



**Grassland Basin Drainage Steering Committee  
Regular Meeting of the Steering Committee**

**Friday, March 15, 2024 ~ 9:30 a.m.**

**San Luis & Delta-Mendota Water Authority Boardroom  
842 6<sup>th</sup> Street, Los Banos, California**

**Telephonic Participation**

Conference Call Dial-in: 1-623-600-3769  
Conference Code: 518817

**AGENDA**

NOTE: Any member of the public may address the GBD Steering Committee concerning any item on the agenda before or during consideration of that item, as appropriate. For each item, public comment is limited to no more than three minutes per person. For good cause, the Committee Chair may waive this limitation. Committee Members/Alternates may discuss items listed on the agenda or add to the agenda as necessary, in accordance with Government Code section 54954.2, subd. (b)(2).

1. Call to Order/Roll Call
2. Corrections or Additions to the Agenda, as authorized by Government Code section 54950 et seq.
3. Opportunity for Public Comment

**Action Items**

4. **Committee to Consider Approving December 15, 2023 Regular Meeting Minutes**
5. **Committee to Consider Acceptance of the Financial Report**

**Report Items**

6. Committee to Receive Report on the Mud Slough Restoration Program
7. Committee to Receive Report on the Status of the Prop 84 Grant Program
8. Grassland Bypass Project Updates:
  - a. Operations Report
  - b. Monitoring Program and Toxicity Data Report - Committee to Review and Authorize Release of Information

9. Update on Waste Discharge Requirements for Discharge to Groundwater, Grassland Drainage Area Coalition
  - a. Nitrogen Management Zone Plan.
10. Reports from District Representatives
11. Reports on Other Items Pursuant to Government Code Section 54954.2(a)(3)
12. Date and Time of Next Meeting
13. CLOSED SESSION
  - Conference with Legal Counsel on Existing Litigation Pursuant to Paragraph (1) Subdivision (d) of Government Code Section 54956.9
    - a. Pacific Coast Federation of Fishermen's Associations, et al. v. Conant, et al. (formerly Glaser, et al.), U.S. District Court, E.D. Cal., Case No. 2:11-cv-02980; 9th Cir. Case No. 23-15599
    - b. Conference with Legal Counsel – Anticipated Litigation – Pursuant to Subdivision (a) and Paragraphs 2 or 3 of Subdivision (d) of Government Code Section 54956.9 (1 potential case) or Paragraph 4 of Subdivision (d) of Government Code Section 54956.9 (1 potential case)
14. Return to Open Session
15. Report from Closed Session, if Required by Government Code Section 54957.1
16. Adjournment

Persons with a disability may request disability-related modification or accommodation by contacting Cheri Worthy or Sandi Ginda at the San Luis & Delta-Mendota Water Authority Office, 842 6th Street, P.O. Box 2157, Los Banos, California, via telephone at (209) 826-9696, or via email at [cheri.worthy@sldmwa.org](mailto:cheri.worthy@sldmwa.org) or [sandi.ginda@sldmwa.org](mailto:sandi.ginda@sldmwa.org). Requests should be made as far in advance as possible before the meeting date, preferably 3 days in advance of regular meetings or 1 day in advance of special meetings/workshops.

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Section 54950 et seq. and has not been prepared with a view to informing an investment decision in any of the Authority's bonds, notes or other obligations. Any projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of the Authority's bonds, notes or other obligations and investors and potential investors should rely only on information filed by the Authority on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures, maintained on the World Wide Web at <https://emma.msrb.org/>.

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**SAN LUIS & DELTA – MENDOTA WATER AUTHORITY MINUTES-GRASSLAND BASIN  
STEERING COMMITTEE TELEPHONIC MEETING**

**December 15, 2023**

The Board of Directors of the Grassland Basin Drainage Steering Committee (GBDSC) met at 9:38 a.m. at 842 6<sup>th</sup> Street, Los Banos, California with Chairman David Cory presiding.

**Directors and Alternate Directors in Attendance**

**Camp 13 Drainage District**  
David Cory, Chairman

**Charleston Drainage District**  
Tom Teixeira, Member

**Pacheco Water District**  
David Parreira, Member

**Panoche Drainage District**  
Mike Linneman, Member

**SLDMWA Staff Present**  
Rebeca Harms, Deputy Executive General Counsel– Via Telephonic  
Chris Linneman, Drainage Coordinator  
Lauren Viers, Staff Accountant III

**Others Present**  
Palmer McCoy, Grassland Basin Authority

1. **Call to Order / Roll Call**  
Chairmen David Cory called the meeting to order and requested self-introductions.
2. **Corrections or Additions to the Agenda**  
No corrections or additions were made to the agenda.
3. **Opportunity for Public Comment**  
No public comments were made.
4. **Committee to Consider Acceptance of October 20, 2023 Meeting Minutes**  
After review of the October 20, 2023 Grassland Basin Drainage Steering Committee (GBDSC) meeting minutes, Committee Member Tom Teixeira moved to accept the October 20, 2023 minutes as presented, the motion was seconded by Committee Member David Parreira and passed unanimously.

DRAFT

AYES: Cory, Teixeira, Parreira and Linneman  
NAYS: None  
ABSTENTIONS: None

**5. Committee to Consider Acceptance of Financial Expenditures Report.**

Staff Accountant III Lauren Viers presented the Financial Report with 67 percent of the year complete and noted the budget was trending positive with 41 percent of the budget expended. Committee Member David Parreira moved for acceptance of the Financial Expenditures Report as presented, the motion was seconded by Committee Member Mike Linneman and passed unanimously.

AYES: Cory, Teixeira, Parreira and Linneman  
NAYS: None  
ABSTENTIONS: None

**6. Committee to Review and Consider Approving Fiscal Year 2024-2025 GBD Budget**

Drainage Coordinator Chris Linneman presented the Fiscal Year 2024-2025 GBD budget to the Committee for approval. Linneman noted two versions were available for review with one needing approval. Linneman explained the difference in the two was the \$50,000 line item for nitrogen management. After some discussion, Committee Member Tom Teixeira moved to approve “Version A” of the Fiscal Year 2024-2025 GBD Budget - with \$50,000 set aside for the Nitrogen Management Planning. the motion was seconded by Committee Member David Parreira and passed unanimously.

AYES: Cory, Teixeira, Parreira and Linneman  
NAYS: None  
ABSTENTIONS: None

**7. Committee to Receive Report on Mud Slough Restoration Project**

Drainage Coordinator Chris Linnemann explained nothing new has transpired on the project and continue to wait for California Department of Fish and Wildlife (CDFW) to respond.

**8. Committee to Receive Report on the Status of the Prop 84 Grant Program**

Drainage Coordinator Chris Linneman reported the Prop 84 Grant is still moving forward on the San Joaquin River Water Quality Improvement Project. Linnemen noted most work has paused until the electrical switch gear has arrived and noted eight-million dollars has been expended of an eleven point seven-million-dollar bid.

**9. Grassland Bypass Project Updates**

- a. **Operations Report** – Drainage Coordinator Chris Linneman referred to maps detailing all the discharge points for the project in today’s meeting packet. A graph of Sites A and B discharge amounts and rainfall events through November 30, 2023 was reviewed. Site D Mud Slough selenium and flow for March 1, 2020– October 2023 was reviewed. Next the Site D Mud Slough (North) Downstream San Luis Drain – selenium concentration on a daily, 7-day average and monthly average selenium concentrations and goals were presented with Mus Slough Selenium levels below 1 part per billion. Linneman concluded by reporting on Site B Monthly Salt Load and Site R Selenium concentrations. Linneman concluded by stating a storm is predicted for next week but he’s not anticipating a discharge.
- b. **Monitoring Program and Toxicity Data Report** – Chris Linneman presented and the Committee reviewed event 102, 103 and 104; samples collected September 28, 2023, October 18, 2023 and November 14, 2023 and noted no sediment toxicity in the October event. The reports reflected no toxicity. The Committee gave direction to release the Toxicity data.

