

SOLANO COUNTY WATER AGENCY



BOARD OF DIRECTORS MEETING

BOARD OF DIRECTORS:

Chair:

Mayor Ronald Kott
City of Rio Vista

Vice Chair:

Director Sean Favero
Main Prairie Water District

Mayor Steve Young
City of Benicia

Mayor Steve Bird
City of Dixon

Mayor Catherine Moy
City of Fairfield

Director Dale Crossley
Reclamation District No. 2068

Supervisor Erin Hannigan
Solano County District 1

Supervisor Monica Brown
Solano County District 2

Supervisor Wanda Williams
Solano County District 3

Supervisor John Vasquez
Solano County District 4

Supervisor Mitch Mashburn
Solano County District 5

Director J.D. Kluge
Solano Irrigation District

Mayor Alma Hernandez
City of Suisun City

Mayor John Carli
City of Vacaville

Mayor Robert McConnell
City of Vallejo

GENERAL MANAGER:

Chris Lee
Solano County Water Agency

DATE: Thursday, June 8, 2023

TIME: 6:30 P.M.

PLACE: Berryessa Room
Solano County Water Agency Office
810 Vaca Valley Parkway, Suite 203
Vacaville, CA 95688

Remote participation available under AB 2449:

Please review insert after agenda regarding AB 2449.

Zoom Information:

<https://us02web.zoom.us/j/83191863504?pwd=UWhPZEVVbHU1bzRTWEliQkhFRGljQT09>

Meeting ID: 831 9186 3504/Passcode: 932913

One tap mobile: +16694449171,,83191863504#,,, *932913#

Dial by your location: +1 669 444 9171 US

1. **CALL TO ORDER**
2. **AB 2449 STATEMENT**
3. **PLEDGE OF ALLEGIANCE**
4. **APPROVAL OF AGENDA**
5. **PUBLIC COMMENT**

If you wish to make a Public Comment, please contact the Secretary at:

cle@scwa2.com to expedite the process, thank you. Public Comments may still be made during the meeting without prior notice.

6. **CONSENT ITEMS** (estimated time: 5 minutes)

(A) **Minutes:** Approval of the Minutes of the Board of Directors meeting of May 11, 2023.

(B) **Expenditure Approvals:** Approval of the May 2023 checking account register.

810 Vaca Valley Parkway, Suite 203
Vacaville, California 95688
Phone (707) 451-6090 • FAX (707) 451-6099
www.scwa2.com



- (C) Approve Resolution 2023-04: Authorize Chairman to approve resolution 2023-04, authorizing the General Manager to apply and if successful execute a grant and/or funding agreement with DWR to conduct and complete engineering design work for the Mellin Levee.

7. **BOARD MEMBER REPORTS** *(estimated time: 5 minutes)*

RECOMMENDATION: For information only.

8. **GENERAL MANAGER'S REPORT** *(estimated time: 5 minutes)*

RECOMMENDATION: For information only.

9. **SOLANO WATER ADVISORY COMMISSION REPORT** *(estimated time: 5 minutes)*

RECOMMENDATION: For information only.

10. **SCWA BUDGET FOR FISCAL YEAR 2023-2024** *(estimated time: 20 minutes)*

RECOMMENDATION: Hear staff report and recommendations from Executive Committee acting as the Budget Review Committee and consider adoption of Water Agency's fiscal year 2023-2024 budget.

11. **BUDGET IMPLEMENTATION ACTIONS** *(estimated time: 20 minutes)*

RECOMMENDATIONS:

- (A) State Water Project Property Tax Rate for Fiscal Year 2023-2024: Establish a tax rate of \$0.02 per \$100 of assessed valuation for the State Water Project property tax for fiscal year 2023-2024.
- (B) Pre-Approval of Fiscal Year 2023-2024 Payments: Pre-approval of specified categories of bills for fiscal year 2023-2024.
- (C) Water Agency Statement of Investment Policy for Fiscal Year 2023-2024: Approval of the annual Statement of Investment Policy.
- (D) Cost of Living Adjustment for Water Agency Employees: Award a 4.00 percent cost of living adjustment for Water Agency employees effective July 9, 2023.
- (E) Consultant Services Contracts and Renewals: Authorize General Manager to execute agreements and amendments for the following consultant services for work through fiscal year 2023-2024:
1. A2Z Landscaping, Landscape Assistance for Residents with Disabilities Program, existing vendor – contract limit of \$400,000;
 2. Alpha Media, Lake Berryessa Mussel Prevention Social Media and Digital Outreach, existing vendor – contract limit of \$90,000;

3. Dotan Consulting, Solano Project Model Support, existing vendor – contract limit of \$145,000;
4. Eagle Aerial Solutions, AB1668/SB606 Legislation Compliance, existing vendor – contract limit of \$112,500;
5. Eyasco, Data, Website and SCADA Support, existing vendor – contract limit of \$425,000;
6. Jacobs Engineering Group, Inc., Solano HCP EIR/EIS, existing vendor – contract limit of \$60,000;
7. Jim DeRose, Instrumentation and Flow Measurement Support, existing vendor – contract limit of \$110,000;
8. LSA Associates, Solano HCP, existing vendor – contract limit of \$517,000;
9. Luhdorff & Scalmanini, Groundwater Services, existing vendor – contract limit of \$288,910;
10. Reeb Government Relations, Government Relations, existing vendor – contract limit \$120,000;
11. Richard Heath & Associates, Low Income and Senior Water Efficiency Upgrades, existing vendor – contract limit of \$125,000
12. Shandam Consulting, Information Technology Support Services, existing vendor – contract limit of \$136,250;
13. Solano Resource Conservation District, School Water Education Program and Video Contest, existing vendor – contract limit of \$114,160.25;
14. Streamwise, Rock Vane and Stream Restoration, existing vendor – contract limit of \$90,000;
15. Sustainable Solano, Sustainable Landscaping Education Program, existing vendor – contract limit of \$175,013;
16. Terraphase Engineering, Cache Slough Water Quality Monitoring, existing vendor – contract limit of \$60,000;
17. TRPA Fish Biologists, Peterson, Ulati, Putah, Western Tributary Fish Monitoring, existing vendor – contract limit of \$450,000;
18. UC Davis, Temperature Impacts on Bird Nesting Along Putah Creek and Working Landscapes, existing vendor – contract limit of \$84,010;
19. Univision, Spanish Language Water Conservation Media Campaign, existing vendor – contract limit of \$75,000
20. Vic Claassen, PSC and Ulati Soil Assessment, existing vendor – contract limit of \$170,000;
21. Washburn AG, Nuisance Vegetation Management, existing vendor – contract limit of \$65,000;
22. Wildlife Survey and Photo Service, Mussel Monitoring, existing vendor – contract limit of \$225,682;
23. Yolo County Resource Conservation District, Westside IRWM Coordination, existing vendor – contract limit of \$80,000;

12. BACKHOE PURCHASE

RECOMMENDATION: Authorize General Manager to purchase John Deere 410P backhoe for Solano Project O&M. Total cost not to exceed \$204,576.

13. **LEGISLATIVE UPDATES** *(estimated time: 10 minutes)*

RECOMMENDATIONS:

1. Hear report from Committee Chair on activities of the SCWA Legislative Committee.
2. Hear report from Bob Reeb of Reeb Government Relations, LLC.

14. **WATER POLICY UPDATES** *(estimated time: 10 minutes)*

RECOMMENDATIONS:

1. Hear report from staff on current and emerging Delta and Water Policy issues and provide direction.
2. Hear status report from Committee Chair on activities of the SCWA Water Policy Committee.
3. Hear report from Supervisors Vasquez and Mashburn on activities of the Delta Counties Coalition, Delta Protection Commission, and Delta Conservancy.
4. Hear report from Elizabeth Patterson on activities of the North Bay Watershed Association.

15. **CLOSED SESSION**

CONFERENCE WITH REAL PROPERTY NEGOTIATORS

(Gov. Code § 54956.8)

Property: 3373 Sackett Lane, Winters, CA

Agency negotiator: Chris Lee

Negotiating parties: Solano County Water Agency and Putah Creek Council

Under negotiation: Terms of Lease

CONFERENCE WITH LEGAL COUNSEL-ANTICIPATED LITIGATION

(Paragraph (3) of subdivision (d) of Gov. Code § 54956.9)

Significant exposure to litigation: 2 cases

16. **TIME AND PLACE OF NEXT MEETING**

Thursday, July 13, 2023, at 6:30 p.m. at the SCWA offices.

The Full Board of Directors packet with background materials for each agenda item can be viewed on the Agency's website at <https://www.scwa2.com/governance/board-meetings-agendas-minutes/>

Any materials related to items on this agenda distributed to the Board of Directors of Solano County Water Agency less than 72 hours before the public meeting are available for public inspection at the Agency's offices located at the following address: 810 Vaca Valley Parkway, Suite 203, Vacaville, CA 95688. Upon request, these materials may be made available in an alternative format to persons with disabilities.

AB 2449 Provides Remote Options for Public Agencies

Despite the end of the COVID-19 pandemic, public agencies still have options available to them if they need to exercise remote participation for members of their legislative bodies. AB 2449 provides that if a quorum of the legislative body participates in person, a member of a legislative body may participate remotely so long as the member provides prompt notice and the need for remote participation falls under one of the statutorily defined exceptions. The member does not need to identify their location nor ensure it is accessible to the public.

Members of legislative bodies can use AB 2449 to participate remotely if there is “just cause” or if “emergency circumstances” exist. “Just cause” is defined as any of the following:

- Providing childcare or caregiving of a parent, grandparent, grandchild, sibling, spouse, or domestic partner that requires the member to participate remotely.
- A contagious illness that prevents attendance in person.
- Tending to a need related to a physical or mental disability.
- Travelling for business of the legislative body or another state or local agency.

“Emergency circumstances” are defined as follows:

- A physical or family medical emergency that prevents a member of a legislative body from attending in person.

Notice Must be Provided to Utilize AB 2449’s Provisions

In order to utilize the provisions of AB 2449, members of a legislative body must inform their public agency at the earliest possible opportunity of their need to participate remotely, which can include before the start of the meeting. The member must also provide a general description of the circumstances that require remote participation. In the case of emergency circumstances, the member must actually request that the legislative body allow them to participate remotely and the legislative body has to take action on this request.

Any member participating remotely because of just cause or emergency circumstances must publicly disclose at the meeting before any action is taken, whether any other individuals 18 years of age or older are present in the room at the remote location with the member, and the general nature of the member’s relationship with any such individuals.

Members and Public Must have Option to Participate in Meetings both Audibly and Visually

When a member participates remotely, he/she must utilize both audio and visual capabilities to effectuate compliance with the statute. Therefore, members of public agencies cannot use a call in only option to attend meetings, they must be on camera. Additionally, the legislative body is responsible for ensuring that the public can also participate in meetings remotely. This includes providing a way for the public to remotely hear, visually observe, and remotely address the legislative body. Furthermore, members of the public can no longer be required to submit their comments prior to the meeting but instead must be allowed to give comments in real time.

CONSENT ITEMS

**SOLANO COUNTY WATER AGENCY
BOARD OF DIRECTORS MEETING MINUTES
MEETING DATE: May 11, 2023**

The Solano County Water Agency Board of Directors met this evening in the Board Room located at the Water Agency office in Vacaville. Attending were:

Mayor Steve Young, City of Benicia
Mayor Steve Bird, City of Dixon
Mayor Ronald Kott, City of Rio Vista
Mayor Alma Hernandez, City of Suisun City
Mayor John Carli, City of Vacaville
Mayor Robert McConnell, City of Vallejo
Supervisor Monica Brown, Solano County District 2
Supervisor Wanda Williams, Solano County District 3
Supervisor John Vasquez, Solano County District 4
Supervisor Mitch Mashburn, Solano County District 5
Director J.D Kluge, Solano Irrigation District
Director Dale Crossley, Reclamation District 2068 (remote)

CALL TO ORDER

The meeting was called to order by Chair Kott at 6:30 pm.

APPROVAL OF AGENDA

On a motion by Supervisor Mashburn and a second by Supervisor Brown the Board unanimously approved, by roll call vote, the agenda.

PUBLIC COMMENT

There was no public comment.

CONSENT ITEMS

On a motion by Mayor Young and a second by Supervisor Brown the Board unanimously approved, by roll call vote, the following consent items:

- (A) Minutes
- (B) Expenditure Approvals
- (C) Contract Amendment with Shandam Consulting for continuation of Information Technology support services.

BOARD MEMBER REPORTS

Mayor Hernandez shared her gratitude with the Board and staff on participating and funding the Solano RCD environmental education programs. Supervisor Vasquez requested that the upcoming Sackett Ranch leases come back to the Board for approval. Mayor Young informed the Board that the City of Benicia completed their interim pipeline repair, with close coordination with the City of Fairfield and Solano County OES. Even though the interim repair is complete, Mayor Young indicated that the City of Benicia will be looking at a more permanent repair.

Supervisor Williams arrived at 6:41 pm.

GENERAL MANAGERS REPORT

General Manager Chris Lee reminded the Board that there is a meeting on Friday with Assemblymember Lori Wilson and later in the month with Assemblymember Cecilia Aguiar-Curry, who continues to have a strong interest in Putah Creek. Mr. Lee also shared with the Board that the Putah Creek Water Management (PCWM) Program is moving forward. As part of the PCWM process, interviews will be scheduled with riparian diverters, staff, and a few Board members. Director Kluge indicated that he has already been interviewed. Supervisor Vasquez indicated that he was interested in being interviewed as

part of the PCWM process. General Manager Chris Lee also discussed the potential for interties between the Solano Project and State Water Project facilities, as well as interties between cities, that could help improve the region's water supply resiliency. Mayor McConnell expressed support of the concept, and shared with the Board that there may be a need to bring in Travis Air Force Base as well. Supervisor Vasquez shared that the County looked at some of these issues with the FEMA Hazard Mitigation Plan. Supervisor Williams recommended that these plans include timelines and create a priority list of projects.

Jeff Tempas representing Friends of Putah Creek, shared public comments regarding the General Manager's Report. Mr. Tempas expressed his concern with the Water Agency's most recent spawning gravel installation as well as concerns with the 2011 construction of the Winters Putah Creek Nature Park. Mr. Tempas would like to encourage the LPCCC to look at new methods of creek restoration.

SOLANO WATER ADVISORY COMMISSION REPORT

Mr. Kyle Ochendusko, Public Works Director for the City of Benicia, shared with the Board that the Commission has been proactively working on the important nuisances of water accounting, and this last month focusing on water transfers and the opportunity to move State Water Project water, and in-particular, water that would otherwise be lost. The Commission also started discussing the Bay-Delta Voluntary Agreements, of which the Board will hear more about this evening.

GENERAL MANAGER APPOINTMENT

Chair Kott informed the Board that as requested at the last Board meeting, the approved General Manager's contract was included in the Board Packet, and includes the salary, length of term, benefits, and at-will distinction. No vote was taken, as the item was informational only.

**ADOPTION AND CERTIFICATION OF INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION-LOWER PUTAH CREEK RESTORATION PROJECT, NISHIKAWA REACH
AND PROJECT APPROVAL**

General Manager Chris Lee provided a brief overview of the Nishikawa Project. The Water Agency has received a \$750,000 grant from the Natural Resources Agency, to construct the Nishikawa Restoration Project located near Pedrick Road and UC Davis. The project considers the new hydrologic regime since the Solano Project was constructed and improves the form and function of the creek. The Water Agency did receive public comments this evening, which are being circulated to the Board. Additionally, SCWA had a comment period for the Draft Initial Study - Mitigated Negative Declaration (IS-MND) in early April, which was extended one week to accommodate the DFW, and has ended. SCWA's legal counsel has also reviewed all the CEQA documents and found them to be in order. Mr. Lee summarized that a majority of the public comments received were a difference of professional opinion. Director Kluge asked about groundwater conditions, as that has been a topic of concern. Mr. Lee explained that for groundwater, Putah Creek has both losing and gaining reaches. For Solano County as a whole, since the region has surface water supplies, the region generally has good stable groundwater conditions. Supervisor Williams asked if SCWA has had the opportunity to find common ground with Friends of Putah Creek. Mr. Lee indicated that the group has been proactive in supplying comments to the LPCCC and one such suggestion, Process Based Restoration, is going to be discussed further by the LPCCC. Supervisor Vasquez pointed out that the whole purpose of the Putah Creek Accord and subsequent restoration was to bring the salmon back, which has already happened. Director Kluge added that he has heard numerous presentations from UC Davis at the LPCCC meetings, that Putah Creek has seen large population increases in salmon, birds, and mammals, showing that these restoration improvements have been successful.

Alan Pryor representing Friends of Putah Creek commented that he believes the IS-MND does not meet the full requirements of CEQA. A comment letter was provided by the Friends of Putah Creek attorney, stating that the IS-MND is not appropriate and a full EIR is needed to resolve the professional differences of opinion for the restoration project. Furthermore, Mr. Pryor believes the comments provided by the DFW and the public meet the low threshold required to conduct a full EIR.

Jeff Tempas representing Friends of Putah Creek, commented that the IS-MND does not discuss the movement of surface water to groundwater. Mr. Tempas is concerned that this issue is not addressed, and that there is no

supporting documentation of groundwater for the Nishikawa Project. Mr. Tempas recommended that the creek channel be augmented with spawning gravel instead.

Mayor Young and Mayor McConnell discussed that it may be helpful to obtain written comments from SCWA’s legal counsel before proceeding. Supervisor Vasquez indicated that this group has submitted the same comments for other restoration projects, and every time the Water Agency has a restoration project, this same ground threatens to sue the Water Agency each time.

A substitute motion was presented to the Board to (i) receive written opinion from legal counsel about this action item and (ii) postpone approval of this action item until the June Board meeting. On a motion by Mayor Young and second by Supervisor Williams, the Board voted 7-5 against, the substitute motion failed.

On a motion by Supervisor Mashburn and second by Director Kludge, the Board approved by roll call vote the original action item:

1. Receive staff report
2. Public comments
3. Board discussion on item.
4. Adoption and Certification of Initial Study / Mitigated Negative Declaration for Lower Putah Creek Restoration Project, Nishikawa Reach.
5. Authorize Lower Putah Creek Restoration Project, Nishikawa Reach.

Supervisor Williams, Supervisor Brown, and Mayor Young voted no.

STATE WATER BOARD BAY-DELTA VOLUNTARY AGREEMENTS

Thomas Pate, Manager of Water Policy & Legislation, provided an overview of the State Water Board’s Bay-Delta Voluntary Agreements. The Voluntary Agreements (VAs) is a comprehensive program of habitat projects and increased flow to improve environmental conditions within the Sacramento and San Joaquin Delta and upland watersheds over the next 8 years. The VA program is comprised of over 30 public water agencies, federal and state agencies, NGOs, and stakeholders. The Water Agency would be impacted in two ways, from the Solano Project and Putah Creek, and with the State Water Project. Without the VA program, the State Water Board will be requesting each watershed to release 35-55% of the wintertime and early spring flow into the Delta across all watersheds. For the Solano Project, this could create large time periods where Lake Berryessa is fully drained, and no water is available for use by the Solano agencies. Initial model results for the last one hundred years show time periods of 8-20 years, where Lake Berryessa would be fully drained. Besides flow, the VA Program would require funding which would be \$2/AF for the Solano Project for a rough total of \$340,000/year and for the State Water Project, \$10/AF, for a total of \$275,000/year. The Water Agency would also be obligated to create 1.4-acres of restored habitat in Putah Creek, of which the Nishikawa Project would fully address. The Statewide Governance Group is completing all of the VA documents, which will be submitted to the State Water Board in June – July. If the process moves forward, there would likely be a decision by the State Water Board in 2024. The SCWA Board discussed the impact of lost tax revenue associated with large-scale restoration projects in Solano County, as well as the potential impact to rate payers with the VA fees.

APPOINTMENT OF FY 2023-2024 BUDGET REVIEW COMMITTEE

Chair Kott shared with the Board that historically the Executive Committee members are also on the Budget Review Committee. Chair Kott will continue this practice. There were no additional comments.

LEGISLATIVE UPDATES

There were no updates from the Legislative Committee. There was no report from Mr. Bob Reeb of Reeb Government Relations, the Water Agency’s legislative advocate.

WATER POLICY UPDATES

There were no updates from staff on current or emerging Delta issues. Similarly, there were no updates from the Water Policy Committee, or from Supervisors Vasquez and Mashburn on the Delta Counties Coalition, Delta Protection Commission, and Delta Conservancy.

Ms. Patterson provided a brief update on activities of the North Bay Watershed Association (NBWA). The NBWA is anticipating an upcoming budget of \$225,000 with no changes to the annual budget. There will be a 2024 Conference with regional forums, and an array of interesting agenda items for future meetings. There is also an upcoming Dredging Open House with the US Army Corps of Engineers.

CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION.
Closed Session pursuant to Paragraph (1) of subdivision (d) of Gov. Code § 54956.9
Name of case: Solano County Water Agency v. State of California Department of Water Resources, Solano County Superior Court Case No. FCS055749

The Board moved into Closed Session at 8:19 pm and returned to Open Session at 8:23 pm. There were no reportable actions.

TIME AND PLACE OF NEXT MEETING

Thursday, June 9, 2023, at 6:30 pm at the SCWA offices.

ADJOURNMENT

The meeting of the Solano County Water Agency Board of Directors was adjourned at 8:24 pm.

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023
SUBJECT: Expenditures Approval

RECOMMENDATIONS:


Approve expenditures from the Water Agency checking accounts for May 2023.

FINANCIAL IMPACT:

All expenditures are within previously approved budget amounts.

BACKGROUND:

The Water Agency auditor has recommended that the Board of Directors approve all expenditures (in arrears). Attached is a summary of expenditures from the Water Agency’s checking accounts for May 2023. Additional backup information is available upon request.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

SOLANO COUNTY WATER AGENCY
Cash Disbursements Journal
For the Period From May 1, 2023 to May 31, 2023

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
5/2/23	39336	2020SC	Invoice: 15226	11,576.75	
		2020SC	Invoice: 15229	14,537.09	
		2020SC	Invoice: 15228	13,751.20	
		1020SC	ZACHARIAH WILKERSON		39,865.04
5/2/23	39337	2020SC	Invoice: 202304	800.00	
		1020SC	BELIA MARTINEZ		800.00
5/2/23	39338	2020SC	Invoice: 11017	2,684.85	
		1020SC	LAURA BERGGREN		2,684.85
5/2/23	39339	2020SC	Invoice: 4220706	741.56	
		1020SC	AMERICAN TOWER CORPORATION		741.56
5/2/23	39340	2020SC	Invoice: 1410	10,719.00	
		1020SC	BADAWI & ASSOCIATES		10,719.00
5/2/23	39341	2020SC	Invoice: EXP REIM APRIL 2023	25.00	
		1020SC	JEFF BARICH		25.00
5/2/23	39342	2020SC	Invoice: MAY 2023	4,096.00	
		2020SC	Invoice: DEC 2022	1,550.12	
		1020SC	BUZZ OATES MANAGEMENT SERVICES		5,646.12
5/2/23	39343	2020SC	Invoice: 000019803814	838.39	
		2020SC	Invoice: 000019802367	155.23	
		2020SC	Invoice: 000019802322	287.74	
		1020SC	CALNET3		1,281.36
5/2/23	39344	2020SC	Invoice: 10159	19,443.70	
		1020SC	CP UNLIMITED		19,443.70
5/2/23	39345	2020SC	Invoice: 00195	324.00	
		1020SC	SOLANO COUNTY ASSESSOR/RECORDER		324.00
5/2/23	39346	2020SC	Invoice: SAMMY BRICK JR.	940.50	
		1020SC	SAMMY BRICK JR.		940.50
5/2/23	39347	2020SC	Invoice: KATHLEEN CAMPAS	898.50	
		1020SC	KATHLEEN CAMPAS		898.50
5/2/23	39348	2020SC	Invoice: DONNA CASTRUITA	913.50	
		1020SC	DONNA CASTRUITA		913.50
5/2/23	39349	2020SC	Invoice: MARY DELANEY	599.00	
		1020SC	MARY DELANEY		599.00
5/2/23	39350	2020SC	Invoice: STEVE HOFACRE	1,098.60	
		1020SC	STEVE HOFACRE		1,098.60
5/2/23	39351	2020SC	Invoice: MELODY LAWRENCE	864.00	
		1020SC	MELODY LAWRENCE		864.00
5/2/23	39352	2020SC	Invoice: DIANE NUNES	931.50	
		1020SC	DIANE NUNES		931.50
5/2/23	39353	2020SC	Invoice: JOSEPH PUDLAK	1,500.00	
		1020SC	JOSEPH PUDLAK		1,500.00

SOLANO COUNTY WATER AGENCY
Cash Disbursements Journal
For the Period From May 1, 2023 to May 31, 2023

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
5/2/23	39354	2020SC 1020SC	Invoice: ELLEN RYKEN ELLEN RYKEN	540.00	540.00
5/2/23	39355	2020SC 1020SC	Invoice: SAMIA SEMAAN SAMIA SEMAAN	1,500.00	1,500.00
5/2/23	39356	2020SC 1020SC	Invoice: MARLO SKINNER MARLO SKINNER	925.50	925.50
5/2/23	39357	2020SC 1020SC	Invoice: RICHARD WILLIAMS RICHARD WILLIAMS	1,500.00	1,500.00
5/2/23	39358	2020SC 1020SC	Invoice: BRENT YOUNGBORG BRENT YOUNGBORG	930.00	930.00
5/2/23	39359	2020SC 1020SC	Invoice: KAREN YUEN KAREN YUEN	467.00	467.00
5/10/23	39360	2020SC 1020SC	Invoice: 202303 BELIA MARTINEZ	640.00	640.00
5/10/23	39361	2020SC 1020SC	Invoice: 3353 AG INNOVATIONS	10,839.00	10,839.00
5/10/23	39362	2020SC 2020SC 1020SC	Invoice: JD81932 Invoice: JD90210 CDW LLC	869.10 590.34	1,459.44
5/10/23	39363	2020SC 2020SC 1020SC	Invoice: 5155737050 Invoice: 5155737036 CINTAS CORPORATION	360.79 147.43	508.22
5/10/23	39364	2020SC 1020SC	Invoice: APR 2023 LEG MTG DALE CROSSLEY	140.00	140.00
5/10/23	39365	2020SC 1020SC	Invoice: 244825 ELECTRICAL EQUIPMENT CO. INC	625.00	625.00
5/10/23	39366	2020SC 1020SC	Invoice: CL53250 INTERSTATE OIL COMPANY	1,480.96	1,480.96
5/10/23	39367	2020SC 1020SC	Invoice: 0121030 DARYL SISCO	96.00	96.00
5/10/23	39368	2020SC 2020SC 1020SC	Invoice: SAC-1000502 Invoice: SAC-1000756 MERIDIAN UTILITY EQUIPMENT SALES	93.09	26.40 66.69
5/10/23	39369	2020SC 1020SC	Invoice: 012 ELIZABETH PATTERSON	608.45	608.45
5/10/23	39370	2020SC 1020SC	Invoice: 23-4 PUTAH CREEK COUNCIL	4,145.10	4,145.10
5/10/23	39371	2020U 1020SC	Invoice: APR 2023 SOLANO COUNTY FLEET MANAGEMENT	565.84	565.84
5/10/23	39372	2020U 2020U	Invoice: 12055 Invoice: 12053	595.55 4,795.50	

SOLANO COUNTY WATER AGENCY
Cash Disbursements Journal
For the Period From May 1, 2023 to May 31, 2023

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
		2020U	Invoice: 12050	1,621.89	
		2020U	Invoice: 12059	12,267.11	
		1020SC	SOLANO COUNTY PUBLIC WORKS DIVISION		19,280.05
5/10/23	39373	2020SC	Invoice: 1959	12,501.33	
		2020SC	Invoice: 1965	11,910.05	
		2020SC	Invoice: 1963	44,393.19	
		2020SC	Invoice: 1962	18,100.62	
		2020SC	Invoice: 1961	29,227.79	
		2020SC	Invoice: 1960	1,810.70	
		1020SC	SOLANO RESOURCE CONSERVATION DISTRICT		117,943.68
5/10/23	39374	2020SC	Invoice: 239550	601.52	
		2020SC	Invoice: 239946	871.83	
		1020SC	STERLING MAY EQUIPMENT CO.		1,473.35
5/10/23	39375	2020SC	Invoice: MARY BLASCO	862.00	
		1020SC	MARY BLASCO		862.00
5/10/23	39376	2020SC	Invoice: ILEANA FRIEDMAN	1,080.00	
		1020SC	ILEANA FRIEDMAN		1,080.00
5/10/23	39377	2020SC	Invoice: THANH HA	1,254.00	
		1020SC	THANH HA		1,254.00
5/10/23	39378	2020SC	Invoice: MYRA HENDERSON	1,500.00	
		1020SC	MYRA HENDERSON		1,500.00
5/10/23	39379	2020SC	Invoice: LAWRENCE LANDIS 1	150.00	
		1020SC	LAWRENCE LANDIS		150.00
5/10/23	39380	2020SC	Invoice: WILLIAM LUCIANO	100.00	
		1020SC	WILLIAM LUCIANO		100.00
5/10/23	39381	2020SC	Invoice: ARTERRIAS MASON	901.50	
		1020SC	ARTERRIAS MASON		901.50
5/10/23	39382	2020SC	Invoice: LAWRENCE MASSEY	69.00	
		1020SC	LAWRENCE MASSEY		69.00
5/10/23	39383	2020SC	Invoice: JOHNNY NAPIER	50.00	
		1020SC	JOHNNY NAPIER		50.00
5/10/23	39384	2020SC	Invoice: SHELLY NISSEN 1	50.00	
		1020SC	SHELLY NISSEN		50.00
5/10/23	39385	2020SC	Invoice: DWYANE POTTS	1,348.50	
		1020SC	DWYANE POTTS		1,348.50
5/10/23	39386	2020SC	Invoice: APR 2023 LEG MTG	100.00	
		1020SC	JOHN VASQUEZ		100.00
5/10/23	39387	2020SC	Invoice: 9931794967	1,320.92	
		1020SC	VERIZON WIRELESS		1,320.92
5/10/23	39388	2020SC	Invoice: 168549	15,983.48	
		1020SC	WOOD RODGERS, INC.		15,983.48

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5/10/23	39389	2020SC	Invoice: OFF EXP	922.00	
		1020SC	PERMIT YOLO-SOLANO AQMD		922.00
5/16/23	39390	2020SC	Invoice: 15246	18,467.09	
		1020SC	ZACHARIAH WILKERSON		18,467.09
5/16/23	39391	2020SC	Invoice: 0699563	2,434.01	
		1020SC	ACWA JOINT POWERS INSURANCE AUTHORITY		2,434.01
5/16/23	39392	2020SC	Invoice:	9,500.00	
		1020SC	SCFY19/20-61-2206 CALIFORNIA WATER EFFICIENCY PARTNERSHIP		9,500.00
5/16/23	39393	2020SC	Invoice: HW05741	13,869.92	
		1020SC	CDW LLC		13,869.92
5/16/23	39394	2020SC	Invoice: 10166	12,378.73	
		1020SC	CP UNLIMITED		12,378.73
5/16/23	39395	2020SC	Invoice: 23-164-O	346.00	
		1020SC	DEPARTMENT OF WATER RESOURCES		346.00
5/16/23	39396	2020SC	Invoice: APR 2023	8,608.11	
		1020SC	JAMES B. DEROSE		8,608.11
5/16/23	39397	2020SC	Invoice: 5486	42,054.29	
		1020SC	EYASCO, INC.		42,054.29
5/16/23	39398	2020SC	Invoice: MAY 2023	2,500.00	
		1020SC	MARK E. GRISMER PHD PE		2,500.00
5/16/23	39399	2020SC	Invoice: 106742	83.64	
		2020SC	Invoice: 106741	209.10	
		2020SC	Invoice: 106743	167.28	
		2020SC	Invoice: 106744	65.79	
		1020SC	HERUM/ CRABTREE/ SUNTAG		525.81
5/16/23	39400	2020SC	Invoice: 4022517	95.00	
		2020SC	Invoice: 4012181	421.77	
		2020SC	Invoice: 3022609	13.95	
		2020SC	Invoice: 3401328	893.48	
		2020SC	Invoice: 8635350	541.61	
		2020SC	Invoice: 1013746	712.61	
		2020SC	Invoice: 1013705	460.10	
		2020SC	Invoice: 0013857	177.33	
		2020SC	Invoice: 177459	41.00	
		2020SC	Invoice: 7025467	202.32	
		2020SC	Invoice: 7025464	92.93	
		2020SC	Invoice: 5523154	19.85	
		1020SC	HOME DEPOT CREDIT SERVICE		3,671.95
5/16/23	39400V	2020SC	Invoice: 4022517		95.00
		2020SC	Invoice: 4012181		421.77
		2020SC	Invoice: 3022609		13.95
		2020SC	Invoice: 3401328		893.48
		2020SC	Invoice: 8635350		541.61
		2020SC	Invoice: 1013746		712.61
		2020SC	Invoice: 1013705		460.10
		2020SC	Invoice: 0013857		177.33
		2020SC	Invoice: 177459		41.00
		2020SC	Invoice: 7025467		202.32

