Snow Water Equivalent (TAF) per Elevation band

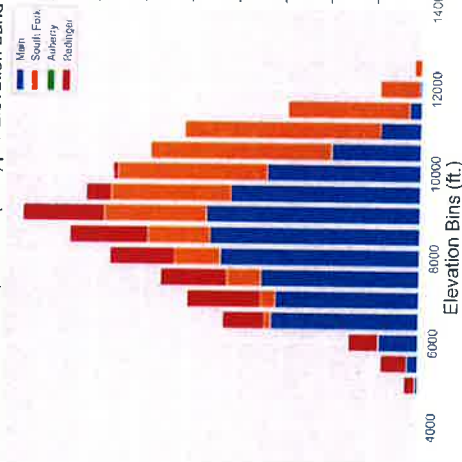
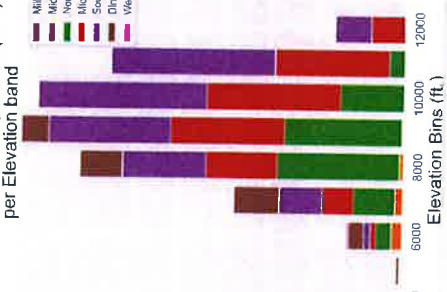


Fig.5 Snow Water Equivalent as of 2023-04-22

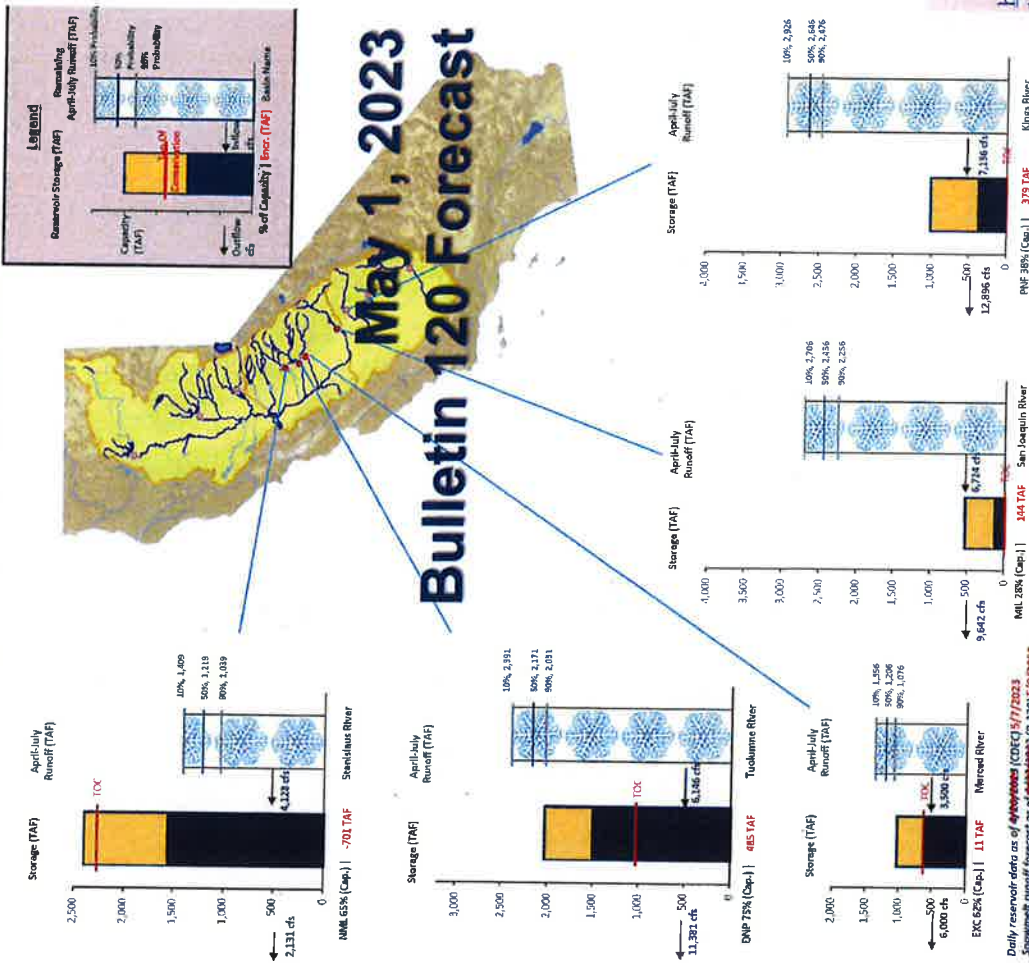
Total Snow Water Equivalent (TAF) per Elevation band





# Reservoir Conditions and Snowmelt

Reservoir Conditions and A-J Runoff as of May 7th, 2023



## Bulletin 120 and Water Supply Index Forecast Schedule - Water Year 2023

Forecast Type	Forecast Date	Issue Date	Issue Day of Week	Notes
WSI	12/1/2022	12/8/2022	Thursday	
WSI	1/1/2023	1/10/2023	Tuesday	
Bul 120 & WSI	2/1/2023	2/8/2023	Wednesday	
Bul 120 update	2/14/2023	2/16/2023	Thursday	
Bul 120 update	2/21/2023	2/23/2023	Thursday	
Bul 120 update	2/27/2023	2/28/2023	Tuesday	President's Day 2/20 Unofficial forecast/Guidance due to short turnaround
Bul 120 & WSI	3/1/2023	3/8/2023	Wednesday	
Bul 120 update	3/14/2023	3/16/2023	Thursday	
Bul 120 update	3/21/2023	3/23/2023	Thursday	
Bul 120 update	3/28/2023	3/30/2023	Thursday	
Bul 120 & WSI	4/1/2023	4/10/2023	Monday	Cesar Chavez Day observed 3/31
Bul 120 update	4/11/2023	4/13/2023	Thursday	
Bul 120 update	4/18/2023	4/20/2023	Thursday	
Bul 120 update	4/25/2023	4/27/2023	Thursday	
Bul 120 & WSI	5/1/2023	5/8/2023	Monday	
Bul 120 update	5/9/2023	5/11/2023	Thursday	
Bul 120 update	5/16/2023	5/18/2023	Thursday	
Bul 120 update	5/23/2023	5/25/2023	Thursday	
Bul 120 update	5/30/2023	6/1/2023	Thursday	
Bul 120 update	6/6/2023	6/8/2023	Thursday	Memorial Day 5/29
Bul 120 update	6/13/2023	6/15/2023	Thursday	
Bul 120 update	6/20/2023	6/22/2023	Thursday	
Bul 120 update	6/27/2023	6/29/2023	Thursday	

### Notes:

B120 and WSI forecasts are issued six business days after the first of the month in February, March, April, and May  
 B120 Update forecasts are issued weekly after B120 forecasts  
 B120 Update forecasts are for conditions as of Tuesday morning and issued on the Thursday the same week unless there's a midweek holiday

### Snow Surveys and Water Supply Forecasting Unit Contact Information

Name	Email	Phone
Sean de Guzman	sean.deguzman@water.ca.gov	(916) 885-8993
Andy Reising	andrew.reising@water.ca.gov	(916) 574-2181
Anthony Burdock	anthony.burdock@water.ca.gov	(916) 914-0051
Jacob Kollen	jacob.kollen@water.ca.gov	(916) 914-0028
Jordan Thoennes	jordan.thoennes@water.ca.gov	(916) 885-8992

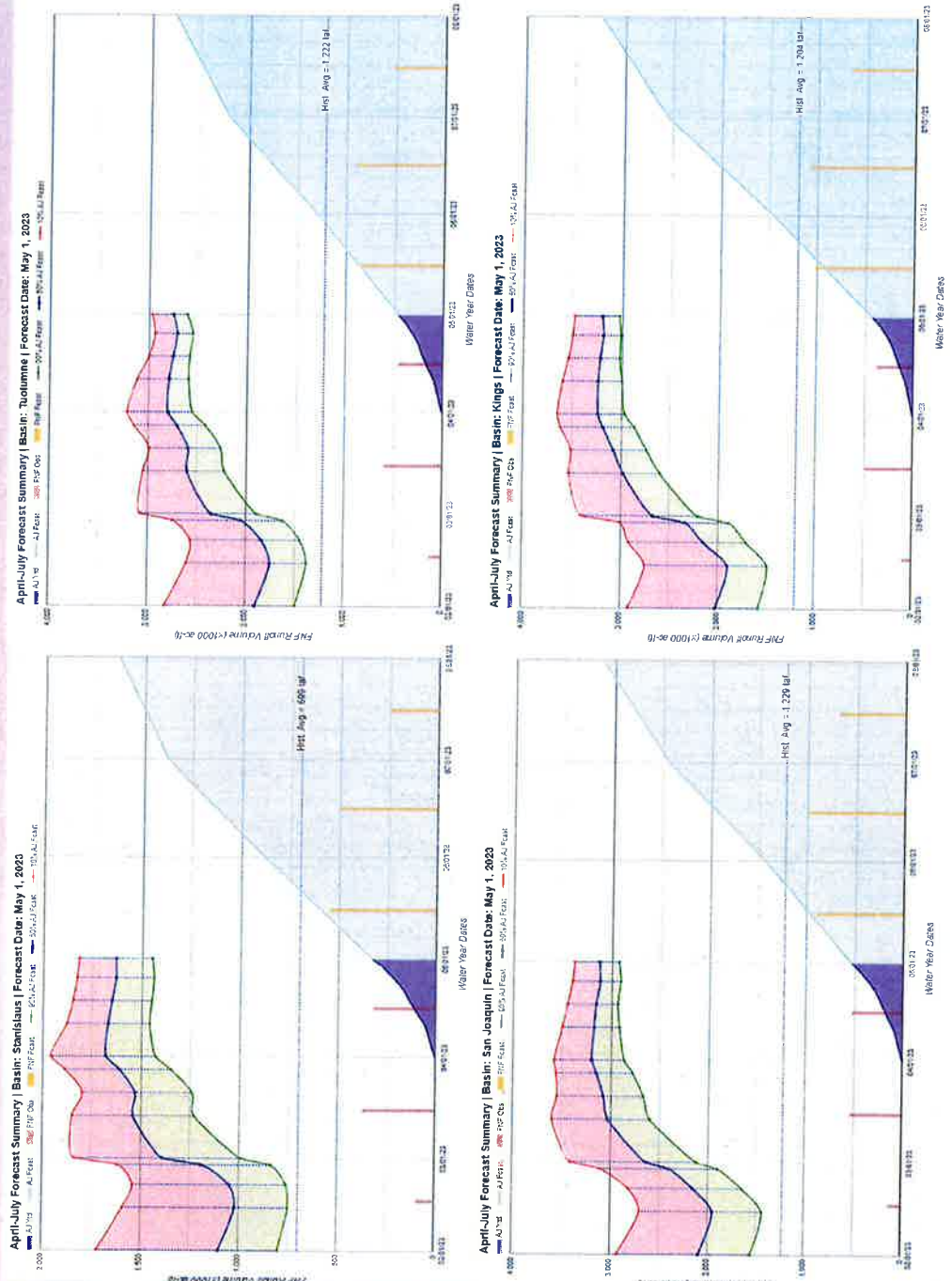
[https://cdcc.water.ca.gov/reportapp/javareports?name=SJ\\_ResA.pdf](https://cdcc.water.ca.gov/reportapp/javareports?name=SJ_ResA.pdf)  
[https://cdcc.water.ca.gov/reportapp/javareports?name=SJ\\_ResA.pdf](https://cdcc.water.ca.gov/reportapp/javareports?name=SJ_ResA.pdf)