**10. Update on Waste Discharge Requirements for Discharge to Groundwater Water for the Grassland Drainage Area Coalition** – Drainage Coordinator Chris Linneman reported the Nitrogen report (AMPINAR) was submitted to the Regional Board on November 30, 2023 and showed ninety-six percent compliance and noted Farm Evaluation surveys will go out after the first of the new year.

**11. Reports from District Representatives** – No reports.

**12. Reports on Other Items Pursuant to Government Code Section 54954.2 (a)(3)** – No other items were presented or discussed.

**13. Date and Time of Next Meeting**

The next regularly scheduled meeting is January 19, 2024 at 9:30 a.m.

**14. Closed Session**

It was noted a Closed Session of the Committee was not necessary.

**15. Return to Open Session**

No Report – No Closed Session.

**16. Report from Closed Session, if Required by Government Code Section 54957.1**

No Report – No Closed Session.

**17. Adjournment**

Chairman David Cory adjourned the meeting of the Grassland Basin Drainers Steering Committee at 10:00 a.m.

**SAN LUIS & DELTA-MENDOTA WATER AUTHORITY**

**MARCH 1, 2023 - FEBRUARY 29, 2024**

**GRASSLAND BASIN DRAINAGE #3A (FUND 22)**

**ACTIVITY AGREEMENTS BUDGET TO ACTUAL**

**Report Period 3/1/23 - 01/31/24**

**GBD Meeting 03.15.24**

EXPENDITURES	Annual Budget	Paid/ Expense	Amount Remaining	% of Amt Remaining	Expenses Through
<u>Legal:</u>					
Linneman et al	\$ 20,000	\$ 6,062	\$ 13,938	70%	8/31/23
Pioneer Law Group - CEQA Legal Consultant	\$ 70,000	\$ 16,953	\$ 53,047	76%	12/4/23
Cotchett, Pitre & McCarthy	\$ 40,000	\$ 974	\$ 39,026	98%	6/14/23
Kahn, Soares & Conway	\$ 45,000	\$ 2,667	\$ 42,333	94%	12/31/23
Misc. Legal Support	\$ 10,000		\$ 10,000	100%	
Baker Manock & Jensen	\$ 25,000		\$ 25,000	100%	
<u>GBD Specific:</u>					
Drainage Coordinator (Summers)	\$ 143,000	\$ 95,731	\$ 47,269	33%	12/31/23
Quality Data Processing/Load Calc (Summers)	\$ 176,255	\$ 121,534	\$ 54,721	31%	12/31/23
Flow Calculation/Station Maint. (Summers)	\$ 38,500	\$ 86,156	\$ (47,656)	-124%	12/31/23
Field Coordinator (PDD)	\$ 35,000	\$ 13,805	\$ 21,195	61%	11/30/23
Real Time Monitoring Equip (PDD)	\$ 10,000	\$ 3,936	\$ 6,064	61%	11/30/23
Panoche Creek Gauging Station	\$ 7,900	\$ 7,900	\$ -	0%	4/20/23
Water Quality Monitoring (Reg. Sites)	\$ 243,000	\$ 182,855	\$ 60,145	25%	1/30/24
Newman Water Costs	\$ 118,856		\$ 118,856	100%	
Restoration of Mud Slough Channel (Newman Land)	\$ 96,800	\$ 10,513	\$ 86,287	89%	9/30/23
Waste Discharge Permit Fees	\$ 64,000	\$ 99,590	\$ (35,590)	-56%	11/29/23
Drainage Management Plan	\$ 13,200	\$ 27,906	\$ (14,706)	-111%	12/31/23
New UA Mud Slough Mitigation:					
Remove Sediment in SLD	\$ 50,000		\$ 50,000	100%	
Use of Drain:					
Operation & Maintenance (PDD)	\$ 158,400	\$ 74,162	\$ 84,238	53%	11/30/23
Biological Monitoring:					
Pacific Eco Risk	\$ 100,000	\$ 79,693	\$ 20,307	20%	12/31/23
HT Harvey-SJRIP Egg Monitoring	\$ 100,000	\$ 143,148	\$ (43,148)	-43%	1/17/24
Fish Biologist - Splittail/Sturgeon	\$ 50,000	\$ 44,194	\$ 5,806	12%	11/21/23
Groundwater WDR Specific:					
Membership Enrollment/List (Summers)	\$ 115,830	\$ 28,372	\$ 87,458	76%	12/6/23
Farm Evaluation Plan (Summers)	\$ 23,100	\$ 8,661	\$ 14,439	63%	1/6/24
NMP Summary Report	\$ 20,915	\$ 13,013	\$ 7,902	38%	1/6/24
MPEP Group Workplan	\$ 5,400	\$ 2,448	\$ 2,952	55%	1/9/24
Groundwater Protection Formula	\$ 10,000		\$ 10,000	100%	
CVSalts Nitrate Compliance	\$ 25,000		\$ 25,000	100%	
Prioritization and Optimization Study-CVSalts	\$ 10,983	\$ 11,438	\$ (455)	-4%	6/1/23
Trend Monit Prgm	\$ 67,600	\$ 58,400	\$ 9,200	14%	12/7/23
Develop Web Portal	\$ 5,648	\$ 3,207	\$ 2,441	43%	1/6/24
Collect State Board Fee	\$ 126,000		\$ 126,000	100%	
Annual Monitoring Report (Summers)	\$ 46,200	\$ 8,661	\$ 37,539	81%	12/31/23
CVGMC Data	\$ 2,700	\$ 1,977	\$ 723	27%	9/30/23
<u>Other:</u>					
General Counsel	\$ 2,896	\$ 4,982	\$ (2,086)	-72%	1/31/24
In-House Staff	\$ 965	\$ 2,906	\$ (1,941)	-201%	1/31/24
Dissolved Oxygen Aerator	\$ -	\$ 4,688	\$ (4,688)	0%	
Other Services & Expenses	\$ -	\$ -	\$ -	0%	
Telephone	\$ -	\$ -	\$ -	0%	
<b>Total Expenditures</b>	<b>\$ 2,078,148</b>	<b>\$ 1,166,532</b>	<b>\$ 911,616</b>	<b>44%</b>	

**SAN LUIS & DELTA-MENDOTA WATER AUTHORITY  
GRASSLAND BASIN DRAINAGE  
ACCOUNTS RECEIVABLE REPORT  
FISCAL YEAR 03/01/23 - 02/29/24**