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		2020SC	Invoice: 7025464		92.93
		2020SC	Invoice: 5523154		19.85
		1020SC	HOME DEPOT CREDIT SERVICE	3,671.95	
5/16/23	39401	2020SC	Invoice: APR 2023	51.00	
		1020SC	MILLENNIUM TERMITE & PEST		51.00
5/16/23	39402	2020SC	Invoice: 3/22/23-4/20/23	12.34	
		1020SC	PACIFIC GAS & ELECTRIC CO,		12.34
5/16/23	39403	2020SC	Invoice: INV-04222	24,750.00	
		1020SC	RALPH ANDERSEN & ASSOCIATES		24,750.00
5/16/23	39404	2020SC	Invoice: 51102176	108.22	
		1020SC	RECOLOGY VACAVILLE SOLANO		108.22
5/16/23	39405	2020SC	Invoice: 01227917	1,103.48	
		1020SC	RECOLOGY HAY ROAD		1,103.48
5/16/23	39406	2020SC	Invoice: WCP-280	8,529.52	
		1020SC	RICHARD HEATH & ASSOCIATES, INC.		8,529.52
5/16/23	39407	2020SC	Invoice: 1595	4,250.00	
		2020SC	Invoice: 1603	1,750.00	
		1020SC	DOUG NOLAN		6,000.00
5/16/23	39408	2020SC	Invoice: 0430232306	6,045.00	
		1020SC	SHANDAM INC.		6,045.00
5/16/23	39409	2020SC	Invoice: 0040481	15,230.29	
		2020SC	Invoice: 0040482	241.97	
		1020SC	SOLANO IRRIGATION DISTRICT		15,472.26
5/16/23	39410	2020U	Invoice: 12066	15,055.87	
		2020U	Invoice: 12057	8,104.21	
		2020U	Invoice: 12058	19,815.86	
		2020U	Invoice: 12049	2,496.87	
		2020U	Invoice: 12051	27,180.50	
		2020U	Invoice: 12052	2,045.19	
		1020SC	SOLANO COUNTY PUBLIC WORKS DIVISION		74,698.50
5/16/23	39411	2020SC	Invoice: 78696	102.75	
		2020SC	Invoice: 78875	32.92	
		2020N	Invoice: 78938	1,161.19	
		2020SC	Invoice: 78956	104.04	
		2020SC	Invoice: 79061	938.60	
		2020SC	Invoice: 79039	792.45	
		2020SC	Invoice: 79098	10.73	
		2020SC	Invoice: 79118	180.93	
		2020SC	Invoice: 79137	3.47	
		2020SC	Invoice: 79249	2.06	
		1020SC	SUISUN VALLEY FRUIT GROWERS AS		3,329.14
5/16/23	39412	2020SC	Invoice: 2023-5-SCWA	20,768.00	
		1020SC	SUSTAINABLE SOLANO INC.		20,768.00
5/16/23	39413	2020SC	Invoice: EXP REIM MAY 2023	39.30	
		1020SC	JONATHAN TAVENIER 16		39.30

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5/16/23	39414	2020SC 1020SC	Invoice: 471 JOHN B WHITCOMB	5,932.00	5,932.00
5/16/23	39415	2020SC 1020SC	Invoice: 13004 GWYNNE CROPSEY	6,100.00	6,100.00
5/16/23	39416	2020SC 1020SC	Invoice: CEQA FEE 2023 SOLANO COUNTY	2,814.00	2,814.00
5/16/23	39417	2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 2020SC 1020SC	Invoice: 4022517 Invoice: 4012181 Invoice: 3022609 Invoice: 3401328 Invoice: 8635350 Invoice: 1013746 Invoice: 1013705 Invoice: 0013857 Invoice: 177459 Invoice: 7025467 Invoice: 7025464 Invoice: 5523154 Invoice: 5015722 HOME DEPOT CREDIT SERVICE	95.00 421.77 13.95 893.48 541.61 712.61 460.10 177.33 41.00 202.32 92.93 19.85 154.89	3,826.84
5/23/23	39420	2020SC 2020SC 1020SC	Invoice: 15255 Invoice: 15254 ZACHARIAH WILKERSON	12,998.59 12,393.19	25,391.78
5/23/23	39421	2020SC 1020SC	Invoice: 3387 AG INNOVATIONS	17,109.50	17,109.50
5/23/23	39422	2020SC 2020SC 2020SC 2020SC 1020SC	Invoice: 638845-8 Invoice: 638977-10 Invoice: 638806-8 Invoice: 643511-3 ALPHA MEDIA LLC	3,500.00 3,000.00 3,000.00 3,750.00	13,250.00
5/23/23	39423	2020SC 1020SC	Invoice: MAY 2023 BOD MTG STEVEN BIRD	114.41	114.41
5/23/23	39424	2020N 1020SC	Invoice: NISHIKAWA ALT FEE CA DEPT OF FISH & WILDLIFE	6,236.00	6,236.00
5/23/23	39425	2020N 2020N 1020SC	Invoice: 22-1008-11 Invoice: 22-1007-12 CBEC, INC.	370.00 1,625.00	1,995.00
5/23/23	39426	2020SC 2020SC 2020SC 1020SC	Invoice: JF46069 Invoice: JH80017 Invoice: JK59460 CDW LLC	296.52 2,163.50 448.46	2,908.48
5/23/23	39427	2020SC 1020SC	Invoice: 1963602 COUNTY OF YOLO	28.08	28.08
5/23/23	39428	2020SC 1020SC	Invoice: MAY 2023 BOD MTG DALE CROSSLEY	100.00	100.00
5/23/23	39429	2020SC 1020SC	Invoice: DARCY PRITCHARD DARCY PRITCHARD	250.00	250.00
5/23/23	39430	2020SC 1020SC	Invoice: EXP REIM 5.13-5.14.2 FREEDOM EVANS	128.38	128.38

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5/23/23	39431	2020SC	Invoice: 106908	2,226.66	
		2020SC	Invoice: 106730	2,103.78	
		2020SC	Invoice: 106731	3,728.10	
		2020SC	Invoice: 104599	2,468.40	
		2020SC	Invoice: 104965	69.96	
		2020SC	Invoice: 107409	424.32	
		2020SC	Invoice: 107410	2,634.66	
		2020SC	Invoice: 107419	125.46	
		2020SC	Invoice: 107415	444.00	
		2020SC	Invoice: 107417	87.72	
		1020SC	HERUM/ CRABTREE/ SUNTAG		14,313.06
5/23/23	39431V	2020SC	Invoice: 106908		2,226.66
		2020SC	Invoice: 106730		2,103.78
		2020SC	Invoice: 106731		3,728.10
		2020SC	Invoice: 104599		2,468.40
		2020SC	Invoice: 104965		69.96
		2020SC	Invoice: 107409		424.32
		2020SC	Invoice: 107410		2,634.66
		2020SC	Invoice: 107419		125.46
		2020SC	Invoice: 107415		444.00
		2020SC	Invoice: 107417		87.72
		1020SC	HERUM/ CRABTREE/ SUNTAG	14,313.06	
5/23/23	39432	2020SC	Invoice: CL54682	2,490.92	
		1020SC	INTERSTATE OIL COMPANY		2,490.92
5/23/23	39433	2020N	Invoice: 0523-2	700.00	
		1020SC	JEFFREY J JANIK		700.00
5/23/23	39434	2020SC	Invoice: 4	594,768.79	
		1020SC	LANDMARK CONSTRUCTION		594,768.79
5/23/23	39435	2020SC	Invoice: EXPREIMB	267.49	
		1020SC	ACWA LEE, CHRISTOPHER R.		267.49
5/23/23	39436	2020SC	Invoice: LYNN LARSEN	750.00	
		1020SC	LYNN LARSEN		750.00
5/23/23	39437	2020SC	Invoice: 188276	11,882.50	
		2020SC	Invoice: 188331	39,171.32	
		1020SC	LSA ASSOCIATES, INC.		51,053.82
5/23/23	39438	2020SC	Invoice: 39751	43,312.20	
		1020SC	LUHDORFF & SCALMANINI		43,312.20
5/23/23	39439	2020SC	Invoice: EXP REIM MAY 2023	65.50	
		1020SC	AMY MARSHALL		65.50
5/23/23	39440	2020SC	Invoice: MAY 2023 EXEC MTG	100.00	
		2020SC	Invoice: MAY 2023 BOD MTG	100.00	
		1020SC	MITCH MASHBURN		200.00
5/23/23	39441	2020SC	Invoice: INV00076654	297.29	
		1020SC	M-FILES INC		297.29
5/23/23	39442	2020SC	Invoice: OH105058	240.00	
		1020SC	NORTHBAY HEALTHCARE GROUP OCC HEALTH DE		240.00
5/23/23	39443	2020SC	Invoice: 497	1,225.00	
		1020SC	LESLIE PALENCIA	18	1,225.00

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5/23/23	39444	2020SC 1020SC	Invoice: 23-37 PUTAH CREEK COUNCIL	695.79	695.79
5/23/23	39445	2020SC 1020SC	Invoice: 51101053 RECOLOGY VACAVILLE SOLANO	285.60	285.60
5/23/23	39446	2020SC 1020SC	Invoice: 034-JUN-2023 REEB GOVERNMENT RELATIONS, LLC	9,500.00	9,500.00
5/23/23	39447	2020U 1020SC	Invoice: 7620 RESOURCE MANAGEMENT ASSOCIATES	27,798.50	27,798.50
5/23/23	39448	2020SC 1020SC	Invoice: REGINA PEREZ REGINA PEREZ	250.00	250.00
5/23/23	39449	2020SC 2020SC 1020SC	Invoice: 1966 Invoice: 1975 WAYNE HUTCHINSON	959.55 542.44	1,501.99
5/23/23	39450	2020SC 1020SC	Invoice: SACHI BANSAL SACHI BANSAL	750.00	750.00
5/23/23	39451	2020SC 1020SC	Invoice: 043023AGS18 SHANDAM INC.	4,125.00	4,125.00
5/23/23	39452	2020SC 2020SC 2020SC 1020SC	Invoice: 13280706 Invoice: 13286701 Invoice: 12716011 SHELDON	106.30 17.18 894.38	1,017.86
5/23/23	39453	2020SC 2020SC 1020SC	Invoice: 0040483 Invoice: 0040484 SOLANO IRRIGATION DISTRICT	69,231.82 137,535.31	206,767.13
5/23/23	39454	2020SC 1020SC	Invoice: FF40044 SOLANO SIGNS	2,769.48	2,769.48
5/23/23	39455	2020N 1020SC	Invoice: 3017387 SOMACH, SIMMONS & DUNN	612.10	612.10
5/23/23	39456	2020SC 1020SC	Invoice: 006492990046JUN 2023 STANDARD INSURANCE COMPANY	2,358.98	2,358.98
5/23/23	39457	2020SC 2020SC 1020SC	Invoice: 240366 Invoice: 241020 STERLING MAY EQUIPMENT CO.	828.34 637.12	1,465.46
5/23/23	39458	2020SC 2020SC 1020SC	Invoice: 2023-SCWA-01 Invoice: 2022-ULATIS-01 DONALD R POORE	2,218.50 3,359.57	5,578.07
5/23/23	39459	2020SC 1020SC	Invoice: SOPHIA VELASCO SOPHIA VELASCO	250.00	250.00
5/23/23	39460	2020SC 1020SC	Invoice: SOPHIA VILLARUEL SOPHIA VILLARUEL	250.00	250.00
5/23/23	39461	2020SC	Invoice: 300577462	53.68	

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		2020SC	Invoice: 300578213	579.80	
		2020SC	Invoice: 3000032252	106.55	
		1020SC	TRACTOR SUPPLY CREDIT PLAN		740.03
5/23/23	39462	2020SC	Invoice: 1160718	69.21	
		2020SC	Invoice: 1181802	503.93	
		1020SC	GROW WEST		573.14
5/23/23	39463	2020SC	Invoice: 366	250.00	
		2020SC	Invoice: 368	5,492.97	
		2020SC	Invoice: 364	3,800.00	
		2020SC	Invoice: 367	4,928.64	
		2020SC	Invoice: 365	2,075.00	
		2020SC	Invoice: 369	5,521.14	
		1020SC	KATHLEEN A SALMUNOVICH		22,067.75
5/23/23	39464	2020SC	Invoice: MILES AMACKER	1,500.00	
		1020SC	MILES AMACKER		1,500.00
5/23/23	39465	2020N	Invoice: CLAUDIA ANCA	50.00	
		1020SC	CLAUDIA ANCA		50.00
5/23/23	39466	2020SC	Invoice: ROBERT BERNASCONI	1,140.00	
		1020SC	ROBERT BERNASCONI		1,140.00
5/23/23	39467	2020SC	Invoice: CELESTE CASIPIT	100.00	
		1020SC	CELESTE CASIPIT		100.00
5/23/23	39468	2020N	Invoice: NANCY FERRIN	1,500.00	
		1020SC	NANCY FERRIN		1,500.00
5/23/23	39469	2020N	Invoice: CHAD HAINES	59.00	
		1020SC	CHAD HAINES		59.00
5/23/23	39470	2020N	Invoice: GLORIA HUGHES	1,387.00	
		1020SC	GLORIA HUGHES		1,387.00
5/23/23	39471	2020N	Invoice: DIANE KENNEDY	1,500.00	
		1020SC	DIANE KENNEDY		1,500.00
5/23/23	39472	2020SC	Invoice: DESIREE PAYUMO	100.00	
		1020SC	DESIREE PAYUMO		100.00
5/23/23	39473	2020N	Invoice: KAREN PROVS	100.00	
		1020SC	KAREN PROVS		100.00
5/23/23	39474	2020SC	Invoice: JOAN SEGLE	1,500.00	
		1020SC	JOAN SEGLE		1,500.00
5/23/23	39475	2020SC	Invoice: BARBARA STEVENS	627.00	
		1020SC	BARBARA STEVENS		627.00
5/23/23	39476	2020N	Invoice: PAULA SWEENEY	1,500.00	
		1020SC	PAULA SWEENEY		1,500.00
5/23/23	39477	2020SC	Invoice: MARK SZURA	50.00	
		1020SC	MARK SZURA		50.00
5/23/23	39478	2020SC	Invoice: RUSSELL URZI 20	62.10	
		1020SC	RUSSELL URZI		62.10

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5/23/23	39479	2020SC	Invoice: RICHARD WEAVER	1,485.00	
		1020SC	RICHARD WEAVER		1,485.00
5/23/23	39480	2020SC	Invoice: MAY 2023 BOD MTG	100.00	
		1020SC	JOHN VASQUEZ		100.00
5/23/23	39481	2020SC	Invoice: DAVIS_FY2022-23-7	6,134.40	
		2020SC	Invoice: DAVIS_FY2022-23-9	8,886.95	
		2020SC	Invoice: DAVIS_FY2022-23-8	9,286.55	
		2020SC	Invoice: DAVIS_FY2022-23-23-6	13,252.15	
		1020SC	KEN W. DAVIS		37,560.05
5/23/23	39481a	1020SC	VOID		
5/23/23	39482	2020SC	Invoice: 450 WINTERS TOW SERVICE LLC	500.00	
		1020SC			500.00
5/23/23	39483	2020SC	Invoice: 3101471 CAL.NET INC. - WINTERS	595.00	
		1020SC			595.00
5/23/23	39484	2020SC	Invoice: EXP REIM MAY 2023	185.59	
		1020SC	ANDREW GANTNER		185.59
5/25/23	CRUZ APR 2023	2020SC	Invoice: CRUZ APR 2023	258.95	
		1020SC	UMPQUA BANK		258.95
5/15/23	EFT	2020SC	Invoice: 9933506594	2,316.33	
		1020SC	VERIZON WIRELESS		2,316.33
5/18/23	EFT	2020SC	Invoice: 89081739	2,265.02	
		1020SC	WEX BANK		2,265.02
5/2/23	EFT 05.02.23	2020SC	Invoice: MAY 2023 HEALTH	25,052.38	
		1020SC	CALPERS		25,052.38
5/5/23	EFT 05.05.2023	2020SC	Invoice: PPE 04.29.2023	24,271.64	
		1020SC	PAYROLL TAXES		24,271.64
5/5/23	EFT 05.05.2023	2020SC	Invoice: 74843	685.00	
		1020SC	ONEPOINT HUMAN CAPITAL MANAGEMENT LLC		685.00
5/8/23	EFT 05.08.2023	2020SC	Invoice: SIP PPE 4.29.23	7,499.55	
		1020SC	CALPERS		7,499.55
5/8/23	EFT 05.08.2023	2020SC	Invoice: PPE 04.29.2023	9,924.84	
		2020SC	Invoice: PEPRA 4.29.2023	6,592.07	
		1020SC	CALPERS		16,516.91
5/19/23	EFT 05.13.2023	2020SC	Invoice: EFT 05.13.2023	27,984.21	
		1020SC	PAYROLL TAXES		27,984.21
5/19/23	EFT 05.13.2023	2020SC	Invoice: PPE 05.13.2023	10,068.64	
		2020SC	Invoice: PEPRA PPE 05.13.2023	7,051.47	
		2020SC	Invoice: LEE RETRO 04.29.23	143.80	
		2020SC	Invoice: SIP PPE 05.13.2023	7,520.08	

SOLANO COUNTY WATER AGENCY

Cash Disbursements Journal

For the Period From May 1, 2023 to May 31, 2023

Filter Criteria includes: Report order is by Check Number. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
		1020SC	CALPERS		24,783.99
5/19/23	EFT 5.13.2023	2020SC	Invoice: 75226	158.00	
		1020SC	ONEPOINT HUMAN CAPITAL MANAGEMENT LLC		158.00
5/25/23	FEHRENKAMP	2020SC	Invoice: FEHRENKAMP APR 2023	1,379.06	
		1020SC	UMPQUA BANK		1,379.06
5/25/23	FLORENDO APR	2020SC	Invoice: FLORENDO APR 2023	322.96	
		1020SC	UMPQUA BANK		322.96
5/25/23	FOX APR 2023	2020SC	Invoice: FOX APR 2023	1,381.11	
		1020SC	UMPQUA BANK		1,381.11
5/25/23	GANTNER APR	2020SC	Invoice: GANTNER APR 2023	1,797.50	
		1020SC	UMPQUA BANK		1,797.50
5/25/23	HYERAPR2023	2020SC	Invoice: HYER APR 2023	1,859.45	
		1020SC	UMPQUA BANK		1,859.45
5/25/23	JONES APR 2023	2020SC	Invoice: JONES APR 2023	484.43	
		1020SC	UMPQUA BANK		484.43
5/25/23	LEE APR 2023	2020N	Invoice: LEE APR 2023	1,254.99	
		1020SC	UMPQUA BANK		1,254.99
5/25/23	POORE APR 202	2020SC	Invoice: POORE APR 2023	399.64	
		1020SC	UMPQUA BANK		399.64
5/25/23	SHTAYYEH AP	2020SC	Invoice: SHTAYYEH APR 2023	736.58	
		1020SC	UMPQUA BANK		736.58
Total				1,852,209.85	1,852,209.85

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: Grant Funding for the Mellin Levee

RECOMMENDATIONS:

Approve Resolution 2023-04 authorizing the General Manager to apply for and if successful execute a grant and/or funding agreement with the California Department of Water Resources to conduct and complete engineering design work for the Mellin Levee.

FINANCIAL IMPACT:

Potential grant and/or funding agreement award of approximately \$1,275,000 or more, for the Water Agency to conduct and complete engineering design work for the Mellin Levee. The work is anticipated to be completely grant funded, but with in-kind staff support to oversee and manage the project.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

BACKGROUND:

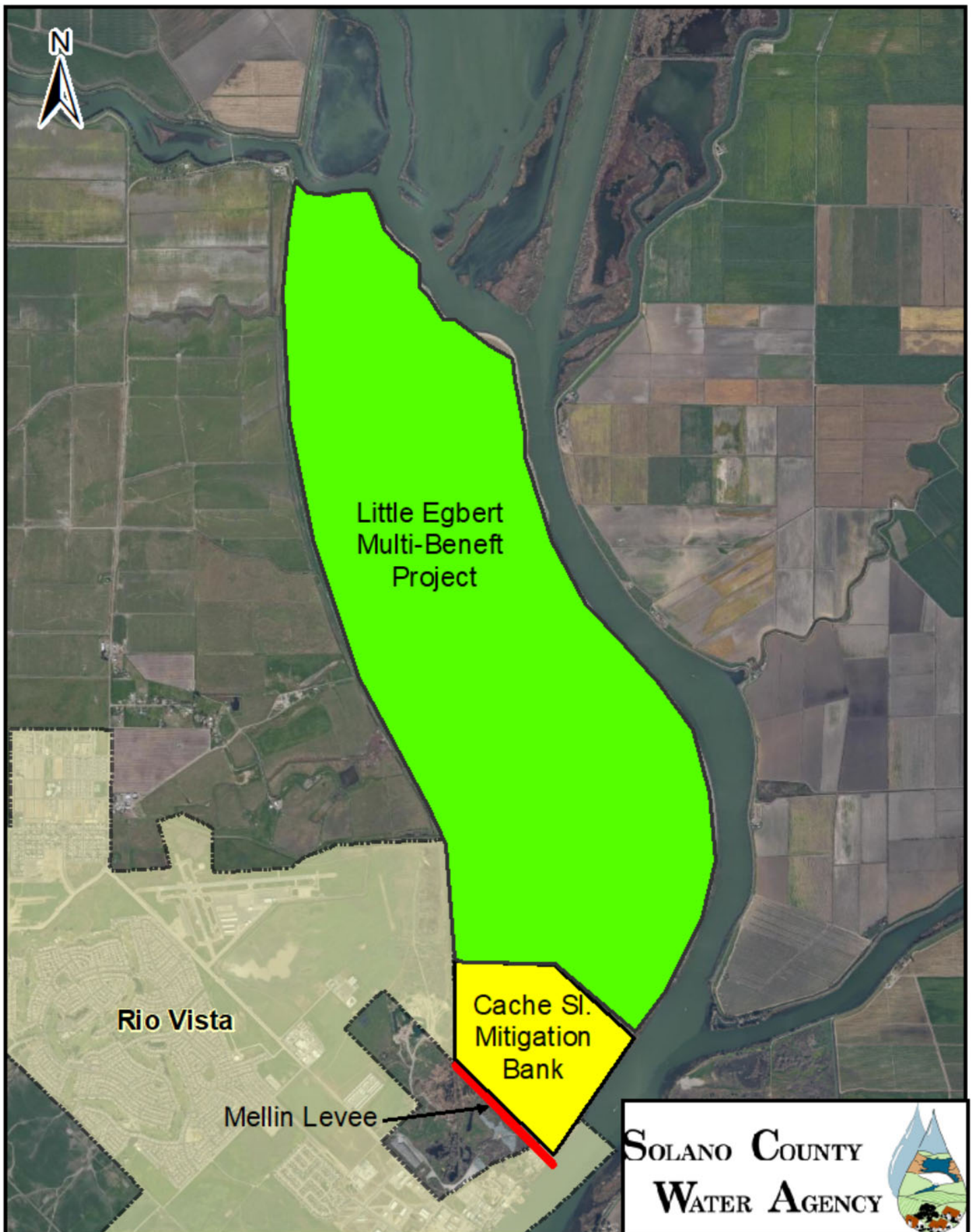
The Mellin Levee is a 0.59-mile federally recognized levee (Unit 106 of the Sacramento River Flood Control Project) located along the northern boundary of the City of Rio Vista and southernmost edge of the Yolo Bypass. The Water Agency is the Local Maintaining Agency (LMA) that is responsible for all maintenance activities of the Mellin Levee. In 2020, the Water Agency in partnership with the City of Rio Vista completed a grant funded Rio Vista Flood Control Feasibility Study, which identified 3 key locations where flood improvements are needed for the City of Rio Vista to achieve 200-year flood protection. One of the key locations identified for flood improvements is the Mellin Levee.

In 2020, a Memorandum of Understanding (MOU) was signed between Solano County and the Department of Water Resources (DWR) that allocated \$5.1 million for levee improvements in Solano County. In November 2021, the Solano County Board of Supervisors approved funding for four separate levee projects, with \$1.275 million allocated for the Mellin Levee. In 2022, DWR, County Staff, and the Little Egbert Tract JPA discussed different ways to move forward on the DWR funding for the Mellin Levee project. In early 2023, the Water Agency as the LMA, was approached by DWR and County staff to apply for the DWR funds. SCWA staff recommend moving forward on the resolution and subsequent Funding Agreement with DWR, as upgrades are needed to the Mellin Levee to support urban flood control protection for the City of Rio Vista.

RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:

The resolution and subsequent funding agreement is consistent with Goal #3 (Flood Management) and Objective A (Local and Regional Flood Management Facilities) of the 2016-2025 SCWA Strategic Plan.

Mellin Levee and Adjacent Facilities



RESOLUTION NUMBER 2023-04

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE SOLANO COUNTY WATER AGENCY
AUTHORIZING AN APPLICATION FOR FUNDING FROM THE DEPARTMENT OF WATER
RESOURCES AND DESIGNATING A REPRESENTATIVE TO EXECUTE THE AGREEMENT
AND ANY AMENDMENTS THERETO, FOR THE DEVELOPMENT AND IMPLEMENTATION
OF FLOOD IMPROVEMENTS ON MELLIN LEVEE**

WHEREAS, the Solano County Water Agency (SCWA) and City of Rio Vista with funding from the Department of Water Resources (DWR) completed the “Rio Vista Flood Control Feasibility Study” in April 2020; and

WHEREAS, on January 2020 Solano County and DWR executed a Memorandum of Understanding (MOU), with DWR agreeing to allocate \$5.1 million through various funding programs for improvements, repairs, and other necessary work on levees within Solano County; and

WHEREAS, Solano County provided direction to DWR in a letter dated November 9, 2021, specifying four projects, which included \$1,275,000 through a joint request from the City of Rio Vista and Little Egbert Joint Power Agency to conduct investigations to raise Mellin Levee and adjacent levee facilities north of the City of Rio Vista; and

WHEREAS, the DWR has requested that the Local Maintaining Agency (LMA) be the applicant for any funding agreements for Mellin Levee flood improvements; and

WHEREAS, the SCWA is the Local Maintaining Agency of Mellin Levee; and

WHEREAS, the SCWA proposes to develop and implement flood improvements on Mellin Levee; and

WHEREAS, the SCWA has the legal authority and is authorized to enter into a Funding Agreement and subsequent amendments with the State of California; and

WHEREAS, the DWR may have additional funds as part of DWR’s Systemwide Flood Risk Reduction Program to support the development and implementation of flood improvements on Mellin Levee; and

WHEREAS, said procedures established by the California Natural Resources Agency require a resolution certifying the approval of application(s) by the Applicant’s governing board before submission of said application(s) to the State; and

WHEREAS, the Applicant, if selected, will enter into an agreement with the State of California to carry out the project.

THEREFORE, BE IT RESOLVED by the Board of Directors of the SOLANO COUNTY WATER AGENCY as follows:

1. That pursuant and subject to all of the terms and provisions of the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1; Wat. Code, § 79700, et seq.) or alternative funding source by the DWR, the SCWA shall submit an application to obtain funding for the development and implementation of flood improvements on Mellin Levee; and
2. Certifies that Applicant understands the assurances and certification in the application; and
3. Certifies that Applicant or title holder will have sufficient funds to operate and maintain the project consistent with the land tenure requirements or will secure the resources to do so; and
4. Certifies that it will comply with all provisions of Section 1771.5 of the California Labor Code; and
5. If applicable, certifies that the project will comply with any laws and regulations including, but not limited to, the *California Environmental Quality Act* (CEQA), legal requirements for building codes, health and safety codes, and disabled access laws and that prior to commencement of construction all applicable permits will have been obtained; and
6. Certifies that Applicant will work towards the State Planning Priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety as included in Government Code Section 65041.1; and
7. Appoints the GENERAL MANAGER or designee, as agent to conduct all negotiations, execute and submit all documents including, but not limited to, applications, agreements, payment requests and so on, which may be necessary for the completion of the aforementioned project.

Approved and adopted this 8th day of June 2023. I, the undersigned, hereby certify that the foregoing Resolution Number 2023-04 was duly adopted by the SOLANO COUNTY WATER AGENCY by the following roll call vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

Chris Lee
Clerk/Secretary for the Governing Board

SOLANO COUNTY WATER AGENCY



MEMORANDUM

TO: Board of Directors

FROM: Chris Lee, General Manager

DATE: June 1, 2023

SUBJECT: June General Manager's Report

Water Supply Update

The water supply outlook remains unchanged from the prior month – full allocations from the Solano Project and the North Bay Aqueduct.

As discussed the last several months and illustrated by the attached graphics for Lake Berryessa and the Northern Sierras, runoff and precipitation in the region were well above average this year, record setting for many areas of the state. As widely reported, most reservoirs in the State are at or near full storage levels. Also as discussed recently, snowmelt may cause flooding issues for the eastern side of the Central Valley as well as some other parts of the state but appears to be more muted than originally anticipated.

As of June 1, Lake Berryessa held 1,372,033 acre-feet in storage (a little over 88 percent of full capacity). Assuming typical summer and fall water demands, Lake Berryessa storage will be in the vicinity of 1,250,000 to 1,216,000 acre-feet by October 1, the official start of the “hydrologic water year”.

Make Napa Whole

A question arose at the last Board meeting regarding payments to Napa County, where the Water Agency acts as a pass through. These payments mitigate the increased capital (construction) costs to Napa County that benefited the Cities of Fairfield and Vacaville, but not Napa. The agreement expires when the capital debt to the Department of Water Resources (DWR) for the original construction of the North Bay Aqueduct is paid off, or July 1, 2036, whichever occurs first.

Through the State Water Contractors work with DWR, a new system will be in place for capital and ongoing Operations and Maintenance costs of the State Water Project in 2035. This new

810 Vaca Valley Parkway, Suite 203
Vacaville, California 95688
Phone (707) 451-6090 • FAX (707) 451-6099
www.scwa2.com



freeze/go, pay/go system for our statement of charges will have those payments paid off around that time.

The contract between Napa County Flood Control and Water Conservation District and Solano County Flood Control and Water Conservation District (predecessor agency of Solano County Water Agency), from 1985 is attached for reference.

Putah Creek Accord – 22 years and counting

May 23rd marked the 22nd anniversary of the Putah Creek Accord (Accord). In addition to resolving issues pertaining to Lower Putah Creek, the Accord also addressed issues pertaining to the perfecting (licensing) of the Solano Project water rights, water supply contract renewal with the United States Bureau of Reclamation, and preparation of the Solano Project Habitat Conservation Plan. The Accord has proven to be highly successful and, in many ways, has benefited the community and the Water Agency in ways that were never considered when the Accord was signed.

August Board Meeting Tentatively Cancelled

Unless a time sensitive matter emerges that requires Board direction, staff are anticipating that the regularly scheduled August 10, 2023, Board meeting will be cancelled. A final decision regarding the August Board meeting will be made prior to the end of July.

ORIGINAL

A G R E E M E N T

NAPA COUNTY AGREEMENT NO. 2325 (FCWCD)

THIS AGREEMENT was made on AUGUST 27th, 1985, by NAPA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, hereinafter referred to as "Napa," and SOLANO COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, hereinafter referred to as "Solano."

WHEREAS, Napa and Solano have each entered into a water supply contract with the State of California, acting by and through its Department of Water Resources ("DWR"); and

WHEREAS, the water supply contracts obligate Napa and Solano to pay transportation charges which shall be sufficient to return to the State the costs of the North Bay Aqueduct; and

WHEREAS, Phase I of the North Bay Aqueduct from Cordelia to Napa has been completed and Phase II of the North Bay Aqueduct from the Delta to Cordelia is under construction; and

WHEREAS, the final Environmental Statement/Environmental Impact Report for the Phase II facilities of the North Bay Aqueduct described alternate routes for the aqueduct, designated Alternate No. 1 and Alternate No. 2; and

WHEREAS, Alternate No. 2 is less expensive and therefore better suited to Napa; and

WHEREAS, Alternate No. 1, although more costly, offers certain advantages to Solano and is the selected route for the Phase II facilities; and

WHEREAS, the parties by this agreement intend to eliminate any additional financial burden upon Napa by reason of the selection of Alternate No. 1 over Alternate No. 2.

NOW, THEREFORE, the parties hereto agree as follows:

1. On or before the 20th day of each December and June following the execution of this Agreement, Solano shall pay Napa the sum of One Hundred Fifty-six Thousand Dollars (\$156,000.00).