Daily reservoir data as of 4/17/2023  
 Snowmelt runoff forecast as of 4/17/2023

# May 1, 2023 Bulletin 120 Forecast

Forecasted Basin Runoff for May 01, 2023

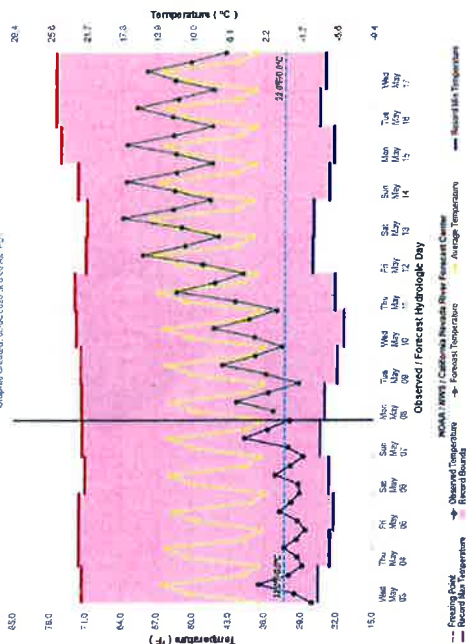
Basin Name	Apr-Jul Forecast				Water Year Forecast			
	90 <sup>th</sup> Perc.	Median	10 <sup>th</sup> Perc.	50 <sup>th</sup> Perc.	90 <sup>th</sup> Perc.	Median	10 <sup>th</sup> Perc.	50 <sup>th</sup> Perc.
Coeurunes	220	260	350	1,030	1,075	1,170	1,170	1,170
Mokelumne	870	960	1,080	1,465	1,560	1,560	1,685	1,685
Stanislaus	1,450	1,630	1,820	2,460	2,655	2,855	2,855	2,855
Tuolumne	2,610	2,750	2,970	4,210	4,605	4,605	4,605	4,605
Merced	1,420	1,550	1,700	2,520	2,660	2,820	2,820	2,820
San Joaquin	2,930	3,130	3,380	4,450	4,450	4,670	4,945	4,945
Kings	3,030	3,200	3,480	4,285	4,470	4,775	4,775	4,775



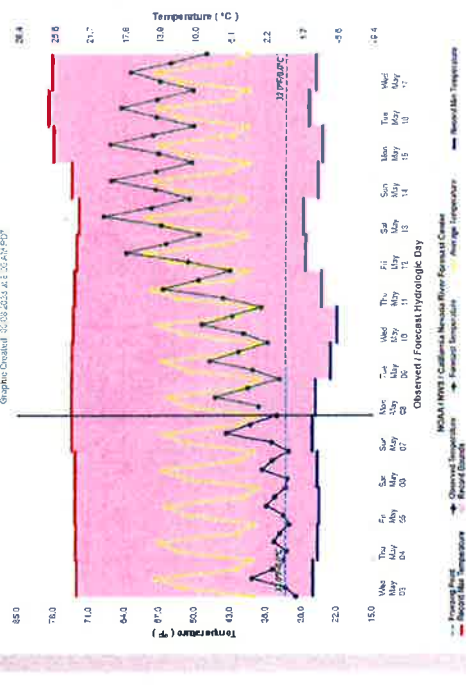
Forecasted Basin Runoff for May 01, 2023

Basin Name	Apr-Jul Forecast				Water Year Forecast			
	90 <sup>th</sup> Perc.	Median	10 <sup>th</sup> Perc.	50 <sup>th</sup> Perc.	90 <sup>th</sup> Perc.	Median	10 <sup>th</sup> Perc.	50 <sup>th</sup> Perc.
Coeurunes	220	260	350	1,030	1,075	1,170	1,170	1,170
Mokelumne	870	960	1,080	1,465	1,560	1,560	1,685	1,685
Stanislaus	1,450	1,630	1,820	2,460	2,655	2,855	2,855	2,855
Tuolumne	2,610	2,750	2,970	4,210	4,605	4,605	4,605	4,605
Merced	1,420	1,550	1,700	2,520	2,660	2,820	2,820	2,820
San Joaquin	2,930	3,130	3,380	4,450	4,450	4,670	4,945	4,945
Kings	3,030	3,200	3,480	4,285	4,470	4,775	4,775	4,775

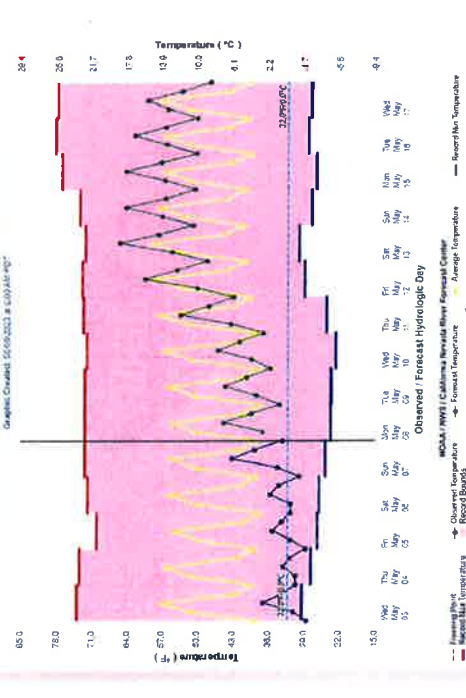
**Spanish River - New Melones Lake (NSCCLMF)**  
 Temperature : Local Middle Basin - Elevations Between 5000 and 8000 Feet  
 Graphic Created: 02/26/2023 at 8:52 AM PST



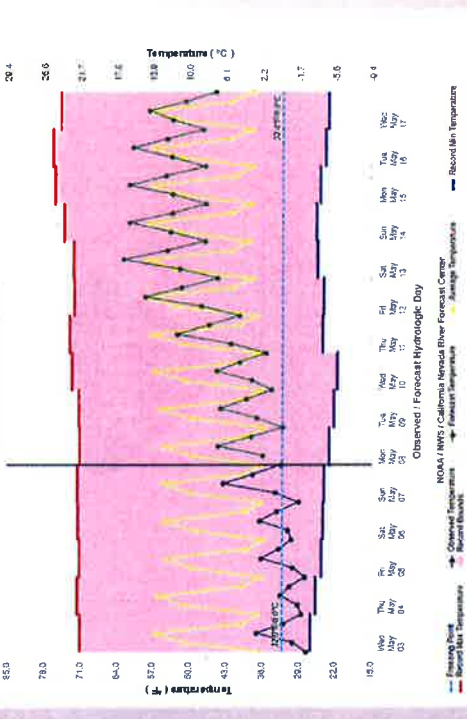
**Tuolumne River - Don Pedro Lake (NDPCLMF)**  
 Temperature : Local Middle Basin - Elevations Between 5000 and 8000 Feet  
 Graphic Created: 02/26/2023 at 8:52 AM PST



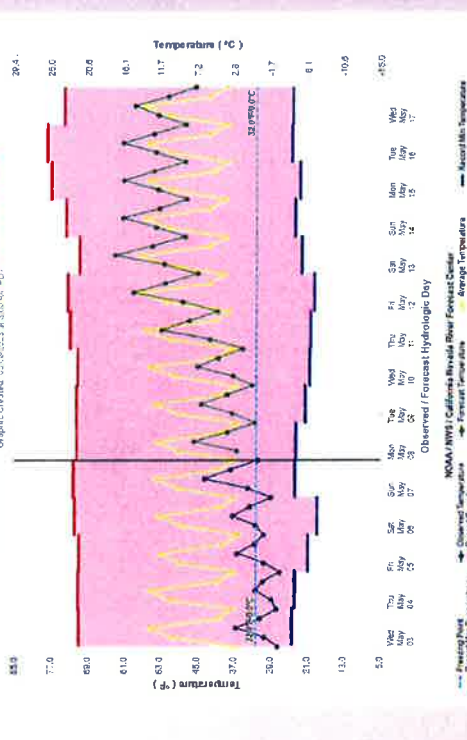
**Merced River - Exchange Reservoir (EXOCILMF)**  
 Temperature : Local Middle Basin - Elevations Between 5000 and 8000 Feet  
 Graphic Created: 02/26/2023 at 8:52 AM PST



**San Joaquin Valley - Merced/Lake (NSCCLMF)**  
 Temperature : Headwater Middle Basin - Elevations Between 5000 and 8000 Feet  
 Graphic Created: 02/26/2023 at 8:52 AM PST