	<b>Grassland Basin Drainage</b>	
<b>Report Period: 3/31/23-1/31/24</b>	<b>Fund 22</b>	<b>Total</b>
Report Date: 3/6/24		
<b>Receivable Balance at October 31, 2023</b>	<b>\$ 286,521.38</b>	<b>\$ 286,521.38</b>
<b>Collections:</b>		
Camp 13 Drainage District	\$ 52,187.00	\$ 52,187.00
Charleston Drainage District	\$ -	\$ -
Firebaugh Canal Water District	\$ -	\$ -
Pacheco Water District	\$ -	\$ -
Panoche Drainage District	\$ 173,988.48	\$ 173,988.48
San Joaquin River Improvement Project	\$ -	\$ -
Widren LLC	\$ 2,352.00	\$ 2,352.00
<b>Total Collections:</b>	<b>\$ 228,527.48</b>	<b>\$ 228,527.48</b>
<b>Receivable Balance at January 31, 2024</b>	<b>\$ 57,993.90</b>	<b>\$ 57,993.90</b>
<b>Outstanding Accounts:</b>		
<b>1st Installment FY20/21 - GBD WDR Specific</b>		
AMK Pereira	\$ (1.00)	\$ (1.00)
<b>2nd Installment FY20/21 - GBD WDR Specific</b>		
Madeline Pereira	\$ (1.00)	\$ (1.00)
	<b>\$ (2.00)</b>	<b>\$ (2.00)</b>
<b>1st Installment FY24 - GBD</b>		
Camp 13 Drainage District		\$ -
<b>2nd Installment FY24 - GBD</b>		
Camp 13 Drainage District		\$ -
Panoche Drainage District	\$ 57,995.90	\$ 57,995.90
Widren LLC	\$ -	\$ -
	<b>\$ 57,995.90</b>	<b>\$ 57,995.90</b>
<b>Outstanding Grand Total</b>	<b>\$ 57,993.90</b>	<b>\$ 57,993.90</b>





January 24, 2024

Joseph McGahan  
Drainage Coordinator  
San Luis & Delta-Mendota Water Authority  
[jmcgahan@summerseng.com](mailto:jmcgahan@summerseng.com)

**Subject: Implementation of the Memorandum of Understanding Regarding the  
Grassland Bypass Project – Restoration of Mud Slough North**

Dear Mr. McGahan:

This letter follows up on discussions between the California Department of Fish and Wildlife (CDFW) and the San Luis & Delta Mendota Water Authority (SL&DMWA) regarding implementation of the Memorandum of Understanding (MOU) between California Department of Fish and Game and San Luis and Delta Mendota Water Authority regarding the Grassland Bypass Project, executed March 4, 2010.

Section 1(D) of the MOU stated, SL&DMWA's agreement to "restore Mud Slough (North) to its condition as it existed prior to 1995 by December 31, 2010, due to activities related to use of Mud Slough (North) to convey agricultural drainage water."

In 2021, acting as lead agency pursuant to the California Environmental Quality Act, SL&DMWA prepared a Mitigated Negative Declaration regarding the Mud Slough Restoration Project, a proposed project that SL&DMWA developed that involved the construction of a new diversion structure in Mud Slough, designed as a reinforced concrete, broad-crested weir check with overshot spill structure, with a total construction footprint of 1.4 acres. The entire footprint of this new diversion structure would be on CDFW's China Island Wildlife Area. Additional activities included the removal of five abandoned water control structures within the China Island Wildlife Area.

CDFW had concerns with aspects of the Mud Slough Restoration Project as proposed, primarily the construction of a new concrete diversion structure to control flows to Newman Lake, with a 1.4-acre construction footprint on the wildlife area. Among other challenges, regulations governing use of CDFW lands prohibit third parties from constructing or building any type of structure on CDFW lands.

Joseph McGahan  
MOU Grassland Bypass Project – Restoration of Mud Slough North  
January 24, 2024  
Page 2

As discussed in meetings on May 30, 2023 and August 15, 2023, this letter documents CDFW's understanding that SL&DMWA will not construct the Mud Slough Restoration Project as initially proposed and described in the 2021 Mitigated Negative Declaration. In close coordination with CDFW, SL&DMWA will remove the five abandoned water control structures within the China Island Wildlife Area. Since our meetings last spring and summer, current CDFW staff have further investigated the site changes that were made onsite in the mid-1990s to modify the hydrology and location of Mud Slough. It has become apparent that notwithstanding regulations governing wildlife areas, an earthen structure was installed within Mud Slough to block and redirect its flow away from Newman Lake, which may create an ongoing issue if left in place. Consequently, in coordination with SL&DMWA, CDFW would like to further explore potential approaches to redressing this issue and restoring Mud Slough natural hydrology, including flows to Newman Lake, with minimal site disturbance and ongoing maintenance needs, occurring within the earthen structure's existing footprint, and limiting CDFW's ongoing obligations and liabilities.

We look forward to continuing to discuss this issue. Should you have any questions please contact me by at [Julie.Vance@wildlife.ca.gov](mailto:Julie.Vance@wildlife.ca.gov) or by phone at (559) 977-3084.

Sincerely,

DocuSigned by:



FA83F09FE08945A...

Julie A. Vance  
Regional Manager







ec: Sean Allen, [Sean.Allen@wildlife.ca.gov](mailto:Sean.Allen@wildlife.ca.gov)  
Bob Stafford, [Bob.Stafford@wildlife.ca.gov](mailto:Bob.Stafford@wildlife.ca.gov)  
Shannon Little, [Shannon.Little@wildlife.ca.gov](mailto:Shannon.Little@wildlife.ca.gov)

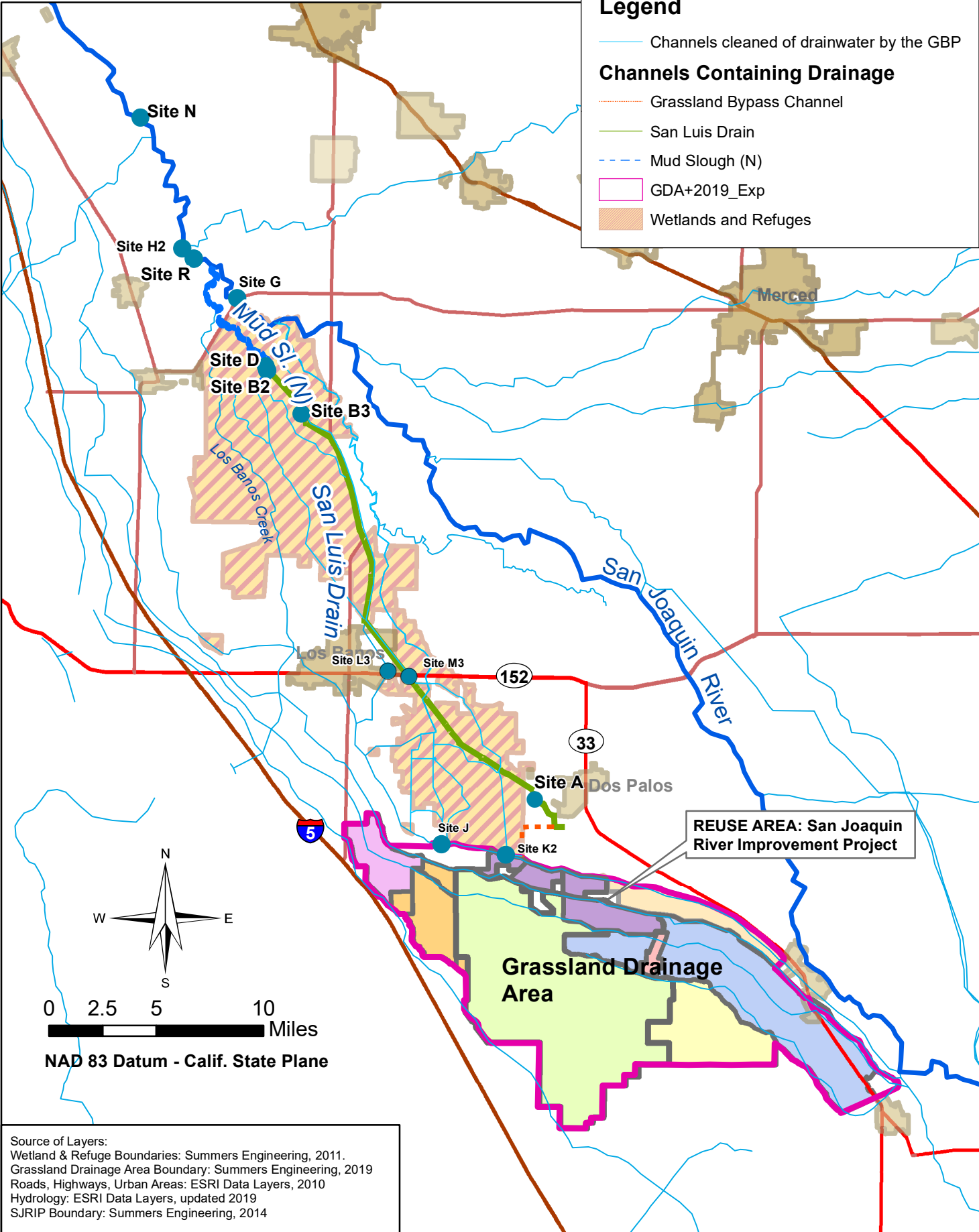
Rebecca Harms, Deputy General Counsel  
San Luis & Delta-Mendota Water Authority  
[Rebecca.Harms@sldmwa.org](mailto:Rebecca.Harms@sldmwa.org)

