



**Grassland Basin Drainage Steering Committee  
Regular Meeting of the Steering Committee  
Friday, November 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 September 20, 2024 Regular Meeting Minutes**
5. **Committee to Consider Acceptance of the Financial Report**
6. **Committee to Consider Approving the Proposed FY25-26 Budget**

**Report Items**

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

10. Update on Waste Discharge Requirements for Discharge to Groundwater, Grassland Drainage Area Coalition

- a. Nitrogen Management Zone Plan – Valley Water Collaborative; Delta-Mendota Advisory Committee.
  - i. Annual fee and representation.

11. Reports from District Representatives

12. Reports on Other Items Pursuant to Government Code Section 54954.2(a)(3)

13. Date and Time of Next Meeting

14. 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)

15. Return to Open Session

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

17. 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

September 20, 2024

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

Firebaugh Canal Water District  
Jeff Bryant, Alternate

Pacheco Water District  
Alec Smith, Alternate

Panoche Drainage District  
Patrick McGowan, Alternate

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

**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**  
It was noted on today's Agenda, the date for acceptance of meeting minutes should reflect June 21, 2024 not June 21, 2023.
3. **Opportunity for Public Comment**  
No public comments were made.
4. **Committee to Consider Acceptance of June 21, 2024, 2024 Meeting Minutes**  
After review of the June 21, 2024 Grassland Basin Drainage Steering Committee (GBDSC) meeting minutes, Alternate Committee Member Patrick McGowan moved to accept the June 21, 2024 minutes as presented, the motion was seconded by Alternate Committee Member Alec Smith

and passed unanimously.

AYES: Cory, Bryant, Smith, McGowan  
NAYS: None  
ABSTENTIONS: None

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

Drainage Coordinator Chris Linneman presented the Financial Report for the period: 1/31/24 – 8/31/24 (receivables) and the period 3/1/24 – 7/31/24 for (Budget to Actual). Alternate Committee Member Patrick McGowan moved for acceptance of the Financial Expenditures Report as presented, the motion was seconded by Alternate Committee Member Alec Smith and passed unanimously.

AYES: Cory, Bryant, Smith, McGowan  
NAYS: None  
ABSTENTIONS: None

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

Drainage Coordinator Chris Linneman reported on a couple of things; Linnemann reported there is still some work on the Mud Slough Refuge (removal of water control risers) that will be completed next year and concluded by stating there has been no movement on the Newman Lake issue.

**7. 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 (SJRWQIP), with pump tests being performed on newly installed stations. Linneman took a moment to give a brief history of the Prop 84 Grant to the Committee.

**8. 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 July 21, 2024 was reviewed. Mud Slough selenium, flow, goals and averages for January, 2024– August 2024 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 Mud Slough Selenium levels

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below 1 part per billion. Linneman concluded by reporting on Site B Monthly Salt Load and Site R Selenium concentrations. Linnemann noted selenium requirements have been met at all sites.

- b. **Monitoring Program and Toxicity Data Report** – Drainage Coordinator Chris Linneman presented and the Committee reviewed events 111 and 112; samples collected June 18, 2024 and July 23, 2024 and noted no toxicity in the events. The Committee gave direction to release the Toxicity data.

9. **Update on Waste Discharge Requirements for Discharge to Groundwater Water for the Grassland Drainage Area Coalition** – Drainage Coordinator Chris Linneman explained the Nitrogen Zone Management Plan is in place and the GBD continues to work with the Westside Coalition.

10. **Reports from District Representatives** – Jeff Bryant reported the Panoche-Silver Creek Drainage District has completed its Prop 218 Election and had a 69 Percent (69%) approval rate for a \$5.00 per acre Special Benefit Assessment / Standby Charge.

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

12. **Date and Time of Next Meeting**  
It was noted the next meeting will likely be in November.

13. **Closed Session**  
No Closed Session

14. **Return to Open Session**  
No Closed Session

15. **Report from Closed Session, if Required by Government Code Section 54957.1**  
No Report

16. **Adjournment**

Chairman David Cory adjourned the meeting of the Grassland Basin Drainers Steering Committee at 9:55 a.m.