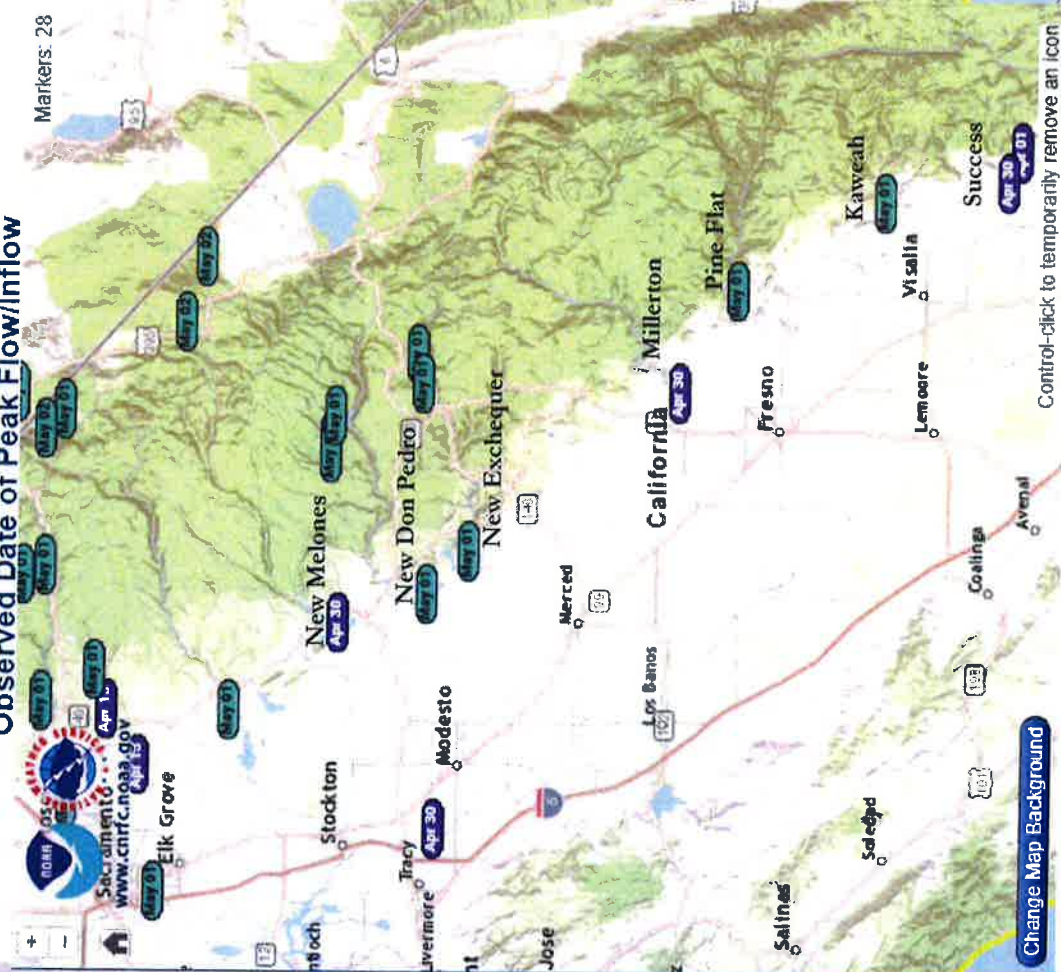


**Kings River - Pine Flat Lake (PFTCLMF)**  
 Temperature : Headwater Middle Basin - Elevations Between 5000 and 8000 Feet  
 Graphic Created: 02/26/2023 at 8:52 AM PST



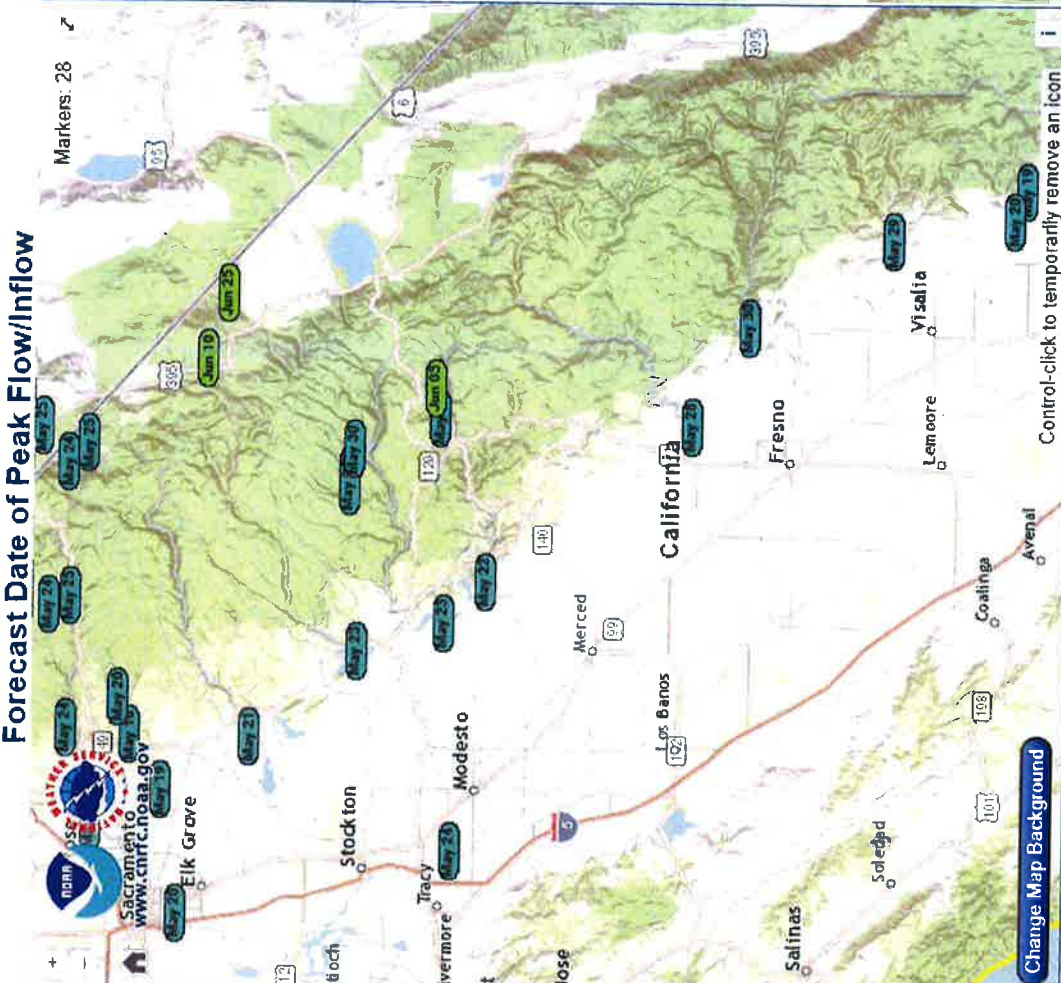
CALIFORNIA DEPARTMENT OF WATER RESOURCES

### Observed Date of Peak Flow/Inflow



Change Map Background

Control-click to temporarily remove an icon

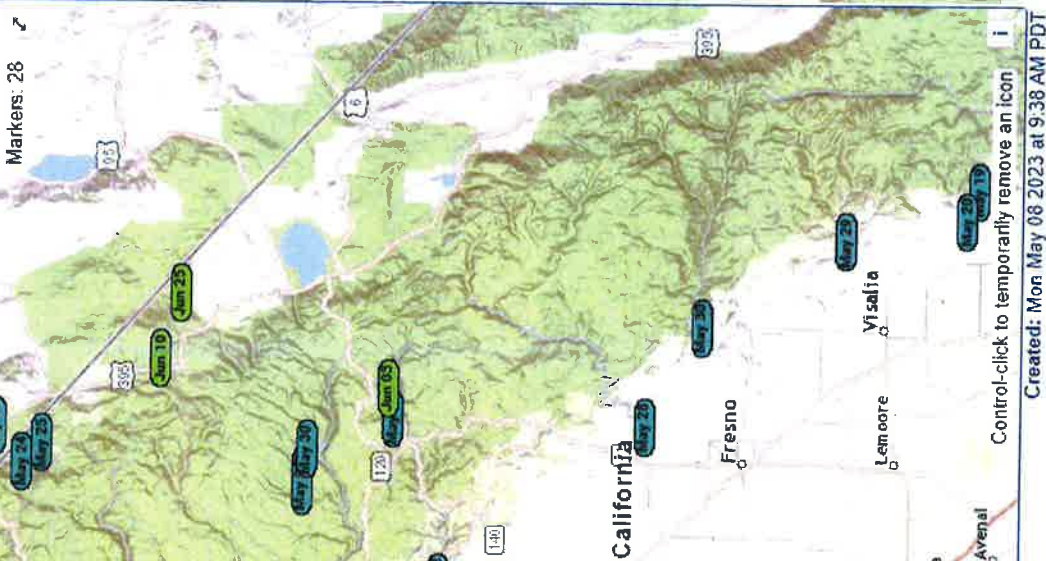


Change Map Background

Control-click to temporarily remove an icon



### Forecast Date of Peak Flow/Inflow

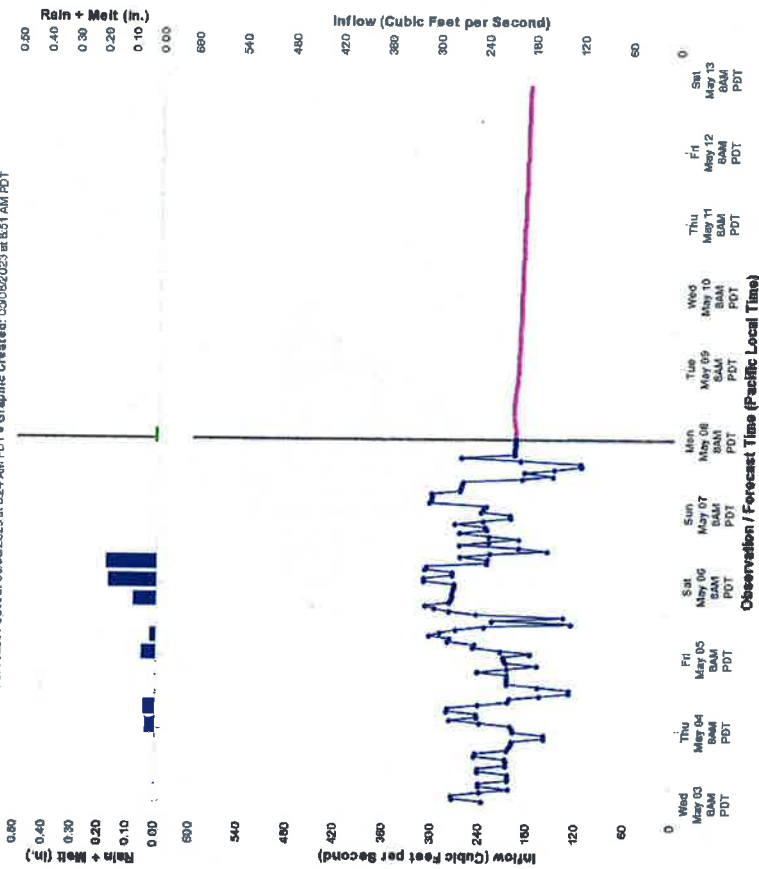


Created: Mon May 08 2023 at 9:38 AM PDT



### Calaveras River - New Hogan Lake (MHCCT) Reservoir Inflow Plot

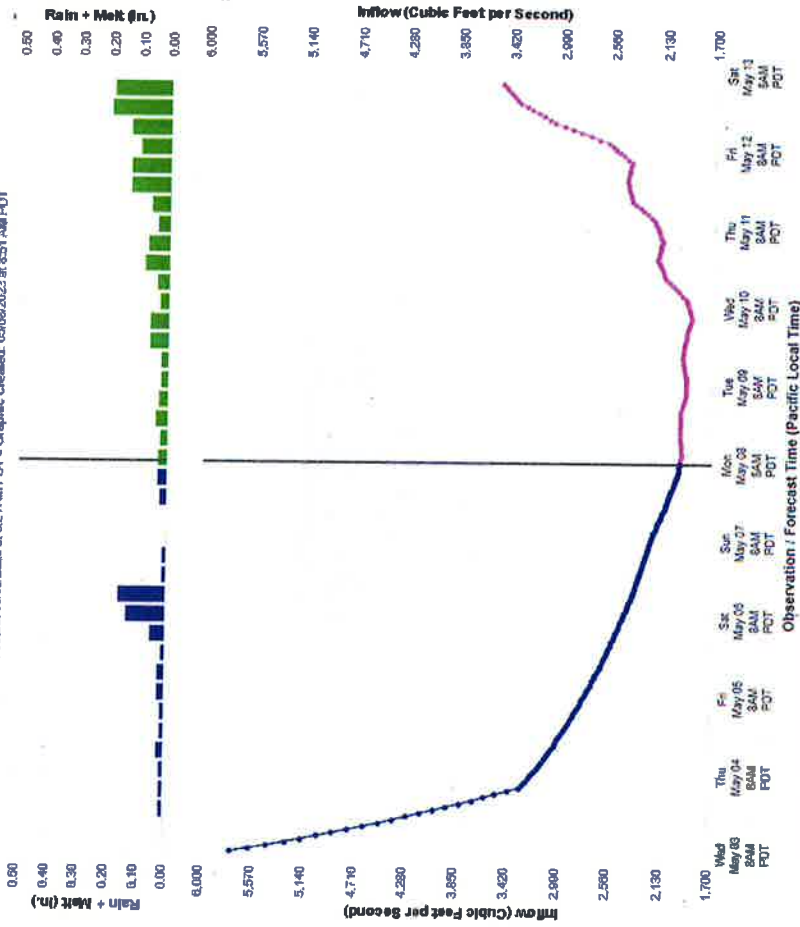
Forecast Posted: 05/08/2023 at 8:24 AM PDT • Graphic Created: 05/08/2023 at 8:51 AM PDT