2. Said payments shall continue without interruption or delay until July 1, 2036, or the capital cost of Phase II of the North Bay Aqueduct has been fully paid to the State of California by Solano and Napa pursuant to their respective contracts with the State of California for a water supply from the State Water Resources Development System, whichever shall occur first.

3. Napa hereby releases all persons, corporations and other entities, public and private, including without limiting the generality of the foregoing, the County of Solano, and all local governmental entities in the County of Solano and their respective officers, employees and agents from all damages and claims of damage in any manner arising out of the location, alignment or design of Phase II of the North Bay Aqueduct.

IN WITNESS WHEREOF, the parties have executed this Agreement by their respective officers thereunder duly authorized.

Attest:

Agnes Del Zompo
Clerk

NAPA COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT

By

Jay Goetting
Chairman
Jay Goetting

Attest:

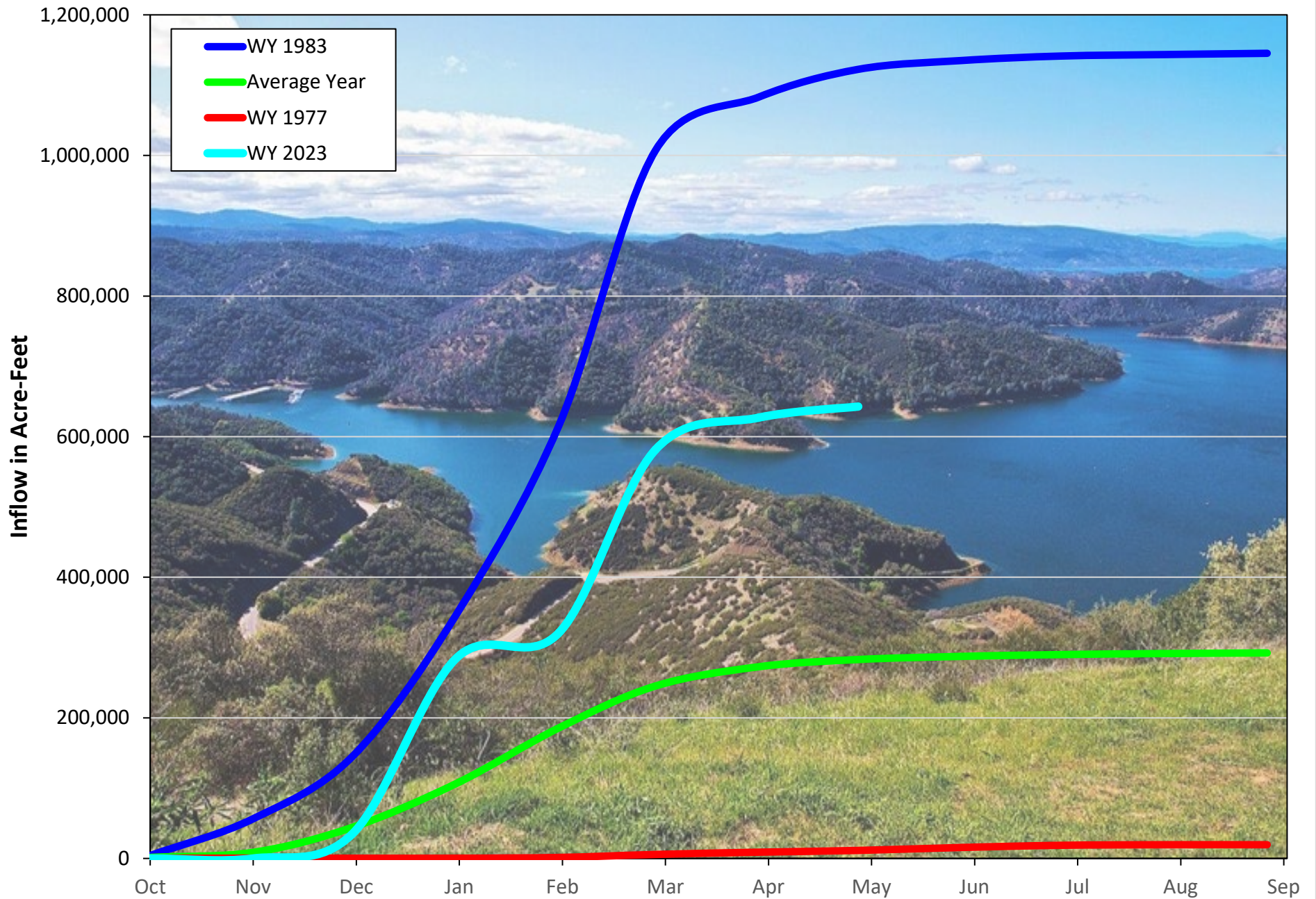
Linda Terra
Clerk

SOLANO COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT

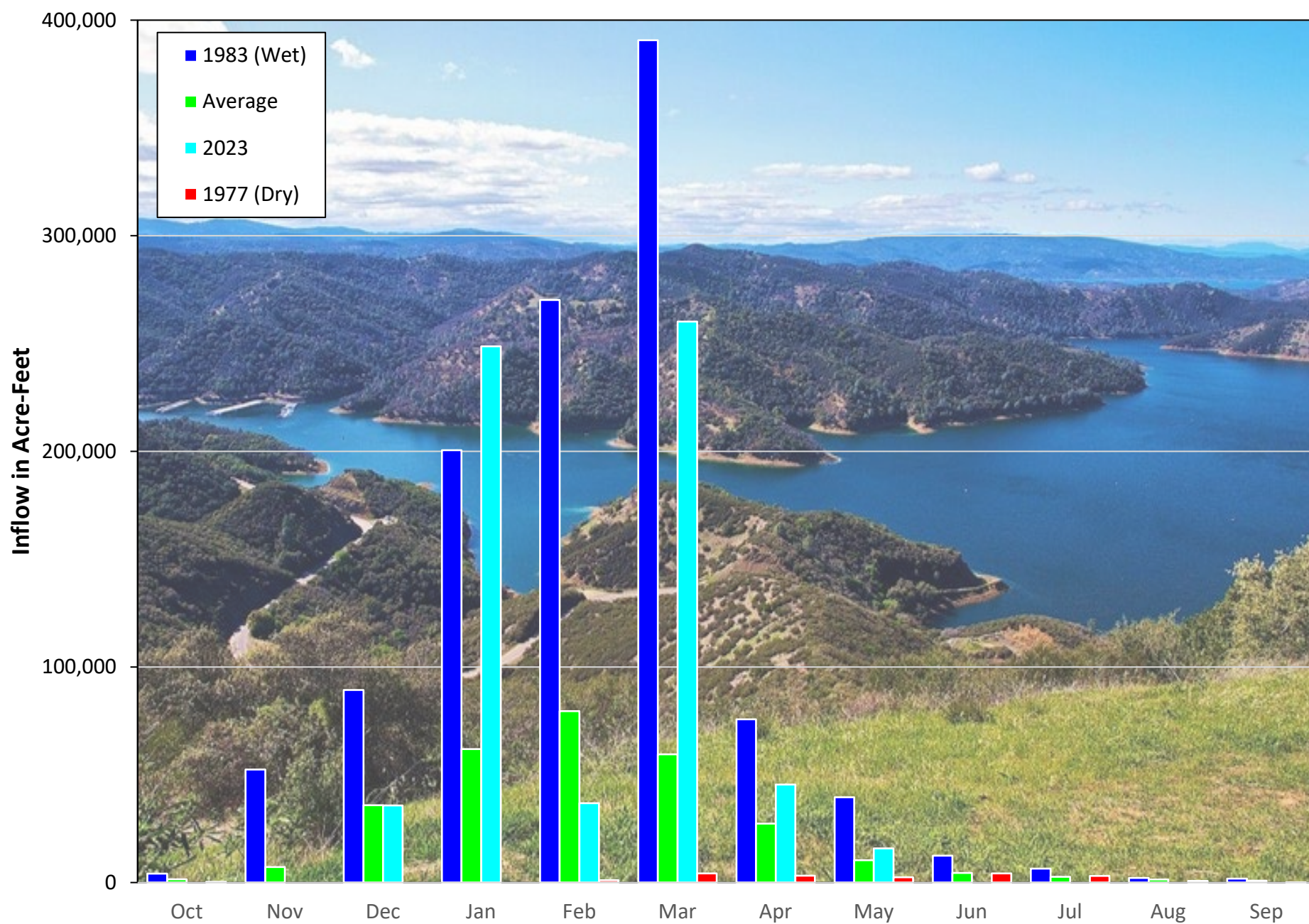
By

Don Pippio
Chairman, Board of Supervisors

Annual Lake Berryessa Inflow



Annual Lake Berryessa Inflow



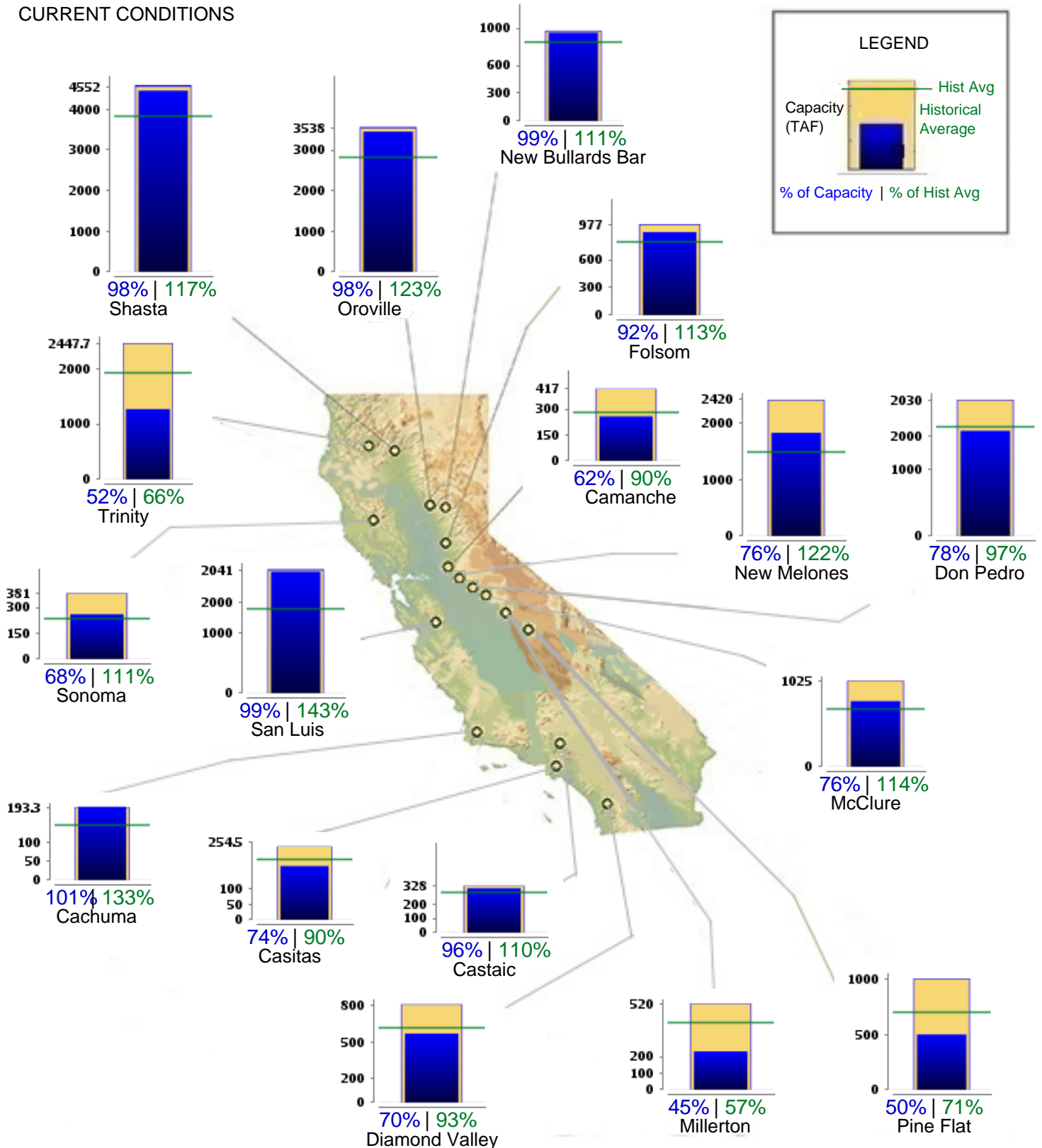


CURRENT RESERVOIR CONDITIONS

CALIFORNIA MAJOR WATER SUPPLY RESERVOIRS

Midnight - May 31, 2023

CURRENT CONDITIONS

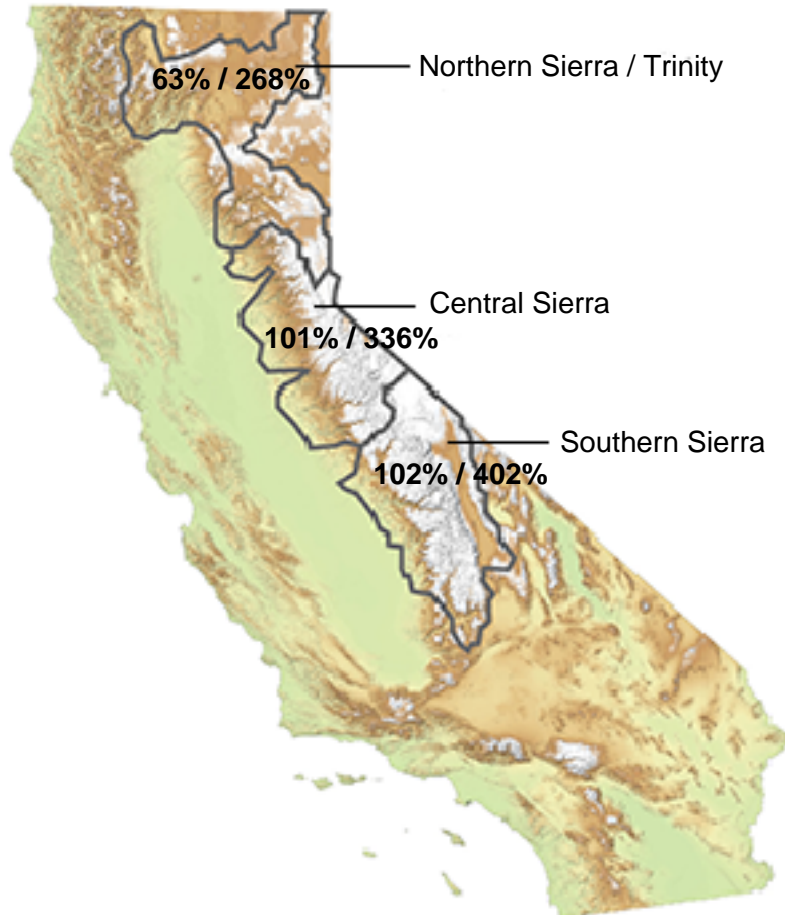




STATEWIDE SNOW WATER CONTENT

CURRENT REGIONAL SNOWPACK FROM AUTOMATED SNOW SENSORS

% of April 1 Average / % of Normal for This Date



NORTH	
Data as of June 1, 2023	
Number of Stations Reporting	24
Average snow water equivalent (Inches)	18.8
Percent of April 1 Average (%)	63
Percent of normal for this date (%)	268

CENTRAL	
Data as of June 1, 2023	
Number of Stations Reporting	41
Average snow water equivalent (Inches)	24.7
Percent of April 1 Average (%)	101
Percent of normal for this date (%)	336

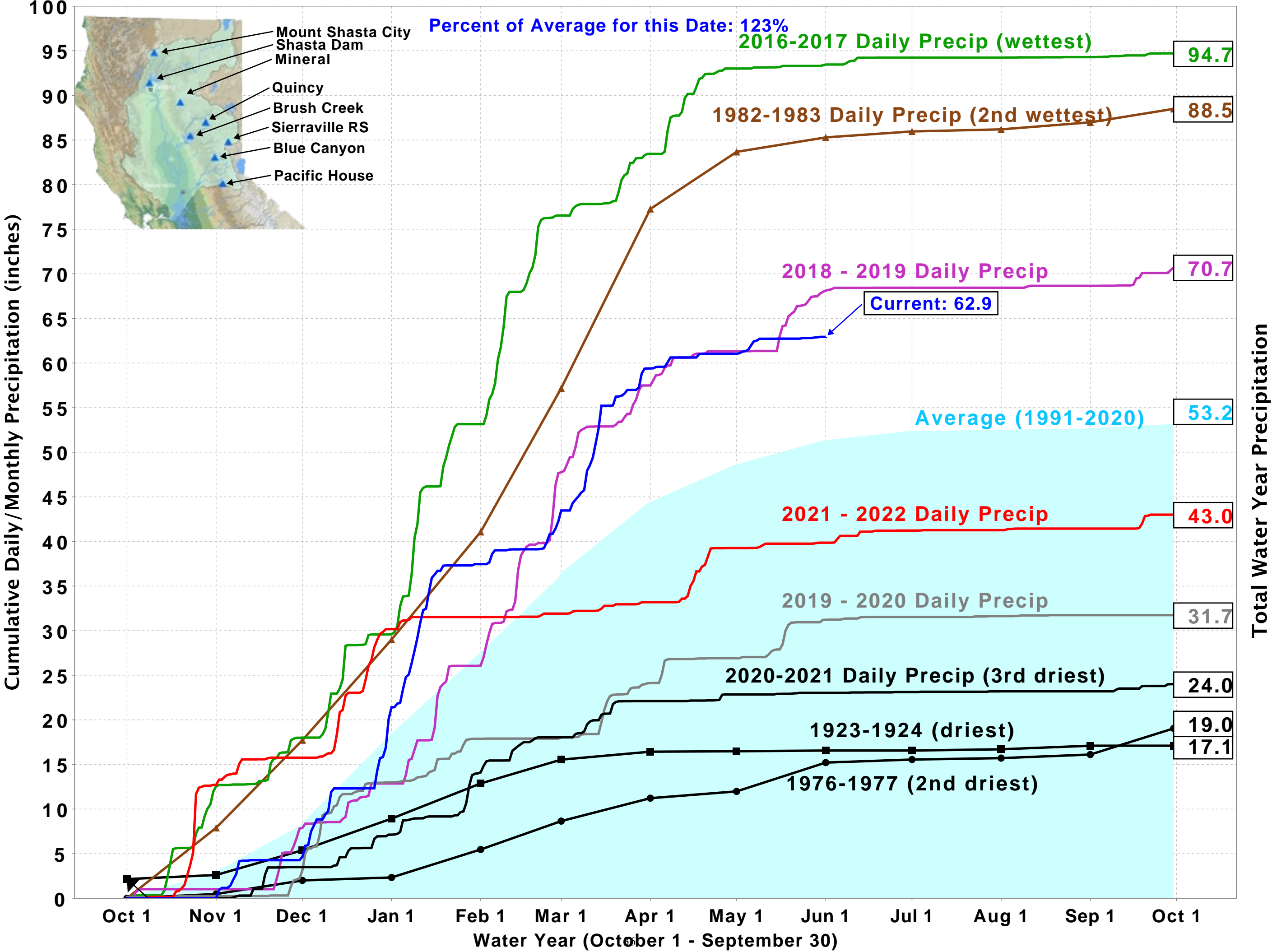
SOUTH	
Data as of June 1, 2023	
Number of Stations Reporting	21
Average snow water equivalent (Inches)	18.8
Percent of April 1 Average (%)	102
Percent of normal for this date (%)	402

STATE	
Data as of June 1, 2023	
Number of Stations Reporting	86
Average snow water equivalent (Inches)	21.7
Percent of April 1 Average (%)	88
Percent of normal for this date (%)	314

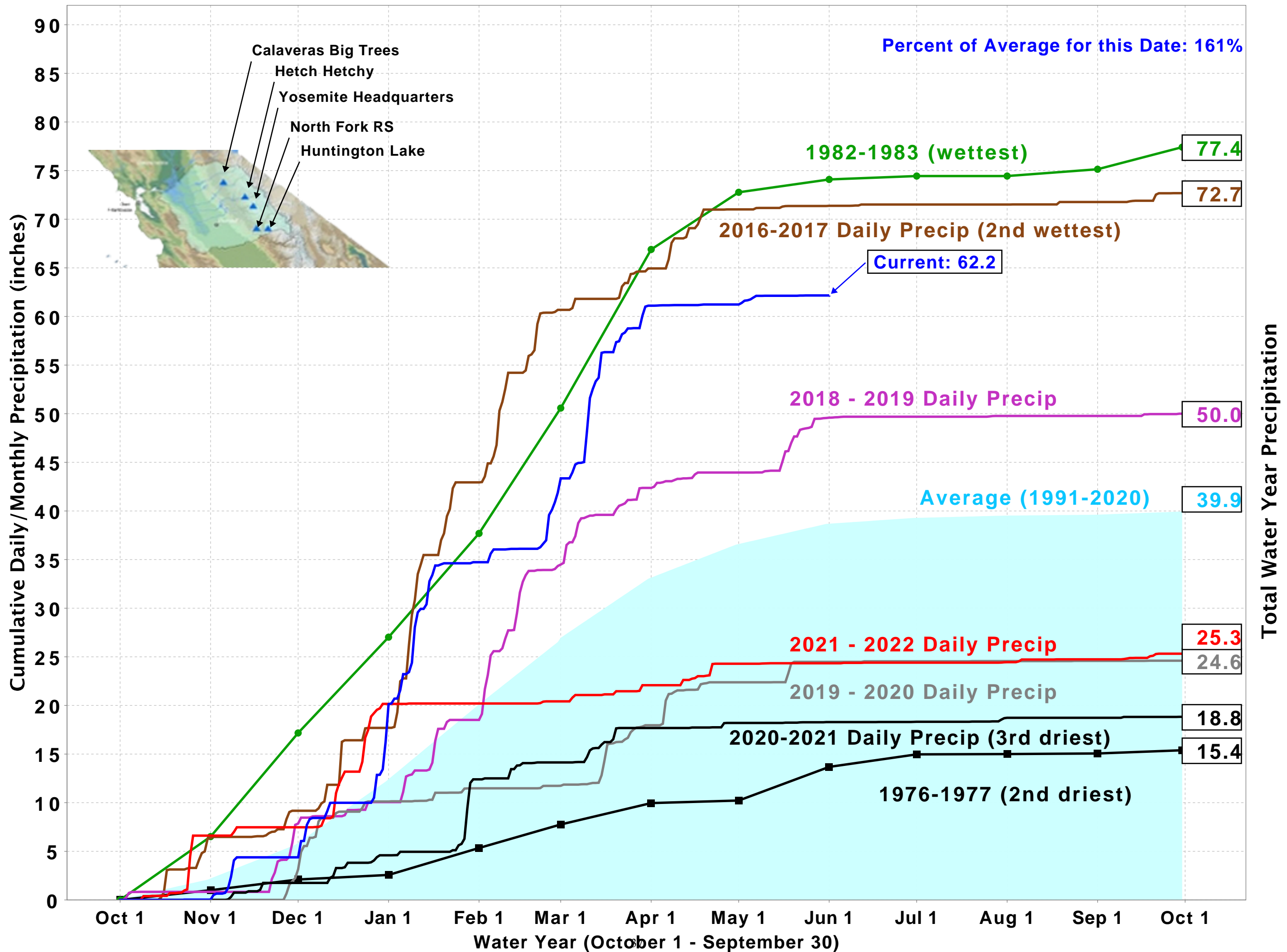
Statewide Average: 88% / 314%

Data as of June 1, 2023

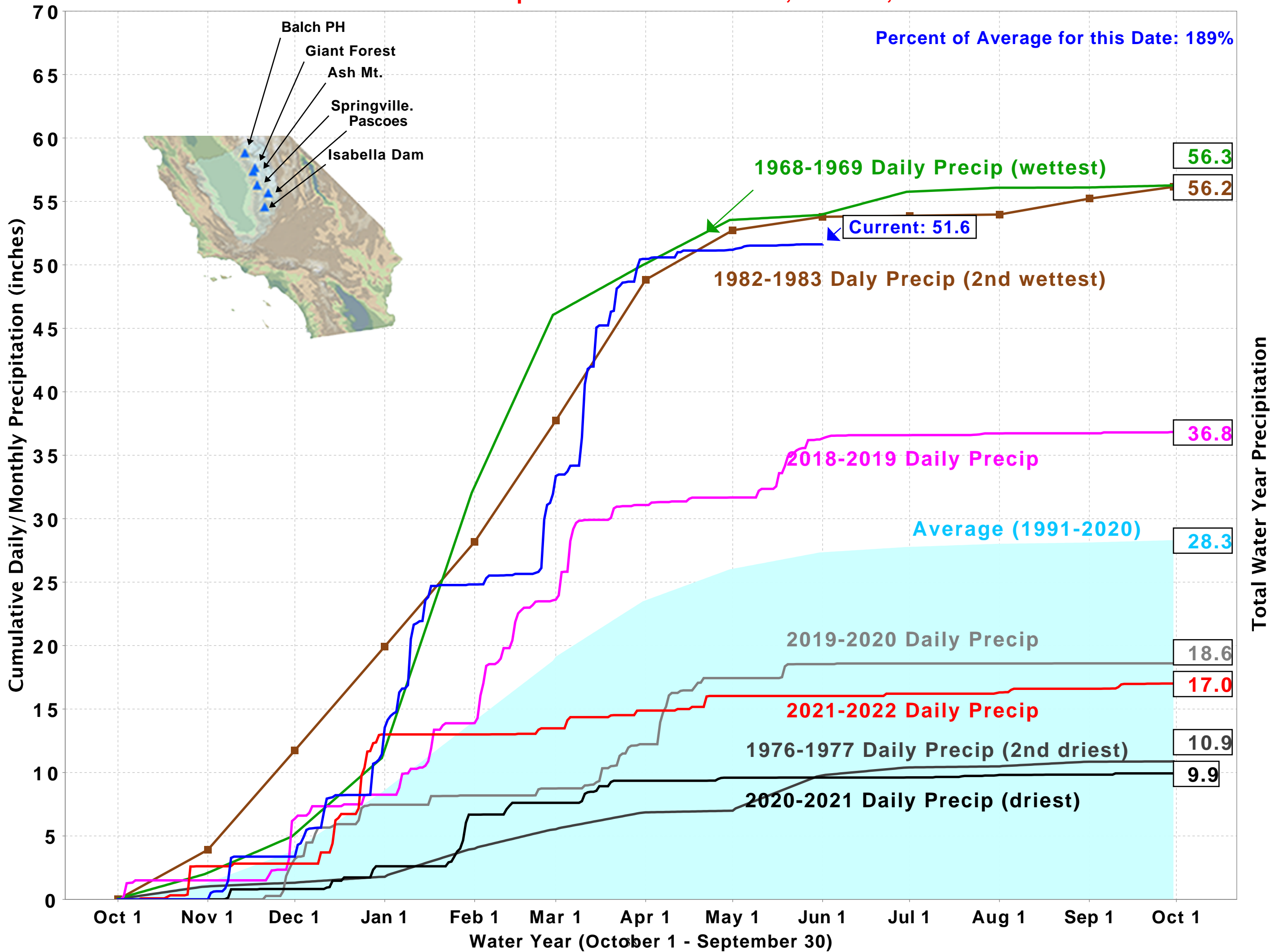
Northern Sierra Precipitation: 8-Station Index, June 01, 2023



San Joaquin Precipitation: 5-Station Index, June 01, 2023




Tulare Basin Precipitation: 6-Station Index, June 01, 2023



ARTICLE

Increasing stability of a native freshwater fish assemblage following flow rehabilitation

Emily Jacinto¹ | Nann A. Fangue¹ | Dennis E. Cocherell¹ |
Joseph D. Kiernan² | Peter B. Moyle^{1,3} | Andrew L. Rypel^{1,3} 

¹Department of Wildlife, Fish and Conservation Biology, University of California, Davis, Davis, California, USA

²Fisheries Ecology Division, Southwest Fisheries Science Center, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, University of California Santa Cruz, Santa Cruz, California, USA

³Center for Watershed Sciences, University of California, Davis, Davis, California, USA

Correspondence

Emily Jacinto
Email: eejacinto@outlook.com

Funding information

Solano County Water Agency, Grant/Award Number: 03-00206VR; University of California, Davis Agricultural Experiment Station, Grant/Award Numbers: CA-D-WFB-2467-H, CA-D-WFB-2098-H; Peter B. Moyle and California Trout Endowment for Coldwater Fish Conservation

Handling Editor: Rudolfa Jaffé

Abstract

Stream restorations are increasingly critical for managing and recovering freshwater biodiversity in human-dominated landscapes. However, few studies have quantified how rehabilitative actions promulgate through aquatic communities over decades. Here, a long-term dataset is analyzed for fish assemblage change, incorporating data pre- and post-restoration periods, and testing the extent to which native assemblage stability has increased over time. In the late 1950s, a large capacity dam was installed on Putah Creek (Solano County, CA, USA), which altered the natural flow regime, channel structure, geomorphic processes, and overall ecological function. Notably, downstream flows were reduced (especially during summer months) resulting in an aquatic assemblage dominated by warm-water nonnative species, while endemic native species subsisted at low levels as subordinates. A court-mediated Accord was ratified in 2000, providing a more natural flow regime, specifically for native and anadromous fishes in the stream. The richness of nonnative species decreased at every site following the Accord, while the richness of native species increased or stayed constant. At the three most upstream sites, native species richness increased over time and ultimately exceeded nonnative richness. Native assemblage recovery was strongest upriver, closer to flow releases and habitat restoration activities, and decreased longitudinally downstream. Rank-abundance curves through time revealed that, while species evenness was low throughout the study, dominance shifted from nonnative to native species in the upstream sites coincident with rehabilitation efforts. Mean rank shifts decreased following flow rehabilitation; thus the assemblage became increasingly stable over time following flow rehabilitation. Putah Creek's rehabilitation may represent a model for others interested in improving endemic freshwater communities in degraded ecosystems.

KEYWORDS

assemblage structure, ecosystem stability, fish conservation, reconciliation ecology, stream fishes, water management

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INTRODUCTION

Native freshwater fish communities are experiencing severe declines across the globe (Dudgeon et al., 2006; Moyle & Williams, 1990; Ricciardi & Rasmussen, 1999). Climate change (Moyle et al., 2013; Sharma et al., 2011, 2019), fragmentation and regulation of rivers (Carlisle et al., 2010; Dynesius & Nilsson, 1994; Poff et al., 1997), pollution (Carpenter et al., 2011; Dudgeon et al., 2006), overharvest (Embke et al., 2019; Post et al., 2002), and invasive species (Marchetti, Light, et al., 2004; Marchetti et al., 2004b; Moyle & Marchetti, 2006) threaten freshwater ecosystems at all scales. Further, observed and predicted extinction rates are higher in aquatic than in terrestrial ecosystems, indicating that these environments are extremely sensitive to human activities (Moyle & Williams, 1990; Ricciardi & Rasmussen, 1999).

Understanding the ecological effects of humans on freshwater ecosystems can be challenging because of the high spatiotemporal heterogeneity in these environments (Cid et al., 2020; Rypel, 2021). Further, actual tracking of long-term habitat and community change is often highly limited (Bernhardt et al., 2005; Sass et al., 2017). In some cases, ecological consequences are not fully realized until decades or centuries later (Kuussaari et al., 2009; Tilman et al., 1994). Understanding the importance of managing freshwater habitats has generally lagged behind advances made in terrestrial ecosystems (Sass et al., 2017), sometimes leading to confusion and a lack of guidance on appropriate methods for monitoring ecosystem recovery (Palmer et al., 2005). Broader utilization of tools and approaches developed rigorously in other subdisciplines of ecology and environmental science have the potential to benefit freshwater conservation.

Ecological stability is one concept that has long been of interest to ecologists (Connell & Slatyer, 1977; Loucks, 1970; Paine, 1969). Community “stability” (i.e., reduced variance in species abundance) is a particularly critical concept in community ecology (Loreau & de Mazancourt, 2008; Luo et al., 2021; Walter et al., 2021). Collins et al. (2008) demonstrated how experimentally fertilized grassland plots experienced increased mean rank shifts (a measure of reduced community stability), and that rank shifts were higher in infrequently burned vs. annually burned plots. Furthermore, community ecology approaches have a rich history of addressing core intellectual challenges in terrestrial ecosystems (Hobbs et al., 2014; Leibold et al., 2004; Tilman, 1987; Whittaker, 1965), and have also been exceptionally effective in assessing restoration outcomes (Funk et al., 2008; Hallett et al., 2017). Many of these approaches have strong potential for application to aquatic ecology (Erős et al., 2020; Vasseur et al., 2014) but have rarely been used in

this context. Expanded use of community ecology techniques, including stability approaches into highly invaded stream ecosystems could be useful (Bunn & Arthington, 2002; Marchetti, Light, et al., 2004; Marchetti et al., 2004b; Moyle & Marchetti, 2006). Stream restorations have long been criticized for lacking robust experimental designs and for tracking metrics that reflect the meaningful ecological change (Bernhardt et al., 2007). For example, it would be logical to expect stream rehabilitative actions would stabilize ecological communities over time; however, this important hypothesis has not been tested.