Ron DePauw, Newman Lake Co.  
[rdepauw@live.com](mailto:rdepauw@live.com)

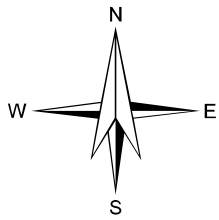
Mark Trinta, Newman Lake Co.  
[matrinta@scmcms.com](mailto:matrinta@scmcms.com)

**Legend**

-  Channels cleaned of drainwater by the GBP
- Channels Containing Drainage**
  -  Grassland Bypass Channel
  -  San Luis Drain
  -  Mud Slough (N)
-  GDA+2019\_Exp
-  Wetlands and Refuges



**REUSE AREA: San Joaquin River Improvement Project**



0 2.5 5 10 Miles

NAD 83 Datum - Calif. State Plane

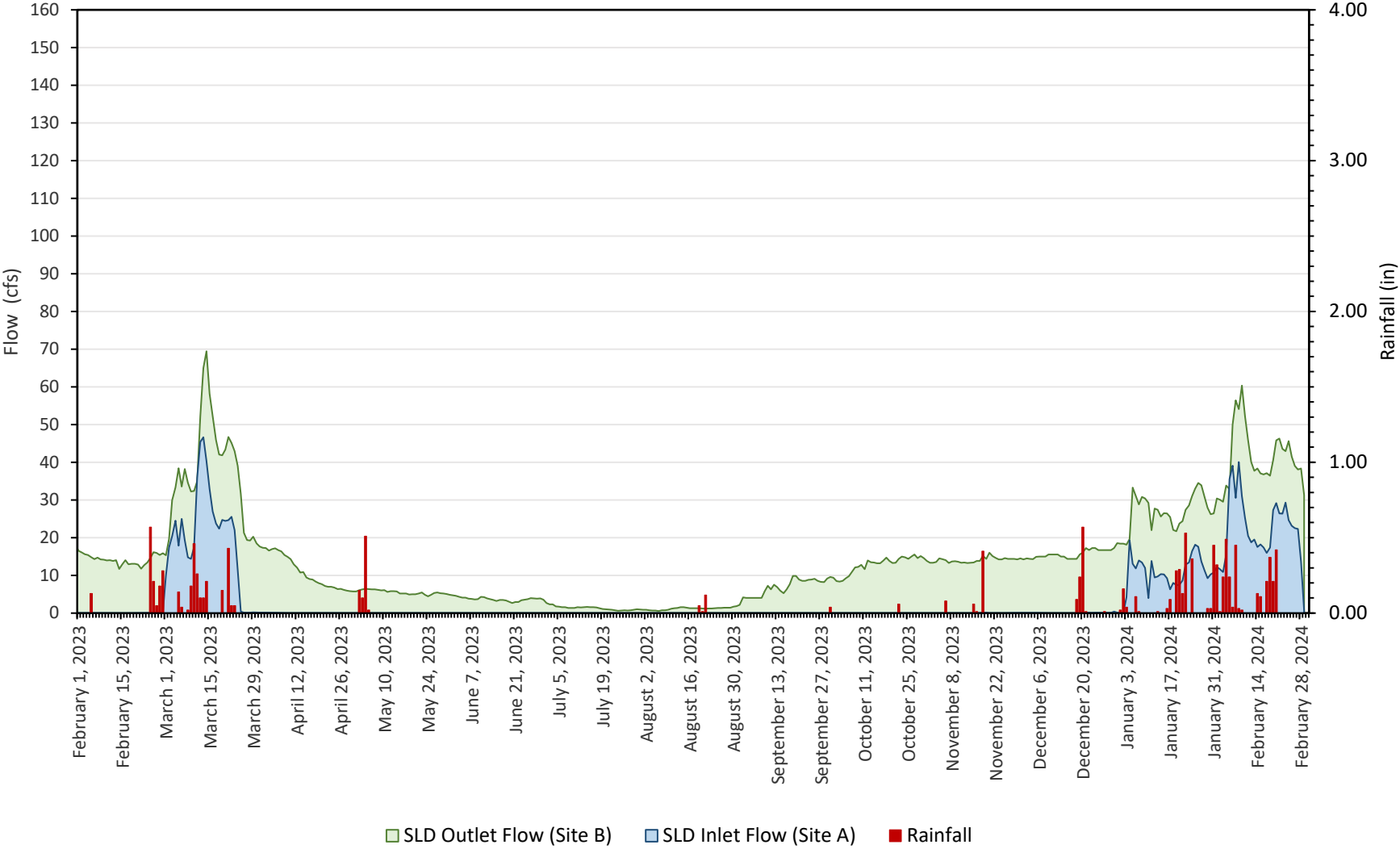
Source of Layers:  
 Wetland & Refuge Boundaries: Summers Engineering, 2011.  
 Grassland Drainage Area Boundary: Summers Engineering, 2019  
 Roads, Highways, Urban Areas: ESRI Data Layers, 2010  
 Hydrology: ESRI Data Layers, updated 2019  
 SJRIP Boundary: Summers Engineering, 2014