**SAN LUIS & DELTA-MENDOTA WATER AUTHORITY**  
**MARCH 1, 2024 - FEBRUARY 28, 2025**  
**GRASSLAND BASIN DRAINAGE #3A (FUND 22)**  
**ACTIVITY AGREEMENTS BUDGET TO ACTUAL**

**Report Period 3/1/24 - 09/30/24**

**GBD Meeting 11.15.24**

EXPENDITURES	Annual Budget	Paid/ Expense	Amount Remaining	% of Amt Remaining	Expenses Through
<u>Legal:</u>					
Pioneer Law Group - CEQA Legal Consultant	\$ 25,000	\$ 1,092	\$ 23,908	96%	5/2/24
Cotchett, Pitre & McCarthy	\$ 20,000	\$ 10,435	\$ 9,565	48%	10/17/24
Kahn, Soares & Conway	\$ 15,000	\$ 3,099	\$ 11,901	79%	9/30/24
Misc. Legal Support	\$ 17,500		\$ 17,500	100%	
<u>GBD Specific:</u>					
Drainage Coordinator (Summers)	\$ 145,000	\$ 54,031	\$ 90,969	63%	9/30/24
Quality Data Processing/Load Calc (Summers)	\$ 130,000	\$ 83,388	\$ 46,612	36%	10/17/24
Flow Calculation/Station Maint. (Summers)	\$ 90,000	\$ 53,338	\$ 36,662	41%	9/30/24
Field Coordinator (PDD)	\$ 35,000	\$ 1,578	\$ 33,422	95%	8/31/24
Real Time Monitoring Equip (PDD)	\$ 10,000	\$ 994	\$ 9,006	90%	8/31/24
Panoche Creek Gauging Station	\$ 9,480	\$ 9,480	\$ -	0%	4/26/24
Water Quality Monitoring (Reg. Sites)	\$ 250,000	\$ 134,665	\$ 115,335	46%	10/17/24
Newman Water Costs	\$ 121,233	\$ -	\$ 121,233	100%	
Restoration of Mud Slough Channel (Newman Land)	\$ 75,000	\$ 207	\$ 74,793	100%	5/31/24
Waste Discharge Permit Fees	\$ 67,000	\$ -	\$ 67,000	100%	
SJRIP Monitor Wells	\$ 5,000	\$ -	\$ 5,000	100%	
Drainage Management Plan	\$ 20,000	\$ 19,256	\$ 744	4%	9/30/24
New UA Mud Slough Mitigation:					
Remove Sediment in SLD	\$ 50,000		\$ 50,000	100%	
Use of Drain:					
Operation & Maintenance (PDD)	\$ 95,000	\$ 42,180	\$ 52,820	56%	8/31/24
Biological Monitoring:					
Pacific Eco Risk	\$ 100,000	\$ 61,268	\$ 38,732	39%	9/30/24
HT Harvey-SJRIP Egg Monitoring	\$ 100,000	\$ 70,136	\$ 29,864	30%	9/12/24
Fish Biologist - Splittail/Sturgeon	\$ 15,000	\$ 15,374	\$ (374)	-2%	9/12/24
Groundwater WDR Specific:					
Membership Enrollment/List (Summers)	\$ 102,300	\$ 20,778	\$ 81,522	80%	10/17/24
Farm Evaluation Plan (Summers)	\$ 45,000	\$ 2,067	\$ 42,933	95%	9/30/24
NMP Summary Report	\$ 40,000	\$ 1,899	\$ 38,101	95%	10/17/24
MPEP Group Workplan	\$ 5,400	\$ 3,271	\$ 2,129	39%	10/17/24
Groundwater Protection Formula	\$ 10,000		\$ 10,000	100%	
CVSalts Nitrate Compliance	\$ 50,000	\$ 2,067	\$ 47,933	96%	9/30/24
Prioritization and Optimization Study-CVSalts	\$ 12,600	\$ -	\$ 12,600	100%	
Trend Monit Prgm	\$ 84,000	\$ 38,863	\$ 45,137	54%	10/17/24
Develop Web Portal	\$ 3,500	\$ 3,270	\$ 230	7%	4/10/24
Collect State Board Fee	\$ 132,000	\$ 38,801	\$ 93,199	71%	3/6/24
Annual Monitoring Report (Summers)	\$ 35,000	\$ 2,067	\$ 32,933	94%	9/30/24
CVGMC Data	\$ 3,000	\$ 3,420	\$ (420)	-14%	7/15/24
<u>Other:</u>					
General Counsel	\$ 35,000	\$ 919	\$ 34,081	97%	10/4/24
In-House Staff	\$ 3,250	\$ 1,740	\$ 1,510	46%	10/4/24
Dissolved Oxygen Aerator	\$ 6,250	\$ 4,688	\$ 1,562	25%	5/1/24
Other Services & Expenses	\$ -	\$ -	\$ -	0%	
Telephone	\$ -	\$ -	\$ -	0%	
<b>Total Expenditures</b>	<b>\$ 1,962,513</b>	<b>\$ 684,371</b>	<b>\$ 1,278,142</b>	<b>65%</b>	