California provides a model landscape upon which to study the cumulative effects of habitat change and nonnative species in freshwater ecosystems. The region's human population has doubled since 1970 (from ~20 to ~40 million people, United States Census Bureau, <https://www.census.gov/data/datasets.html>), but also hosts a high degree of freshwater endemism (Moyle, 2002). This combination and overall dominance by humans over watersheds places intense pressure on an already fragile fauna. For example, 83% of freshwater fish in California are declining, at risk of decline, or are already extinct (Moyle et al., 2011). One of the largest threats to freshwater systems in California is water diversion and extraction (Carlisle et al., 2010; Grantham et al., 2010; Moyle et al., 2011; Moyle & Williams, 1990). Alongside human population growth, water needs for industrial and irrigation use are intense. For example, even though agricultural and urban water use has declined over time, total water use annually often ranges between 34.5 and 43.2 billion m³ (Department of Water Resources, various years, <https://water.ca.gov>). Water demand drives the construction of dams, diversion channels, and intricate water projects that ultimately fragment rivers and further reduce biodiversity (Bunn & Arthington, 2002; Carpenter et al., 2011; Poff et al., 1997; Power et al., 1996).

The primary goal of this study was to assess whether long-term rehabilitation of the flow regime in Putah Creek, California, USA resulted in positive increases in the native fish assemblage over an extended period. Specifically, we evaluated (1) specific changes in the flow regime over time; (2) trends in assemblage richness, evenness and relative abundance of species; (3) temporal shifts in rank abundance and mean rank shifts at differing sites before and after initiation of restoration and reconciliation actions; and (4) we revisit several questions raised in a previous paper published a decade earlier (Kiernan et al., 2012), specifically (A) whether native species would be able to maintain populations over time, especially when faced with significant drought; and (B) if the creek would eventually be able to support anadromous salmon.

METHODS

Study location

Putah Creek occurs in the Mediterranean climate of the Central Valley of California where the natural flow regime is characterized by high seasonality of flows, including high flows in the winter and spring, and low summer base flows (Carlisle et al., 2010; Gasith & Resh, 1999). Putah Creek originates in the coast range of California (Mayacamas Mountains) and flows east ~130 km before reaching Berryessa Reservoir behind Monticello Dam (Kiernan et al., 2012; Marchetti & Moyle, 2001; Moyle et al., 1998). The outflow from Berryessa Reservoir flows ~13 km to a second, much smaller, dam, the Putah Diversion Dam (PDD), which creates Lake Solano. Any water released from PDD is either diverted into the Putah South Canal for water users in Solano County or released into lower Putah Creek. Below PDD, lower Putah Creek flows ~40 km where it enters channels in the Yolo Bypass (a managed floodplain of the Sacramento River) and then flows into the Sacramento River, which joins the San Francisco Estuary and the Pacific Ocean (Figure 1). The volume of water in lower Putah Creek is mostly regulated through the operation of the PDD, while water temperatures are largely driven by releases from Berryessa Reservoir. During high rainfall years, Monticello Dam overflows through a spillway and large volumes of water are periodically delivered to lower Putah Creek.

Study history

Similar to many western United States streams, water diversions and dams limit ecological activity in Putah Creek. The two dam installations in 1957 effectively reduced downstream water flows (Kiernan et al., 2012;

Moyle et al., 1998), and contributed to incisement of the river channel and degradation of natural channel processes. These alterations changed the timing and reduced the magnitude of flows in Putah Creek, while also substantially increasing water temperatures. During the 1990s, areas of the creek regularly dried during summer periods (Figure 2). Ultimately, these modifications led to the extirpation of previously occurring anadromous fish, such as Chinook salmon (*Oncorhynchus tshawytscha*), Pacific lamprey (*Entosphenus tridentata*) and steelhead trout (*Oncorhynchus mykiss*), as well as marked declines in most other native fish (Kiernan et al., 2012; Moyle et al., 1998; Shapovalov, 1947). A lawsuit (Putah Creek Council vs. Solano Irrigation District and Solano County Water Agency, Sacramento Superior Court Number 515766) was filed to provide a more natural flow regime under a provision of California Fish and Game Code 5937 requiring that fish populations below a dam be kept in “good condition” (Börk et al., 2012; Moyle et al., 1998). At the time, legal issues focused on keeping the creek from drying, developing spring flows for native fish (which assist in the dispersal and survival of juveniles), creating fall attraction flows for spawning Chinook salmon, and generating high flows to displace nonnative fish and to promote natural channel processes. The Putah Creek Accord (the Accord) was ratified in 2000 and resulted in key changes in the quantity and timing of water flows. The changes included the maintenance of minimum flows in the creek, increased flows in fall and spring to support spawning and rearing, respectively, of native and anadromous fish, and a pulse flow in the fall to attract salmon (Kiernan et al., 2012; Moyle et al., 1998). Pulse flow events included 3 days of releases of 4.2, 2.8, and 2.3 cubic meters per second (CMS) in the spring and 5 days of 4.2 CMS in the fall followed by at least 1.4 CMS released daily through spring (Moyle et al., 1998). Overall, flows attempt to mimic critical timing elements of the natural flow regime, but not necessarily

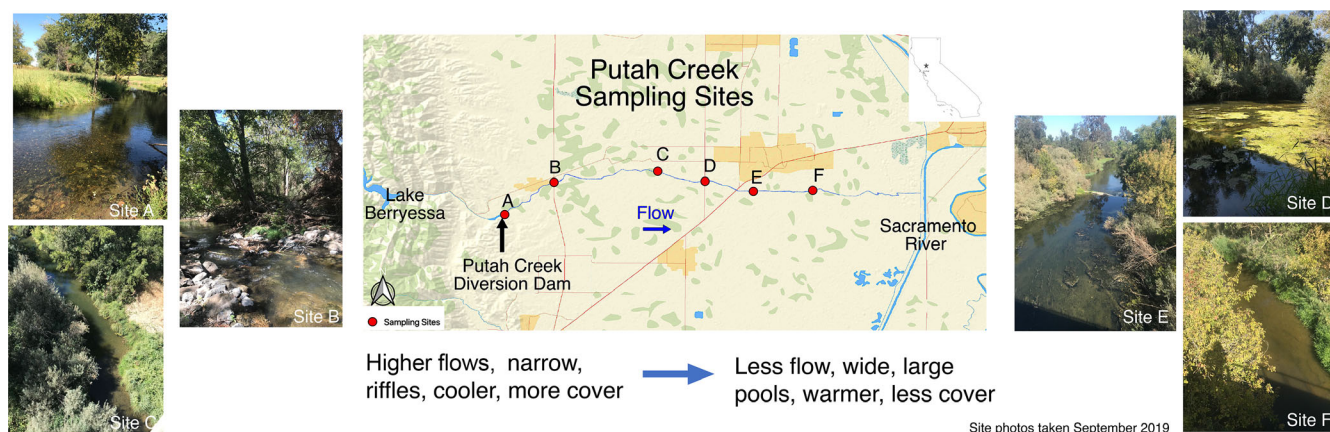


FIGURE 1 Map of sampling sites along lower Putah Creek, CA. All photographs by Emily Jacinto.



FIGURE 2 Images at two locations on lower Putah Creek, CA (Pedrick Road Bridge and Mace Boulevard) before and after the Accord. Photographs by Emily Jacinto with the exception of photographs prior to 2018 that were taken by Peter Moyle.

historical quantities of flow (Yarnell et al., 2015, 2020). Marchetti and Moyle (2001) documented that a cycle of wet years in the late 1990s resulted in a more natural flow regime downstream of PDD and increased abundance of larval native fish. Later, Kiernan et al. (2012) evaluated data from before and after the Accord (1993–2008) and found that some native fish species had returned to areas of the creek where they were previously absent. In the nine sampled years since Kiernan et al. (2012), Chinook salmon (*O. tshawytscha*) have begun returning and continue to actively colonize and spawn in the creek (Moyle et al., 2017; Willmes et al., 2020), even while the region experienced one of the most severe droughts on record (2012–2016, Moyle et al., 2017).

Fish sampling

Beginning in 1993, fish assemblage composition was quantified each fall (October) at six permanent sites located in the 30 km stream segment between PDD and the Yolo Bypass Wildlife Area (Figure 1). The six sites (designated A, B, C, D, E, and F) were located ~0, 6, 16, 20, 25, and 30 km, respectively, downstream of PDD (Kiernan et al., 2012) and continue the use of the same sites analyzed in

Kiernan et al. (2012). No sampling occurred at any sites in 2009 or for the following situations: Sites A–D in 2011, Site A in 2013, Site B in 2017, and Site E in 2000 or 2001.

Standardized tote barge electrofishing was used to capture and evaluate species presence and relative abundance (Reynolds & Kolz, 2012). During each sampling event, fish were collected via single-pass electrofishing using a Smith-Root model 2.5 Generator Powered Pulsator electrofisher operated from a tote barge (Smith-Root, Inc., Vancouver, Washington, USA). Stunned fish were captured using dip nets, held in a bucket or a net pen in the creek until identified, enumerated, a subset measured for length and weight, and then released. Sculpins were identified as a single species (prickly sculpin, *Cottus asper*) although some debate exists over the existence and classification of two species (*C. gulosus* or *C. asper*) in the watershed (P. B. Moyle, personal communication, 28 October, 2020). Nonnative sunfish hybrids and unidentified sunfishes were classified as a single species, sunfish (*Lepomis* spp.). Both resident and anadromous forms of rainbow trout (*O. mykiss*) occur in Putah Creek but were not differentiated in this analysis. Sampling protocols aimed for equivalent stream-length distances sampled at each site during each year (Kiernan et al., 2012), however in some cases

(e.g., in the upper creek) parts of the creek can become inaccessible or dry during very flow flows, as might occur during droughts. Nonetheless, catch data are effectively considered standardized for effort, and thus presented as catch totals rather than catch-per-unit-effort. All data used for this analysis were collected by Normandeau Associates and TRPA Fish Biologists (TRPA fish biologists sampled from 1991 to 2010, Arcata, CA USA; Jacinto et al., 2022).

Flow change

To examine long-term changes in discharge and flow in lower Putah Creek, we obtained daily discharge data for the period 1978–2017 collected at PDD by a gauge operated by the Solano County Water Agency and the US Bureau of Reclamation. Three-dimensional plots were generated of daily discharge versus day of the year versus year on an annual time frame from 1978 to 2017 (Soetaert, 2019). Flow differences between periods can be difficult to distinguish when examining patterns across a full year; thus an additional plot of only summer flows (days 180–304, approximately July through October) is also presented (Figure 3).

Fish assemblage structure

Similar to Collins et al. (2008), we examined changes in fish assemblage diversity and evenness at each of the six sites over time. Assemblage metrics (Shannon diversity index and Pielou's index) were calculated using the *vegan*

package (Oksanen et al., 2019) in R statistical computing software (R Core Team, 2020). For each site, Spearman correlations were calculated to assess directional associations between diversity indices and year (Table 1). To control against type 1 errors arising from multiple comparisons, a Bonferroni correction was applied to the original threshold p -value (0.05). We also highlight correlation coefficients >0.60 as showing an important relationship. Furthermore, species were classified as either native or nonnative species and changes in the dynamics of fish communities were examined in this context in relation to species richness over time (Figure 4).

Analysis of covariance (ANCOVA) was used to compare changes in species richness over time (Table 2). A separate ANCOVA was developed for each site with

TABLE 1 Spearman and Pearson correlations between fish species diversity indices and year in Putah Creek, 1993–2017.

Site	Species richness ^a	Shannon's index ^b	Pielou's index ^b
A	−0.48	−0.32	0.10
B	−0.72*	−0.35	0.14
C	−0.84*	−0.70*	−0.36
D	−0.35	−0.53	−0.39
E	−0.36	0.11	0.28
F	−0.24	0.31	0.50

Note: Correlation coefficients >0.60 are indicated in bold and regarded as showing an important relationship. Significant correlations following a Bonferroni correction are indicated with an asterisk.

^aPearson index.

^bSpearman index.

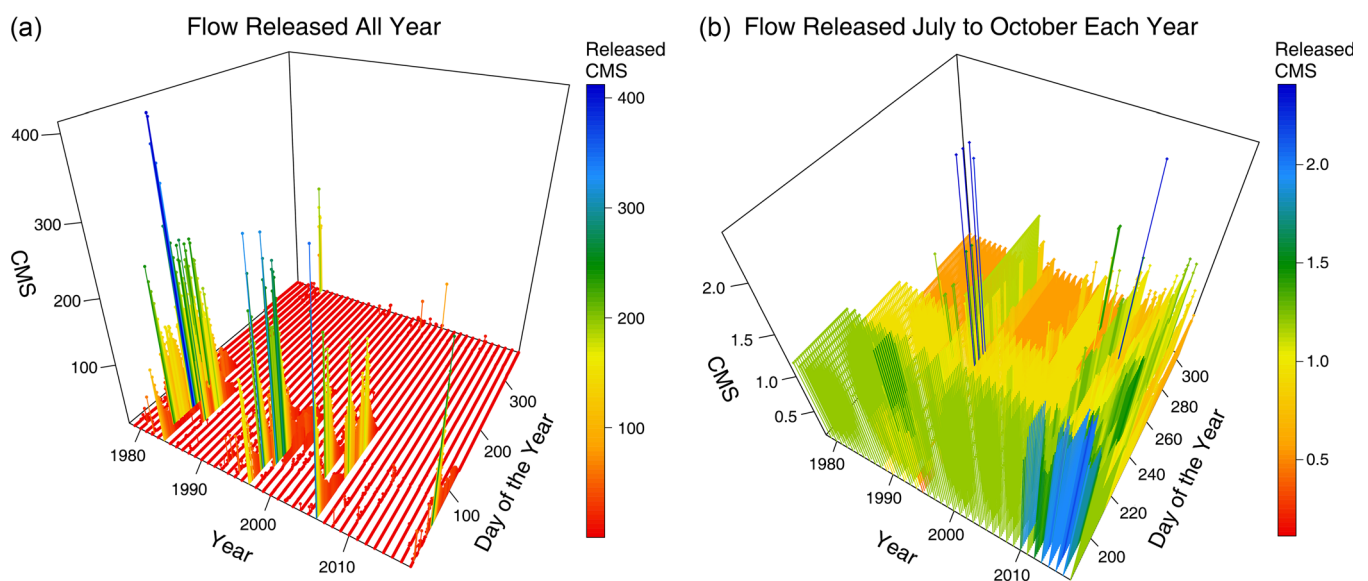


FIGURE 3 Three-dimensional plots of discharge, year, and day of year for flows released from Putah Diversion Dam (PDD), October 1978 through 2017. Data are presented for (a) calendar year and (b) calendar days 180–304 (July through October).

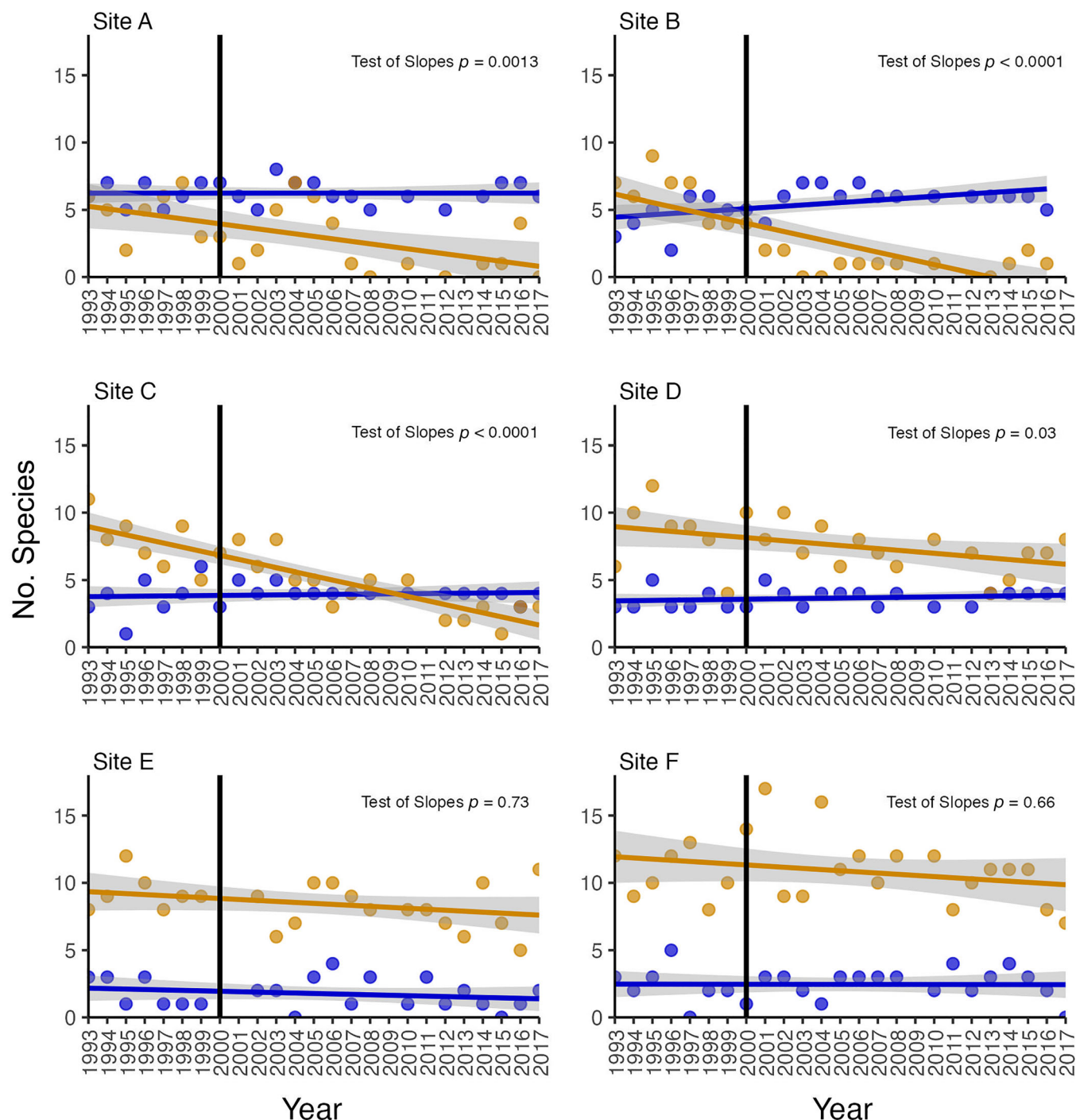


FIGURE 4 Changes in richness of native (blue) and nonnative (orange) taxa at sampling sites along Putah Creek CA, 1993–2017. Vertical black line denotes the ratification of the Putah Creek Accord in 2000, and subsequent restoration of flows in the ecosystem. Regressions represent ANCOVA models as described in the methods, and “test of slopes” refers to the significance level of the site \times year interaction term in the ANCOVA models. Shaded areas of the regressions represent 95% CIs.

$\log_{10}(\text{species richness} + 1)$ as the dependent variable, year as the independent variable, and species type (i.e., native or nonnative) as a categorical variable. Directional changes in the diversity of native and nonnative species were assessed by examining coefficients (i.e., slopes) of the model, and differences in slopes between native and nonnative species

assessed by way of the year \times native/nonnative interaction term in each model across the entire study period. It is recognized that differences in slopes would ideally be examined while also accounting for a before/after term. However, there were only 8 data points before the Accord versus 16 data points after; thus lack of sufficient

TABLE 2 Results of the analysis of covariance (ANCOVA) examining the effects of time (year) and type of species (native vs. nonnative) on species richness in Putah Creek, 1993–2017.

	Site A	Site B	Site C	Site D	Site E	Site F
Year	0.0014	0.0005	<0.0001	0.2618	0.1130	0.5240
Native/Nonnative	<0.0001	<0.0001	0.0059	<0.0001	<0.0001	<0.0001
Year:Native/Nonnative	0.0013	<0.0001	<0.0001	0.0277	0.7340	0.6560

Note: Numbers indicate p -values and all richness data were $\log_{10}(x + 1)$ transformed prior to analysis.

pre-data precluded such an analysis, especially given the lifespan and turnover rates of focal species (Marchetti et al., 2004a; Rypel & David, 2017). Therefore, we emphasize that, in this study, we focused more on the trends of fish communities over long-term periods in Putah Creek.

Fish abundance

Pearson's correlations (R) were used to assess directional change (correlation) in the abundance of individual species at each site over time (Table 3). For each correlation, abundance data were \log_{10} transformed prior to analysis to meet assumptions of normality. To control against type 1 errors arising from multiple comparisons, a Bonferroni correction was applied to the original threshold p -value (0.05). This produced a new threshold p -value for each species and a more stringent bar for significance that is conservative in guarding against the potential for type 1 errors. We also highlight correlation coefficients >0.60 as showing an important relationship.

Rank-abundance curves were used to assess temporal changes in the dominance and evenness of the fish assemblages at each site over time (Avolio et al., 2019; Collins et al., 2008; Whittaker, 1965). Rank-abundance curves combine elements of numerical dominance (height of the curve) and species richness (number of points), with evenness (slope of the curve), and in this case also a time dimension on the x -axis. Parallel to Collins et al. (2008), species points in these plots were identified as native and nonnative species overall, and other contrasting patterns of species native and nonnative species trends were highlighted (Figure 5).

Further, to assess changes in assemblage stability over time, we calculated mean rank shift (MRS; Collins et al., 2008; White et al., 2020) values using the entire time series for each sampling site (Figure 6). MRS provides a measure of dissimilarity in species rank abundance between consecutive years in a time series. Higher MRS values indicate increased instability of the fish assemblage, whereas low values indicate enhanced assemblage stability. MRS is only one measure of stability and there

has long been a debate over metrics and definitions in the ecological literature. MRS values were calculated using the R package *codyn* (Hallett et al., 2016). Last, we developed a mixed effect regression model using the *lmer* [2] package in R (Bates et al., 2014) to test whether MRS changed directionally over time. In the model, MRS was the dependent variable, year was the independent variable and site was a random effect. All analyses were conducted using R statistical software (R Core Team, 2020). Effects and models were regarded as showing an important relationship if $p < 0.05$, unless otherwise specified.

RESULTS

Flow change

Beginning in 2000, major flow alterations were made to Putah Creek that resulted in increased water flow through the ecosystem. Prior to the Accord, there were regular and extended periods of zero flow resulting in the creek drying. Following the Accord, there were no known periods of zero flow in Putah Creek and full streambed drying has not been reported (Figure 3). In general, a pattern is apparent whereby summer base flows have greatly increased post-Accord versus pre-Accord. However, winter flows have largely remained unchanged.

Fish assemblage structure

In total, 35 fish species (11 native and 24 nonnative species) were captured in lower Putah Creek between 1993 and 2017. Richness of nonnative species decreased at every site over time (Figure 4), while the number of native species increased or stayed relatively constant. Increases in native species and decreases in nonnative species richness were significant upriver, closer to the PDD and decreased as sites progressed downstream. Native species at Sites A, B, and C all exhibited significant increases in richness with time

TABLE 3 Pearson correlations (*R*) examining trends in fish abundance over time in Putah Creek, 1993–2017.

Species	Site A	Site B	Site C	Site D	Site E	Site F
Native species						
California roach	−0.31	NA	NA	NA	−0.30	−0.28
Chinook salmon	0.29	NA	NA	NA	NA	NA
Pacific lamprey	0.07	−0.29	−0.36	−0.23	−0.09	−0.11
Prickly sculpin	0.17	0.33	0.65	0.58	0.03	−0.05
Rainbow trout	0.59	0.81*	−0.16	NA	NA	NA
Sacramento blackfish	NA	NA	−0.46	−0.28	−0.56	−0.59
Sacramento perch	NA	NA	−0.25	−0.28	NA	NA
Sacramento pikeminnow	0.23	0.06	0.74*	0.68*	0.27	0.53
Sacramento sucker	−0.35	0.24	0.43	0.56	−0.35	0.30
Sacramento tule perch	−0.41	0.37	0.81*	0.65	0.01	0.20
Three spine stickleback	−0.02	0.54	NA	NA	NA	NA
Nonnative species						
Big scale logperch	−0.39	−0.71*	−0.52	−0.22	0.31	0.40
Black bullhead	−0.12	NA	−0.34	−0.56	−0.20	−0.53
Black crappie	−0.01	NA	−0.25	−0.30	−0.56	−0.59
Bluegill	−0.55	−0.47	−0.78*	−0.61	−0.47	−0.44
Brown bullhead	NA	NA	−0.46	−0.31	NA	NA
Channel catfish	NA	NA	−0.43	−0.33	0.14	−0.21
Common carp	−0.48	−0.53	−0.51	−0.25	−0.57	−0.39
Fathead minnow	NA	NA	−0.19	0.36	−0.44	−0.71*
Golden shiner	NA	NA	NA	NA	NA	0.33
Goldfish	−0.49	−0.44	−0.35	−0.12	−0.39	−0.32
Green sunfish	−0.54	−0.57	−0.78*	−0.42	0.15	−0.66
Inland silverside	0.03	NA	−0.07	0.08	0.35	0.41
Largemouth bass	−0.23	−0.63	−0.46	0.00	0.77*	0.64
Pumpkinseed	NA	NA	0.01	−0.13	−0.01	0.02
Red shiner	NA	NA	−0.13	−0.22	−0.22	−0.08
Redear sunfish	NA	−0.55	−0.28	0.04	0.10	0.62
Smallmouth bass	−0.19	−0.74*	−0.63	0.26	0.44	0.11
Spotted bass	0.35	NA	0.21	0.29	0.63	0.49
Striped bass	NA	NA	NA	NA	0.25	−0.27
Sunfish hybrids	−0.16	−0.22	−0.52	−0.62	−0.63	−0.24
Warmouth	NA	NA	NA	NA	−0.42	−0.07
Western mosquitofish	−0.22	−0.43	−0.38	−0.44	−0.51	−0.34
White catfish	NA	−0.25	−0.24	−0.02	0.22	0.44
Yellowfin goby	NA	NA	NA	NA	NA	−0.11

Note: Correlation coefficients >0.60 are indicated in bold and regarded as showing an important relationship. Significant correlations following a Bonferroni correction are indicated with an asterisk. All abundance data were $\log_{10}(x + 1)$ transformed prior to analysis. NA values denote species not captured at a given site.

(Figure 4). By the end of the study, native species richness superseded nonnative species richness at Sites A, B, and C.

While few new native species arrived over the study period, many nonnative species dropped in rank and abundance, or were extirpated from sites altogether

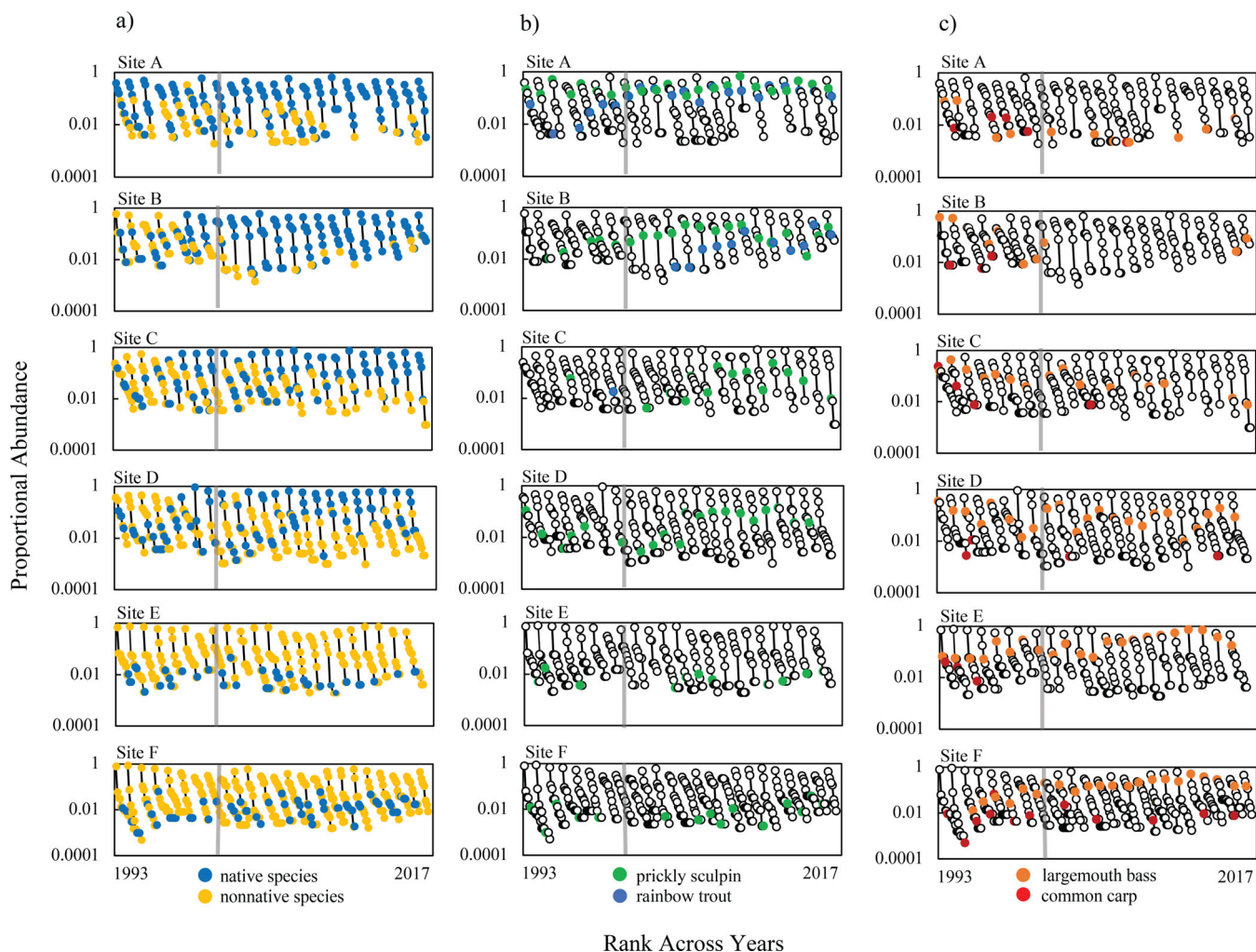


FIGURE 5 Annual rank–abundance curves for sites showing proportional abundance changes in native (solid blue circles) and nonnative (solid orange circles) species in panel (a) (left). The center (b) and right (c) panels show the same curves, but highlight two native (rainbow trout = solid blue circles and prickly sculpin = solid green circles), and two nonnative (largemouth bass = solid orange circles and common carp = solid red circles) species. Each curve represents 1 year of data; thus curves move from the earliest (1993) to more recent years along the x-axis. Initiation of restorative flows from the Accord is indicated by a gray vertical line.

(Figure 5 and Table 3). This is perhaps most apparent at Sites A–C (Figure 4) where a significant decrease in species richness is driven largely by the extirpation of nonnative species (Table 1). Only the most downstream site (Site F) had a significant positive increase in a diversity measure (Pielou's index). At four sites (A, B, C, D), there were significant (p -value = 0.0013, <0.001, <0.001, 0.03, correspondingly) differences in the richness \times year interaction term (ANCOVA model, Table 2); thus diversity metrics were changing differently for native versus nonnative species over time. However, the two downstream sites (E and F) did not exhibit significant differences in native versus nonnative diversity trends (ANCOVA, $p > 0.65$ in both cases; Table 2).

Fish abundance

Many fish species shifted in relative abundance over time, 56% (25/45) of possible native species correlations showed positive correlations overall. For example, rainbow trout increased in abundance at both of the uppermost sites. Out of the 45 abundance–time correlations for native fish, 6 (13%) with correlations greater than 0.6, and all of these were positive indicating positive trends in abundance across the study period (Table 3). Sacramento pikeminnow (*Ptychocheilus grandis*) increased in abundance in all sites, with significance at two of them (C, D). Mid-watershed (Site C), two native fish increased significantly in abundance: Sacramento pikeminnow, and tule perch (*Hysterocarpus traskii*).