Document Path: G:\data\ARCVIEW\MAPS\GBPI\LR\GBP Basemap+Monitoring.mxd

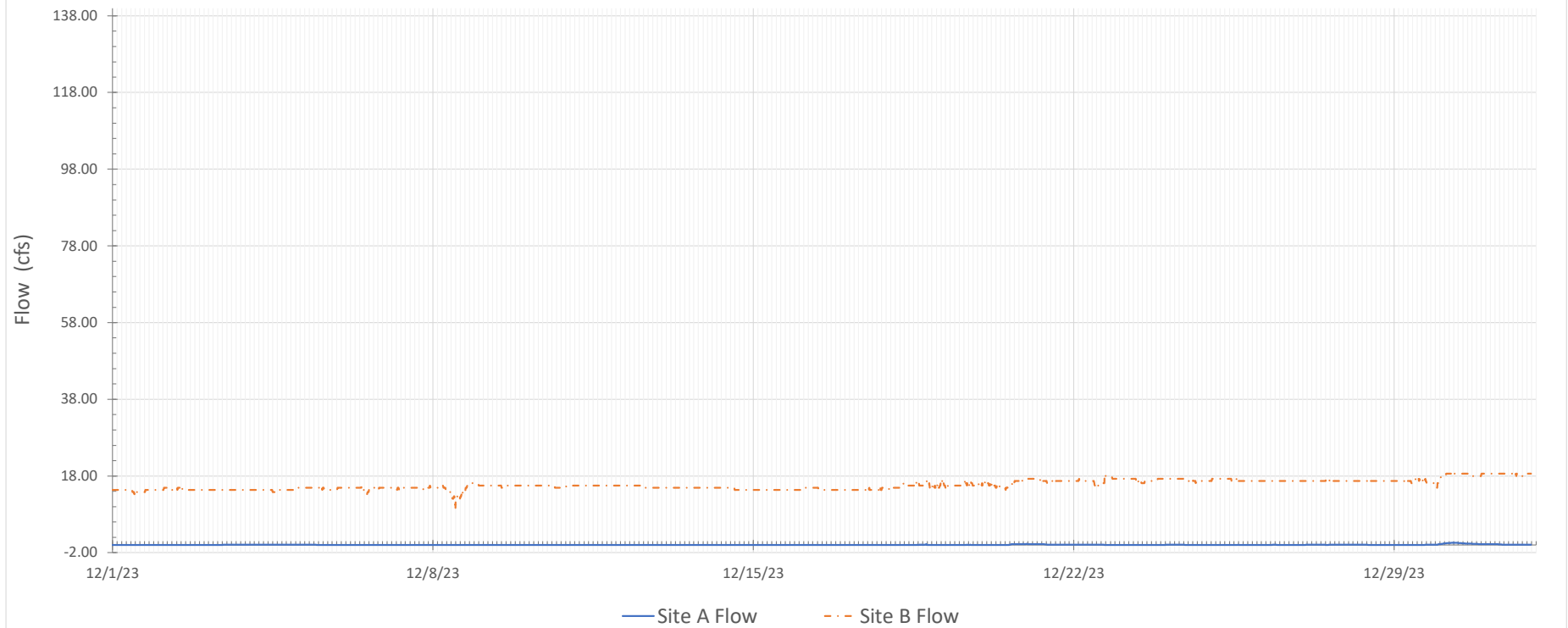
# Grassland Bypass Project Location Map

Prepared by:  
 Summers Engineering, Inc.  
 Consulting Engineers  
 Hanford California

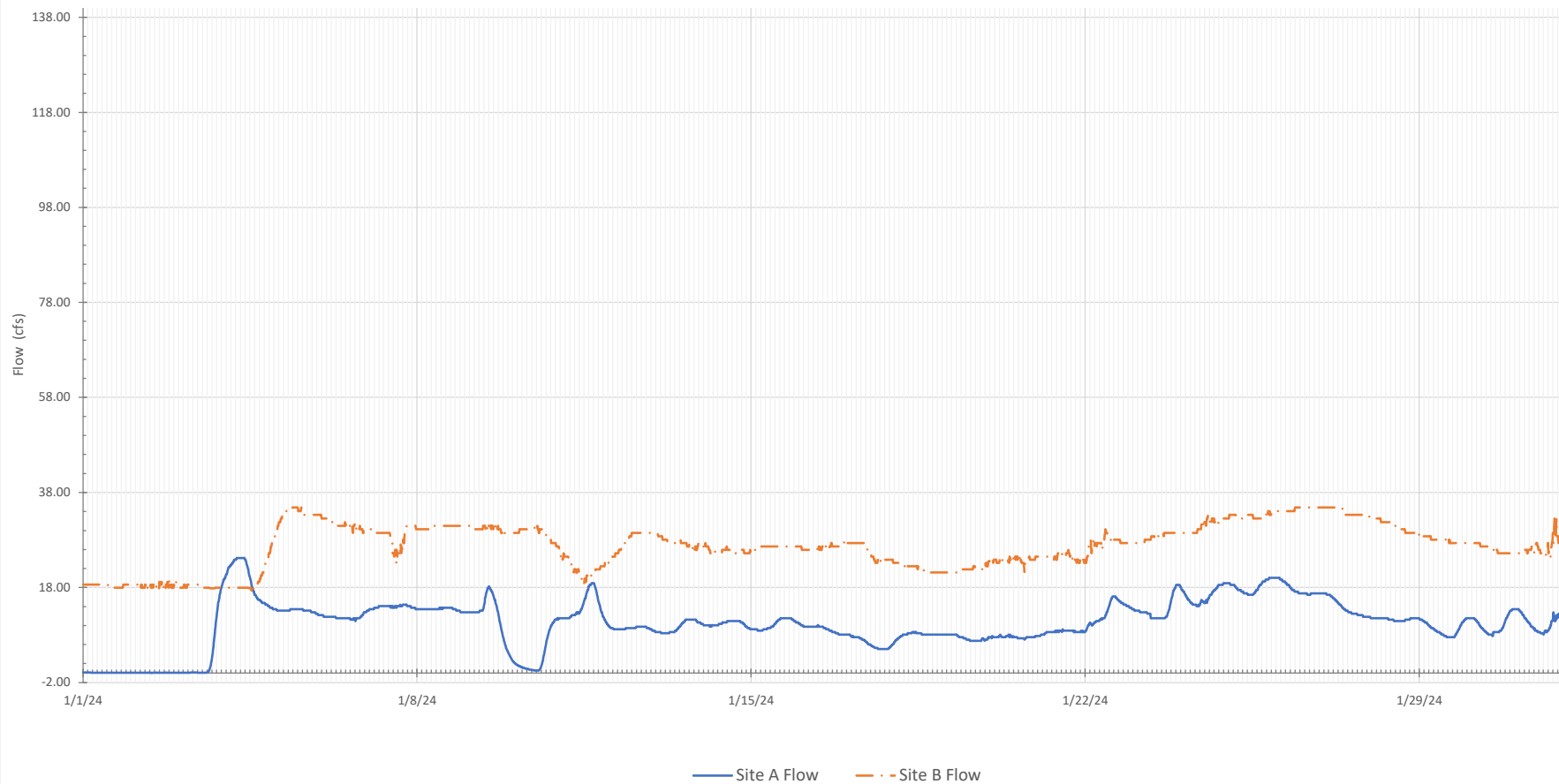
# Grassland Bypass Project - Site A & B Discharge & Rainfall