NOAA / NWS / California Nevada River Forecast Center • California Department of Water Resources  
 → Observed    - - - Forecast    - - - Guidance

### Mokelumne River - Pardee Reservoir (CAMPCT) Reservoir Inflow Plot

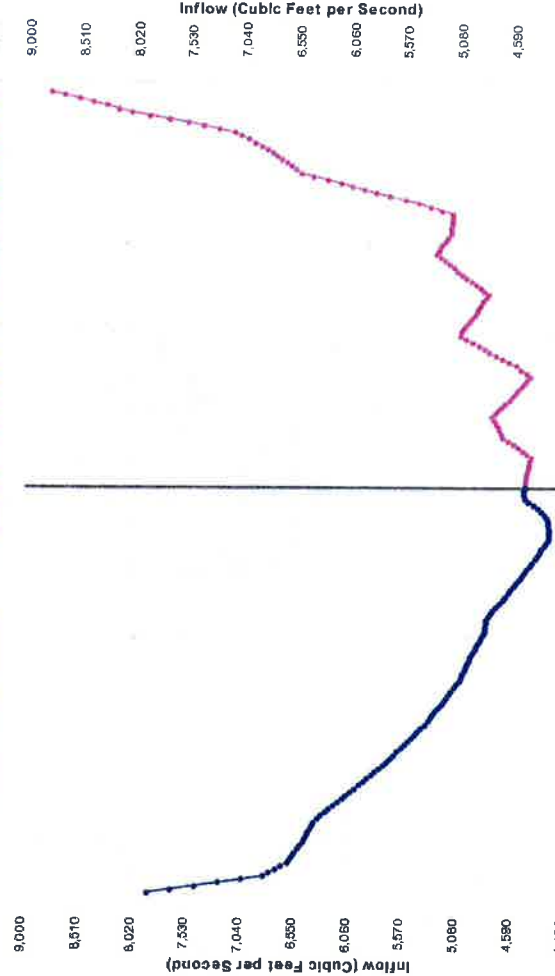
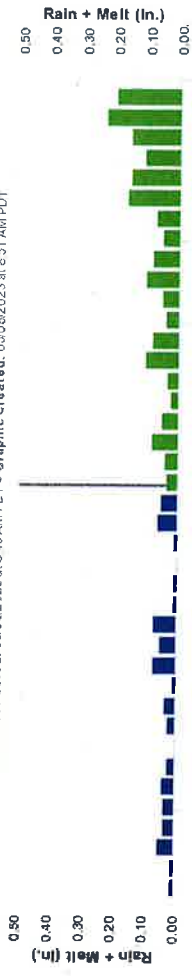
Forecast Posted: 05/08/2023 at 8:24 AM PDT • Graphic Created: 05/08/2023 at 8:51 AM PDT



NOAA / NWS / California Nevada River Forecast Center • California Department of Water Resources  
 → Observed    - - - Forecast    - - - Guidance

### Stanislaus River - New Melones Lake (NMSC1) Reservoir Inflow Plot

Forecast Posted: 05/08/2023 at 8:43 AM PDT • Graphic Created: 05/08/2023 at 8:51 AM PDT

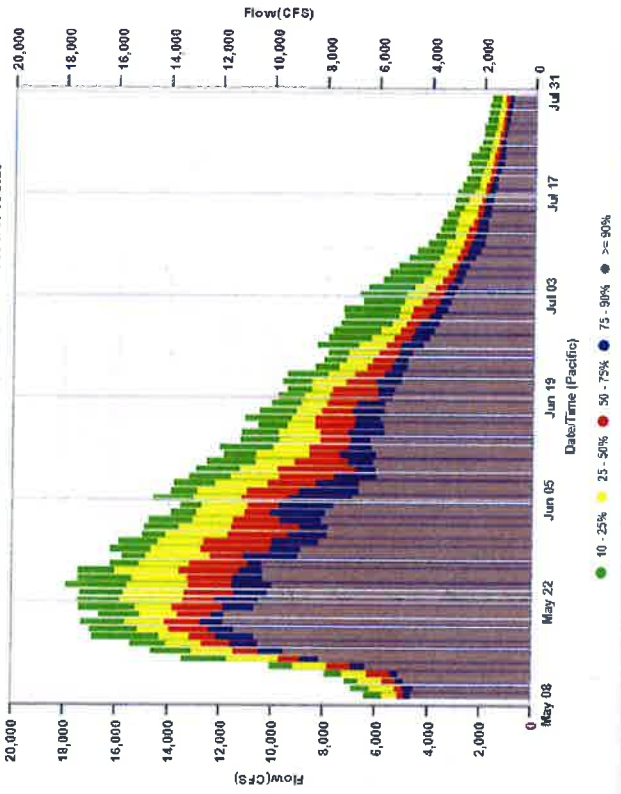


Day	Date	Time
Wed	May 03	8AM PDT
Thu	May 04	8AM PDT
Fri	May 05	8AM PDT
Sat	May 06	8AM PDT
Sun	May 07	8AM PDT
Mon	May 08	8AM PDT
Tue	May 09	8AM PDT
Wed	May 10	8AM PDT
Thu	May 11	8AM PDT
Fri	May 12	8AM PDT
Sat	May 13	8AM PDT

Observation / Forecast Time (Pacific Local Time)  
 NOAA / MWS / California Nevada River Forecast Center • California Department of Water Resources  
 Observed — Forecast — Guidance

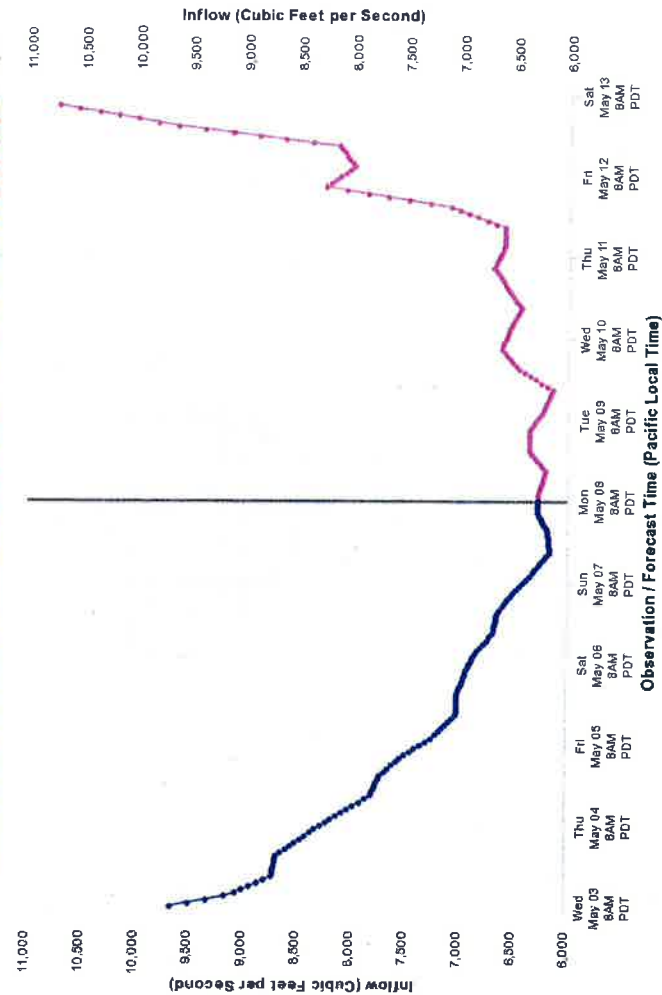
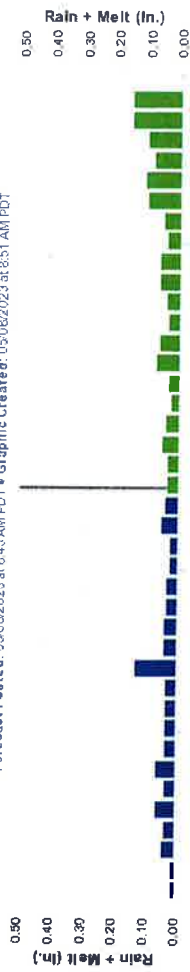
### STANISLAUS RIVER - NEW MELONES RESERVOIR (NMSC1) - Chance of Flow Exceedance

Interval: 1 Day | Accum Type: Mean | Analysis Years: 1880 - 2021  
 Forecast for the period 05/08/2023 8 am - 07/31/2023 8 am Pacific  
 This is a conditional simulation based on the current conditions as of 05/08/2023



### Tuolumne River - Don Pedro Lake (NDPC1) Reservoir Inflow Plot

Forecast Posted: 05/06/2023 at 8:33 AM PDT • Graphic Created: 05/06/2023 at 8:51 AM PDT