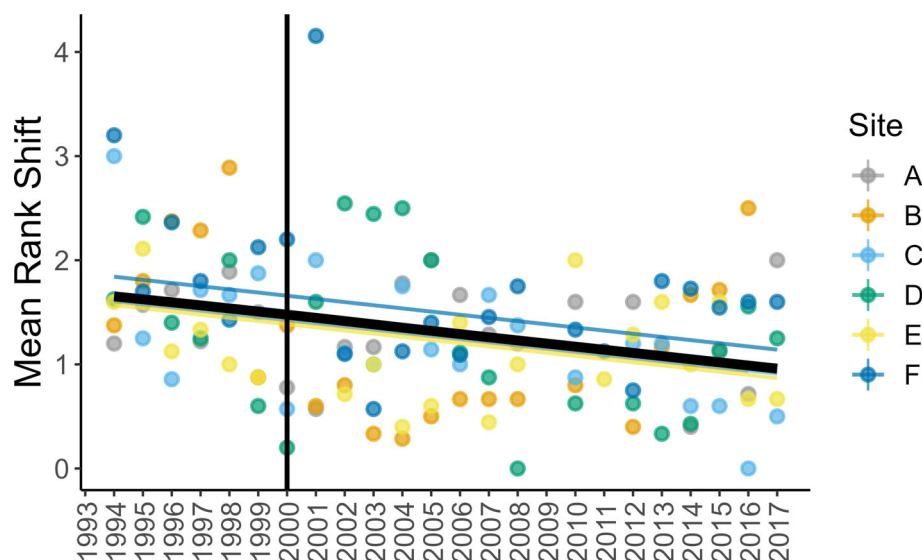


FIGURE 6 Changes in stability mean rank shift (MRS) in the Putah Creek fish assemblage, 1993–2017. Vertical black line denotes ratification of the Accord in 2000 and subsequent restoration of flows. Light colored points represent MRS data for the fish assemblage at each site. The thick solid black line shows the overall trend in MRS across all sites as defined by the mixed effects model. Light colored lines denote random (site-level) effects.

For nonnative species, 14 of 108 correlations coefficients exceeded 0.6; and 10 of these correlations (71%) were negative. Overall, 79 of 108 (73%) possible correlations for nonnative species were negative. Notable examples included bluegill (*Lepomis macrochirus*), which decreased in abundance over time at every site (significantly at C), green sunfish (*Lepomis cyanellus*), which decreased in abundance over time at five of six sites (significantly at C and F), and common carp (*Cyprinus carpio*), goldfish (*Carassius auratus*), sunfish hybrids, and western mosquitofish (*Gambusia affinis*) decreased at all six sites. Black bullhead and black crappie decreased at all sites where they were sampled (five of six sites).

Rank–abundance curves revealed additional aspects of assemblage change in Putah Creek over time (Figure 5). Overall, the Putah Creek fish assemblage showed low evenness in rank abundance overall (i.e., steep slopes). This pattern was consistent before and after the Accord, and highlights that the fish assemblage was numerically dominated by just a few dominant species regardless of its flow state. However, the dominant species at each site has changed dramatically. While nonnative species once dominated the fish assemblage in many sections of Putah Creek (Figure 5), native species now dominate. Channel catfish have almost been completely eliminated from the creek. Patterns also appear to be highly site specific: the uppermost sites, which now have ample cold water (Sites A and B), became increasingly dominated (higher rank abundance) by rainbow trout and prickly sculpin following rehabilitation (Figure 5b). In contrast, largemouth bass (*Micropterus salmoides*) decreased in rank

from the dominant species to a subordinate (lower rank abundance) position at these same sites (Figure 5c). However, this same species retained dominance in the lower sites (D, E and F) where the effects of stream restoration and water releases are weaker.

The Putah Creek fish assemblage became more stable over time. MRS (i.e., the amount of species changing rank between years) declined overall at all sites over time (Figure 6). Furthermore, all sites showed a similar pattern in the decline of MRS as noted by a similarity in random effects coefficients (mixed effects model, t -value = -3.85 , $p = 0.0002$). Thus sites not only trended toward more native species over time, but species compositional abundance became less volatile, indicated by enhanced persistence and stable ranks.

DISCUSSION

This study provides one of the first examples of how the rehabilitation of a natural flow regime resulted in enhanced stability and recovery of a highly endemic freshwater assemblage. In community ecology, many of the more well studied community structure metrics (e.g., richness, evenness, etc.) are static in that they usually represent just snapshots at any point in time, and are strongly affected by sampling effort (Collins et al., 2008; Roswell et al., 2021). While useful, static measures lack the dynamics that are often of most interest to many ecologists. Changing community metrics over time, such as in dominance, mean rank shifts, and rank change by

species add novel insight and context of how freshwater ecosystems respond to ecological change, including stream restoration activities.

There is an expansive and growing body of literature on stream restoration (Barrett et al., 2021; Levi & McIntyre, 2020; Reisinger et al., 2019), however the idiosyncratic nature of each restoration limits generalizations across many efforts (Hiers et al., 2016; Lake et al., 2007). Furthermore, there is frequently a mismatch between restoration goals and ecological measures monitored over time (dos Reis Oliveira et al., 2020). Restorations of freshwater streams are conducted for a host of reasons ranging from urban area benefits (Bolund & Hunhammar, 1999) to protection of infrastructure and real estate (Kenney et al., 2012), public enjoyment and environmental justice (Lave, 2016), and protection of fisheries and ecological services (Layman & Rypel, 2020; Palmer & Filoso, 2009; Pierce et al., 2013). In Putah Creek, the driving motivation behind initiating rehabilitation of the natural flow regime was California Fish and Game Code 5937, stipulating that fish populations below dams be kept in “good condition” (Börk et al., 2012; Moyle et al., 1998). While it may seem unconventional that community ecological metrics such as mean rank shifts be applied to document legal responsibilities for water users, it nonetheless has a high potential for such use. These data and analyses provide actionable information to agencies charged with managing the stream and ensuring the sustainability of a fragile endemic freshwater fish community that includes threatened anadromous salmonids.

In this study, increased seasonal flows resulted in decreased nonnative species richness (Table 1) and abundance through much of Putah Creek (Table 3), while native species recovered and regained dominance at numerous sites (Figure 5). However, not all species demonstrated directional changes (see text below on study limitations). Native fish communities in Putah Creek and elsewhere in California are adapted to the Mediterranean climate of the region (Gasith & Resh, 1999; Moyle, 2002; Moyle et al., 1998). Historically, low summer flows in Putah Creek would reduce the stream to pools (Shapovalov, 1947); thus summer water supplies originated from stored precipitation (groundwater) representing cold-water releases from previous wet seasons. Consistent baseflows from Berryessa Dam now prevent stream drying, and may even be enhanced relative to the historical flow regime. Nonetheless, continuous flows of cold water throughout the summer better approximate the historical conditions of Putah Creek versus, for example, stagnant pools or full streambed drying (Figure 2). A return of predictable flow releases, and flow pulses during spring and fall are also important dynamics for native California fish as they cue spawning runs and allow juveniles habitat conditions that promote

survivorship (Gasith & Resh, 1999; Moyle, 2002; Poff et al., 1997). In contrast, many nonnative species thrive in warm, deep, lacustrine waters and are often resilient in human-altered environments (Marchetti, Light, et al., 2004; Marchetti et al., 2004b; Moyle & Marchetti, 2006). Many nonnative fish are nesting species that recruit best under stable hydrodynamic conditions (Moyle, 2002) such as those that occurred before the Accord. Additionally, as temperature is a critical ecological parameter (Magnuson et al., 1979; Rypel, 2014), it is not surprising that many warm-water nonnatives were impacted by the restoration of cold summer flow releases into Putah Creek. For example, largemouth bass was once one of the dominant species in the upper sites in Putah Creek but has declined since flow restoration, to the point that it is nearly extirpated in upper sites. Channel catfish (another warm-water nonnative) has nearly been virtually eradicated throughout the entire ecosystem. In contrast, native species, such as prickly sculpin and rainbow trout, have increased especially at upstream sites. Our rank abundance analyses highlighted these shifts for a few select species, however this approach could be applied to any ecosystem where the community and composition of dominants changed in response to management actions, disturbance, or climate change. Future research might explore the extent to which changes to specific components of the natural flow regime and natural thermal regime (Willis et al., 2021) have catalyzed abundance trends for focal taxa.

This study also highlights further ecological changes to Putah Creek since reporting by Kiernan et al. (2012). Since 2008, one notable shift to the ecosystem in recent years has been the return of spawning adult Chinook salmon in Putah Creek (Willmes et al., 2020). While spawning salmon derive primarily from straying hatchery origin adults, the development of a self-sustaining salmon run in Putah Creek is of increasing interest (Willmes et al., 2020). Recent screw trap surveys (located between sites B and C) indicate that a large number of Chinook salmon smolts can be produced annually in the upper reaches of the creek (>30,000 smolts annually, and potentially up to 60,000; UC Davis, unpublished data). Therefore, the recovery of Chinook salmon is ongoing, and future contributions of wild fish in Putah Creek to the broader Central Valley salmon population could be large. However, while our study revealed how reconciliation activities (Rosenzweig, 2003) have been highly successful in rehabilitating fish communities in the upstream portions of the study area, these efforts have been much less successful in downstream reaches. Elevated temperatures remain common in the lowermost portions of Putah Creek (E, F), there are large lacustrine and warm-water areas, and deep incisement of streambanks; all of these impact the ability to better

recover native species. Further, much of the riparian land in lower Putah Creek is privately owned, which also limits management options, to a degree. Future restoration efforts will need to address habitat issues in the lower portions of the system. This includes the presence of a check dam that diverts water and prevents the ingress and egress of fish during the late spring and summer months.

The functional flows concept (a conceptual extension of the natural flow regime; Poff et al., 1997) is an important conservation management tool for declining freshwater taxa in regulated rivers, especially in the western USA (Grantham et al., 2022; Yarnell et al., 2022). Augmenting the flow of cold water from dams specifically is increasingly common and effective for recovering native fish (Poff et al., 1997; Richter & Thomas, 2007; Watts et al., 2011; Willis et al., 2021). Environmental flow frameworks are useful for managing ecosystem function, mimicking natural variations in flow, and coupling flows to desired improvements in physical habitat and water quality benchmarks (Yarnell et al., 2015, 2020). In the Owens River Gorge (California) and the San Juan River (originating in Colorado), the utilization of an environmental flow framework increased the abundance of native and recreationally important fisheries (Hill & Platts, 1998; Propst & Gido, 2004). In this study, augmented flows and permanent wetted connectivity throughout the creek provided conditions that approximated the essential habitats of many endemic fish. While the management cannot replicate all elements of ecosystem function, attempts to recover some critical elements of the historical hydrologics are important and represent a significant step forward (Poff et al., 1997; Yarnell et al., 2015, 2020). Future research might explore the extent to which the managed flow regime of Putah Creek, which has now been in place for >20 years, in fact accurately approximates the historical pre-dam natural flow regime, and whether any differences in such might be useful in a reconciliation context.

It is worth noting some of the limitations of our work. For example, one of the main results (e.g., temporal trends in species diversity and relative abundance; Tables 1 and 3) are based on a small proportion of significant correlations. While 1993–2017 represents a relatively long record of ecological data (25 years), this is a relatively small sample size for many statistical models. The ability to detect more correlations will increase with additional time and data. For example, once data are available for 40 years in duration, and assuming the same alpha, and 80% power using a two-tailed test, a correlation of 0.34 might result in significance. These kinds of statistical realities point toward the difficulty and importance of obtaining long-term ecological data more generally. Putah Creek is also unique in having a flow

management intervention that bifurcates the time series, but further cuts into statistical power because at least the first 7 years of data represent the initial (pre-Accord) conditions. However, for some of the nonsignificant correlations, there may simply be no substantial changes over time using these methods. Identifying species that do not respond positively to management change is equally as important as identifying those that respond positively. For example, inland silversides and pumpkinseed sunfish appear to have been recalcitrant to stream rehabilitation actions because they had low correlation coefficients at all sites. This may also be resultant of low abundance or rarity of certain species, thus significant changes may not be visible if few numbers of certain species were seen throughout the study. We again also note that the lowest sites (E and F) did not respond strongly to the flow alteration. Furthermore, these sites do not actually represent the lowermost portions of the stream, in fact, these habitats may be even further degraded than Sites E and F. Monitoring the quality of these habitats may be important for migratory fish such as Chinook salmon, Sacramento pikeminnow and Sacramento sucker that must navigate and use these habitats during portions of their life cycle. Combined, these limitations suggest that additional data, collected over even long periods, will be useful, and that additional information on responses of the lowermost portions of the stream ecosystem will be helpful for managers.

Community ecology tools for analyzing and visualizing data appear to be powerful methods for understanding the aggregate effects of ecosystem restoration. Assemblage stability, in particular, represents a fundamental aspect of ecosystems (Connell & Slatyer, 1977; Lhomme & Winkel, 2002; MacArthur, 1955), including how multiple dynamic ecological factors are jointly impacted by human activity (Collins et al., 2008). In grassland ecosystems, species invasions generated a significant increase in MRS values (Jones et al., 2017), indicating a decrease in ecological stability. In other aquatic studies, fish communities experiencing habitat degradation also express increased MRS values (Obaza et al., 2015; Robinson & Yakimishyn, 2013). This study complements prior work by demonstrating that fish community instability is linked to habitat degradation (i.e., Figure 6). However, our results substantially expand on this work by showing that restoration activities, including the implementation of a functional flows approach, substantially improve community dynamics, principally by increasing community stability. In response to restoration, Putah Creek MRS decreased across the board, coincident with a transition to an assemblage dominated by native species. Furthermore, an interesting pattern was that the trend toward enhanced stability was observed at all sites, including the downstream

sites, which showed a lack of positive trends in the abundance of native species (discussed above). This finding highlights that these analyses are potentially revealing new ecological dynamics not observable by analyzing trends in abundance alone. It remains unclear whether this change is foreshadowing additional positive future changes to populations in the lower portions of the stream, or if it is simply a step in the right direction revealed through a community-level approach. Regardless, these findings provide empirical support that the ecosystem has been managed toward native species, and in favor of assemblage stability overall.

Conclusions

We document recovery and increased stability in native fish fauna following stream rehabilitation activities in a human-dominated freshwater ecosystem. The recovery included increased richness and abundance of native fish, decreased richness and abundance of nonnative fish, changing ranks of native and nonnative species, and the eventual return of an iconic, keystone species, Chinook salmon. Similarly degraded and managed stream ecosystems could apply methods of functional flow methodologies combined with community ecology approaches to recover at-risk fish populations and reduce or eradicate nonnatives. One of the surprising aspects of the Putah Creek story has been how strong the assemblage response was from relatively minor changes in the flow regime, perhaps notably from increased cold-water base flows during summer. This research therefore provides an intriguing case study into the potential for broader restorations of freshwater communities with perhaps just small tweaks to functional flow regimes. Furthermore, we provide an example of how community ecology approaches can be valuable for tracking the efficacy of restoration initiatives over long periods. In some cases, the metrics examined (e.g., community stability) are otherwise hidden, and therefore represent novel information that is likely to be of widespread interest to managers and decision-makers. While each restoration project necessarily has fundamentally unique goals and socioecological motives, the underlying response of the assemblage will probably align with many of the principal metrics of interest to diverse stakeholders. In our case, documenting the increased abundance and dominance of native versus nonnative fish, along with increased stability of the assemblage overall, was important for on-the-ground management. We anticipate that parallel analyses would be similarly powerful in many other restoration contexts, both in streams and other ecological realms.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

Data and code (Jacinto et al., 2022) are available in Zenodo at <https://doi.org/10.5281/zenodo.7822308>. PDD gage data owned by the Solano County Water Agency are available by contacting the United States Bureau of Reclamation Area Office Manager.

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**REPORT OF CONSTRUCTION CHANGE ORDERS AND
CONTRACTS APPROVED BY GENERAL MANAGER UNDER
DELEGATED AUTHORITY**

Construction Contract Change Orders (15% of original project costs or \$60,000, whichever is less) - None

Construction Contracts (\$60,000 and less) – None

Professional Service Agreements (\$45,000 and less) –

Markley Cove – Lake Berryessa Mussel Prevention Concessionaire Program - \$30,000
Putah Canyon – Lake Berryessa Mussel Prevention concessionaire Program - \$30,000
Pleasure Cove – Lake Berryessa Mussel Prevention Concessionaire Program - \$30,000

Non-Professional Service Agreements (\$45,000 and less) – None

Construction contracts resulting from informal bids authorized by SCWA Ordinance- None

Note: Cumulative change orders or amendments resulting in exceeding the dollar limit need Board approval.

WATER ADVISORY COMMISSION UPDATES

**Solano Water Advisory Commission
Meeting Minutes
April 26, 2023**

Present:

Agency	Members
SCWA	Chris Lee, Alex Rabidoux, Thomas Pate, Jeff Barich
Benicia	Kyle Ochendusko, Danielle Bonham
Dixon	Jordan Santos
Fairfield	Michael Hether, Nigel Browne
Rio Vista	Wynter Vaughan
Vacaville	Justen Cole
Vallejo	Beth Schoenberger, Melissa Cansdale
Solano County	Misty Kaltreider
RD 2068	Dale Crossley
SID	Cary Keaten
Dixon RCD	Kelly Huff

The meeting was called to order at 12:35 PM.

1. Minutes of March 22, 2023 meeting:

The meeting minutes were approved.

2. Water Transfer Policy:

Chris Lee (SCWA) distributed copies of the water transfer policy and briefly went over the policy, highlighting the main difference: in-county and out-of-county transfers. All existing in-county transfers are in place and not affected by this policy. In-county is simple, the interested member agencies need to notify SCWA of water being transferred, SCWA will verify water rights, comply with regulations, CEQA review if necessary (not common). Mutual agreements and documentation are the only items required. Out-of-county transfers are only available for State Water Project (SWP) water, and SCWA as the State Water Contractor, brokers these deals. It is important to let SCWA know about potential deals as early as possible. Once a deal is mutually agreed upon, SCWA must take the lead on potential CEQA issues, water rights, and approval from DWR. Once approved by DWR, SCWA Board of Directors must approve. Chris Lee asked if any member agencies are interested in transferring any water. All member agencies will get back to SCWA in a timely manner once having their own internal discussions. Alex Rabidoux (SCWA) stated that Article 56 Carryover can now be transferred in addition to Table A water. This can be thought about next year, when the Solano NBA agencies will likely have Article 56 Carryover storage available. Vallejo brought up their hesitancy to engage in exchange talks while in the middle of litigation. Benicia is interested in monetizing water that has the potential to be lost. Benicia asked whose responsibility it is to seek out these deals, and if it is the Agency's responsibility, it needs to be made clear what the water transfer guidelines are. Cary Keaten (SID) indicated that

Suisun City is interested in marketing Suisun City's Table A and Carryover water moving forward, and the funds generated could go towards building an NBA-Solano Project intertie. Thomas Pate (SCWA) offered to present in a future meeting on the Water Exchange Tools. Chris Lee (SCWA) recapped the Area of Origin lawsuit, with the next scheduled meeting for January 2025, and the soonest a trial would start is March 2025. SCWA's attorneys are actively reviewing thousands of pages of documents. In the meantime, Thomas Pate (SCWA) will be having ongoing discussions with the State Water Contractors. Director Crossley (RD 2068) requested a special meeting to go over the policy. Benicia voiced concern over terms of settlements and wanted it made clear that SCWA was not asking for any terms of settlement at this time. Benicia voiced the importance of letting the Agency know as soon as possible if there is a desire to transfer water, and rough quantities member agencies would be interested in.

3. Solano Project Contract Renewal:

Staff are working with the US Bureau of Reclamation on renewal of the Solano Project master contract, which expires February 2024. Staff are beginning the RFP process to get a consultant on board for this project.

a. Member Agency Contract Renewal:

Individual agencies will need to renew their Solano Project contracts as well, but the exact timing is not known at this time. Currently the Agency is subsidizing UC Davis and CSP Solano since they are not a part of the Agency's tax assessment area. Negotiations may be necessary for future contracts. With the Voluntary Agreements there may also be a unit cost (\$ per acre-foot) moving forward.

4. Bay Delta Voluntary Agreements:

Thomas Pate (SCWA) gave a presentation on the Voluntary Agreements. SID voiced some need for clarification on the potential additional costs, as it is not an immaterial amount. Member agencies all have potential concerns about any rate increases. SID asked where the 6,000 AF would be coming from, Chris Lee (SCWA) answered that it would not come out of member agency allocations. SID requested this presentation to be shared with the SID board.

5. SCWA General Manager's Report:

a. SCWA Board Items:

There will be a Board action item to certify CEQA documentation for the Putah Creek Nishikawa Restoration Project. There will also be a high-level Bay-Delta Voluntary Agreements discussion.

b. North Bay Aqueduct:

Alex Rabidoux (SCWA) is going to be putting on the calendar a Napa-Solano NBA Coordination Meeting sometime around June. These meetings take place biannually at either the SCWA or Napa County Flood Control office.

c. Solano Project:

None.

d. Bay Delta Planning Issues:

None.

e. Flood Management Issues:

None.

f. Other Regional and State Issues:

None.

g. Other Issues:

At the next SWAC meeting Chris Lee (SCWA) would like to invite our legislative advocate (Bob Reeb) to give an update on what is going on legislatively in Sacramento. Vallejo asked about what the Water Policy Committee has been doing. Chris Lee (SCWA) said they have not met recently but are tracking the Waters of the United States issue. SCWA is scheduling a meeting with Napa County officials with the hope to make transporting zebra/quagga mussels illegal. Without this, there is no real teeth in what can be enforced at Lake Berryessa.

6. Groundwater Planning:

a. SGMA Update:

The group has submitted the second annual report for the GSP. No big concerns, only small drops in groundwater levels in some spots. It is anticipated that those spots will rise back up from all of the rain the region has experienced. Napa County's GSP has been approved by DWR, we do not have any update on the status of ours. On June 1 there will be a town hall meeting.

7. Solano County Report:

The Drought Task Force meeting is April 27 at 3:30pm. Next month there will be a One Water meeting hosted by SCWA directly before the SWAC meeting.

8. Other Topics:

Fairfield mentioned the Solano Water Authority is meeting May 2 at 9:00am in the Berryessa Room. Misty Kaltreider (County) talked about possibly incentivizing landowners to help restore groundwater levels, flood water retention, and other ways to use existing infrastructure and fields.

9. Public Comments:

None.

The next meeting will be Wednesday May 24, 2023, at 12:30 PM.

The meeting adjourned at 2:36 PM.

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: Water Agency Fiscal Year 2023-2024 Budget

RECOMMENDATIONS:


Hear Staff report and recommendations from Executive Committee, acting as the Budget Review Committee, and consider adoption of Water Agency’s fiscal year 2023-2024 budget.

FINANCIAL IMPACT:

Not applicable.

BACKGROUND:

On May 31, 2023, the Budget Review Committee reviewed the proposed FY 2023-2024 budget prepared by staff. The Budget Review Committee recommends the Board adopt the proposed FY 2023-2024 budget. The proposed budget and supporting documents are attached.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency



Solano County Water Agency
Fiscal Year 2023-2024
Proposed Budget

SOLANO COUNTY WATER AGENCY



General Manager's Budget Message

FY 2023-2024 Proposed Budget May 2023

Financial Position

The Water Agency's financial position remained strong at the close of FY 2022-2023, with a projected cumulative fund balance of \$56,511,871. However, this represents a decrease of \$2,299,422 compared to the previous fiscal year. In the following sections of this report, we will provide an overview of the Water Agency's budget structure (funds), its long-term outlook, a synopsis of the FY 2022-2023 budget year, and the proposed FY 2023-2024 budget.

Budget Structure

The Water Agency's budget is comprised of four funds; the Administration-Solano Project-Watermaster (ASW) Fund, State Water Project Fund, Ulati Flood Control Project Fund, and the Green Valley Flood Control Project Fund. The latter three are "restricted" funds – the respective revenue streams cannot be directed to other funds – while the former, the ASW Fund, in addition to supporting Solano Project and administration, also serves as the Water Agency's general fund – revenues can be used for any purpose. A summary of the four funds is as follows:

Fund	Type	Estimated Fund Balance on 6/30/23	
		Dollars	Percent of total
ASW	general	15,699,815	27.8
State Water Project	restricted	30,658,341	54.2
Ulati Flood Control	restricted	9,838,874	17.4
Green Valley Flood Control	restricted	314,841	0.6
		-----	-----
		56,511,871	100

Long Term Outlook

The Water Agency's responsibilities have expanded over the years, early on with the adoption of the Putah Creek Accord and commitment to prepare and implement the Solano Project Habitat Conservation Plan, assumption of regional water conservation activities in Solano County, technical support for the North Bay Aqueduct Alternate Intake Project, and more recently with the adoption of the Flood Management Policy and participation in the development of the Solano Sub-basin Groundwater Sustainability Agency and Solano Subbasin Groundwater Management Plan. To some degree the level of effort associated with these newer responsibilities has or will be peaking at different times – different years – and with somewhat different fiscal impacts to the four respective Funds. A long-term outlook summary, by Fund, is presented below.

ASW Fund

With the notable exception of the NBA Alternate Intake Project and related technical studies, most of the responsibilities have or will be financially supported by the ASW Fund. In the short term – next two to three years – the ASW Fund balance will be drawn down to accommodate implementation activities in support of the State Water Board Bay-Delta Voluntary Agreements and participation in the ongoing Bay Delta Plan Update proceedings, as well as the “jump start” of the Solano Project Habitat Conservation Plan. Ongoing operations and maintenance costs associated with the Solano Project, implementation of the Flood Management Policy, and water conservation programs contribute to fund expenditures. With implementation of the Solano Subbasin Groundwater Sustainability Plan underway, most of the expenses for groundwater management have shifted to the Solano Subbasin Groundwater Sustainability Agency.

While property taxes, the primary source of revenue for the ASW Fund, are expected to increase over the long term, staff believes the Water Agency should continue to explore and whenever possible develop additional revenue streams to support the ASW Fund. In FY 2021-2022 the Water Agency “piggybacked” on the County’s FEMA Hazard Mitigation Plan update. The Plan has been completed and the Water Agency is now eligible to compete for a wider array of FEMA grant funds – funds that will generally be used for Solano Project rehabilitation and betterment projects. The FY 2023-2024 budget includes funds to explore opportunities to develop and monetize habitat mitigation credits at the Water Agency’s Petersen Ranch property. To maintain the current level of support for the agency's diverse functions, it becomes crucial to explore opportunities for generating additional revenue. This could involve seeking alternative funding sources, such as grants, partnerships, or exploring new revenue-generating initiatives. By expanding the financial pie, the Water Agency can ensure that sufficient resources are available to sustain and adequately support its various functions and responsibilities.

State Water Project Fund

Slightly more than half of the Water Agency’s cumulative fund balance is attributable to the State Water Project Fund. While seemingly robust, at least in the short term, significant expenditures are anticipated in the next three to seven years as the planning, environmental review, and design of what is currently anticipated to be a \$600 million construction project – the North Bay Alternate Intake (NBA AIP or Water +) - resume in earnest. Currently, the Water Agency is funding several technical studies to support formulation of a multi-benefit Water + Project that will hopefully attract significant financial contributions from the Federal and State governments. The planning, environmental review, and preliminary design of the NBA AIP are expected to cost \$15 to \$22 million.

Ulatris Flood Control Fund

The Ulatris Flood Control Fund has experienced financial benefits from the increased property values resulting from the conversion of agricultural lands to residential housing near Vacaville. However, urbanization has also introduced new challenges and expenses for flood control efforts.

In the next five years, significant capital expenditures are anticipated, primarily for the construction of grade control weirs. These weirs are essential structures for managing water flow and velocity, reducing erosion, and addressing flood risks. The timing of these capital projects is

contingent upon the approval of the Solano Project Habitat Conservation Plan (Solano HCP) by Federal and State resource agencies within the next 12 months.

Once approved, the Solano HCP will streamline permitting processes, facilitating environmental reviews and compliance matters associated with these capital projects. This streamlined approach will help expedite the implementation of the grade control weirs and other related flood control infrastructure.

Additionally, the adoption of the Solano HCP will impose an obligation on the Ulati Flood Control Project to mitigate the loss of habitats for special status species, such as the Giant Garter Snake. The estimated cost for this mitigation effort is approximately \$1 million. Mitigation measures may involve habitat restoration and conservation projects aimed at offsetting the impacts on these species and their habitats.

Apart from flood protection, the Ulati Flood Control Project also plays a role in conveying and storing irrigation water during the summer. It serves as the year-round discharge point for the City of Vacaville's tertiary treated wastewater. Given that the Ulati Flood Control Project drains into the Cache Slough Complex, which is the focus of large-scale habitat restoration efforts, it is anticipated that the project will face increased scrutiny from State and Federal resource agencies in the future.

Based on existing biological information, there is potential for operating and maintaining the Ulati Flood Control Project in ways that enhance habitat values, particularly in the upstream portions of Cache Slough. This could potentially provide opportunities for mitigation credits or a source of revenue. As a result, staff anticipates initiating additional investigations related to biology, water quality, and hydrodynamics. Eventually, a management plan will be developed for the Ulati Flood Control Project, incorporating habitat restoration as one of its functions.

Overall, the Ulati Flood Control Fund is in good financial shape for the foreseeable future. There are no discernible negative trends in expenditures or revenues, and sufficient reserves are available to carry out anticipated capital improvement projects while also exploring new opportunities.

Green Valley Flood Control Fund

The Green Valley Flood Control Project was initially constructed when the predominant land uses in and around the area were agricultural and rural residential. During this period, property tax revenues were modest, and as a result, operations and maintenance expenditures were primarily supported through loans from the ASW Fund.

Over time, land uses in the Green Valley Flood Control Project area have shifted, and they are now predominantly residential and commercial. This change has led to some enhancement in property tax revenues. However, the process of urbanization, combined with the challenges posed by sea level rise, has introduced significant operational and maintenance challenges for the flood control project.

While the financial position of the Green Valley Flood Control Fund has improved in recent years, it remains only marginally adequate for the foreseeable future. The shift in land uses and

increased property tax revenues have provided some relief, but the ongoing urbanization and the potential impact of sea level rise continue to place strain on the fund.

The operations and maintenance challenges associated with urbanization and sea level rise require financial resources to address effectively. It is anticipated that the Green Valley Flood Control Fund will continue to face financial constraints as it works to meet these challenges. As a result, careful financial planning and consideration of additional revenue sources may be necessary to ensure the fund can adequately fulfill its operational and maintenance responsibilities in the years to come.

FY 2022-2023 Budget Synopsis

The FY 2022-2023 budget of the Water Agency was adopted during the ongoing COVID-19 pandemic. The initial hopes of a return to normalcy in the second half of 2022 were muted due to repeated surges in COVID cases. As a result, certain planned activities and projects had to be postponed or canceled.

Activities such as water conservation audits, education and public outreach, specific field data collection activities, and most Solano Project Rehabilitation and Betterment projects did not take place as originally budgeted. The delay in the Office Expansion project also resulted in a postponement of expected expenses.

On the other hand, flood control expenditures were relatively close to what was budgeted. There may still be some additional delayed costs as staff continue to assess and repair the damage caused to flood control facilities from extensive winter storms.