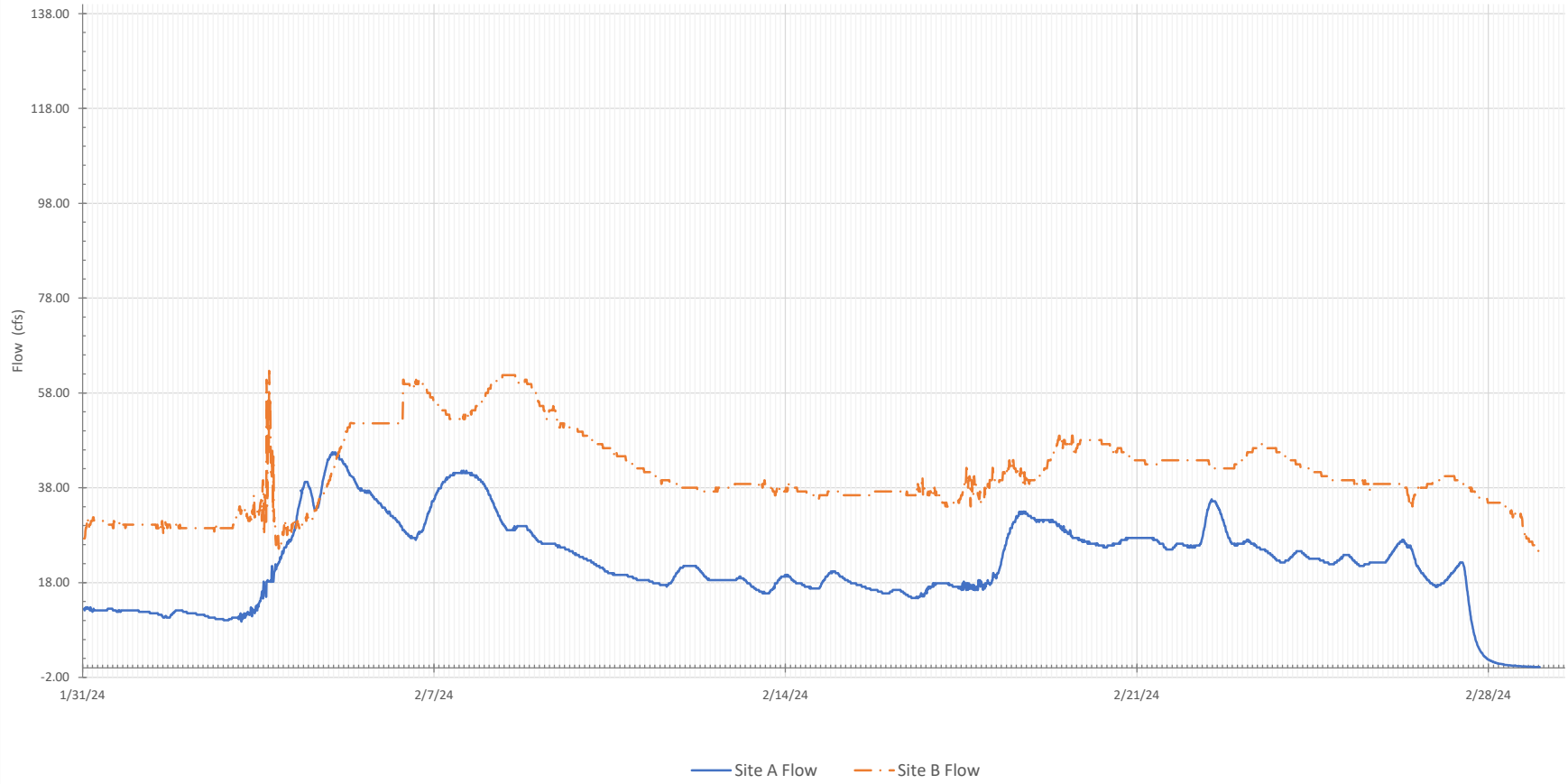
### Site A & B Flow Dec 2023



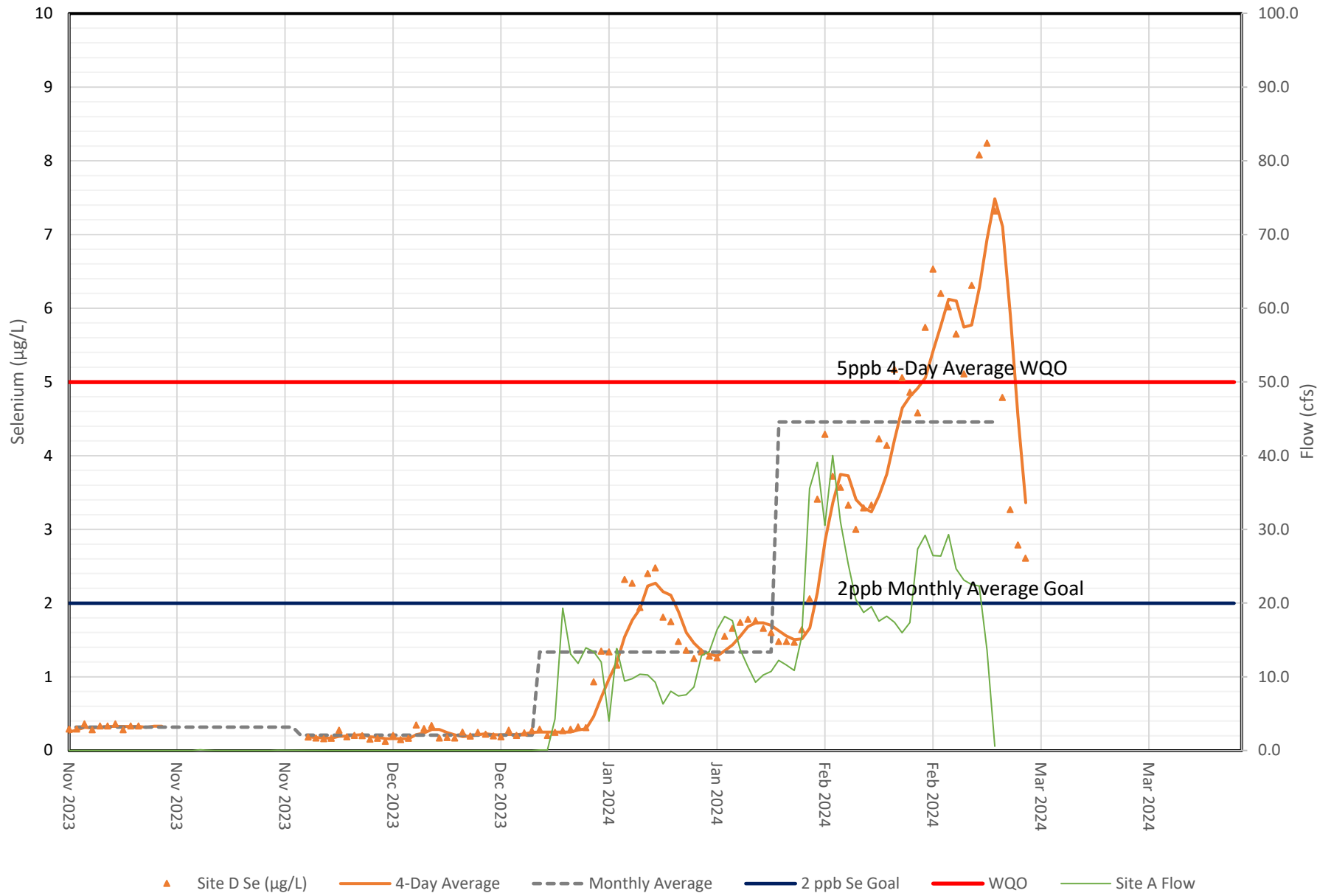
Site A & B Flow  
Jan 2024



Site A & B Flow  
2024

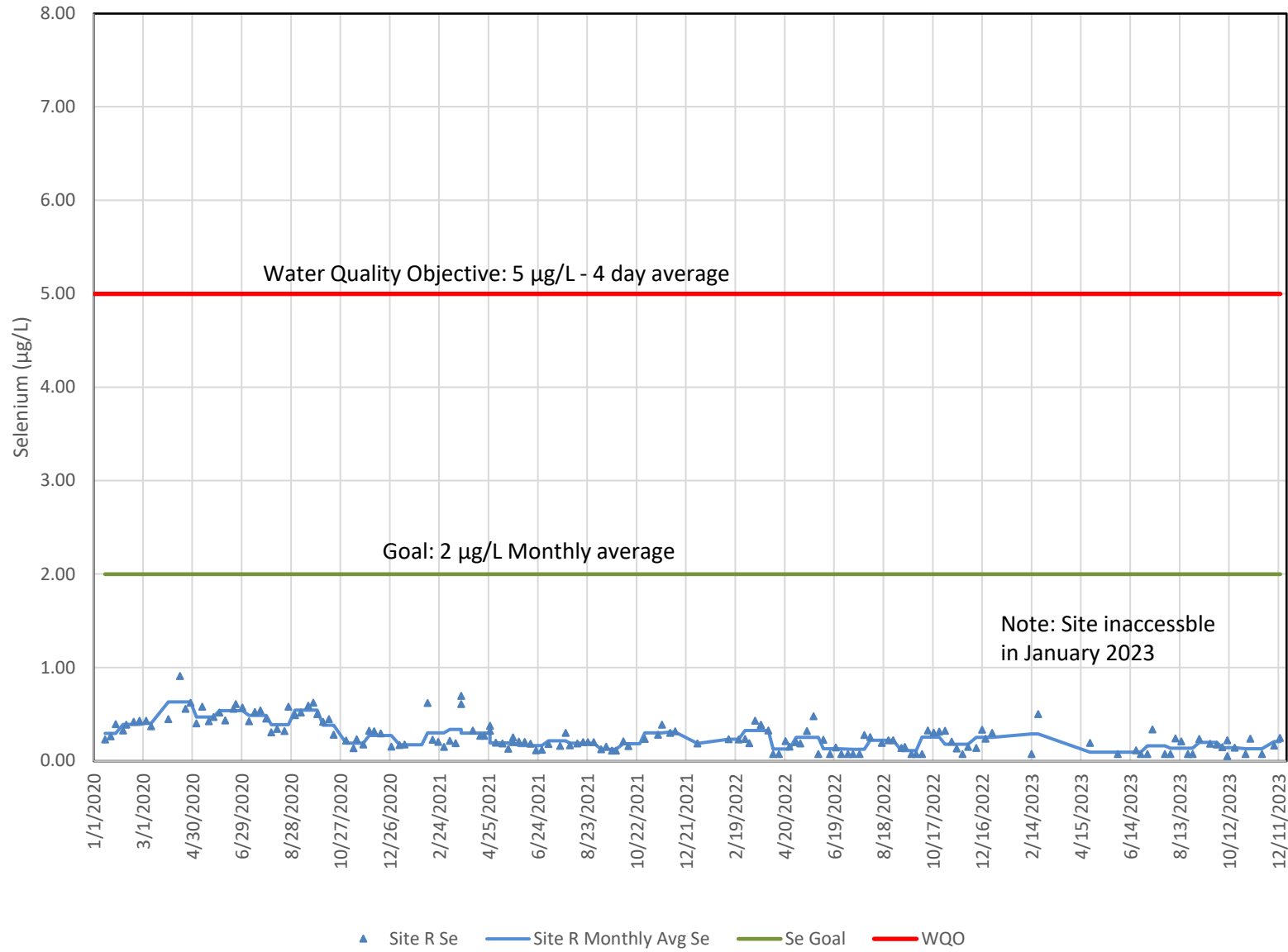


# Mud Slough Selenium

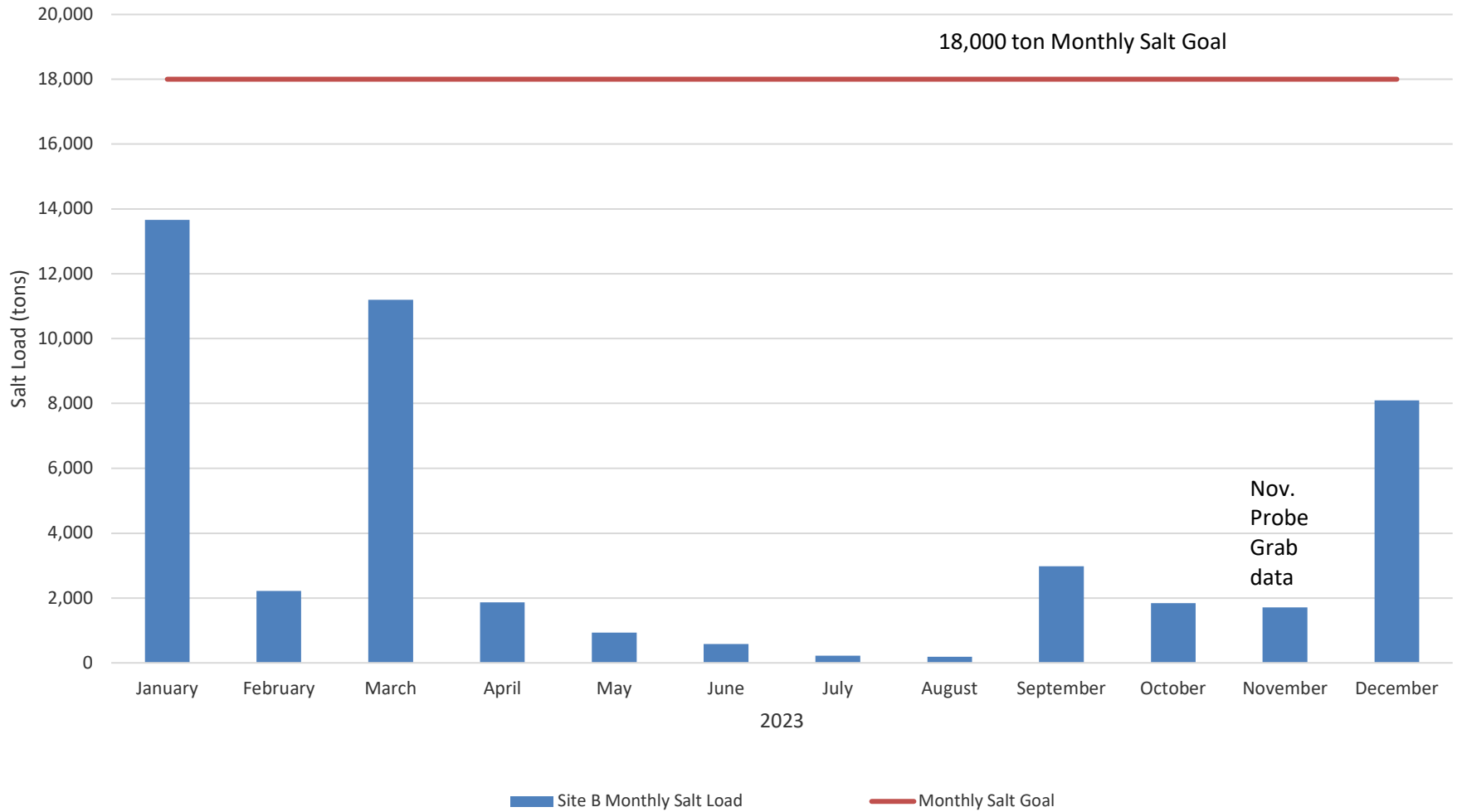




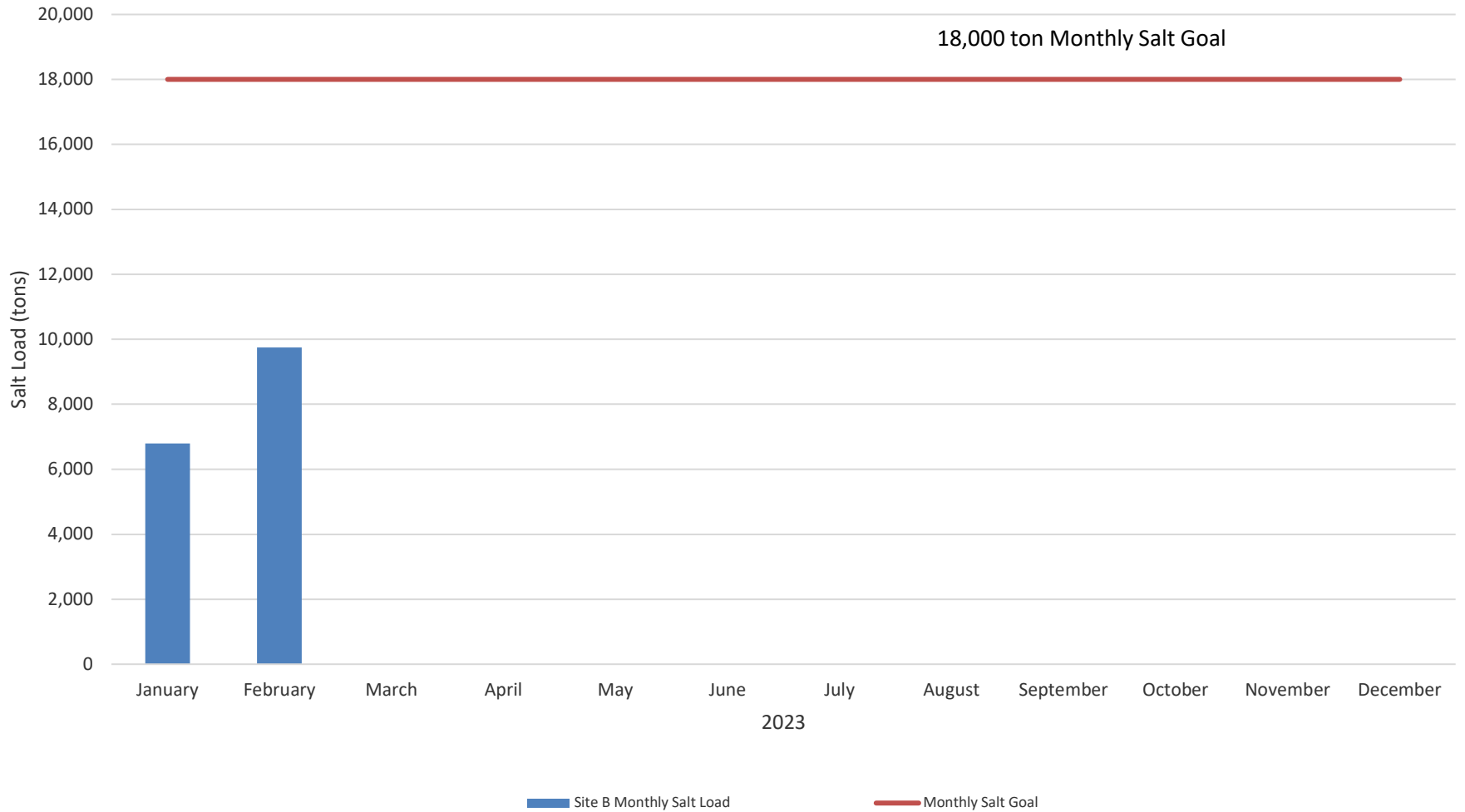
# Site R - San Joaquin River downstream of Mud Slough - Selenium Concentrations



### San Luis Drain Site B Monthly Salt Load



### San Luis Drain Site B Monthly Salt Load





Chris Linneman  
Summers Engineering, Inc.  
887 N. Irwin Street  
Hanford, CA 93230

January 5, 2024

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water Sample: Event 105” for the sample that was collected December 12, 2023. The results of this testing are summarized below.

Toxicity summary for Grasslands Bypass Project ambient water and sediment samples.			
Sample Station	Toxicity relative to the Lab Control treatment?		
	<i>Selenastrum capricornutum</i>	<i>Daphnia magna</i>	Fathead Minnow
	Growth	Survival	Survival
Site D	No	No	No

**Chronic Toxicity of Grasslands Bypass Project Ambient Water to *Selenastrum capricornutum***

There was **no** significant reduction in algal growth in the Grasslands Bypass Project ambient water sample.

**Acute Toxicity of Grasslands Bypass Project Ambient Water to *Daphnia magna***

There was **no** significant reduction in survival in the Grasslands Bypass Project ambient water sample.

**Acute Toxicity of Grasslands Bypass Project Ambient Water to Fathead Minnows**

There was **no** significant reduction in survival in the Grasslands Bypass Project ambient water sample.

### 3. RESULTS

#### 3.1 Effects of the Grasslands Bypass Project Ambient Water on *Selenastrum capricornutum*

The results for this test are summarized in Table 2. There was ***no*** significant reduction in algal growth in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix B.