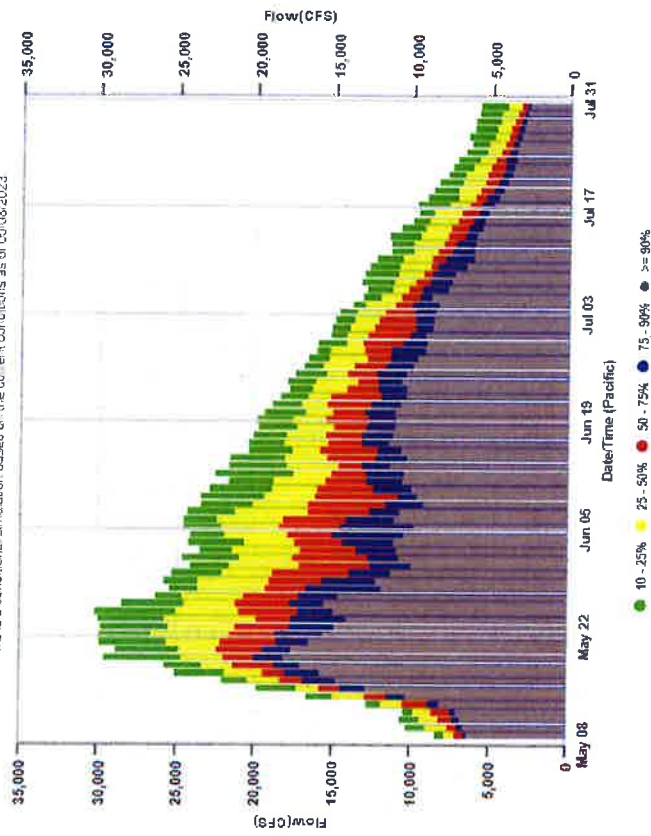
NOAA / MWS / California Nevada River Forecast Center • California Department of Water Resources

Observed Forecast Guidance

Day	Time	Forecast
Wed	May 03	8AM PDT
Thu	May 04	8AM PDT
Fri	May 05	8AM PDT
Sat	May 06	8AM PDT
Sun	May 07	8AM PDT
Mon	May 08	8AM PDT
Tue	May 09	8AM PDT
Wed	May 10	8AM PDT
Thu	May 11	8AM PDT
Fri	May 12	8AM PDT
Sat	May 13	8AM PDT

### TUOLUMNE RIVER - NEW DON PEDRO RESERVOIR (NDPC1) - Chance of Flow Exceedance

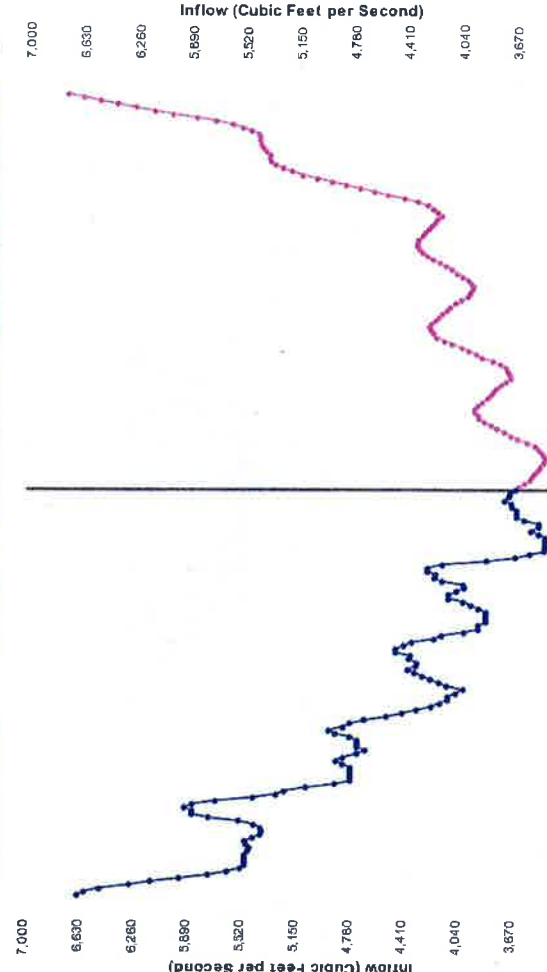
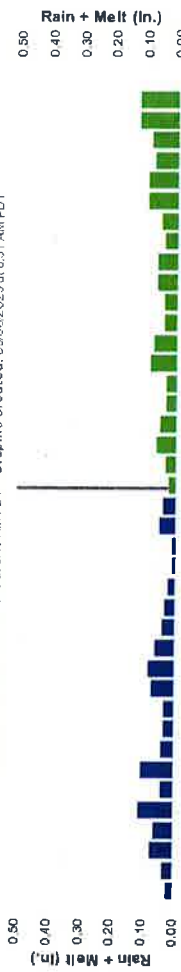
Interval: 1 Day | Accum Type: Mean | Analysis Years: 1980 - 2021  
 Forecast for the period: 05/03/2023 5 am - 07/31/2023 5 am Pacific  
 This is a conditional simulation based on the current conditions as of 06/06/2023



CALIFORNIA DEPARTMENT OF WATER RESOURCES

**Merced River - Exchequer Reservoir (EXQC1)  
Reservoir Inflow Plot**

Forecast Posted: 05/08/2023 at 8:13 AM PDT • Graphic Created: 05/08/2023 at 8:51 AM PDT



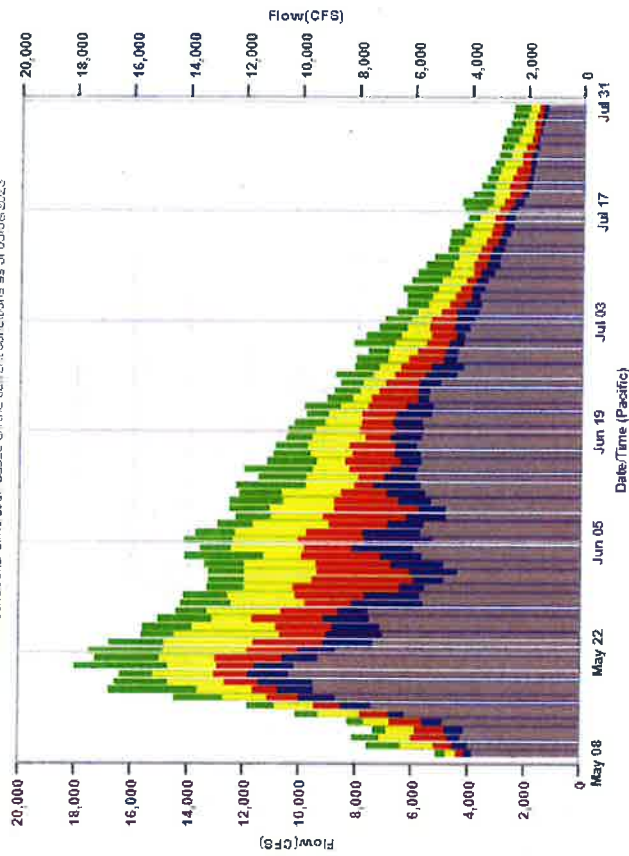
Day	Time	Type
Wed	May 03	PDT
Thu	May 04	PDT
Fri	May 05	PDT
Sat	May 06	PDT
Sun	May 07	PDT
Mon	May 08	PDT
Tue	May 09	PDT
Wed	May 10	PDT
Thu	May 11	PDT
Fri	May 12	PDT
Sat	May 13	PDT

NOAA / NWS / California Nevada River Forecast Center • California Department of Water Resources

Observed → Forecast → Guidance

**MERCED RIVER - EXCHEQUER RESERVOIR (EXQC1) - Chance of Flow Exceedance**

Interval: 1 Day / Accum: Type: Mean / Analysis Years: 1980 - 2012  
Forecast for the period 05/03/2023 5 am - 07/31/2023 5 am Pacific  
This is a conditional simulation based on the current conditions as of 05/08/2023

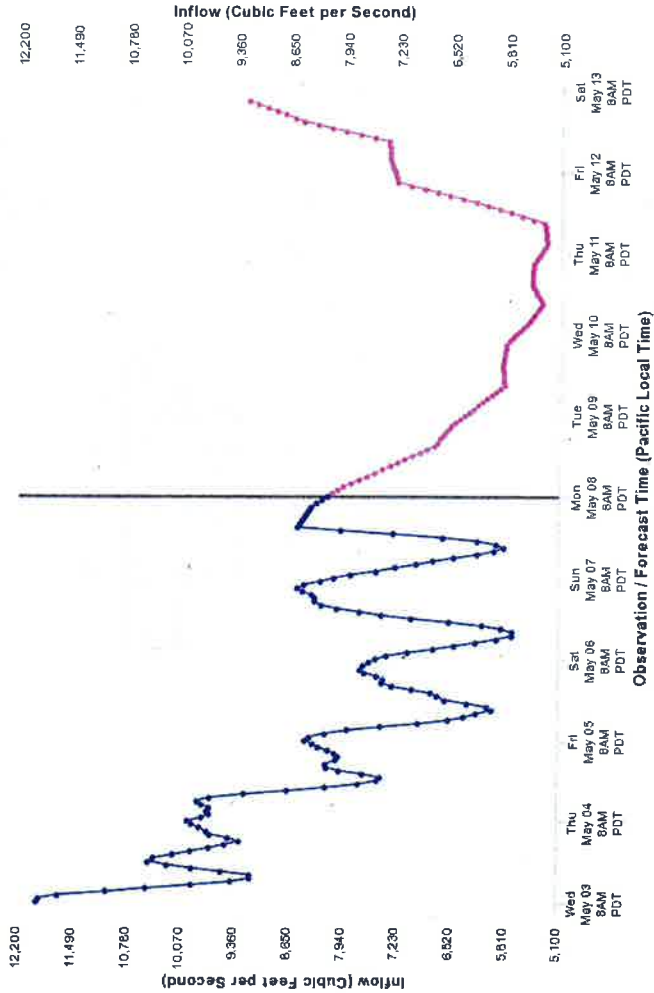


10 - 25% 25 - 50% 50 - 75% 75 - 90% >= 90%



### San Joaquin River - Millerton Lake (FRAC1) Reservoir Inflow Plot

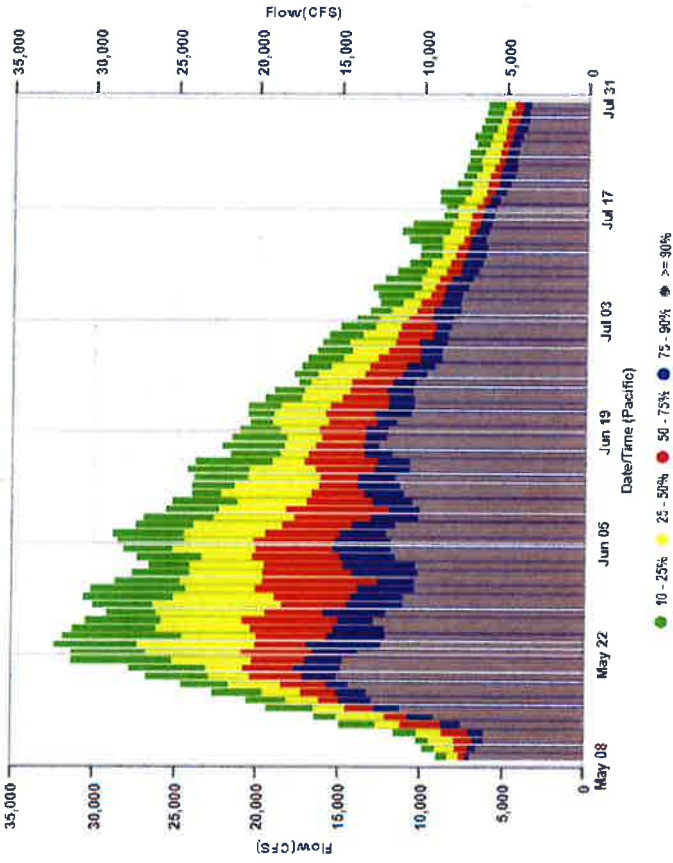
Forecast Posted: 05/08/2023 at 8:43 AM PDT • Graphic Created: 05/08/2023 at 8:51 AM PDT