The FY 2022-2023 budget was initially adopted with the expectation that the Water Agency's cumulative fund balance would decrease by \$6,000,000 to \$50,000,000. However, due to the aforementioned adjustments to planned activities and projects, the projected decrease in the cumulative fund balance for FY 2022-2023 is \$2,299,422 compared to the previous fiscal year. The projected fund balances for each of the four Water Agency funds, at the close of FY 2021-2022 versus FY 2022-2023, are as follows:

	June 30, 2022 (FY 2021-2022)	June 30, 2023 (FY 2022-2023)
ASW	19,892,644	15,699,815
State Water Project	29,284,120	30,658,341
Ulati Flood Control	9,296,408	9,838,874
Green Valley Flood Control	<u>338,121</u>	<u>314,841</u>
Totals:	58,511,293	56,511,871

Proposed FY 2023-2024 Budget

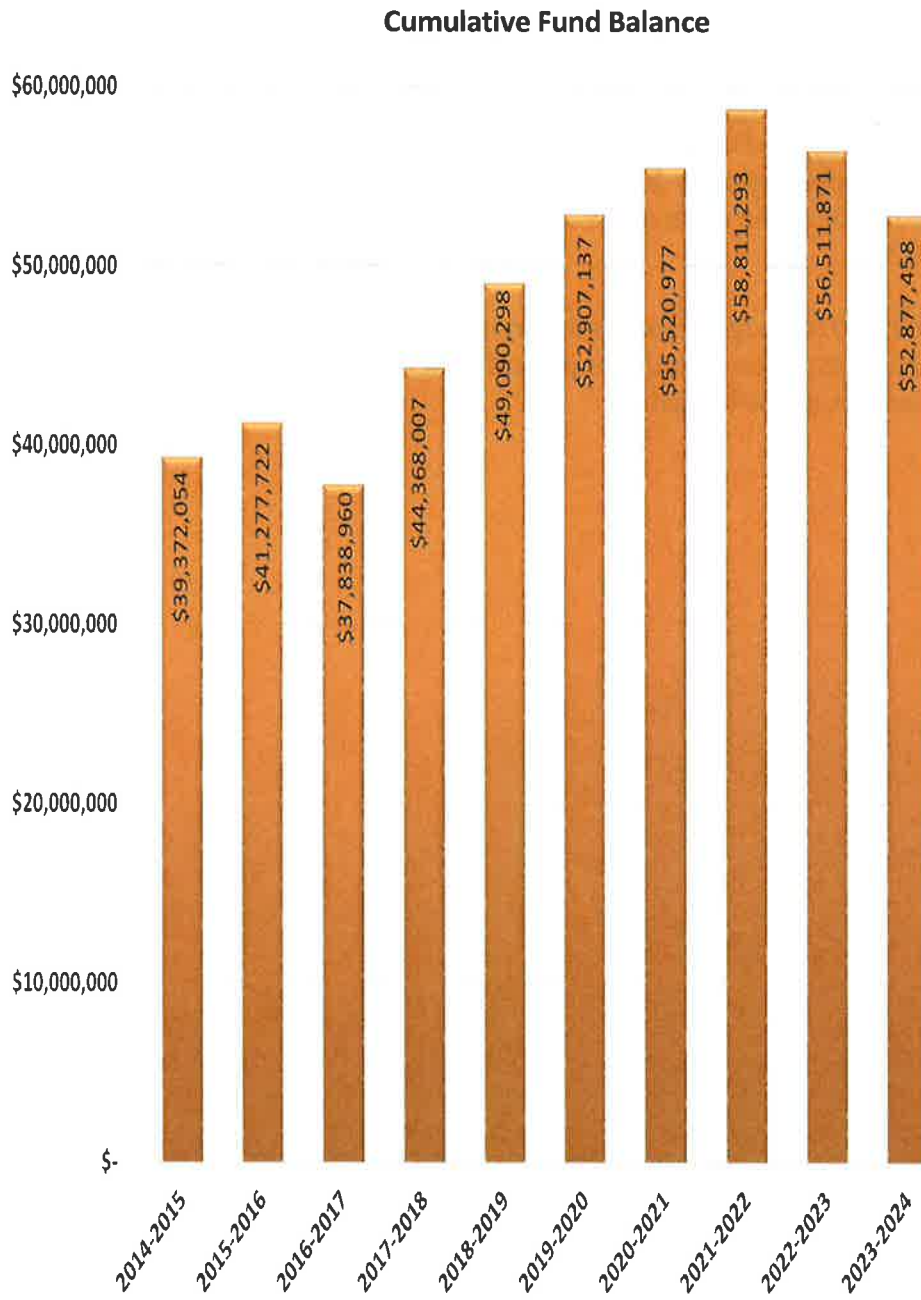
The proposed FY 2023-2024 budget is similar to the previous year's budget, with some notable exceptions. Additional funding is allocated for the potential addition of staff positions in 2023-

2024, following the recommendations of the Workforce Study and Workforce Committee. The budget also includes costs associated with the Office Expansion project.

Significant one-time expenditures that were originally planned for FY 2022-2023 but did not occur are now included in the proposed FY 2023-2024 budget. These include approximately 40% of the costs for the Water Agency office expansion and capital improvements for the Solano Project. As a result, the projected cumulative fund balance at the close of FY 2023-2024 is expected to decrease by approximately \$3,634,413. The balance is estimated to decrease from approximately \$56,511,000 at the close of FY 2022-2023 to approximately \$52,877,000 at the close of FY 2023-2024.

The proposed FY 2023-2024 budget includes a summary of its components, as well as long-term revenue and expense trends. These details are presented in the charts and tables below to provide a comprehensive overview of the budget.

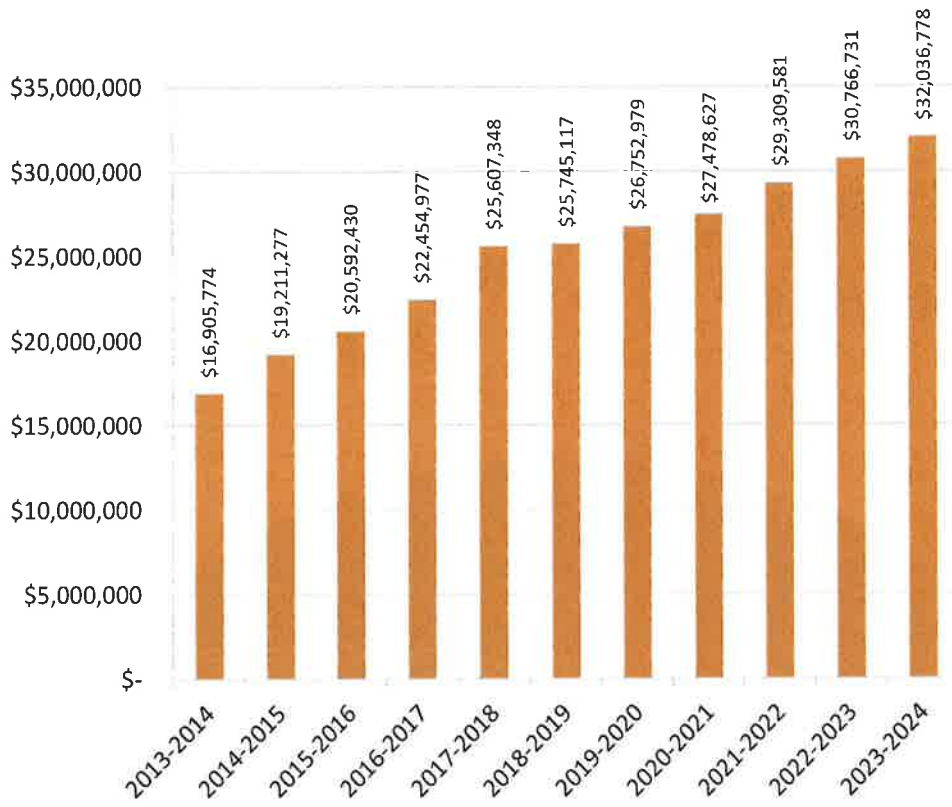
Figure 1



Notes: 2023-2024 cumulative fund balance data based on proposed budget
2022-2023 cumulative fund balance data based on year end projected budget
2014-2015 through 2021-2022 “actuals” from annual audit reports

Figure 2

Property Tax Revenue



Notes: 2023-2024 property tax revenue data based on County estimates
2022-2023 property tax revenue based on year end projected budget
2013-2014 through 2021-2022 “actuals” from annual audited reports

Figure 3

**Summary of Projected Revenues
FY 2023-2024
Total Revenues - \$45,850,329**

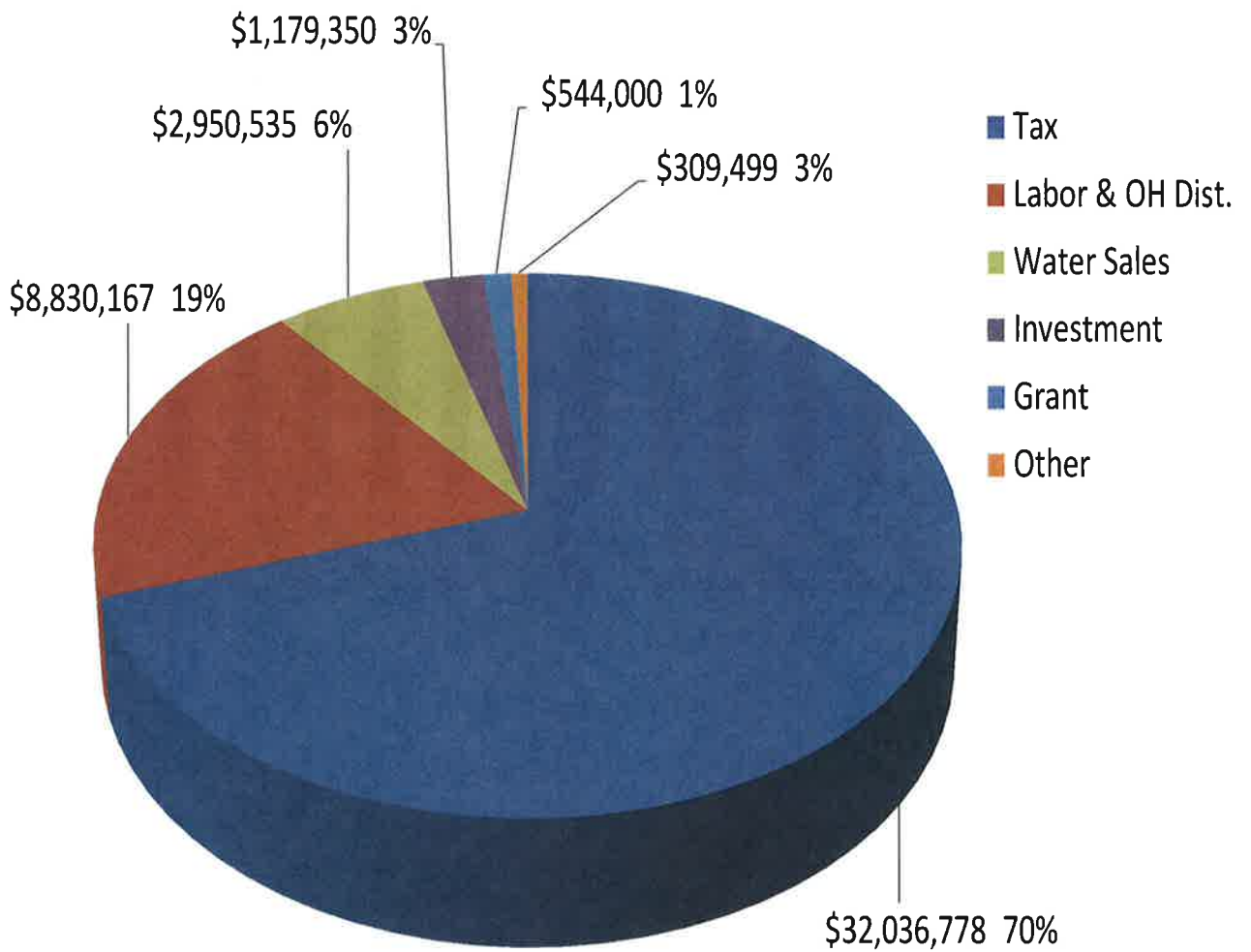


Figure 4

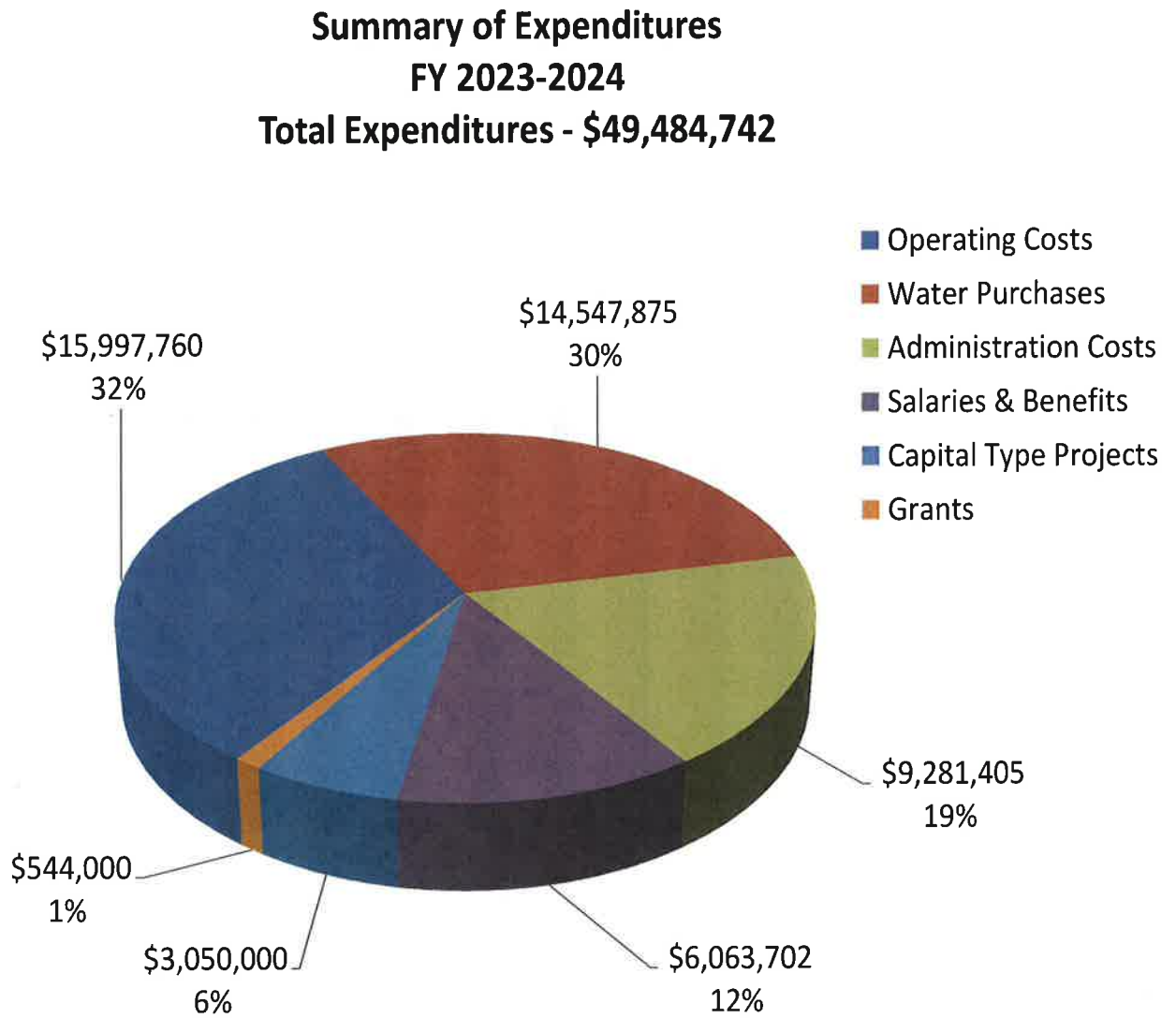
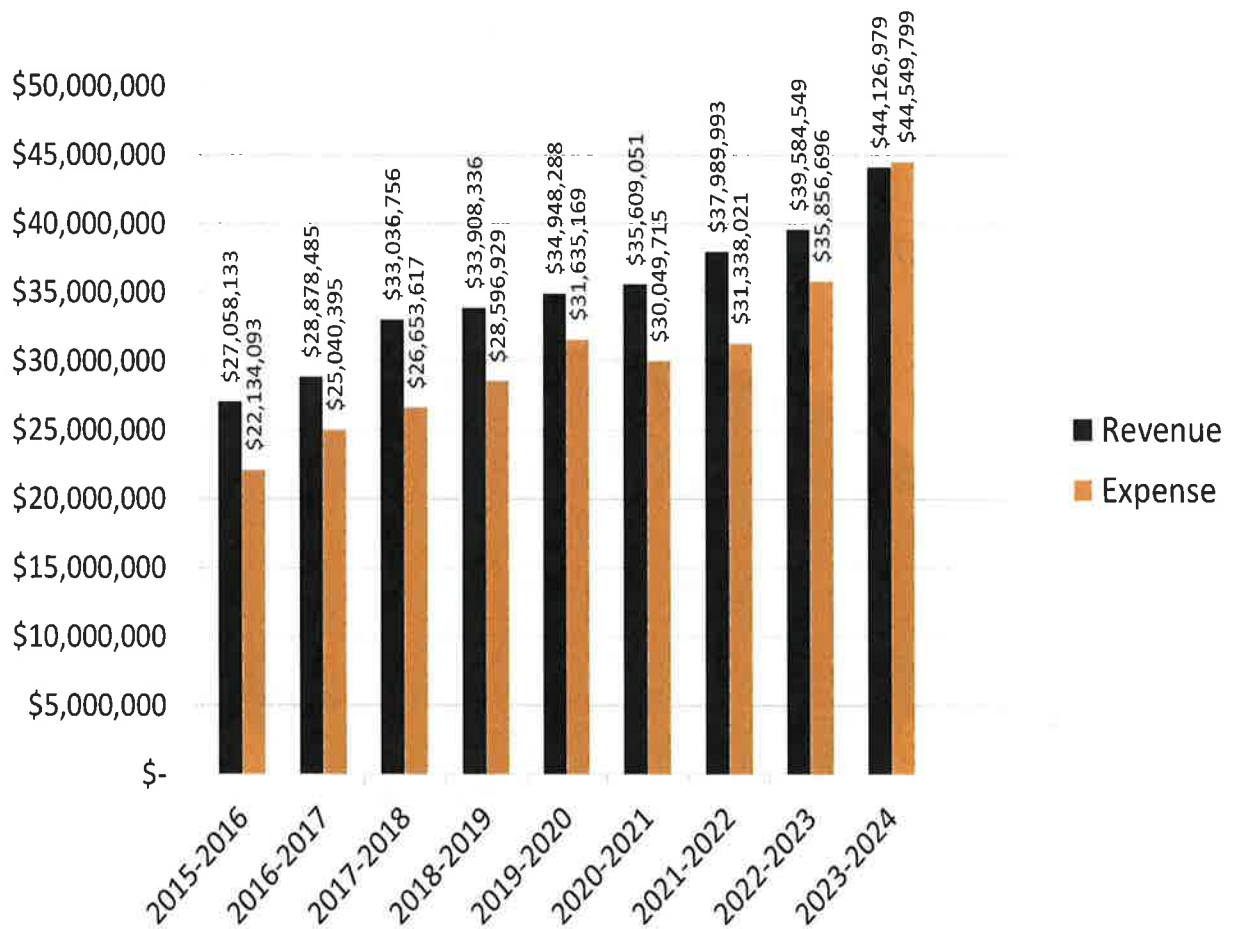


Figure 5

Operating Income and Expense



Notes: 2023-2024 revenue/expense data based on proposed budget
 2022-2023 revenue/expense data based on year end projection
 2015-2016 through 2021-2022 “actuals” from annual audit reports

**SOLANO COUNTY WATER AGENCY
SCHEDULE 1
ALL FUNDS SUMMARY
FY 2023/2024**

FUND NAME	FUND BALANCE AVAILABLE 6/2021 AUDITED	FUND BALANCE AVAILABLE 6/2022 AUDITED	YEAR END PROJECTION INCREASE/ DECREASE TO FUND BALANCE 22/23	FUND BALANCE AVAILABLE 6/30/2023 PROJECTED	PROPOSED 23/24 REVENUES	PROPOSED 23/24 EXPENDITURES	PROPOSED INCREASE/ DECREASE TO FUND BALANCE	PROPOSED FUND BALANCE 6/30/2024
ADMIN - SOLANO PROJECT - WM*	19,085,419	19,892,644	(4,192,829)	15,699,815	23,308,853	27,956,916	(4,648,064)	11,051,752
STATE WATER PROJECT	27,617,677	29,284,120	1,374,221	30,658,341	20,305,376	19,636,144	669,232	31,327,573
ULATIS FLOOD CONTROL	8,459,061	9,296,408	542,466	9,838,874	2,087,200	1,763,080	324,120	10,162,994
GREEN VALLEY FLOOD CONTROL	358,818	338,121	(23,280)	314,841	148,900	128,602	20,298	335,139
Total All FUNDS	55,520,975	58,811,293	(2,299,422)	56,511,871	45,850,329	49,484,742	(3,634,413)	52,877,458

*Administration, Solano Projects, and Watermaster

Schedule 1 provides the fund balances based on the FY 2022/2023 Year End Projections.

This schedule also provides Projected Year End net increase/(decrease) by Fund for the FY 23/24 budget year.

**SOLANO COUNTY WATER AGENCY
SCHEDULE 2
ALL FUNDS SUMMARY - BY FUNDS
FY 2023/2024**

DETAIL BY FUND REVENUE CATEGORY AND FUND EXPENDITURE CATEGORY	2019/20 ACTUAL	2020/21 ACTUAL	2021/22 ACTUAL	2022/23 YEAR END PROJECTION	2023/24 PROPOSED	FROM PROJECTION TO PROPOSED	PERCENT CHANGED
Revenues							
Admin-Solano Project-Watermaster	16,542,976	16,660,772	16,918,550	19,259,850	23,308,853	4,049,003	21%
State Water Project	18,378,149	17,853,935	18,848,972	19,915,961	20,305,376	389,415	2%
Ulati Flood Control	1,615,972	1,580,520	1,756,315	2,045,970	2,087,200	41,230	2%
Green Valley Flood Control	170,468	149,371	128,112	150,245	148,900	(1,345)	-1%
Total Revenues	36,707,565	36,244,598	37,651,950	41,372,026	45,850,329	4,478,303	11%
Expenditures							
Admin-Solano Project-Watermaster	16,380,658	18,603,935	16,111,325	23,452,679	27,956,916	4,504,238	19%
State Water Project	15,212,818	14,193,831	17,182,530	18,541,740	19,636,144	1,094,404	6%
Ulati Flood Control	1,186,883	765,140	918,968	1,503,504	1,763,080	259,576	17%
Green Valley Flood Control	110,367	67,854	148,809	173,525	128,602	(44,924)	-26%
Total Expenditures	32,890,726	33,630,759	34,361,631	43,671,448	49,484,742	5,813,294	13%
Net							
Admin-Solano Project-Watermaster	162,318	(1,943,162)	807,226	(4,192,829)	(4,648,064)	(455,235)	11%
State Water Project	3,165,330	3,660,104	1,666,443	1,374,221	669,232	(704,989)	-51%
Ulati Flood Control	429,089	815,380	837,347	542,466	324,120	(218,346)	-40%
Green Valley Flood Control	60,101	81,518	(20,696)	(23,280)	20,298	43,579	-187%
Total Net	3,816,839	2,613,840	3,290,319	(2,299,422)	(3,634,413)	(1,334,991)	-42%

In addition to the revenues and expenses segregated by funds as in Schedule 1, Schedule 2 provides three years of historical data to allow for comparison and trend analysis.

**SOLANO COUNTY WATER AGENCY
SCHEDULE 3
ALL FUNDS SUMMARY - BY ACTIVITY
FY 2023/2024**

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2019/20 ACTUAL	2020/21 ACTUAL	2021/22 ACTUAL	2022/23 YEAR END PROJECTION	2023/24 PROPOSED	FROM PROJECTION TO PROPOSED	PERCENT CHANGED
Revenues							
Taxes	26,752,979	27,478,627	29,309,581	30,766,731	32,036,778	1,270,047	4%
Water Sales	2,759,430	3,011,233	3,560,828	3,088,118	2,950,535	(137,583)	-4%
Grant Revenues	861,880	364,190	80,274	523,000	544,000	21,000	4%
Investment Income	897,397	171,005	(418,318)	1,264,477	1,179,350	(85,127)	-7%
InterFund Cost Allocation	4,875,316	4,565,865	4,687,933	5,408,095	8,830,167	3,422,072	63%
Other Revenue	560,563	653,679	431,651	321,605	309,499	(12,106)	-4%
Total Revenues	36,707,565	36,244,598	37,651,950	41,372,026	45,850,329	4,478,303	11%
Expenditures							
Salaries and Employee Benefits	3,990,229	3,499,176	3,507,340	4,295,605	6,063,702	1,768,097	41%
Services and Supplies	1,058,703	916,790	1,314,259	1,539,426	1,852,928	313,502	20%
Operations & Maintenance	6,455,419	5,837,514	5,975,292	6,950,586	9,410,041	2,459,455	35%
LPCCC Operations	1,490,330	1,372,266	1,447,613	1,449,450	1,830,312	380,862	26%
Putah Creek Watershed Management	1,020,547	1,475,426	867,185	826,079	1,268,764	442,685	54%
Rehab & Betterment	231,836	252,646	189,323	560,467	1,325,000	764,533	136%
Water Purchases	12,429,028	12,292,000	12,982,683	14,429,965	14,547,875	117,910	1%
Grant Expenditures	241,306	166,798	466,442	497,666	544,000	46,334	9%
Flood Control	287,378	549,682	381,233	251,470	949,427	697,957	278%
HCP Planning	1,005,830	878,829	1,079,082	1,740,242	2,182,462	442,220	25%
Water Conservation	1,424,364	1,104,260	1,623,806	2,047,784	3,027,824	980,041	48%
Consultants	2,437,125	2,123,772	2,159,527	2,201,087	3,191,463	990,376	45%
Fixed Assets	782,415	3,158,942	2,351,902	6,740,677	3,050,000	(3,690,677)	-55%
Debt Service		2,657	15,944	15,943	15,943	-	0%
Contingency	36,215	-	-	125,000	225,000	100,000	80%
Total Expenditures	32,890,726	33,630,759	34,361,631	43,671,448	49,484,742	5,813,294	13%
Total Net	3,816,839	2,613,840	3,290,319	(2,299,422)	(3,634,413)	(1,334,991)	58%

Schedule 3 provides revenue and expenses by activity type for all four funds combined. It includes three years of historical data for comparison and trend analysis.

Solano County Water Agency
All Fund Summary - By Operating & Non-Operating

SOLANO COUNTY WATER AGENCY
SCHEDULE 4
ALL FUNDS SUMMARY - BY OPERATING & NON-OPERATING
FY 2023/2024

DETAIL BY OPERATING REVENUE AND EXPENDITURE CATEGORY AND NON-OPERATING REVENUE AND EXPENDITURES CATEGORY	2019/20 ACTUAL	2020/21 ACTUAL	2021/22 ACTUAL	2022/23 YEAR END PROJECTION	2023/24 PROPOSED	FROM PROJECTION TO PROPOSED	PERCENT CHANGED
Operating Revenues							
Taxes	26,752,979	27,478,627	29,309,581	30,766,731	32,036,778	1,270,047	4%
Water Sales	2,759,430	3,011,233	3,560,828	3,088,118	2,950,535	(137,583)	-4%
InterFund Cost Allocation	4,875,316	4,565,865	4,687,933	5,408,095	8,830,167	3,422,072	63%
Other Revenue	560,563	553,326	431,651	321,605	309,499	(12,106)	-4%
Total Operating Revenues	34,948,288	35,609,051	37,989,993	39,584,549	44,126,979	4,542,430	11%
Operating Expenditures							
Salaries and Employee Benefits	3,990,229	3,499,176	3,507,340	4,295,605	6,063,702	1,768,097	41%
Services and Supplies	1,058,703	916,790	1,314,259	1,539,426	1,852,928	313,502	20%
Operations & Maintenance	6,455,419	5,837,514	5,975,292	6,950,586	9,410,041	2,459,455	35%
LPCCC Operations	1,490,330	1,372,266	1,447,613	1,449,450	1,830,312	380,862	26%
Putah Creek Watershed Mgt	1,020,547	1,475,426	867,185	826,079	1,268,764	442,685	54%
Water Purchases	12,429,028	12,292,000	12,982,683	14,429,965	14,547,875	117,910	1%
Flood Control	287,378	549,682	381,233	251,470	949,427	697,957	278%
HCP Planning	1,005,830	878,829	1,079,082	1,740,242	2,182,462	442,220	25%
Water Conservation	1,424,364	1,104,260	1,623,806	2,047,784	3,027,824	980,041	48%
Consultants	2,437,125	2,123,772	2,159,527	2,201,087	3,191,463	990,376	45%
Contingency	36,215	-	-	125,000	225,000	100,000	80%
Total Operating Expenditures	31,635,169	30,049,715	31,338,021	35,856,696	44,549,799	8,693,104	24%
Net Operating	3,313,119	5,559,336	6,651,973	3,727,853	(422,820)	(4,150,674)	-111%
Non-Operating Revenues							
Investment Income	897,397	171,005	(418,318)	1,264,477	1,179,350	(85,127)	-7%
Grant Revenues	861,880	364,190	80,274	523,000	544,000	21,000	4%
Debt Proceeds		100,353	-				
Total Non-Operating Revenues	1,759,277	635,547	(338,043)	1,787,477	1,723,350	(64,127)	-4%
Non-Operating Expenditures							
Rehab & Betterment	231,836	252,646	189,323	560,467	1,325,000	764,533	136%
Grant Expenditures	241,306	166,798	466,442	497,666	544,000	46,334	9%
Fixed Assets	782,415	3,158,942	2,351,902	6,740,677	3,050,000	(3,690,677)	-55%
Debt Service		2,657	15,944	15,943	15,943	-	0%
Total Non-Operating Expenditures	1,255,557	3,581,044	3,023,611	7,814,753	4,934,943	(2,879,810)	-37%
Net Non-Operating	503,720	(2,945,496)	(3,361,654)	(6,027,276)	(3,211,593)	2,815,683	-47%
Net Operating and Non-Operating	3,816,839	2,613,840	3,290,319	(2,299,422)	(3,634,413)	(1,334,991)	58%

Schedule 4 provides revenues and expenditures segregated by operating and non-operating classes for all four funds combined. The Net Operating line reflects whether the operating revenues fund the operating costs or if reserves will have to be used for the combined four funds.

FY 2023/24 Proposed Budget

**SOLANO COUNTY WATER AGENCY
SCHEDULE 5
SOLANO PROJECT REHAB & BETTERMENT
FY 2023/24**

FUND	DESCRIPTION	TOTAL AMOUNT	2023/24 PROPOSED	2024/25 PROPOSED	2025/26 PROPOSED	2026/27 PROPOSED	2027/28 PROPOSED
SP	SP Risk Assessment	-	-	-	-	-	-
SP	SP Clean Energy Assessment	200,000	100,000	100,000	-	-	-
SP	MD Access Road, Repair & Seal Work	75,000	-	-	25,000	50,000	-
SP	MD Metal Works Recoating	75,000	-	-	25,000	50,000	-
SP	MD Concrete Patch Work	100,000	-	-	25,000	75,000	-
SP	MD Flow Measurement Improvements	20,000	20,000	-	-	-	-
SP	PDD Soft Plug - Hydraulic Assessment & Improv.	40,000	-	-	40,000	-	-
SP	PDD Vegetation Management	70,000	20,000	20,000	10,000	10,000	10,000
SP	PDD Access Road & Facility Improvements	635,000	30,000	30,000	-	225,000	350,000
SP	PDD Flood Gate Rehab & Modernization	300,000	150,000	150,000	-	-	-
SP	PSC Drainage Rehab	75,000	-	-	25,000	25,000	25,000
SP	PSC Aq. Veg. Mngmt. / Veg. Booms	50,000	25,000	25,000	-	-	-
SP	PSC Access Road Gate Rehab	125,000	25,000	25,000	25,000	25,000	25,000
SP	PSC Pipeline Conversion	480,000	180,000	200,000	100,000	-	-
SP	PSC Radial Gate & Wasteway Gate Rehab	125,000	25,000	25,000	25,000	25,000	25,000
SP	PSC Culvert Inspection & Rehab	250,000	-	25,000	25,000	-	200,000
SP	PSC Check Upgrades (Automation)	350,000	100,000	100,000	100,000	50,000	-
SP	PSC Road Gravel and Turn-Around Improvements	250,000	50,000	50,000	50,000	50,000	50,000
SP	PSC Seismic Assessment	100,000	50,000	50,000	-	-	-
SP	PSC Electrical Upgrades	125,000	25,000	25,000	25,000	25,000	25,000
SP	PSC Benching & Reslope of Inside Banks	125,000	25,000	25,000	25,000	25,000	25,000
SP	PSC Panel Replacement & Rehab	500,000	100,000	100,000	100,000	100,000	100,000
SP	PSC Fencing	215,000	-	-	-	-	215,000
SP	TR Reservoir Lane, Drainage & Road Repair	940,000	100,000	100,000	425,000	315,000	-
SP	TR Perimeter Road, Gravel	25,000	25,000	-	-	-	-
Total Solano Project Rehab & Betterment		5,250,000	1,050,000	1,050,000	1,050,000	1,050,000	1,050,000

**SOLANO COUNTY WATER AGENCY
SCHEDULE 6
BUDGET PROJECTIONS**

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2020/21 ACTUAL	2021/22 ACTUAL	2022/23 YEAR END PROJECTED BUDGET	2023/24 PROPOSED	2024/25 PROPOSED	2025/26 PROPOSED	2026/27 PROPOSED
Revenues							
Taxes	27,478,627	29,309,581	30,766,731	32,036,778	33,294,704	34,631,865	36,027,155
Water Sales	3,011,233	3,560,828	3,088,118	2,950,535	2,950,535	2,950,535	2,950,535
Grant Revenues	364,190	80,274	523,000	544,000	-	-	-
Investment Income	171,005	(418,318)	1,264,477	1,179,350	1,195,632	1,212,240	1,229,179
Labor & Ovhd Distr.	4,565,865	4,687,933	5,408,095	8,830,167	9,761,251	9,956,476	10,155,605
Other Revenue	653,679	431,651	321,605	309,499	309,662	309,662	309,662
Total Revenues	36,244,598	37,651,950	41,372,026	45,850,329	47,511,784	49,060,778	50,672,137
Expenditures							
Salaries and Employee Benefits	3,499,176	3,507,340	4,295,605	6,063,702	6,605,665	6,640,049	6,769,850
Services and Supplies	916,790	1,314,259	1,539,426	1,852,928	1,830,267	1,830,932	1,854,919
Operations & Maintenance	5,837,514	5,975,292	6,950,586	9,410,041	9,779,520	9,593,000	9,476,049
LPCCC Operations	1,372,266	1,447,613	1,449,450	1,830,312	2,037,717	2,095,837	2,168,779
Putah Creek Watershed Mgt	1,475,426	867,185	826,079	1,268,764	1,272,114	1,235,864	1,250,852
Rehab & Betterment	252,646	189,323	560,467	1,325,000	1,300,000	1,150,000	1,050,000
Water Purchases	12,292,000	12,982,683	14,429,965	14,547,875	14,908,815	13,986,530	14,009,955
Grant Expenditures	166,798	466,442	497,666	544,000	-	-	-
Flood Control	549,682	381,233	251,470	949,427	633,010	554,161	527,427
HCP Planning	878,829	1,079,082	1,740,242	2,182,462	2,038,484	2,066,208	2,077,327
Water Conservation	1,104,260	1,623,806	2,047,784	3,027,824	3,246,856	3,351,103	3,464,029
Consultants	2,123,772	2,159,527	2,201,087	3,191,463	2,904,543	2,614,593	2,625,647
Fixed Assets	3,158,942	2,351,902	6,740,677	3,050,000	120,000	80,000	80,000
Debt Service	2,657	15,944	15,943	15,943	57,274	-	-
Contingency	-	-	125,000	225,000	225,000	225,000	225,000
Total Expenditures	33,630,759	34,361,631	43,671,448	49,484,742	46,959,264	45,423,276	45,579,833
Total Net	2,613,840	3,290,319	(2,299,422)	(3,634,413)	552,521	3,637,501	5,092,304

Key Budget Projection Assumptions

1. Projected property tax revenues based on observed post 2008 trend
2. Salary and Employee Benefits increased 6%, annually, includes anticipated new hires
3. Projected grant revenues based on currently awarded grants, grant expenditures include matching funds provided by Water Agency

**SOLANO COUNTY WATER AGENCY
SCHEDULE 7
BUDGET PROJECTIONS**

FUND NAME	FUND BALANCE AVAILABLE 6/2021 AUDITED	FUND BALANCE AVAILABLE 6/2022 AUDITED	YEAR END PROJECTION INCREASE/ DECREASE TO FUND BALANCE 22/23	FUND BALANCE YEAR END PROJECTION 22/23	PROPOSED INCREASE/ DECREASE TO FUND BALANCE 23/24	FUND BALANCE JUNE 30, 2024 PROPOSED	FUND BALANCE JUNE 30, 2025 PROJECTED	FUND BALANCE JUNE 30, 2026 PROJECTED	FUND BALANCE JUNE 30, 2027 PROJECTED
ADMIN - SOLANO PROJECT - WM	19,085,419	19,892,644	(4,192,829)	15,699,815	(4,648,064)	11,051,751	10,123,277	10,247,964	11,098,605
STATE WATER PROJECT	27,617,677	29,284,120	1,374,221	30,658,341	669,232	31,327,573	32,285,190	34,946,240	38,079,874
ULATIS FLOOD CONTROL	8,459,061	9,296,408	542,466	9,838,874	324,120	10,162,994	10,647,119	11,460,012	12,529,560
GREEN VALLEY FLOOD CONTROL	358,818	338,121	(23,280)	314,841	20,298	335,139	374,392	413,263	451,744
Total All FUNDS	55,520,975	58,811,293	(2,299,422)	56,511,871	(3,634,413)	52,877,458	53,429,978	57,067,480	62,159,783

FUND PURPOSE

The Administration-Solano Project-Watermaster (ASW) fund is comprised of three sub-funds; Administration, Solano Project, and Watermaster. Unlike the Water Agency's State Water Project, Ulati and Green Valley funds, which for accounting purposes are defined as "restricted" funds, the ASW is a "general fund" and therefore the monies within the ASW fund can be used for any purpose – flood control, groundwater monitoring, water conservation, etc.