Table 2. Effects of Grasslands Bypass Project ambient water on <i>Selenastrum capricornutum</i>		
Test Initiation Date (Time)	Treatment/Sample ID	Mean Algal Cell Density (cells/mL x 10 <sup>6</sup> )
12/12/23 (1710)	Lab Water Control	1.74
	GBP-105-D-TE	6.58

#### 3.2 Effects of the Grasslands Bypass Project Ambient Water on *Daphnia magna*

The results for this test are summarized in Table 3. There was ***no*** significant reduction in survival in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix C.

Table 3. Effects of Grasslands Bypass Project ambient water on <i>Daphnia magna</i> .		
Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
12/12/23 (1518)	Lab Water Control	100
	GBP-105-D-TE	100

#### 3.3 Effects of the Grasslands Bypass Project Ambient Water on Fathead Minnows

The results for this test are summarized in Table 4. There were ***no*** significant reductions in survival in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix D.

Table 4. Effects of Grasslands Bypass Project ambient water on fathead minnows.		
Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
12/12/23 (1635)	Lab Water Control	97.5
	GBP-105-D-TE	95.0





Chris Linneman  
Summers Engineering, Inc.  
887 N. Irwin Street  
Hanford, CA 93230

March 8, 2024

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water Sample: Event 106” for the sample that was collected January 26, 2024. The results of this testing are summarized below.

Toxicity summary for Grasslands Bypass Project ambient water and sediment samples.			
Sample Station	Toxicity relative to the Lab Control treatment?		
	<i>Selenastrum capricornutum</i>	<i>Daphnia magna</i>	Fathead Minnow
	Growth	Survival	Survival
Site D	No	No	No

**Chronic Toxicity of Grasslands Bypass Project Ambient Water to *Selenastrum capricornutum***

There was **no** significant reduction in algal growth in the Grasslands Bypass Project ambient water sample.