Legend:   
● Observed   
● Forecast   
— Guidance   
 NOAA / NWS / California Nevada River Forecast Center • California Department of Water Resources

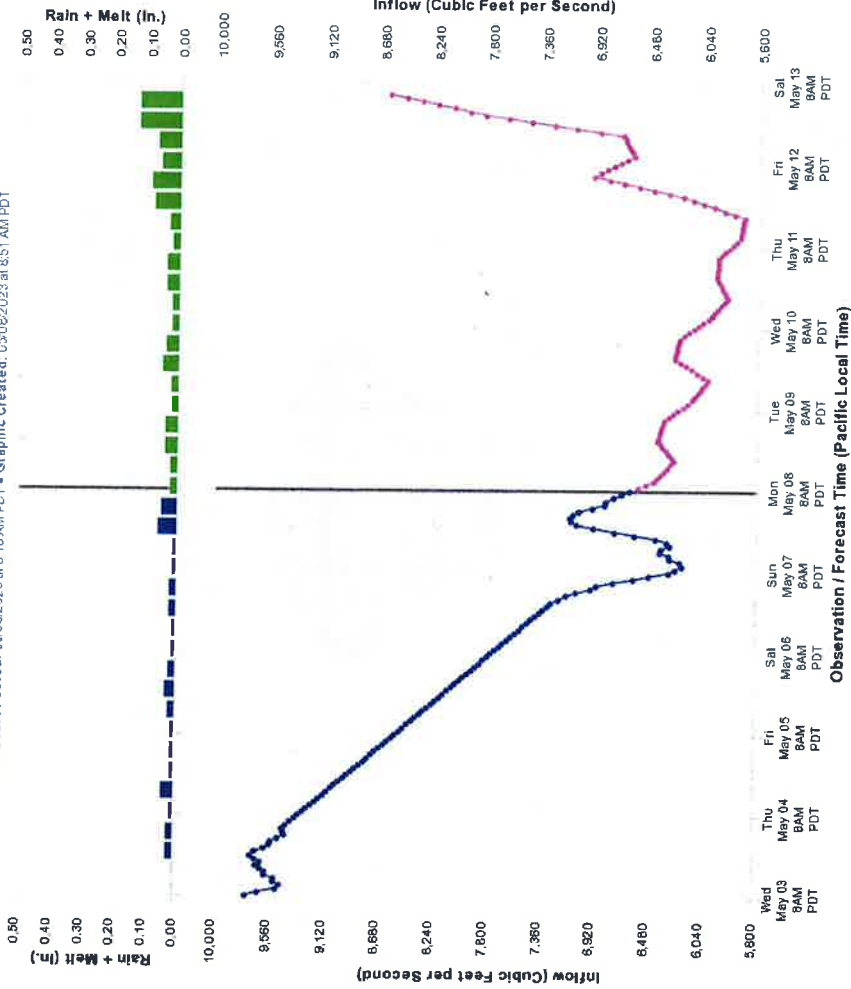
### SAN JOAQUIN RIVER - MILLERTON RESERVOIR (FRAC1) - Chance of Flow Exceedance

Interval: 1 Day; Azimuth: Type: Mean; Analysis Years: 1980 - 2021  
 Forecast for the period 05/03/2023 5 am - 07/31/2023 5 am Pacific  
 This is a conditional simulation based on the current conditions as of 05/06/2023



### Kings River - Pine Flat Lake (PFTC1) Reservoir Inflow Plot

Forecast Posted: 05/06/2023 at 6:18 AM PDT • Graphic Created: 05/06/2023 at 6:51 AM PDT

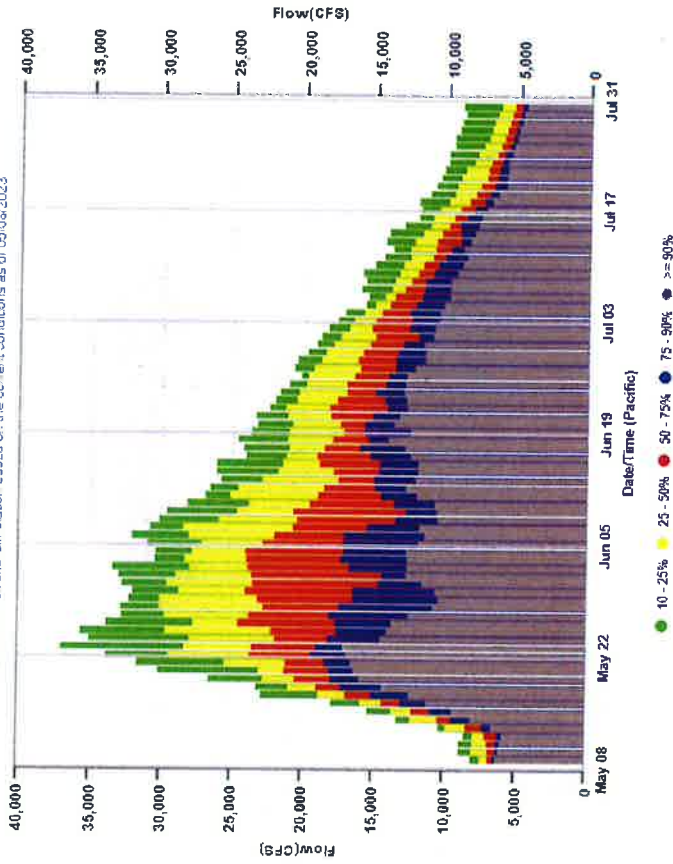


NOAA / NWS / California Nevada River Forecast Center • California Department of Water Resources

Observed Forecast Guidance

### KINGS RIVER - PINE FLAT RESERVOIR (PFTC1) - Chance of Flow Exceedance

Interval: 1 Day | Accum Type: Mean | Analysis Years: 1980 - 2021  
Forecast for the period 05/06/2023 9 am - 07:31/2023 6 am Pacific  
This is a conditional simulation based on the current conditions as of 05/06/2023



# Exhibit C

---

**Reclamation District No. 1601**

**11-May-23**

**Assessment by Landowner - Fiscal Year 2022-2023**

**"AS IF" \$700,000 (100% of MAX ASSESSMENT)**

DEPLETION VALUE CALCULATIONS

			2022-2023	2021-2022
A - 2022 RV Total Prod	(on line opi.consrv.ca.gov)	(MCF)	2,407,756	2,362,901
B - 2022 Twitchell Prod	(add all 1601 prod wells)	(MCF)	562,785	503,519
C - Net Present Value	(2021 base yr value NPV)		\$26,881,513	\$26,886,003
D - Total Reserves		(MCF)	13,950,000,000	13,950,000,000
E - Base Year Value per MCF	(C/D)	(\$/MCF)	\$0.0019	\$0.0019
F - 2022 Unit Depletion Value	(E x A)		\$4,575	\$4,490

CALCULATIONS (BASED ON DOG #S)

			2022-2023	2021-2022
G - 2022 Base Year Value of the Unit - C			\$26,881,513	\$26,886,003
H - less: 2022 Unit Depletion Value - F			\$4,575	\$4,490
I - 2023 Base Year Value of the Unit - C-F			\$26,876,938	\$26,881,513
J - 2022 RD 1601 Pro Rata Share of Unit	562,785/2,407,756 - B/A		23.373839%	21.309357%
K - 2023 RD 1601 Value - I*J			\$6,282,172	\$5,728,277
L - Benefit Factor - Given in Minutes			4.00%	4.00%
M - 2023 RD 1601 Taxable Unit Value (Mineral Rights) - K*L			\$251,287	\$229,131

ASSESSMENT FACTOR (Max Assessment Factor 47.6382) = X/W = 39.69045

Landowner	Acreage	Per Acre	Total Valuation	2022-23	
RD 1601	422.509	200	84,502	\$33,539.14	4.8%
Karlie & Noeme Silva	0.951	400	380	\$150.98	0.0%
Marjorie H. Sgarrella	1.480	400	592	\$234.97	0.0%
County of Sacramento	0.010	0	0	\$0.00	0.0%
RD 1601	121.400	200	24,280	\$9,636.84	1.4%
State of California	2244.497	200	448,899	\$178,170.19	25.5%
State of California	764.900	1200	917,880	\$364,310.64	52.0%
Fagundes Dairy	47.750	200	9,550	\$3,790.44	0.5%
Stkn Marina Properties LLC	20.000	1200	24,000	\$9,525.71	1.4%
Exxon Corporation ***	0.870	200	174	\$69.06	0.0%
Carter	10.520	200	2,104	\$835.09	0.1%
					0.0%
	3634.887				0.0%
California Resources Production (W)			251,287	\$99,736.94	14.2%
Total Assessment (X)			1,763,649	\$700,000.00	1