**SAN LUIS & DELTA-MENDOTA WATER AUTHORITY  
GRASSLAND BASIN DRAINAGE  
ACCOUNTS RECEIVABLE REPORT  
FISCAL YEAR 03/01/24 - 02/28/25**







	<b>Grassland Basin Drainage</b>	
Report Period: 1/31/24-10/31/24 Report Date: 11/12/24	<b>Fund 22</b>	<b>Total</b>
<b>Receivable Balance at August 31, 2024</b>	<b>\$ 831,520.35</b>	<b>\$ 831,520.35</b>
<b>Collections:</b>		
Firebaugh Canal Water District	\$ 162,767.00	\$ 162,767.00
Pacheco Water District	\$ 30,043.75	\$ 30,043.75
Panoche Drainage District	\$ 240,612.26	\$ 240,612.26
Widren LLC	\$ 2,676.50	\$ 2,676.50
<b>Total Collections:</b>	<b>\$ 436,099.51</b>	<b>\$ 436,099.51</b>
<b>Receivable Balance at October 31, 2024</b>	<b>\$ 395,420.84</b>	<b>\$ 395,420.84</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 FY25</b>		
Camp 13 Drainage District	\$ 28,163.50	\$ 28,163.50
		\$ -
<b>2nd Installment FY23 - GBD</b>		
Camp 13	\$ 28,163.50	\$ 28,163.50
Panoche Drainage District	\$ 320,816.34	\$ 320,816.34
San Joaquin River Improvement Project	\$ 18,279.50	\$ 18,279.50
	<b>\$ 395,422.84</b>	<b>\$ 395,422.84</b>
<b>Outstanding Grand Total</b>	<b>\$ 395,420.84</b>	<b>\$ 395,420.84</b>