**Acute Toxicity of Grasslands Bypass Project Ambient Water to *Daphnia magna***

There was **no** significant reduction in survival in the Grasslands Bypass Project ambient water sample.

**Acute Toxicity of Grasslands Bypass Project Ambient Water to Fathead Minnows**

There was **no** significant reduction in survival in the Grasslands Bypass Project ambient water sample.

### 3. RESULTS

#### 3.1 Effects of the Grasslands Bypass Project Ambient Water on *Selenastrum capricornutum*

The results for this test are summarized in Table 2. There was **no** significant reduction in algal growth in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix B.

Table 2. Effects of Grasslands Bypass Project ambient water on <i>Selenastrum capricornutum</i>		
Test Initiation Date (Time)	Treatment/Sample ID	Mean Algal Cell Density (cells/mL x 10 <sup>6</sup> )
1/26/24 (1405)	Lab Water Control	1.64
	GBP-106-D-TE	6.04

#### 3.2 Effects of the Grasslands Bypass Project Ambient Water on *Daphnia magna*

The results for this test are summarized in Table 3. There was **no** significant reduction in survival in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix C.

Table 3. Effects of Grasslands Bypass Project ambient water on <i>Daphnia magna</i> .		
Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
1/26/24 (1502)	Lab Water Control	100
	GBP-106-D-TE	100

#### 3.3 Effects of the Grasslands Bypass Project Ambient Water on Fathead Minnows

The results for this test are summarized in Table 4. There were **no** significant reductions in survival in the Grasslands Bypass Project ambient water sample. The test data and summary of statistical analyses for this test are presented in Appendix D.

Table 4. Effects of Grasslands Bypass Project ambient water on fathead minnows.		
Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
1/26/24 (1515)	Lab Water Control	100
	GBP-106-D-TE	100