\*\*\* Bill Exxon Corp to State of CA \$700,000.00



Tract No.	A Description Sacramento County Assessor Parcel No.	Acres	Habitat Restoration Acres	B Revised Acres	C Owner	D Assessment Valuation per Acre	PROPOSED NEW ASSESSMENT (2022-23)			PRIOR ASSESSMENT (2021-22)		
							E New Total Assessment Valuation (B x D)	F Proposed New Rate per \$100 of Assessed Valuation	G Proposed Total Assessment (E/100) x F	H Prior Total Valuation (B x D)	I Prior Rate per \$100 of Assessed Valuation	J Prior Total Assessment (H/100) x I
1	157-0130-026	422.509		422.509	RD No 1601	200	84,502	39.69045	\$33,539.14	84,502	40.19540	\$33,965.84
2	157-0130-027	117.000		117.000	RD No 1601	200	23,400	39.69045	\$9,287.56	23,400	40.19540	\$9,405.72
3	157-0130-011	0.951		0.951	Karlie & Noeme Silva	400	380	39.69045	\$150.98	380	40.19540	\$152.90
4	157-0130-015	0.566		0.566	State of California	200	113	39.69045	\$44.93	113	40.19540	\$45.50
5	157-0130-019	0.410		0.410	Marjorie H. Sgarrella	400	164	39.69045	\$65.09	164	40.19540	\$65.92
6	157-0130-016	0.741		0.741	State of California	200	148	39.69045	\$58.82	148	40.19540	\$59.57
7	157-0130-018	1.070		1.070	Marjorie H. Sgarrella	400	428	39.69045	\$169.88	428	40.19540	\$172.04
8	157-0130-014	0.010		0.010	County of Sacramento	0	0	39.69045	\$0.00	0	40.19540	\$0.00
9	157-0130-017	102.450		102.450	State of California	200	20,490	39.69045	\$8,132.57	20,490	40.19540	\$8,236.04
10	157-0130-004	200.550		200.550	State of California	200	40,110	39.69045	\$15,919.84	40,110	40.19540	\$16,122.37
11	157-0130-024	302.960		302.960	State of California	200	60,592	39.69045	\$24,049.24	60,592	40.19540	\$24,355.20
12	157-0130-020	47.750		47.750	Fagundes Dairy	200	9,550	39.69045	\$3,790.44	9,550	40.19540	\$3,838.66
13	157-0130-022	40.000		40.000	State of California	200	8,000	39.69045	\$3,175.24	8,000	40.19540	\$3,215.63
14	157-0130-008	300.850		300.850	State of California	200	60,170	39.69045	\$23,881.74	60,170	40.19540	\$24,185.57
15	157-0130-006	357.980		357.980	State of California	200	71,596	39.69045	\$28,416.77	71,596	40.19540	\$28,778.30
16	157-0130-007	102.000		102.000	State of California	200	20,400	39.69045	\$8,096.85	20,400	40.19540	\$8,199.86
17	157-0140-004	1.000		1.000	State of California	200	200	39.69045	\$79.38	200	40.19540	\$80.39
18a	157-0140-020	578.470	209.400	369.070	State of California	200	73,814	39.69045	\$29,297.12	73,814	40.19540	\$29,669.84
18b	157-0140-020			209.400	State of California	1200	251,280	39.69045	\$99,734.10	251,280	40.19540	\$101,003.07
19a	157-0140-011	181.500	140.800	40.700	State of California	200	8,140	39.69045	\$3,230.80	8,140	40.19540	\$3,271.91
19b	157-0140-011			140.800	State of California	1200	168,960	39.69045	\$67,060.98	168,960	40.19540	\$67,914.15
20a	157-0140-009	186.000	121.100	64.900	State of California	200	12,980	39.69045	\$5,151.82	12,980	40.19540	\$5,217.36
20b	157-0140-009			121.100	State of California	1200	145,320	39.69045	\$57,678.16	145,320	40.19540	\$58,411.96
21a	157-0140-010	181.500	111.300	70.200	State of California	200	14,040	39.69045	\$5,572.54	14,040	40.19540	\$5,643.43
21b	157-0140-010			111.300	State of California	1200	133,560	39.69045	\$53,010.57	133,560	40.19540	\$53,684.98
22	157-0140-015	20.000		20.000	Stkn Marina Properties LLC	1200	24,000	39.69045	\$9,525.71	24,000	40.19540	\$9,646.90
23	157-0130-003	0.870		0.870	State of California (1/2)	200	174	39.69045	\$69.06	174	40.19540	\$69.94
	***	0.870		0.870	State of California (1/2)	200	174	39.69045	\$69.06	174	40.19540	\$69.94
24	157-0130-023	10.520		10.520	Ricky & Linda Carter	200	2,104	39.69045	\$835.09	2,104	40.19540	\$845.71
25	** 157-0130-023	0.360		0.360	RD No 1601	200	72	39.69045	\$28.58	72	40.19540	\$28.94
26	157-0130-025	4.040		4.040	RD No 1601	200	808	39.69045	\$320.70	808	40.19540	\$324.78
27a	157-0140-021	471.960	182.300	289.660	State of California	200	57,932	39.69045	\$22,993.47	57,932	40.19540	\$23,286.00
27b	157-0140-021			182.300	State of California	1200	218,760	39.69045	\$86,826.83	218,760	40.19540	\$87,931.46
		3,634.887	764.900	3,634.887								
					California Resources Production LESS RD1601		1,512,362 251,287	39.69045	\$99,736.94 (\$43,175.98)	1,512,362 229,131	40.19540	\$92,100.12 (\$43,725.28)
							1,763,649		\$656,824.02	1,741,493		\$656,274.72

\*\* .36 purchased from Carter for exclusive levee easement  
 \*\*\* Exxon Corp billed to State of CA

# Exhibit D

---

**Reclamation District No. 1601**

**11-May-23**

**Assessment by Landowner - Fiscal Year 2022-2023**

**"AS IF" \$630,000 ( 90% of MAX ASSESSMENT)**

DEPLETION VALUE CALCULATIONS

			2022-2023	2021-2022
A - 2022 RV Total Prod	(on line opi.consrv.ca.gov)	(MCF)	2,407,756	2,362,901
B - 2022 Twitchell Prod	(add all 1601 prod wells)	(MCF)	562,785	503,519
C - Net Present Value	(2021 base yr value NPV)		\$26,881,513	\$26,886,003
D - Total Reserves		(MCF)	13,950,000,000	13,950,000,000
E - Base Year Value per MCF	(C/D)	(\$/MCF)	\$0.0019	\$0.0019
F - 2022 Unit Depletion Value	(E x A)		\$4,575	\$4,490

CALCULATIONS (BASED ON DOG #S)

			2022-2023	2021-2022
G - 2022 Base Year Value of the Unit - C			\$26,881,513	\$26,886,003
H - less: 2022 Unit Depletion Value - F			\$4,575	\$4,490
I - 2023 Base Year Value of the Unit - C-F			\$26,876,938	\$26,881,513
J - 2022 RD 1601 Pro Rata Share of Unit	562,785/2,407,756 - B/A		23.373839%	21.309357%
K - 2023 RD 1601 Value - I*J			\$6,282,172	\$5,728,277
L - Benefit Factor - Given in Minutes			4.00%	4.00%
M - 2023 RD 1601 Taxable Unit Value (Mineral Rights) - K*L			\$251,287	\$229,131

ASSESSMENT FACTOR (Max Assessment Factor 47.6382) = X/W = 35.72140

Landowner	Acreage	Per Acre	Total Valuation	2022-23	
RD 1601	422.509	200	84,502	\$30,185.23	4.8%
Karlie & Noeme Silva	0.951	400	380	\$135.88	0.0%
Marjorie H. Sgarrella	1.480	400	592	\$211.47	0.0%
County of Sacramento	0.010	0	0	\$0.00	0.0%
RD 1601	121.400	200	24,280	\$8,673.16	1.4%
State of California	2244.497	200	448,899	\$160,353.15	25.5%
State of California	764.900	1200	917,880	\$327,879.61	52.0%
Fagundes Dairy	47.750	200	9,550	\$3,411.39	0.5%
Stkn Marina Properties LLC	20.000	1200	24,000	\$8,573.14	1.4%
Exxon Corporation ***	0.870	200	174	\$62.16	0.0%
Carter	10.520	200	2,104	\$751.58	0.1%
					0.0%
	3634.887				0.0%
California Resources Production (W)			251,287	\$89,763.23	14.2%
Total Assessment (X)			1,763,649	\$630,000.00	1

\*\*\* Bill Exxon Corp to State of CA \$630,000.00

**Reclamation District No. 1601, Twitchell Island  
Revised Acreage Operation and Maintenance Assessment Roll**

(Max Assessment Factor 47.6382)

**Proposed New Assessment Factor (MAX)**

**35.72140**

**Prior Assessment Factor (2021-22)**

**36.17586**

5/11/2023

**\$630,000 (90% of MAX ASSESSMENT)**

Tract No.	A Description Sacramento County Assessor Parcel No.	Acres	Habitat Restoration Acres	B Revised Acres	C Owner	D Assessment Valuation per Acre	PROPOSED NEW ASSESSMENT (2022-23)			PRIOR ASSESSMENT (2021-22)		
							E New Total Assessment Valuation (B x D)	F Proposed New Rate per \$100 of Assessed Valuation	G Proposed Total Assessment (E/100) x F	H Prior Total Valuation (B x D)	I Prior Rate per \$100 of Assessed Valuation	J Prior Total Assessment (H/100) x I
1	157-0130-026	422.509		422.509	RD No 1601	200	84,502	35.72140	\$30,185.23	84,502	36.17586	\$30,569.25
2	157-0130-027	117.000		117.000	RD No 1601	200	23,400	35.72140	\$8,358.81	23,400	36.17586	\$8,465.15
3	157-0130-011	0.951		0.951	Karlie & Noeme Silva	400	380	35.72140	\$135.88	380	36.17586	\$137.61
4	157-0130-015	0.566		0.566	State of California	200	113	35.72140	\$40.44	113	36.17586	\$40.95
5	157-0130-019	0.410		0.410	Marjorie H. Sgarrella	400	164	35.72140	\$58.58	164	36.17586	\$59.33
6	157-0130-016	0.741		0.741	State of California	200	148	35.72140	\$52.94	148	36.17586	\$53.61
7	157-0130-018	1.070		1.070	Marjorie H. Sgarrella	400	428	35.72140	\$152.89	428	36.17586	\$154.83
8	157-0130-014	0.010		0.010	County of Sacramento	0	0	35.72140	\$0.00	0	36.17586	\$0.00
9	157-0130-017	102.450		102.450	State of California	200	20,490	35.72140	\$7,319.31	20,490	36.17586	\$7,412.43
10	157-0130-004	200.550		200.550	State of California	200	40,110	35.72140	\$14,327.85	40,110	36.17586	\$14,510.14
11	157-0130-024	302.960		302.960	State of California	200	60,592	35.72140	\$21,644.31	60,592	36.17586	\$21,919.68
12	157-0130-020	47.750		47.750	Fagundes Dairy	200	9,550	35.72140	\$3,411.39	9,550	36.17586	\$3,454.79
13	157-0130-022	40.000		40.000	State of California	200	8,000	35.72140	\$2,857.71	8,000	36.17586	\$2,894.07
14	157-0130-008	300.850		300.850	State of California	200	60,170	35.72140	\$21,493.57	60,170	36.17586	\$21,767.01
15	157-0130-006	357.980		357.980	State of California	200	71,596	35.72140	\$25,575.09	71,596	36.17586	\$25,900.47
16	157-0130-007	102.000		102.000	State of California	200	20,400	35.72140	\$7,287.17	20,400	36.17586	\$7,379.88
17	157-0140-004	1.000		1.000	State of California	200	200	35.72140	\$71.44	200	36.17586	\$72.35
18a	157-0140-020	578.470	209.400	369.070	State of California	200	73,814	35.72140	\$26,367.40	73,814	36.17586	\$26,702.84
18b	157-0140-020			209.400	State of California	1200	251,280	35.72140	\$89,760.76	251,280	36.17586	\$90,902.78
19a	157-0140-011	181.500	140.800	40.700	State of California	200	8,140	35.72140	\$2,907.72	8,140	36.17586	\$2,944.72
19b	157-0140-011			140.800	State of California	1200	168,960	35.72140	\$60,354.88	168,960	36.17586	\$61,122.73
20a	157-0140-009	186.000	121.100	64.900	State of California	200	12,980	35.72140	\$4,636.64	12,980	36.17586	\$4,695.63
20b	157-0140-009			121.100	State of California	1200	145,320	35.72140	\$51,910.34	145,320	36.17586	\$52,570.76
21a	157-0140-010	181.500	111.300	70.200	State of California	200	14,040	35.72140	\$5,015.28	14,040	36.17586	\$5,079.09
21b	157-0140-010			111.300	State of California	1200	133,560	35.72140	\$47,709.50	133,560	36.17586	\$48,316.48
22	157-0140-015	20.000		20.000	Stkn Marina Properties LLC	1200	24,000	35.72140	\$8,573.14	24,000	36.17586	\$8,682.21
23	157-0130-003	0.870		0.870	State of California (1/2)	200	174	35.72140	\$62.16	174	36.17586	\$62.95
	***	0.870		0.870	State of California (1/2)	200	174	35.72140	\$62.16	174	36.17586	\$62.95
24	157-0130-023	10.520		10.520	Ricky & Linda Carter	200	2,104	35.72140	\$751.58	2,104	36.17586	\$761.14
25	** 157-0130-023	0.360		0.360	RD No 1601	200	72	35.72140	\$25.72	72	36.17586	\$26.05
26	157-0130-025	4.040		4.040	RD No 1601	200	808	35.72140	\$288.63	808	36.17586	\$292.30
27a	157-0140-021	471.960	182.300	289.660	State of California	200	57,932	35.72140	\$20,694.12	57,932	36.17586	\$20,957.40
27b	157-0140-021			182.300	State of California	1200	218,760	35.72140	\$78,144.13	218,760	36.17586	\$79,138.31
		3,634.887	764.900	3,634.887								
					California Resources Production LESS RD1601		1,512,362 251,287	35.72140	\$89,763.23 (\$38,858.39)	1,512,362 229,131	36.17586	\$82,890.11 (\$39,352.75)
							1,763,649		\$591,141.61	1,741,493		\$590,647.25