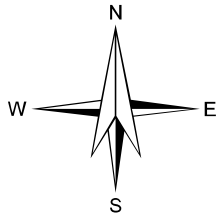
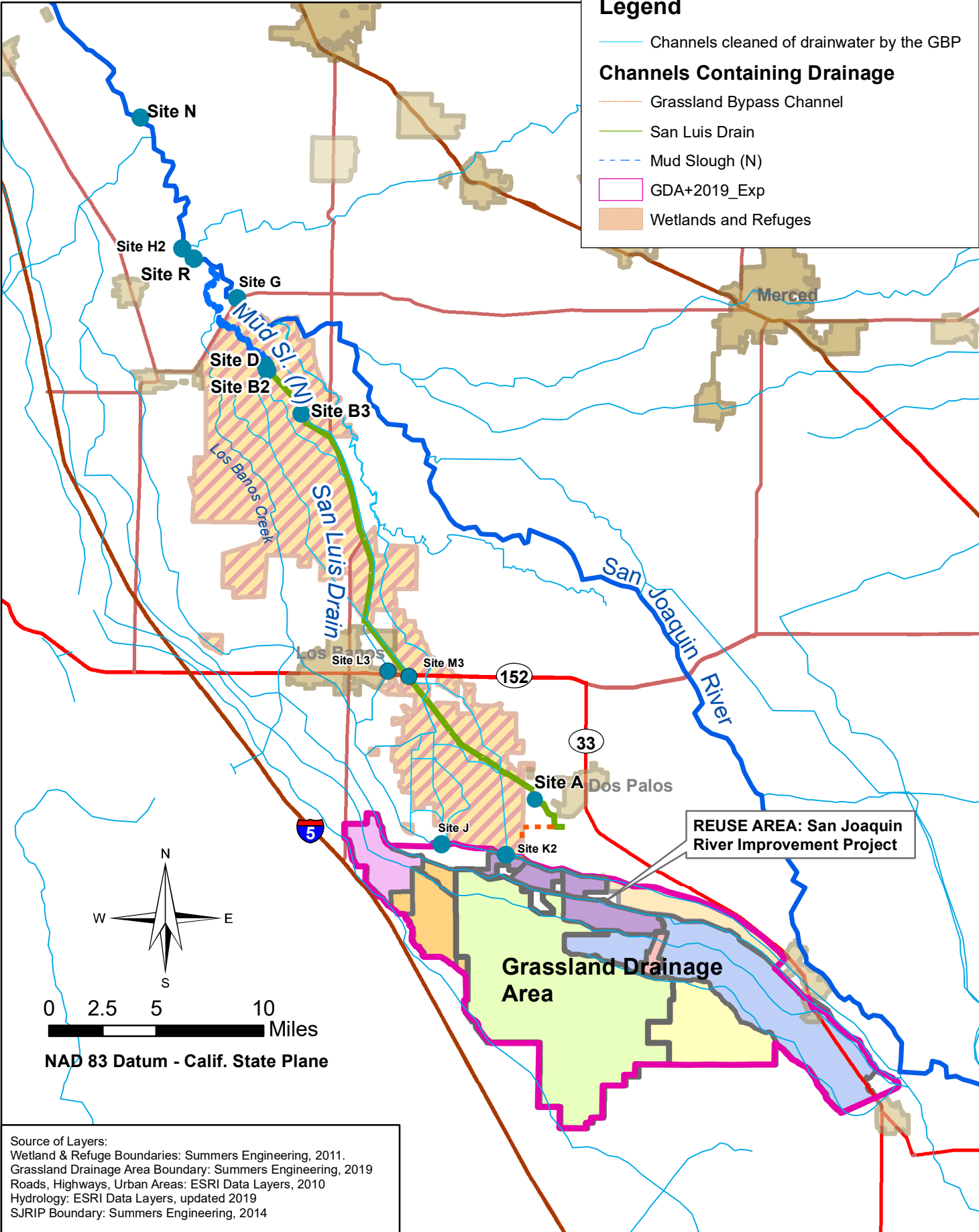
**SAN LUIS & DELTA-MENDOTA WATER AUTHORITY**  
**MARCH 1, 2025 - FEBRUARY 28, 2026**  
**GRASSLAND BASIN DRAINAGE #3A (FUND 22)**  
**ACTIVITY AGREEMENTS BUDGET TO ACTUAL**