FUNCTION AND RESPONSIBILITIES

Administration – The Administration sub-fund provides human resource and other administrative support for SCWA staff, as well as funding for SCWA's general flood control, water education and outreach, integrated regional water management planning, water conservation activities, and general office supplies and services.

Solano Project - The Solano Project sub-fund supports the Solano Project water supply, including operation and maintenance of the Solano Project facilities (Monticello Dam, Putah Diversion Dam, and Putah South Canal), compliance with the Putah Creek Accord and a variety of technical studies and administrative functions in support of the Lower Putah Creek Coordinating Committee (LPCCC), and implementation of the Solano Habitat Conservation Plan (HCP).

Watermaster – The Watermaster sub-fund is used to implement the Condition 12¹ water rights settlement agreement for the Lake Berryessa watershed.

FUND DETAIL COMMENTS***Revenues***

Property Taxes -FY 2023-2024 property tax revenues are projected to increase 6% from the prior fiscal year, reflecting the prevailing trend of increasing property values in Solano County.

Grant Revenue – Continuation of existing water conservation and Lake Berryessa Invasive Mussel Inspection and Education grant funded programs, and addition of Lower Putah Creek Habitat Enhancement (aka Nishikawa Reach) grant funded project.²

Investment Income – Interest earnings, which had been declining since the Fall of 2019, have been increasing in response to recent and anticipated interest rate increases by the Federal Reserve. Last year was the first year to recognize fair value measurement for the LAIF pooled money investment account, which created negative interest. That recognition is reversed in the current year and recognized again as part of the 2022/23 year -end audit. Going forward, this market value measurement will have minimal impact on interest earnings.

Other Revenue Sources- Includes water conservation reimbursements from cities, rental income from Petersen, Sackett, and Lang-Tule ranches.

Expenditures

Salaries & Benefits – Includes additional funding for the addition of staff positions, back-filling vacant positions, and the market equity adjustments approved by the Board through the Workforce Study conducted by Boucher Law in 2021.

Services and Supplies – Expenditures expected to increase over prior fiscal year with an increase of public outreach/education activities, a slightly larger workforce, and the effects of inflation.

Operations and Maintenance -Includes additional funding for ongoing operations and maintenance of the Solano Project, including the Sanitary studies, Algicide surveys, bank stabilization projects, and contract renewal with U.S. Bureau of Reclamation.

Putah Creek Watershed Management - Expenditures expected to increase over prior fiscal year with continued Fish monitoring, implementation of the Putah Creek Water Management project, and expansion of the WaterWays program with Putah Creek Council.

Rehab & Betterment -Anticipated increase in rehab projects for the Putah Diversion Dam and the Putah South Canal, and notable drainage, road repairs, and a pipeline conversion project.

Grant Expenditures - Continuation of the Lake Berryessa Invasive Mussel Inspection Program and water conservation grant funded projects, and continuation of the Lower Putah Creek Habitat Enhancement Project (aka Nishikawa Reach) project.

Water Conservation - Additional expenditures for the continuation and expansion of water conservation programs.

Flood Control -Expenditures have been comparatively low in recent years due to ongoing drought. The new budget includes funding for the Dixon Watershed Implementation project, the Flood Masterplan update, and the Hydrology Manual update.

HCP -Increased expenditures for completion of EIR/EIS and implementation of HCP, and ongoing habitat conservation work at Petersen Ranch and Sackett Ranch.

Fixed Assets - Includes ASW Fund's share of office expansion costs, which is largely encompassed within 22/23 and completing in 23/24. Anticipated purchases include a Dump truck, backhoe, Skid steer, 2 service trucks, SCADA truck, and Flow Monitoring Instrumentation and Sensors.

(GENERAL FUND)**ADMINISTRATION – SOLANO PROJECT - WATERMASTER**

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 YE PROJECTION	2023/2024 PROPOSED	PROJECTION TO	PERCENT CHANGED
						PROPOSED	
Revenues							
Taxes	10,217,141	10,956,483	11,795,163	12,556,302	13,197,178	640,876	5%
Grants	462,533	364,190	80,274	523,000	544,000	21,000	4%
Investment Income	360,482	68,171	(143,787)	395,513	365,250	(30,263)	-8%
InterFund Cost Allocation	4,875,316	4,565,865	4,687,933	5,408,095	8,830,167	3,422,072	63%
Water Sales	91,656	83,062	93,208	92,682	93,000	318	0%
Other Revenue Sources	535,848	522,649	405,759	284,258	279,258	(5,000)	-2%
Proceeds from Debt	-	100,353	-				
Total Revenues	16,542,976	16,660,772	16,918,550	19,259,850	23,308,853	4,049,003	21%
Expenditures							
Salaries & Benefits	3,990,229	3,499,176	3,507,340	4,295,605	6,063,702	1,768,097	41%
Services and Supplies	950,545	817,052	1,194,183	1,403,639	1,713,628	309,989	22%
Operations and Maintenance	4,597,239	4,181,636	4,145,394	4,742,552	6,628,384	1,885,833	40%
LPCCC Operations	1,490,330	1,372,266	1,447,613	1,449,450	1,830,312	380,862	26%
Putah Creek Watershed Management	1,020,547	1,475,426	867,185	826,079	1,268,764	442,685	54%
Rehab & Betterment	231,836	252,646	108,805	493,050	1,050,000	556,950	113%
Grant Expenditures	241,306	166,798	466,442	497,666	544,000	46,334	9%
Water Conservation	860,411	659,170	955,311	1,138,811	1,852,676	713,865	63%
Flood Control	287,378	549,682	381,233	251,470	949,427	697,957	278%
Habitat Conservation	782,170	789,642	953,937	1,388,175	1,716,017	327,842	24%
Consultants	1,503,180	1,678,841	1,512,605	1,210,087	1,495,463	285,376	24%
Fixed Assets	389,271	3,158,942	555,333	5,625,152	2,698,600	(2,926,552)	-52%
Debt Service		2,657	15,944	15,943	15,943	-	0%
Contingency	36,215	-	-	115,000	130,000	15,000	13%
Total Expenditures	16,380,658	18,603,935	16,111,325	23,452,679	27,956,916	4,504,238	19%
Net Change	162,318	(1,943,162)	807,226	(4,192,829)	(4,648,064)	(455,235)	11%

FY 2023/24 PROPOSED BUDGET

¹. Condition 12 approved the issuance of permits to divert water, reserving up to 33,000 acre-feet annually, from the Lake Berryessa Watershed, above the Monticello Dam, or Upper Putah Creek

². For the Nishikawa Restoration Project, final design and permitting is expected to occur in FY 23-24 as well as initial grubbing of vegetation and site preparation. Construction is not expected to occur until late Summer 2024 which will be the following fiscal year, FY 2024-2025.

FUND PURPOSE

Repayment of capital costs, ongoing operations and maintenance of the North Bay Aqueduct.

FUNCTION AND RESPONSIBILITIES

SCWA is responsible for purchasing water from the State Water Project for resale to cities in Solano County. Water is delivered via the North Bay Aqueduct (NBA), which originates in Barker Slough and terminates in Napa County (Napa County has a similar State Water Project water supply contract). The NBA is owned, operated, and maintained by the California Department of Water Resources (DWR). SCWA administers the State Water Project water supply contract, which among other things, obligates SCWA to reimburse DWR for Solano's share of the NBA operation, maintenance, and capital costs. The majority of the funds used to reimburse DWR are obtained via the "NBA Zone of Benefit Tax" – a property tax assessment. In addition to administering the water supply contract, SCWA performs various technical studies related to NBA operations, monitors water quality in Barker Slough, and provides technical assistance to DWR in support of the NBA Alternate Intake Project.

FUND DETAIL COMMENTS**Revenues**

Property Taxes – FY 2023-2024 property tax revenues are projected to increase 3% from the prior fiscal year, reflecting the prevailing trend of increasing property values in Solano County.

Water Sales – Based on charges from the Department of Water Resources and fluctuate annually.

Investment Income -Interest earnings rose substantially in response to recent and anticipated interest rate increases by the Federal Reserve. Last year was the first year to recognize fair value measurement for the LAIF pooled money investment account, which created negative interest. That recognition is reversed in the current year, and recognized again as part of the 2022/23 year end audit. Going forward, this market value measurement will have minimal impact on interest.

Expenditures

Services and Supplies- Expected increase of State Water Contractor dues.

Operations and Maintenance – Includes increased funding for improvements to the Hydrologic Stations, increased water quality analysis at Campbell Lake and Barker Slough.

Water Purchases – Expecting Increased charges imposed by California Department of Water Resources.

Water Conservation – Additional expenditures for the continuation and expansion of water conservation programs.

Habitat Conservation – Increased funding for habitat conservation planning and implementation of habitat improvements at Petersen Ranch and Lang-Tule properties.

(RESTRICTED FUND)**STATE WATER PROJECT**

Consultants – Funding has been increased in anticipation of additional technical studies in support of the North Bay Aqueduct Alternate Intake Project, and the NBA Intake and the Organic Carbon projects, and continued work at the Yolo Bypass/Cache Slough Complex.

Fixed Assets - Expenditures were unusually high in FY 2022- 2023 for the SWP Fund's share of the office expansion project, which will have minimal expenditures in the new year.

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 YE PROJECTION	2023/2024 PROPOSED	PROJECTION TO PROPOSED	PERCENT CHANGED
Revenues							
Property Taxes	14,894,908	14,831,241	15,570,025	16,238,095	16,790,600	552,505	3%
Water Sales	2,667,774	2,928,171	3,467,620	2,995,436	2,857,535	(137,901)	-5%
Grant Revenues	399,346	-	-	-	-	-	-
Investment Income	398,800	77,282	(206,913)	654,189	635,000	(19,189)	-3%
Other Sources	17,320	17,241	18,241	28,241	22,241	(6,000)	-21%
Total State Water Project Revenues	18,378,149	17,853,935	18,848,972	19,915,961	20,305,376	389,415	2%
Expenditures							
Services and Supplies	93,375	83,303	100,386	118,812	121,000	2,188	2%
Operations and Maintenance	958,949	839,319	862,329	811,298	1,295,875	484,578	60%
Water Purchases	12,429,028	12,292,000	12,982,683	14,429,965	14,547,875	117,910	1%
Grant Expenditures	-	-	-	-	-	-	-
Water Conservation	563,953	445,090	668,496	908,973	1,175,148	266,175	29%
Habitat Conservation	223,660	89,187	125,145	352,068	466,446	114,378	32%
Consultants	933,946	444,931	646,922	991,000	1,696,000	705,000	71%
Fixed Assets	9,908	-	1,796,569	919,625	293,800	(625,825)	-68%
Contingency	-	-	-	10,000	40,000	30,000	300%
Total State Water Project Expenditures	15,212,818	14,193,831	17,182,530	18,541,740	19,636,144	1,094,404	6%
Net Change	3,165,330	3,660,104	1,666,443	1,374,221	669,232	(704,989)	-51%

FUND PURPOSE

Operation and maintenance of Ulatis Flood Control Project.

FUNCTION AND RESPONSIBILITIES

The Ulatis Flood Control Project (Project) was constructed by the Soil Conservation Service (now known as the Natural Resources Conservation Service) and is maintained by SCWA pursuant to a contract with the Natural Resources Conservation Service. The Project consists of over 45 miles of flood control channels and is largely located within and provides flood protection to agricultural lands downstream of Vacaville. SCWA subcontracts with the Solano County Transportation Department for routine maintenance duties while most engineering and administrative functions are performed by SCWA staff.

FUND DETAIL COMMENTS**Revenues**

Property Taxes -FY 2023-2024 property tax revenues are projected to increase 4% from the prior fiscal year, reflecting the prevailing trend of increasing property values in Solano County.

Investment Income – Interest earnings rose substantially in response to recent and anticipated interest rate increases by the Federal Reserve. Last year was the first year to recognize fair value measurement for the LAIF pooled money investment account, which created negative interest. That recognition is reversed in the current year and recognized again as part of the 2022/23 year end audit. Going forward, this market value measurement will have minimal impact on interest.

Expenditures

Operations and Maintenance – Operations and maintenance expenses are projected to increase over the prior fiscal year should 2024 be at least a relatively “wet” hydrologic year, again.

Rehab & Betterment – Includes culvert replacements and related grade control measures to maintain flood flow capacity.

Fixed Assets– Includes Ulatis Fund’s share of office expansion costs, with minimal expense remaining in the new year.

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 YE PROJECTION	2023/2024 PROPOSED	PROJECTION	PERCENT CHANGED
						TO PROPOSED	
Revenues							
Property Taxes	1,474,494	1,542,426	1,813,796	1,829,664	1,906,200	76,536	4%
Investment Income	134,084	24,657	(65,132)	207,200	173,000	(34,200)	-17%
Other Sources	7,395	13,436	7,651	9,106	8,000	(1,106)	-12%
Total Ulati Revenues	1,615,972	1,580,520	1,756,315	2,045,970	2,087,200	41,230	2%
Expenditures							
Supplies and Services	13,709	15,251	18,271	15,750	17,000	1,250	8%
Operations and Maintenance	789,938	749,889	892,282	1,289,737	1,382,680	92,943	7%
Rehab & Betterment	-	-	8,414	67,417	275,000	207,583	308%
Fixed Assets	383,236	-	-	130,600	38,400	(92,200)	-71%
Contingency	-	-	-	-	50,000	50,000	0%
Total Ulati Expenditures	1,186,883	765,140	918,968	1,503,504	1,763,080	259,576	17%
Net Change	429,089	815,380	837,347	542,466	324,120	(218,346)	-40%

FUND PURPOSE

Operation and maintenance of Green Valley Flood Control Project.

FUNCTION AND RESPONSIBILITIES

The Green Valley Flood Control Project (Project) was constructed by the United States Army Corps of Engineers (USACOE) and is maintained by SCWA pursuant to an agreement with the USACOE. The Project consists of approximately 3 miles of flood control channels and is largely located in and downstream of Cordelia. SCWA subcontracts with the Solano Transportation Department for routine maintenance duties, while most engineering and administrative functions are performed by SCWA staff.

FUND DETAIL COMMENTS***Revenues***

Property Taxes - FY 2023-2024 property tax revenues are projected to increase 1% from the prior fiscal year, reflecting the prevailing trend of increasing property values in Solano County.

Investment Income -Interest earnings rose substantially in response to recent and anticipated interest rate increases by the Federal Reserve. Last year was the first year to recognize fair value measurement for the LAIF pooled money investment account, which created negative interest. That recognition is reversed in the current year and recognized again as part of the 2022/23 year end audit. Going forward, this market value measurement will have minimal impact on interest.

Expenditures

Operations and Maintenance – Operations and maintenance expenses are projected to decrease slightly over the prior fiscal should 2024 be at least a relatively “wet” hydrologic year.

Fixed Assets – Includes Green Valley Fund’s share of office expansion costs, with minimal expenses remaining into the new year.

DETAIL BY REVENUE CATEGORY AND EXPENDITURE CATEGORY	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 YE PROJECTION	PROJECTION		PERCENT CHANGED
					2023/2024 PROPOSED	TO PROPOSED	
Revenues							
Property Taxes	166,436	148,477	130,597	142,670	142,800	130	0%
Investment	4,032	895	(2,485)	7,575	6,100	(1,475)	-19%
Total Green Valley Revenues	170,468	149,371	128,112	150,245	148,900	(1,345)	-1%
Expenditures							
Supplies and Services	1,074	1,184	1,419	1,225	1,300	75	6%
Operations and Maintenance	109,293	66,670	75,286	107,000	103,102	(3,899)	-4%
Rehab & Betterment	-	-	72,103	-	-	-	-
Fixed Assets	-	-	-	65,300	19,200	(46,100)	-71%
Contingency	-	-	-	-	5,000	5,000	0%
Total GV Expenditures	110,367	67,854	148,809	173,525	128,602	(44,924)	-26%
Net Change	60,101	81,518	(20,696)	(23,280)	20,298	43,579	-187%

Solano County Water Agency

Fund Balance Policy

I. PURPOSE OF STATEMENT

The purpose of this fund balance policy is to identify the authority for committing and assigning fund balance in conformance with Governmental Accounting Standards Board Statement No. 54 and to establish the order in which unrestricted resources are to be used.

II. SCOPE

This fund balance policy will be applicable to all funds under the control of the Agency.

III. DEFINITION OF FUND BALANCE

Fund Balance is used to describe the difference between assets and liabilities reported within a fund. GASB 54 established the following five components of fund balance, each of which identifies the extent to which the Agency is bound to honor constraints on the specific purposes for which the amounts can be spent. These restrictions vary significantly depending upon the source.

- A. **Nonspendable:** Amounts that cannot be spent because they are either (a) not in spendable form (not expected to be converted to cash) or (b) legally or contractually required to be maintained intact.
- B. **Restricted:** Amounts subject to externally enforceable legal restrictions or constrained for a specific purpose by external parties, constitutional provision, or enabling legislation.
- C. **Committed:** Amounts that can only be used for specific purposes pursuant to constraints imposed by the formal action of the Agency. Committed amounts cannot be used for any other purpose unless the Agency removes or changes the specified use by taking the same type of action (action item, legislation, resolution, ordinance) it employed to previously commit those amounts.
- D. **Assigned:** Amounts that are constrained by the Agency's intent to be used for specific purposes, but are neither restricted nor committed. Intent can be expressed by the Board of Directors itself or the General Manager of the Agency.
- E. **Unassigned:** Residual amounts in the general fund, not classified as nonspendable, restricted, committed, or assigned. For other governmental fund types, unassigned is only used when a deficit or negative fund balance occurs.

IV. COMMITTING FUND BALANCE

Only the Agency's Board of Directors has the authority to create or change a fund balance commitment. Committing fund balance is accomplished by approval of an action item by the Board of Directors.

V. ASSIGNING FUND BALANCE

The Board of Directors delegates authority to the General Manager to assign amounts to be used for specific purposes. Assignments are less formal than commitments and can be changed by the General

Manager. An example of an assignment would be the encumbrance of funds for purchase orders approved but not fulfilled by the end of a fiscal year.

VI. FUND BALANCE CLASSIFICATION

Restricted fund balances will be spent first when an expenditure is incurred for purposes for which both restricted and unrestricted fund balance is available. Similarly, when an expenditure is incurred for purposes for which amounts in any of the unrestricted classifications of fund balance could be used, the Agency will first reduce committed amounts, followed by assigned amounts, and finally unassigned amounts.

VII. AGENCY FUNDS

For internal purposes, the funds do not represent separate governmental funds but rather the Agency maintains the funds as one governmental fund with each separate fund having a reserve balance. This policy provides guidance for the allocation of each fund's reserve balance.

The Solano Project fund is a "General Fund" for the Agency meaning that its revenues can be used to fund anything under the legal scope of the Agency. Revenues for the State Water Project, and Ulati and Green Valley Flood Control Projects can only be used for those specific projects, so the reserve funds must be segregated.

The Agency is financially responsible for two major water supply projects, the Solano Project and the North Bay Aqueduct of the State Water Project. Additionally, the Agency has maintenance responsibility for two flood control projects, the Ulati and Green Valley flood control projects. The Solano Project was built in the 1950's and has significant future financial needs for rehabilitation projects and improvements. The Agency is also contemplating the North Bay Aqueduct Alternate Intake Project with a capital cost of over \$600 million. Clearly the Agency has future financial obligations that will need to be funded through a possible combination of use of reserves and financing.

The Agency seeks maximum flexibility to fund these future projects and the Reserve Fund Policy provides the Agency with financial options.

The components of the Agency reserve funds are found in a Schedule included in each Fiscal Year's adopted budget. There are separate reserves for all four Agency funds: Solano Project and Administration, State Water Project, Ulati Flood Control Project and Green Valley Flood Control Project. The small Green Valley Project has not accumulated any reserves. There is also a line for "Other Flood Control Projects" and "Emergency Reserve".

For each of the three major funds there is a further breakdown of the reserves. Each has an "Operating Reserve" and a "Capital Reserve" explained below.

Operating Reserves

The purpose of operating reserves is to provide the Agency with working cash flow due to fluctuations in revenue streams. The Agency needs to fund ongoing operating expenses prior to the receipt of the

majority of its revenues from the County of Solano property tax collections which are available in December and April. The Operating Reserve balance is determined by calculating six months of projected operating expenses for each fund.

Capital Reserves

Solano Project - Future capital projects include rehabilitation and improvements to Solano Project major facilities: Monticello Dam, Putah Diversion Dam, and the Putah South Canal. The Solano Project was completed in 1957 at an original cost of \$40 million. An example of a future capital cost is replacement of the Putah South Canal concrete canal liners that have a useful life varying from 50 to 75 years. Because replacement costs are high for the Solano Project a considerable reserve should be maintained for this purpose. The Solano Project also has a specific Rehabilitation & Betterment Reserve used to fund planned capital projects that are identified in the Five-Year Rehabilitation and Betterment Plan which is updated each year. The amount of this reserve varies each year as projects are completed and new projects are added.

State Water Project – Future capital projects include the NBA Alternate Intake Project. Although the timeline and final costs for this project have yet to be determined, the estimated costs of the capital projects will be at a minimum of \$600 million. Any replacement of the NBA will be financed by the State, but the Agency could accumulate funds to buy-down the financed debt. The Agency may also be required to pre-fund costs prior to construction. The amount to be allocated to the State Water Project Capital Reserve is the balance remaining after the allocation to the State Water Project Operating Reserves.

Ulati Flood Control Project– Future potential capital projects are listed in the schedule. The amount to be allocated to the Ulati Project Capital Reserve is the balance remaining after the allocation to the Ulati Operating Reserves.

Other Flood Control Projects

This is a reserve for flood control projects that are not part of the Ulati and Green Valley Flood Control Projects. The Agency has a funding policy that specifies the types of projects eligible for funding and cost sharing requirements. There are currently no specific projects identified for this fund. The funding amount for Other Flood Control Projects reserve is at the discretion of SCWA Board of Directors.

Emergency Reserve

This reserve provides funding for needs in the event of an emergency or unforeseen event, such as major flooding or an earthquake. The funding amount for the Emergency Reserve is at the discretion of SCWA Board of Directors.

This policy is in place to comply with GASB Statement No. 54.

Solano County Water Agency Projected Reserves Summary: FY 2023-2024

	Fund					Total
	Solano Project	State Water Project	Ulatits FC	Green Valley FC		
Projected Fund Balance on June 30, 2023 (Available Reserves)	\$ 15,699,815.00	\$ 30,658,341.00	\$ 9,838,874.00	\$ 314,841.00		\$ 56,511,871.00
Less Operating Reserves	\$ 11,648,104.00	\$ 9,651,172.00	\$ 699,840.00	\$ 52,201.00		\$ 22,051,317.00
	\$ 4,051,711.00	\$ 21,007,169.00	\$ 9,139,034.00	\$ 262,640.00		\$ 34,460,554.00
Less Emergency Reserves	\$ 2,000,000.00	\$ -	\$ -	\$ -		\$ 2,000,000.00
	\$ 2,051,711.00	\$ 21,007,169.00	\$ 9,139,034.00	\$ 262,640.00		\$ 32,460,554.00
Less Future Short-Term Capital Improvements (within 5 years)	\$ 5,250,000.00	\$ 10,000,000.00	\$ 8,389,939.00	\$ 300,000.00		\$ 23,939,939.00
	\$ (3,198,289.00)	\$ 11,007,169.00	\$ 749,095.00	\$ (37,360.00)		\$ 8,520,615.00
Projected Available Reserves at Conclusion of FY 2023-2024	\$ (3,198,289.00)	\$ 11,007,169.00	\$ 749,095.00	\$ (37,360.00)		\$ 8,520,615.00

**SOLANO COUNTY WATER AGENCY
RECOMMENDED RESERVES
FY 2023/24**

DETAIL BY FUND RESERVE CATEGORY	RESERVE FUND FY 22/23 APPROVED	RECOMMENDED RESERVE FUND FY 23/24	PROJECTED LONG-TERM CAPITAL PROJECTS ⁵
Solano Project/Admin			
Solano Project/Admin Operating Reserve	\$ 9,772,604	\$ 11,648,104	
Solano Project/Admin Short-Term Capital Improvements (within 5 years) ¹	7,695,000	5,250,000	
Solano Project Capital Improvements			
Putah South Canal Power line			750,000
Reservoir Lane Rehabilitation			940,000
Putah Diversion Office Solar Installation(Clean Energy Assessment)			200,000
Terminal Dam Seismic Retrofit (SCWA 15% share)			6,000,000
Putah South Canal Sediment Management - est			10,000,000
Solano Project/ Admin Subtotal	17,467,604	16,898,104	17,890,000
State Water Project			
State Water Project Operating Reserves	9,366,750	9,651,172	
State Water Project Short-Term Capital Improvments (within 5 years)	10,000,000	10,000,000	
NBA Capital Improvements			
NBA Alternate Intake Project Implementation ²			15,000,000
NBA Capacity Remediation ³			
State Water Project Subtotal	19,366,750	19,651,172	15,000,000
Ulatris Project			
Ulatris Flood Control Project Operating Reserve	539,939	1,399,680	
Ulatris Flood Control Project Short Term Capital Improvements (within 5 years) ⁴	7,850,000	7,850,000	
Ulatris Flood Control Project Capital Improvements			
All Weather Access Improvements			500,000
Spoil Easement Purchases			100,000
Heavy Equipment Acquisitions			200,000
Ulatris Project Subtotal	8,389,939	9,249,680	800,000
Green Valley Project			
Green Valley Flood Control Project Operating Reserve	67,156	52,201	
Green Valley Flood Control Project Capital Improvements (within 5 years)	300,000	300,000	
Green Valley Flood Control Project Capital Improvements			TBD
Green Valley Project Subtotal	367,156	352,201	
Other Flood Control Projects	200,000		
Emergency Reserve	2,000,000	2,000,000	
Totals	\$ 47,791,449	\$ 48,151,157	33,690,000

Notes

1. Include R & B projects planned for the next 5 years
2. Tot. est. capital cost = \$600M; financed by State, Agency reserves to pre-fund costs prior to construction or buy-down debt; seek grant funds.
3. Current analysis underway to determine scope and cost to manage biofilm.
4. Pending completion of Solano HCP.
5. Capital Improvement Plan to be updated in 2023

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: State Water Project Tax Rate for Fiscal Year 2023-2024

RECOMMENDATIONS:

Establish a tax rate of \$0.02 per \$100 of assessed valuation for the State Water Project property tax for fiscal year 2023-2024.

FINANCIAL IMPACT:

Projected revenues of \$16,790,600 in FY 2023-2024 Proposed Budget.

BACKGROUND

By way of Resolution 85-183 (copy attached), the governing board of the Solano County Water Agency’s predecessor agency, the Solano County Flood Control and Water Conservation District, established a zone of benefit and a property tax rate (NBA Zone of Benefit Tax) not to exceed \$0.02 per \$100 assessed valuation to partially finance the county’s share of the North Bay Aqueduct construction and ongoing maintenance and operation costs. Since fiscal year 1986-87 the Water Agency has assessed a tax rate of \$0.02 per \$100 assessed valuation within the zone of benefit.

Pursuant to Revenue and Taxation Code Section 93, each fiscal year the Water Agency is required to establish the annual tax rate to be levied for the purposes of sustaining the North Bay Aqueduct and associated water supply. The Board has the discretion to lower the tax rate but cannot increase the tax rate beyond the \$0.02 per \$100 assessed valuation threshold.

The NBA Zone of Benefit Tax predates Proposition 218 and is therefore not subject to Proposition 218.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

Significant North Bay Aqueduct capital expenditures are anticipated in the coming years, as the proposed North Bay Aqueduct Alternate Intake Project moves forward. Within the next ten years it is anticipated that the Water Agency will spend \$ 15,000,000 to \$22,000,000 on the planning, preliminary design, and environmental permitting for the North Bay Aqueduct Alternate Intake Project. Project construction, which is at least 10 years away, is estimated to cost on the order of \$ 600,000,000. Project construction, operations and maintenance will ultimately be paid by the project beneficiaries. However, the planning, preliminary design and environmental permitting will be largely borne by the Water Agency. At the close of FY 2022-2023 the Water Agency’s State Water Project Fund is projected to hold roughly \$ 19,915,961 in reserves for planning, preliminary design, and environmental permitting of the North Bay Aqueduct Alternate Intake Project – it is currently estimated that up to \$22,000,000 is needed to complete the aforementioned tasks.