\*\* .36 purchased from Carter for exclusive levee easement

\*\*\* Exxon Corp billed to State of CA

# Exhibit E

---

**Reclamation District No. 1601**

**11-May-23**

**Assessment by Landowner - Fiscal Year 2022-2023  
\$560,000 ( 80% of MAX ASSESSMENT)**

DEPLETION VALUE CALCULATIONS

			2022-2023	2021-2022
A - 2022 RV Total Prod	(on line opi.consrv.ca.gov)	(MCF)	2,407,756	2,362,901
B - 2022 Twitchell Prod	(add all 1601 prod wells)	(MCF)	562,785	503,519
C - Net Present Value	(2021 base yr value NPV)		\$26,881,513	\$26,886,003
D - Total Reserves		(MCF)	13,950,000,000	13,950,000,000
E - Base Year Value per MCF	(C/D)	(\$/MCF)	\$0.0019	\$0.0019
F - 2022 Unit Depletion Value	(E x A)		\$4,575	\$4,490

CALCULATIONS (BASED ON DOG #S)

			2022-2023	2021-2022
G - 2022 Base Year Value of the Unit - C			\$26,881,513	\$26,886,003
H - less: 2022 Unit Depletion Value - F			\$4,575	\$4,490
I - 2023 Base Year Value of the Unit - C-F			\$26,876,938	\$26,881,513
J - 2022 RD 1601 Pro Rata Share of Unit	562,785/2,407,756 - B/A		23.373839%	21.309357%
K - 2023 RD 1601 Value - I*J			\$6,282,172	\$5,728,277
L - Benefit Factor - Given in Minutes			4.00%	4.00%
M - 2023 RD 1601 Taxable Unit Value (Mineral Rights) - K*L			\$251,287	\$229,131

ASSESSMENT FACTOR (Max Assessment Factor 47.6382) = X/W = 31.75236

Landowner	Acreage	Per Acre	Total Valuation	2022-23	
RD 1601	422.509	200	84,502	\$26,831.32	4.8%
Karlie & Noeme Silva	0.951	400	380	\$120.79	0.0%
Marjorie H. Sgarrella	1.480	400	592	\$187.97	0.0%
County of Sacramento	0.010	0	0	\$0.00	0.0%
RD 1601	121.400	200	24,280	\$7,709.47	1.4%
State of California	2244.497	200	448,899	\$142,536.15	25.5%
State of California	764.900	1200	917,880	\$291,448.51	52.0%
Fagundes Dairy	47.750	200	9,550	\$3,032.35	0.5%
Stkn Marina Properties LLC	20.000	1200	24,000	\$7,620.57	1.4%
Exxon Corporation ***	0.870	200	174	\$55.25	0.0%
Carter	10.520	200	2,104	\$668.07	0.1%
					0.0%
	3634.887				0.0%
California Resources Production (W)			251,287	\$79,789.55	14.2%
Total Assessment (X)			1,763,649	\$560,000.00	1

\*\*\* Bill Exxon Corp to State of CA \$560,000.00

**Reclamation District No. 1601, Twitchell Island**  
**Revised Acreage Operation and Maintenance Assessment Roll**

(Max Assessment Factor 47.6382)

**Proposed New Assessment Factor (MAX)**

**31.75236**

**Prior Assessment Factor (2021-22)**

**32.15632**

5/11/2023

**\$560,000 (80% of MAX ASSESSMENT)**

Tract No.	A Description Sacramento County Assessor Parcel No.	Acres	Habitat Restoration Acres	B Revised Acres	C Owner	D Assessment Valuation per Acre	PROPOSED NEW ASSESSMENT (2022-23)			PRIOR ASSESSMENT (2020-21)		
							E New Total Assessment Valuation (B x D)	F Proposed New Rate per \$100 of Assessed Valuation	G Proposed Total Assessment (E/100) x F	H Prior Total Valuation (B x D)	I Prior Rate per \$100 of Assessed Valuation	J Prior Total Assessment (H/100) x I
1	157-0130-026	422.509		422.509	RD No 1601	200	84,502	31.75236	\$26,831.32	84,502	32.15632	\$27,172.67
2	157-0130-027	117.000		117.000	RD No 1601	200	23,400	31.75236	\$7,430.05	23,400	32.15632	\$7,524.58
3	157-0130-011	0.951		0.951	Karlie & Noeme Silva	400	380	31.75236	\$120.79	380	32.15632	\$122.32
4	157-0130-015	0.566		0.566	State of California	200	113	31.75236	\$35.94	113	32.15632	\$36.40
5	157-0130-019	0.410		0.410	Marjorie H. Sgarrella	400	164	31.75236	\$52.07	164	32.15632	\$52.74
6	157-0130-016	0.741		0.741	State of California	200	148	31.75236	\$47.06	148	32.15632	\$47.66
7	157-0130-018	1.070		1.070	Marjorie H. Sgarrella	400	428	31.75236	\$135.90	428	32.15632	\$137.63
8	157-0130-014	0.010		0.010	County of Sacramento	0	0	31.75236	\$0.00	0	32.15632	\$0.00
9	157-0130-017	102.450		102.450	State of California	200	20,490	31.75236	\$6,506.06	20,490	32.15632	\$6,588.83
10	157-0130-004	200.550		200.550	State of California	200	40,110	31.75236	\$12,735.87	40,110	32.15632	\$12,897.90
11	157-0130-024	302.960		302.960	State of California	200	60,592	31.75236	\$19,239.39	60,592	32.15632	\$19,484.16
12	157-0130-020	47.750		47.750	Fagundes Dairy	200	9,550	31.75236	\$3,032.35	9,550	32.15632	\$3,070.93
13	157-0130-022	40.000		40.000	State of California	200	8,000	31.75236	\$2,540.19	8,000	32.15632	\$2,572.51
14	157-0130-008	300.850		300.850	State of California	200	60,170	31.75236	\$19,105.40	60,170	32.15632	\$19,348.46
15	157-0130-006	357.980		357.980	State of California	200	71,596	31.75236	\$22,733.42	71,596	32.15632	\$23,022.64
16	157-0130-007	102.000		102.000	State of California	200	20,400	31.75236	\$6,477.48	20,400	32.15632	\$6,559.89
17	157-0140-004	1.000		1.000	State of California	200	200	31.75236	\$63.50	200	32.15632	\$64.31
18a	157-0140-020	578.470	209.400	369.070	State of California	200	73,814	31.75236	\$23,437.68	73,814	32.15632	\$23,735.86
18b	157-0140-020			209.400	State of California	1200	251,280	31.75236	\$79,787.28	251,280	32.15632	\$80,802.46
19a	157-0140-011	181.500	140.800	40.700	State of California	200	8,140	31.75236	\$2,584.64	8,140	32.15632	\$2,617.52
19b	157-0140-011			140.800	State of California	1200	168,960	31.75236	\$53,648.79	168,960	32.15632	\$54,331.32
20a	157-0140-009	186.000	121.100	64.900	State of California	200	12,980	31.75236	\$4,121.46	12,980	32.15632	\$4,173.89
20b	157-0140-009			121.100	State of California	1200	145,320	31.75236	\$46,142.53	145,320	32.15632	\$46,729.56
21a	157-0140-010	181.500	111.300	70.200	State of California	200	14,040	31.75236	\$4,458.03	14,040	32.15632	\$4,514.75
21b	157-0140-010			111.300	State of California	1200	133,560	31.75236	\$42,408.45	133,560	32.15632	\$42,947.98
22	157-0140-015	20.000		20.000	Stkn Marina Properties LLC	1200	24,000	31.75236	\$7,620.57	24,000	32.15632	\$7,717.52
23	157-0130-003	0.870		0.870	State of California (1/2)	200	174	31.75236	\$55.25	174	32.15632	\$55.95
	***	0.870		0.870	State of California (1/2)	200	174	31.75236	\$55.25	174	32.15632	\$55.95
24	157-0130-023	10.520		10.520	Ricky & Linda Carter	200	2,104	31.75236	\$668.07	2,104	32.15632	\$676.57
25	** 157-0130-023	0.360		0.360	RD No 1601	200	72	31.75236	\$22.86	72	32.15632	\$23.15
26	157-0130-025	4.040		4.040	RD No 1601	200	808	31.75236	\$256.56	808	32.15632	\$259.82
27a	157-0140-021	471.960	182.300	289.660	State of California	200	57,932	31.75236	\$18,394.78	57,932	32.15632	\$18,628.80
27b	157-0140-021			182.300	State of California	1200	218,760	31.75236	\$69,461.46	218,760	32.15632	\$70,345.17
		3,634.887	764.900	3,634.887								
					California Resources Production LESS RD1601		1,512,362 251,287	31.75236	\$79,789.55 (\$34,540.79)	1,512,362 229,131	32.15632	\$73,680.10 (\$34,980.22)
							1,763,649		\$525,459.21	1,741,493		\$525,019.78

\*\* .36 purchased from Carter for exclusive levee easement

\*\*\* Exxon Corp billed to State of CA