**FY25 Projections & FY26 Budget Draft**

EXPENDITURES	FY25	Paid Expense	FY25		FY26
	Annual Budget		Projected Expenses		Draft 1
<b>Legal:</b>					
1 Linneman et al	\$ -			cl	\$ -
2 Pioneer Law Group - CEQA Legal Consultant	\$ 25,000	\$ 1,092	\$ 2,000	e	\$ 20,000
3 Cotchett, Pitre & McCarthy	\$ 20,000	\$ 29,739	\$ 32,000	e	\$ 30,000
4 Kahn, Soares & Conway	\$ 15,000	\$ 3,099	\$ 6,000	e	\$ 10,000
5 Misc. Legal Support	\$ 17,500	\$ -	\$ -	cl	\$ 10,000
<b>GBD Specific:</b>					
6 Drainage Coordinator (Summers)	\$ 145,000	\$ 54,031	\$ 130,000	cl	\$ 150,000
7 Quality Data Processing/Load Calc (Summers)	\$ 130,000	\$ 74,501	\$ 150,000	cl	\$ 150,000
8 Flow Calculation/Station Maint. (Summers)	\$ 90,000	\$ 53,338	\$ 90,000	cl	\$ 110,000
9 Field Coordinator (GBA)	\$ 35,000	\$ 1,578	\$ 35,000	e	\$ 35,000
10 Real Time Monitoring Equip (GBA)	\$ 10,000	\$ 994	\$ 10,000	e	\$ 10,000
11 Panoche Creek Gauging Station	\$ 9,480	\$ 9,480	\$ 9,480	cl	\$ 9,730
12 Water Quality Monitoring (Reg. Sites)	\$ 250,000	\$ 121,925	\$ 250,000	cl	\$ 250,000
13 Newman Water Costs	\$ 121,233	\$ -	\$ 121,233	cl	\$ 123,658
14 Restoration of Mud Slough Channel (Newman Land)	\$ 75,000	\$ 207	\$ 10,000	cl	\$ 75,000
15 Waste Discharge Permit Fees	\$ 67,000	\$ -	\$ 67,000	cl	\$ 21,150
16 CEQA Support Susan Hootkins (Newman Land)	\$ -	\$ -	\$ -	cl	\$ -
17 SJRIP Monitor Wells	\$ 5,000	\$ -	\$ 5,000	cl	\$ 5,000
18 [RENAMED] GBD Reporting	\$ 20,000	\$ 19,256	\$ 20,000		\$ 25,000
<b>New UA Mud Slough Mitigation:</b>					
19 Remove Sediment in SLD	\$ 50,000	\$ -	\$ -	cl	\$ 50,000
<b>Use of Drain:</b>					
20 Operation & Maintenance (GBA)	\$ 95,000	\$ 44,702	\$ 95,000		\$ 95,000
<b>Biological Monitoring:</b>					
21 Pacific Eco Risk	\$ 100,000	\$ 61,268	\$ 100,000	cl	\$ 105,000
22 HT Harvey-SJRIP Egg Monitoring	\$ 100,000	\$ 70,136	\$ 100,000	cl	\$ 100,000
23 Fish Biologist - Splittail/Sturgeon	\$ 15,000	\$ 15,374	\$ 15,374	cl	\$ 16,000
<b>Groundwater WDR Specific:</b>					
24 Membership Enrollment/List (Summers)	\$ 102,300	\$ 19,674	\$ 100,000	e	\$ 100,000
25 Farm Evaluation Plan (Summers)	\$ 45,000	\$ 2,067	\$ 20,000		\$ 45,000
26 NMP Summary Report	\$ 40,000	\$ 1,209	\$ 20,915		\$ 25,000
27 MPEP Group Workplan	\$ 5,400	\$ 3,150	\$ 5,400	cl	\$ 5,400
28 Groundwater Protection Formula	\$ 10,000	\$ -	\$ 5,000	e	\$ 5,000
29 Nitrogen Mangement Zone Planning	\$ 50,000	\$ 2,067	\$ 50,000	e	\$ 50,000
<b>CVSalts Nitrate Compliance</b>					
30 Prioritization and Optimization Study-CVSalts	\$ 12,600	\$ -	\$ 9,542	C	\$ 15,500
31 Trend Monit Prgm	\$ 84,000	\$ 33,452	\$ 84,000	cl	\$ 84,000
32 Develop Web Portal	\$ 3,500	\$ 3,270	\$ 3,500	cl	\$ 3,500
33 Collect State Board Fee	\$ 132,000	\$ 38,801	\$ 132,000	cl	\$ 123,000
34 Annual Monitoring Report (Summers)	\$ 35,000	\$ 2,067	\$ 15,000	e	\$ 30,000
35 CVGMC Data	\$ 3,000	\$ 3,420	\$ 4,000	e	\$ 2,311
<b>Other:</b>					
General Counsel	\$ 35,000	\$ 800	\$ 5,000	e	\$ 35,000
In-House Staff	\$ 3,250	\$ 1,616	\$ 2,000	e	\$ 3,250
Dissolved Oxygen Aerator	\$ 6,250	\$ 4,688	\$ 6,250	cl	\$ 6,250
<b>Total Expenditures</b>	<b>\$ 1,962,513</b>	<b>\$ 677,001</b>	<b>\$ 1,710,694</b>		<b>\$ 1,933,749</b>