RESOLUTION 85-183

RESOLUTION ESTABLISHING A ZONE OF BENEFIT WITHIN
THE SOLANO COUNTY FLOOD CONTROL AND WATER
CONSERVATION DISTRICT AND ESTABLISHING A
PROPERTY TAX RATE FOR THE ZONE OF NOT TO
EXCEED \$.02 PER \$100 ASSESSED VALUATION

WHEREAS, the North Bay Aqueduct is a part of the California State Water Project approved by the voters of California in 1960 and is now under construction and will provide for the delivery of a significant quantity of water for utilization by the citizens of Solano County; and

WHEREAS, the Solano County Flood Control and Water Conservation District (hereinafter "District") has contracted with the State of California acting by and through its Department of Water Resources on behalf of certain member unit cities within Solano County for the provision of water from the North Bay Aqueduct, which cities include Benicia, Fairfield, Suisun City, Vacaville, and Vallejo (hereinafter "member units"); and

WHEREAS, a method of financing the North Bay Aqueduct, other than that available through District's present share of property taxes and other usual revenues, is necessary to meet present contracts; and

WHEREAS, the North Bay Aqueduct Financing Committee has made recommendations to this Board relative to the means of financing water which will be received from the North Bay Aqueduct; and

WHEREAS, the approach recommended by the North Bay Aqueduct Financing Committee provided solutions to the "make whole claims" of the Napa County Flood Control and Water

Conservation District relative to certain member units of the District, and provided an acceptable method of financing water which could be delivered within the District by the North Bay Aqueduct, but would have imposed a tax on areas of the District neither served by water from the North Bay Aqueduct or the existing Solano Water Project which now serves portions of Solano County; and

WHEREAS, this District has the authority to establish a budget and tax rate in excess of the one percent (1%) property tax limitation in order to finance receipt of water from the North Bay Aqueduct which is a part of the State Water Project approved by the voters of California in 1960; and

WHEREAS, this District further has the authority to establish a tax rate either Districtwide, or within a zone of benefit, under the provisions of the Solano County Flood Control and Water Conservation Act (Chapter 1656 of the Statutes of 1951, as amended); and

WHEREAS, this District has authority to create a zone or zones of benefit because of varying benefits to the property within the District for the purpose of paying certain costs, expenses, and indebtedness of the District and its member units; and

WHEREAS, the North Bay Aqueduct water entitlements, as well as an existing partial subsidy of water from the existing Solano Water Project from District's normal county-wide property tax revenues, establish varying benefits to property within the District; and

WHEREAS, a map, consisting of three sheets, has been prepared showing the boundaries of the territory to be included in the zone of benefit and a copy of said map has been marked as Exhibit "A" and attached hereto; and

WHEREAS, said Exhibit "A" includes three sheets, one sheet showing all of the area of said proposed zone of benefit except the Rio Vista Area and the Dixon Area (outside the Solano Irrigation District), a second sheet showing the Rio Vista Area, and a third sheet showing the Dixon Area (outside the Solano Irrigation District); and

WHEREAS, the Cities of Benicia, Fairfield, Suisun City, and Vacaville will benefit from the North Bay Aqueduct since said cities have contracted to receive North Bay Aqueduct water; and

WHEREAS, the Cities of Rio Vista and Dixon are now being offered benefits from the North Bay Aqueduct through contracts granting them the option to receive North Bay Aqueduct water provided said contracts are executed on or before December 15, 1985 and that they exercise the option in said contracts on or before January 1, 2020; and

WHEREAS, if an option contract for the possible future delivery of North Bay Aqueduct water to the City of Rio Vista is not executed on or before December 15, 1985, in the judgment of this Board it is not appropriate to levy a tax within the portion of the proposed zone of benefit within the Rio Vista Area as shown on sheet two of Exhibit "A"; and

WHEREAS, if an option contract for the possible future delivery of North Bay Aqueduct water to the City of

Dixon is not executed on or before December 15, 1985, in the judgment of this Board it is not appropriate to levy a tax within the portion of the proposed zone of benefit within the Dixon Area (outside the Solano Irrigation District) as shown on sheet three of Exhibit "A"; and

WHEREAS, the City of Vallejo will receive benefit from the North Bay Aqueduct from both a water entitlement and from utilization of the North Bay Aqueduct for transmission of water from other entitlements that will, in turn, allow Vallejo the benefit of not having to bear the expense of replacing their own transmission lines; and

WHEREAS, the maximum rate to be charged to member units for North Bay Aqueduct water is to be \$20.50 per acre foot, or that amount charged for municipal and industrial water from the existing Solano Water Project, whichever is higher; and

WHEREAS, the Solano Irrigation District and Main Prairie Water District benefit from the North Bay Aqueduct since the North Bay Aqueduct will ease pressures to convert Solano Project Water now utilized by those Districts from agricultural uses; and

WHEREAS, since Solano Project Water has been paid in part by a countywide tax of the District, it is appropriate that such areas also participate in the tax to pay for the North Bay Aqueduct; and

WHEREAS, the spheres of influence of each of the above-mentioned cities and districts could receive benefit from the North Bay Aqueduct because such areas include the probable ultimate physical boundaries and water service areas of such cities and districts; and

WHEREAS, some areas of this District are underlaid by a groundwater basin recharged by the Solano Water Project and other areas, such as the Suisun Marsh, are benefited by the passage of water through said areas and thereby benefit from the Solano Water Project and the North Bay Aqueduct; and

WHEREAS, on February 5, 1985 the Solano County Board of Supervisors, acting ex officio as the Board of Directors of District, adopted Resolution 85-24, entitled "Resolution of Intention of the Solano County Board of Supervisors to Establish a Zone of Benefit Tax for Financing the North Bay Aqueduct", expressing its intent therein to create a zone of benefit and to establish a tax rate therefor; and

WHEREAS, on September 17, 1985 the Solano County Board of Supervisors, acting ex officio as the Board of Directors of District, adopted Resolution 85-164 entitled "Resolution Setting the Date, Time and Place for a Public Hearing on the Establishment of a Zone of Benefit Within the Solano County Flood Control and Water Conservation District and Establishing A Property Tax Rate for the Zone of Not to Exceed \$.02 per \$100 Assessed Valuation"; and

WHEREAS, notice of said hearing was duly published as required by law;

NOW, THEREFORE, BE IT RESOLVED, and it is hereby resolved by the Solano County Board of Supervisors, acting ex officio as the Board of Directors of the Solano County Flood Control and Water Conservation District, as follows:

1. The portion of the territory within the Solano County Flood Control and Water Conservation District described in Exhibit "A" is hereby established as Zone of Benefit No. 1 of the Solano County Flood Control and Water Conservation District.

2. There shall be levied annually a property tax within Zone of Benefit No. 1 in an amount necessary, but not to exceed two cents (\$.02) per one hundred dollars of assessed valuation for the purpose of paying the annual cost of the North Bay Aqueduct and the obligation for repayment of "up front" costs and advancements of the District under present contracts, in order to permit the cost per acre foot of water from the North Bay Aqueduct to be \$20.50 or the amount charged for municipal and industrial water from the Solano Water Project, whichever is higher. Said tax shall not be levied in the Rio Vista Area as shown on the second sheet of Exhibit "A" unless an option contract for the possible future delivery of North Bay Aqueduct water to the City of Rio Vista is executed on or before December 15, 1985. Said tax shall not be levied upon the Dixon Area (outside the Solano Irrigation District) as shown on the third sheet of Exhibit "A" unless an option contract for the possible future delivery of North Bay Aqueduct water to the City of Dixon is executed on or before December 15, 1985.

I, LINDA L. TERRA, Clerk of the Board of Supervisors, County of Solano, State of California, do hereby certify that the foregoing resolution was regularly introduced, passed and adopted by said Board at a regular meeting held on October 21st, 1985, upon motion of Supervisor

Sturn, seconded by Supervisor Davis,
by the following vote:

AYES: Brann, Davis, Hewitt and Sturn

NOES: Chairman Pippo

ABSTENTIONS: None

ABSENT: None

WITNESS my hand and seal of said Board this 21st
day of October, 1985.

Linda Terra
Clerk, Board of Supervisors

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: Pre-approval of Fiscal Year 2023-2024 Payments

RECOMMENDATIONS:

Authorize payments of the following bills for Fiscal Year 2023-2024 within budget amounts:


- 1. Payments related to payroll and accrued leave.
- 2. Water payments to the State of California for the State Water Project.
- 3. Payments to Napa County pursuant to the Napa Make Whole Agreement.
- 4. Payments to Solano Irrigation District for Building & Piper expenses, Putah South Canal & USBR Operations and maintenance expenses, and AG Water Conservation Expenses.
- 5. Payments to the Solano County Resource Management Department for labor and equipment charges of Ulatis and Green Valley Flood Control projects.
- 6. Payments to consultants and contractors with Board approved contracts.
- 7. Payments to legal counsel.
- 8. Payments to CalPERS for health plan payments, retirement plan payments, and CERBT trust contributions.
- 9. Payments to Ray Morgan and Canon Financial Bank for Canon Copy Machine.

FINANCIAL IMPACT:

None.

BACKGROUND:

Each year staff requests that the Board authorize payments for items that are based on regular payment schedules and contractual obligations. Payment of these items will not require additional approval by the Board or purchase orders prior to payment. Payments made under this category will be reported to the Board of Directors in arrears.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

Page 2

10. Payments to Solano County Fleet Operations for repair and maintenance of Agency vehicles and equipment.
11. Ulatis & Green Valley Flood Control Projects costs for purchase, hauling & placement of rock rip rap.
12. Ulatis, Green Valley, and Solano Project culvert and pipe purchases.
13. Payments to ACWA-Joint Powers Insurance Authority for workers compensation, liability and property insurance, and dental premiums.
14. Lower Putah Creek Coordinating Committee Pre-Approved Expenditures.
15. Agency credit card (currently through Umpqua Bank) payment when individual charges are all \$1,000 or under (or pre-approved).
16. Payments for expenses associated with Board approved Grants.
17. Payments to CalPERS Long Term Care for long term care insurance premiums.
18. Payments for regulatory permits and permit fees for SCWA and LPCCC Projects.
19. Payments for the Turf Replacement Rebate Program.
20. Payments for vehicle and equipment repair expenses.
21. Payments to Verizon Wireless for cellular phone service.
22. Payments to CALNET3 for office telephone and data services
23. Herbicide and pesticide purchases for Flood Control projects.
24. Payments to laboratories for water quality analysis.
25. Payments to Standard Insurance Company for Short/Long Term Disability.
26. Payments to Staples, Inc. for office supplies when individual charges are \$500 or under (or pre-approved).
27. Payments to Interstate Oil and Chevron for fuel when individual charges are \$500 or under (or pre-approved).
28. Payments to vendor supply credit accounts for supplies when individual charges are \$500 or under (or pre-approved).
29. Payments to FedEx for shipping when individual charges are \$500 or under (or pre-approved).
30. Payments to Pitney Bowes for postage, equipment, and services.
31. Association dues to organizations identified in adopted FY Budget.
32. Payments for computers, software; hardware; peripherals; website domain, hosting, and security; and computer licenses identified in adopted FY Budget.
33. Payments to government agencies for taxes owed.
34. Equipment rental for Operation & Maintenance of Ulatis and Green Valley Flood Control Projects
35. Equipment rental for Operation & Maintenance of the Solano Project.
36. Utility and telecommunication payments for the Solano Project.
37. Payments to Bartel Associates for actuarial services.
38. Payments to Lake Berryessa Concessionaires participating in Agency incentive program.
39. Payments for utilities and telecommunications for new office Suite 202.
40. Payments for janitorial services and garbage (Recology) for new office Suite 202.
41. Payments for operations expenses and association reserves to Pac West (Buzz Oates) for new office Suite 202.

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: SCWA Statement of Investment Policy for Fiscal Year 2023-2024

RECOMMENDATIONS:

Approve the following Statement of Investment Policy:


"Funds of the Solano County Water Agency shall only be invested in the State of California's Local Agency Investment Fund (LAIF), the Solano County Investment Pool, California Asset Management Program (CAMP) or Federal Deposit Insurance Corporation (FDIC) insured accounts in a bank or savings and loan association."

FINANCIAL IMPACT:

None.

BACKGROUND:

State Law effective January 1, 1996, requires public agencies to annually approve a Statement of Investment Policy at a public meeting. Any changes to the policy must also be considered at a public meeting. The recommended investment policy is consistent with the current investment policy of the Water Agency; whereby all Water Agency funds are invested in the Local Agency Investment Fund (LAIF), the California Asset Management Program (CAMP) and FDIC insured accounts in a bank and is consistent with State law. Additional information regarding investment policies for public agencies can be found at: www.treasurer.ca.gov/cdiac/laig/guideline.pdf

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: Cost of Living Adjustment for Water Agency Employees

RECOMMENDATIONS:


Award a 4.00% cost of living adjustment to Water Agency employees effective pay period beginning July 9, 2023.

FINANCIAL IMPACT:

Total cost for 23 full time employees and 23 part time employees of approximately \$155,890 in salary and \$25,698 in benefits for FY 2023/2024. Funding for a 4.00% cost of living adjustment to employee salaries has been included in the proposed FY 2023/2024 budget.

BACKGROUND:

Cost of living adjustments are discretionary on the part of the Board and are typically based on Consumer Price Indices (CPI) published by the U.S. Bureau of Labor Statistics (BLS). The CPI represents all goods and services purchased for consumption by the reference population. BLS has classified expenditure items into over 200 categories, arranged into eight major groups (food and beverages, housing, apparel, transportation, medical care, recreation, education and communication, and other goods and services). All taxes directly associated with the purchase and use of items are included in the index. However, the CPI does not include investment items, such as stocks, bonds, real estate, and life insurance because these items relate to savings, and not to day-to-day consumption expenses.

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

The most recent cost of living adjustment (3.0% percent) was granted in July 2022 and was based in part on the April 2022 San Francisco-Oakland-San Jose indices. The BLS does not publish CPI data specific to Solano County. The corresponding April 2023 CPI’s for the San Fran San Francisco-Oakland-San Jose and West regions, and the February 2023 California Department of Industrial Relations (DIR) California CPI are as follows:

Area	2022	2023	Percent Increase from 2022 to 2023
California (CA)	311.048	327.819	5.4%
West*	307.145	322.187	4.9%
San Francisco-Oakland-Hayward (SF)	324.878	338.496	4.2%

*The West Region is comprised of the following thirteen states: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Accordingly, staff is requesting a 4.00% cost of living adjustment effective July 9, 2023. A summary of the respective February and April CPIs for the California, San Francisco-Oakland-San Jose, and West region and the corresponding Agency COLAs awarded since 2013, is as follows:

Year	CA CPI	West CPI	SF CPI	SCWA COLA Received
2013	2.30%	1.30%	2.40%	2.00%
2014	1.20%	1.80%	2.80%	2.00%
2015	0.90%	1.00%	2.40%	2.00%
2016	2.60%	1.80%	2.70%	2.00%
2017	3.00%	2.90%	3.80%	2.50%
2018	3.50%	3.20%	3.20%	3.20%
2019	2.80%	2.90%	4.00%	3.00%
2020	3.00%	1.30%	1.10%	1.00%
2021	1.70%	3.90%	3.80%	3.00%
2022	7.40%	8.30%	5.00%	3.00%

For additional U.S. BLS information see <https://www.bls.gov/regions/west/cpi-summary/>

For additional California DIR information see <https://www.dir.ca.gov/OPRL/capriceindex.htm>

RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:

Approval of a COLA is consistent with Goal # 10 (Funding and Staffing), Objective C (Provide necessary and sufficient staffing and resources to maintain program activities and to achieve the goals and objectives of strategic plan priorities), Strategy 4 (Provided appropriate resources and incentives to staff to promote retention and longevity of SCWA investments in staff).

CONSUMER PRICE INDEXES PACIFIC CITIES AND U. S. CITY AVERAGE

April 2023

(All items indexes. 1982-84=100 unless otherwise noted. Not seasonally adjusted.)

MONTHLY DATA	All Urban Consumers (CPI-U)						Urban Wage Earners and Clerical Workers (CPI-W)					
	Indexes			Percent Change			Indexes			Percent Change		
				Year ending		1 Month ending				Year ending		1 Month ending
	Apr 2022	Mar 2023	Apr 2023	Mar 2023	Apr 2023	Apr 2023	Apr 2022	Mar 2023	Apr 2023	Mar 2023	Apr 2023	Apr 2023
U. S. City Average.....	289.109	301.836	303.363	5.0	4.9	0.5	284.575	296.021	297.730	4.5	4.6	0.6
West.....	307.145	320.715	322.187	5.1	4.9	0.5	300.350	312.556	313.978	4.7	4.5	0.5
West – Size Class A ¹	315.653	329.536	331.296	5.0	5.0	0.5	306.906	318.259	319.941	4.3	4.2	0.5
West – Size Class B/C ²	179.339	187.301	188.008	5.2	4.8	0.4	180.584	188.621	189.320	5.3	4.8	0.4
Mountain ³	121.551	127.950	128.390	6.0	5.6	0.3	122.867	129.321	129.781	6.1	5.6	0.4
Pacific ³	118.546	123.395	124.019	4.8	4.6	0.5	119.811	124.189	124.798	4.3	4.2	0.5
Los Angeles-Long Beach-Anaheim, CA.....	308.302	317.873	320.089	3.7	3.8	0.7	299.436	306.331	308.474	2.8	3.0	0.7
BI-MONTHLY DATA (Published for odd months)	Indexes			Percent Change			Indexes			Percent Change		
				Year ending		2 Months ending				Year ending		2 Months ending
	Mar 2022	Jan 2023	Mar 2023	Jan 2023	Mar 2023	Mar 2023	Mar 2022	Jan 2023	Mar 2023	Jan 2023	Mar 2023	Mar 2023
Riverside-San Bernardino-Ontario, CA ³	122.127	127.683	127.707	7.3	4.6	0.0	122.861	127.936	128.027	7.0	4.2	0.1
San Diego-Carlsbad, CA.....	339.852	354.453	358.026	6.4	5.3	1.0	324.430	336.315	339.498	6.1	4.6	0.9
Urban Hawaii.....	312.158	320.790	322.608	5.2	3.3	0.6	309.323	320.135	321.671	5.6	4.0	0.5
BI-MONTHLY DATA (Published for even months)	Indexes			Percent Change			Indexes			Percent Change		
				Year ending		2 Months ending				Year ending		2 Months ending
	Apr 2022	Feb 2023	Apr 2023	Feb 2023	Apr 2023	Apr 2023	Apr 2022	Feb 2023	Apr 2023	Feb 2023	Apr 2023	Apr 2023
Phoenix-Mesa-Scottsdale, AZ ⁴	167.396	177.118	179.824	8.5	7.4	1.5	167.209	177.059	179.839	9.0	7.6	1.6
San Francisco-Oakland-Hayward, CA.....	324.878	337.173	338.496	5.3	4.2	0.4	322.021	331.875	333.478	4.9	3.6	0.5
Seattle-Tacoma-Bellevue, WA.....	316.525	334.987	338.487	8.0	6.9	1.0	310.928	328.615	332.082	7.5	6.8	1.1
Urban Alaska.....	251.041	256.856	258.866	4.3	3.1	0.8	251.441	254.887	256.349	3.6	2.0	0.6

1 Population over 2,500,000 2 Population 2,500,000 and under, Dec 1996 = 100 3 Dec 2017=100 4 Dec 2001=100

NOTE: In January 2018, BLS introduced a new geographic area sample for the Consumer Price Index (CPI): www.bls.gov/regions/west/factsheet/2018cpirevisionwest.pdf

1967=100 base year indexes and tables with semiannual and annual average data are available at: www.bls.gov/regions/west/factsheet/consumer-price-index-data-tables.htm

Release date May 10, 2023. The next release date is scheduled for June 13, 2023. For questions, please contact us at BLInfoSF@bls.gov or (415) 625-2270.

CONSUMER PRICE INDEX – CALIFORNIA

Los Angeles-Long Beach-Anaheim, San Francisco-Oakland-Hayward, San Diego-Carlsbad,
Riverside-San Bernardino-Ontario, United States City Average, 2022-2023

All Items
1982 - 1984 = 100

All Urban Consumers, percentage (%) change from previous year

Year	Month	California ^a	Los Angeles Long Beach Anaheim ^b	San Francisco Oakland Hayward ^b	San Diego Carlsbad ^b	Riverside San Bernardino Ontario ^b	U.S. City Average ^b
2022	January		7.5%		8.2%	8.6%	7.5%
2022	February	7.4%	7.4%	5.2%			7.9%
2022	March		8.5%		7.9%	10.0%	8.5%
2022	April	7.7%	7.9%	5.0%			8.3%
2022	May		8.0%		8.3%	9.4%	8.6%
2022	June	8.3%	8.6%	6.8%			9.1%
2022	July		7.7%		7.3%	9.2%	8.5%
2022	August	7.5%	7.6%	5.7%			8.3%
2022	September		7.8%		8.2%	8.4%	8.2%
2022	October	7.3%	7.5%	6.0%			7.7%
2022	November		6.0%		6.7%	7.5%	7.1%
2022	December	5.6%	4.9%	4.9%			6.5%
2022	Annual Average	7.3%	7.4%	5.6%	7.7%	8.7%	8.0%
2023	January		5.8%		6.4%	7.3%	6.4%
2023	February	5.4%	5.1%	5.3%			6.0%
2023	March						
2023	April						
2023	May						
2023	June						
2023	July						
2023	August						
2023	September						
2023	October						
2023	November						
2023	December						
2023	Annual Average						

Date of last update: 4/12/2023

^a Weighted average of the consumer price indexes for Los Angeles-Long Beach-Anaheim, San Francisco-Oakland-Hayward, San Diego-Carlsbad, and Riverside-San Bernardino-Ontario. A conversion factor has been included for comparability of 2018 data with 2017 and prior years. Computed by the Department of Industrial Relations, Office of the Director - Research Unit from indexes issued by the U.S. Department of Labor.

^b Source: U.S. Department of Labor, Bureau of Labor Statistics. Beginning with the November 2017 data, indexes for San Diego-Carlsbad will be published bi-monthly on odd months only (January, March, May, etc.). The Riverside-San Bernardino-Ontario indexes are on a December 2017 = 100 base and will be published bi-monthly on odd months only (January, March, May, etc.).

CONSUMER PRICE INDEX – CALIFORNIA

Los Angeles-Long Beach-Anaheim, San Francisco-Oakland-Hayward, San Diego-Carlsbad,
Riverside-San Bernardino-Ontario, United States City Average, 2022-2023

All Items
1982 - 1984 = 100

Urban Wage Earners and Clerical Workers, percentage (%) change from previous year

Year	Month	California ^a	Los Angeles Long Beach Anaheim ^b	San Francisco Oakland Hayward ^b	San Diego Carlsbad ^b	Riverside San Bernardino Ontario ^b	U.S. City Average ^b
2022	January		7.6%		8.8%	8.5%	8.2%
2022	February	7.7%	7.3%	6.5%			8.6%
2022	March		8.7%		8.8%	9.9%	9.4%
2022	April	8.2%	8.1%	6.5%			8.9%
2022	May		8.2%		9.2%	9.8%	9.3%
2022	June	8.7%	8.9%	7.6%			9.8%
2022	July		7.9%		7.9%	9.5%	9.1%
2022	August	7.6%	7.6%	6.0%			8.7%
2022	September		7.8%		8.3%	8.2%	8.5%
2022	October	7.4%	7.6%	6.4%			7.9%
2022	November		5.9%		6.6%	7.3%	7.1%
2022	December	5.3%	4.6%	4.6%			6.3%
2022	Annual Average	7.6%	7.5%	6.3%	8.1%	8.7%	8.5%
2023	January		5.4%		6.1%	7.0%	6.3%
2023	February	5.0%	4.7%	4.9%			5.8%
2023	March						
2023	April						
2023	May						
2023	June						
2023	July						
2023	August						
2023	September						
2023	October						
2023	November						
2023	December						
2023	Annual Average						

Date of last update: 4/12/2023

^a Weighted average of the consumer price indexes for Los Angeles-Long Beach-Anaheim, San Francisco-Oakland-Hayward, San Diego-Carlsbad, and Riverside-San Bernardino-Ontario. A conversion factor has been included for comparability of 2018 data with 2017 and prior years. Computed by the Department of Industrial Relations, Office of the Director - Research Unit from indexes issued by the U.S. Department of Labor.

^b Source: U.S. Department of Labor, Bureau of Labor Statistics. Beginning with the November 2017 data, indexes for San Diego-Carlsbad will be published bi-monthly on odd months only (January, March, May, etc.). The Riverside-San Bernardino-Ontario indexes are on a December 2017 = 100 base and will be published bi-monthly on odd months only (January, March, May, etc.).

ACTION OF
SOLANO COUNTY WATER AGENCY


DATE: June 8, 2023

SUBJECT: Consultant Services Contracts and Renewals

RECOMMENDATIONS:

Authorize General Manager to execute agreements and amendments for the following consultant services for work through fiscal year 2023-2024 (see “Background” for brief description of each contract):

- 1. A2Z Landscaping, Landscape Assistance for Residents with Disabilities Program, existing vendor – contract limit of \$400,000;
- 2. Alpha Media, Lake Berryessa Mussel Prevention Social Media and Digital Outreach, existing vendor – contract limit of \$90,000;
- 3. Dotan Consulting, Solano Project Model Support, existing vendor – contract limit of \$145,000;
- 4. Eagle Aerial Solutions, AB1668/SB606 Legislation Compliance, existing vendor – contract limit of \$112,500;
- 5. Eyasco, Data, Website and SCADA Support, existing vendor – contract limit of \$425,000;
- 6. Jacobs Engineering Group, Inc., Solano HCP EIR/EIS, existing vendor – contract limit of \$60,000;
- 7. Jim DeRose, Instrumentation and Flow Measurement Support, existing vendor – contract limit of \$110,000;
- 8. LSA Associates, Solano HCP, existing vendor – contract limit of \$517,000;
- 9. Luhdorff & Scalmanini, Groundwater Services, existing vendor – contract limit of \$288,910;
- 10. Reeb Government Relations, Government Relations, existing vendor – contract limit \$120,000;
- 11. Richard Heath & Associates, Low Income and Senior Water Efficiency Upgrades, existing vendor – contract limit of \$125,000;
- 12. Shandam Consulting, Information Technology Support Services, existing vendor – contract limit of \$136,250;
- 13. Solano Resource Conservation District, School Water Education Program and Video Contest, existing vendor – contract limit of \$114,160.25;
- 14. Streamwise, Rock Vane and Stream Restoration, existing vendor – contract limit of \$90,000;
- 15. Sustainable Solano, Sustainable Landscaping Education Program, existing vendor – contract limit of \$175,013;

Recommended: 
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency
JUN.2023.BOD.ITM.11E

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16. Terraphase Engineering, Cache Slough Water Quality Monitoring, existing vendor – contract limit of \$60,000;
17. TRPA Fish Biologists, Peterson, Ulati, Putah, Western Tributary Fish Monitoring, existing vendor – contract limit of \$450,000;
18. UC Davis, Temperature Impacts on Bird Nesting Along Putah Creek and Working Landscapes, existing vendor – contract limit of \$84,010;
19. Univision, Spanish Language Water Conservation Media Campaign, existing vendor – contract limit of \$75,000;
20. Vic Claassen, PSC and Ulati Soil Assessment, existing vendor – contract limit of \$170,000;
21. Washburn AG, Nuisance Vegetation Management, existing vendor – contract limit of \$65,000;
22. Wildlife Survey and Photo Service, Mussel Monitoring, existing vendor – contract limit of \$225,682;
23. Yolo County Resource Conservation District, Westside IRWM Coordination, existing vendor – contract limit of \$80,000;

FINANCIAL IMPACT:

Funding for these consultants is included in the Fiscal Year 2023-2024 Budget.

BACKGROUND:

Staff is requesting authorization to execute the aforementioned 23 agreements totaling \$4,118,525.25 (by comparison, the Board authorized staff to sign 28 contracts totaling \$4,343,257.00 last year). A brief synopsis of each contract is presented below. Copies of the above agreements are available on the SCWA web page (www.scwa2.com/governance/board-meetings-agendas-minutes) or from SCWA staff.

1. A2Z Landscaping will continue to provide landscape assistance for residents with disabilities.
2. Alpha Media will continue to provide mussel prevention outreach to the public through social media.
3. Dotan Consulting will provide operations studies for the Solano Project, develop Berryessa and Putah Creek simulation model, and work on Riparian forecast database.
4. Eagle Aerial will provide assistance with AB1668/SB606 Legislation compliance.
5. Eyasco will continue to provide data, website and SCADA support.
6. Jacobs Engineering will continue to assist in administering the HCP EIR/EIS.
7. Jim DeRose is retired USGS who maintained the flow station network in the San Francisco Bay Delta. This contract is for instrumentation and flow measurement support as well as assistance with the two tidal flow stations at Barker and Lindsey Sloughs that are operated by SCWA.
8. LSA Associates will continue with their assistance with the HCP.
9. Luhdorff & Scalmanini will continue work with Groundwater Services.
10. Reeb Government Relations will continue to provide legislative advocacy support for the Water Agency and represent the Water Agency before elected officials and their staff, as well as executive management staff of various State agencies.
11. Richard Heath & Associates will provide water efficient upgrades for Low income and Senior residents.
12. Shandam Consulting will continue to provide IT Services for SCWA.
13. Solano Resource Conservation District will continue to provide Water Education programming to Solano Schools as well as coordinate the Video Contest.
14. Streamwise will provide rock vane and restoration support for Pleasants Creek, the Interdam Reach of Putah Creek and their tributaries, Lower Putah Creek and in the Ulati Flood Control Project.
15. Sustainable Solano will provide public outreach and education for sustainable landscaping.
16. Terraphase Engineering will continue water quality monitoring in the Cache Slough Complex region.
17. TRPA Fish Biologists will provide fish monitoring services at Peterson Ranch, Ulati, Putah Creek and Western Solano.
18. UC Davis will provide data on how temperature impacts bird nesting along Putah Creek.
19. Univision will provide Spanish Language public outreach.
20. Vic Claassen will continue to conduct soil assessments and bank stabilization to PSC and Ulati.
21. Washburn AG will continue to manage nuisance vegetation.
22. Wildlife Survey and Photo Service will continue to monitor invasive species at Solano Project. In addition, Putah Creek wildlife and fish monitoring, and photo and video media will be developed for Peterson Ranch and large SCWA projects.
23. Yolo County Resource Conservation District will continue to coordinate the IRWM Committee.

ACTION OF
SOLANO COUNTY WATER AGENCY

DATE: June 8, 2023

SUBJECT: Authorize Purchase of a Backhoe for Solano Project O&M

RECOMMENDATIONS:

Approve the purchase of a new John Deere 410P Backhoe for Solano Project Operation & Maintenance (O&M).

FINANCIAL IMPACT:

The total cost of a new John Deere 410P Backhoe is \$204,576. Sufficient funding has been programmed into the Water Agency’s FY 2023-2024 Solano Project capital expenditure budget.

BACKGROUND:

The Water Agency contracts with the Solano Irrigation District (SID) for all O&M activities along the Solano Project, including the Putah Diversion Dam (PDD) and 33-mile long Putah South Canal (PSC). To support day-to-day O&M activities at the PDD and PSC, SID currently rents a backhoe 12-months out of the year. Daily activities include debris and trash removal, removal of aquatic vegetation and weeds from trash racks, moving of rock and gravel, cleaning of drains and curbs, trenching and digging, and other activities as needed. The rental costs are directly reimbursed by the Water Agency as part of the Solano Project O&M activities. To reduce long-term costs, the Water Agency is recommending the purchase of a new John Deere 410P Backhoe, with an expected payback period of 6 years. The lifespan of a backhoe for lightweight usage along the PSC is approximately 15-years, dependent on the maintenance and intensity of usage.

Recommended: _____
Chris Lee, General Manager

<input type="checkbox"/>	Approved as Recommended	<input type="checkbox"/>	Other (see below)	<input checked="" type="checkbox"/>	Continued on next page
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Modification to Recommendation and/or other actions:

I, Chris Lee, General Manager and Secretary to the Solano County Water Agency, do hereby certify that the foregoing action was regularly introduced, passed, and adopted by said Board of Directors at a regular meeting thereof held on June 8, 2023, by the following vote:

Ayes:

Noes:

Abstain:

Absent:

Chris Lee
General Manager & Secretary to the
Solano County Water Agency

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Below and included in the agenda item are quotes for comparable backhoes. The pricing for both backhoes is from the Government Negotiated Contract Lists (Sourcewell and NJPA). The Water Agency is recommending the purchase of the higher priced John Deere, as this is the preferred model by equipment operators from SID, SCWA, and Solano County based on the ease of use of the controls as well as existing equipment in use. Currently, SID is renting a backhoe at the rate of \$2,533 per 4-weeks which is a total of \$33,000 per year. This equates to an approximate payback period of 6-years. The new backhoe is anticipated to have a lifespan of 15+ years along the PSC, which is a significant reduction in long-term O&M costs for the Solano Project.

Price Quotes for Backhoe

#	Vendor	Manufacturer	Model	Price*
1	Pape Machinery	John Deere	410P	\$204,576
2	Holt of California	Caterpillar	430	\$184,452

** Price may change up to 10% per the Agency procurement policy.*

RELEVANCE TO 2016-2025 SCWA STRATEGIC PLAN:

The purchase and use of this equipment is consistent with Goal #2 of the 2016-2025 Strategic Plan (*Water Management infrastructure: Optimize the use of SCWA managed infrastructure*).