**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



0 2.5 5 10 Miles

NAD 83 Datum - Calif. State Plane

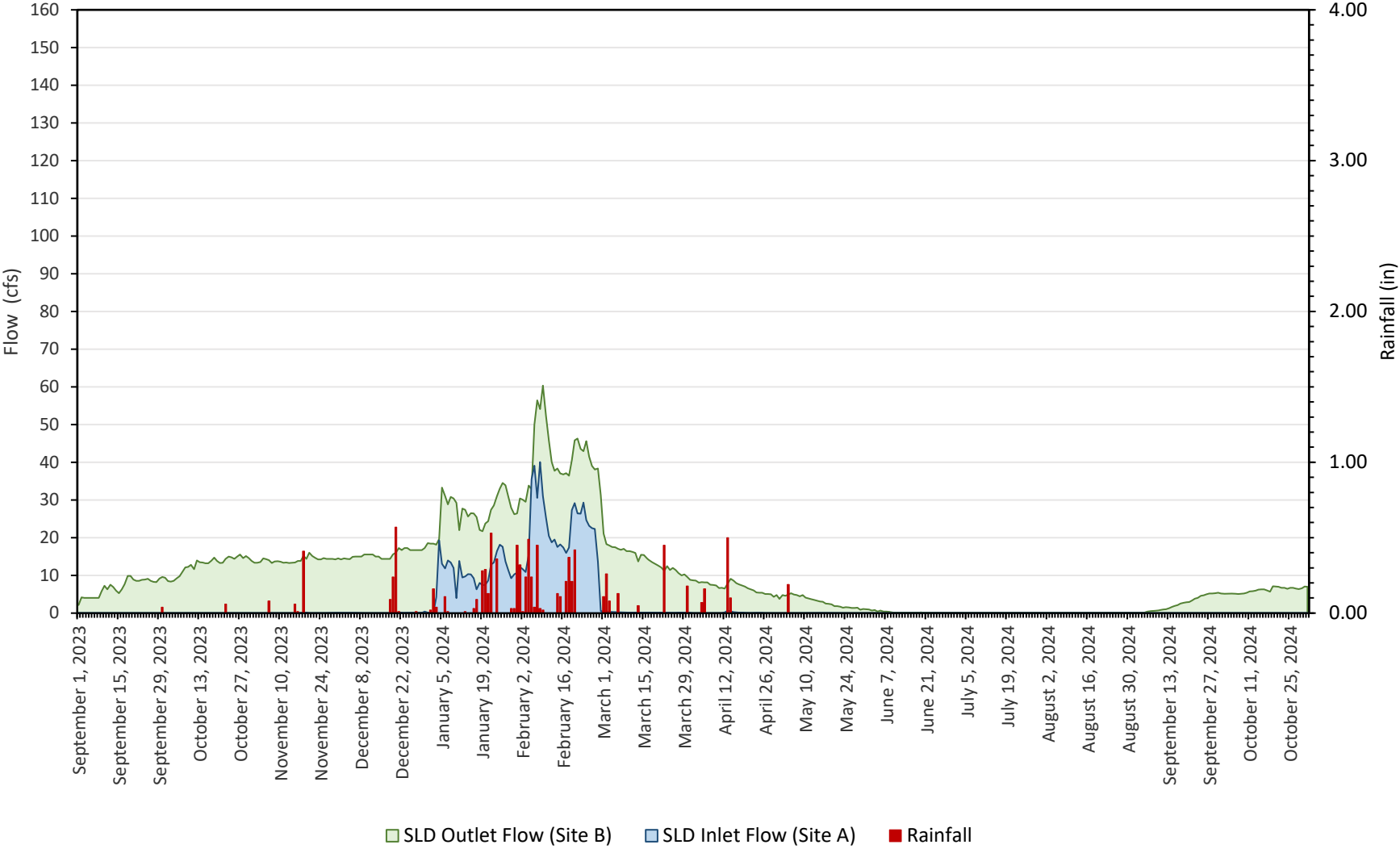
Source of Layers:  
 Wetland & Refuge Boundaries: Summers Engineering, 2011.  
 Grassland Drainage Area Boundary: Summers Engineering, 2019  
 Roads, Highways, Urban Areas: ESRI Data Layers, 2010  
 Hydrology: ESRI Data Layers, updated 2019  
 SJRIP Boundary: Summers Engineering, 2014

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

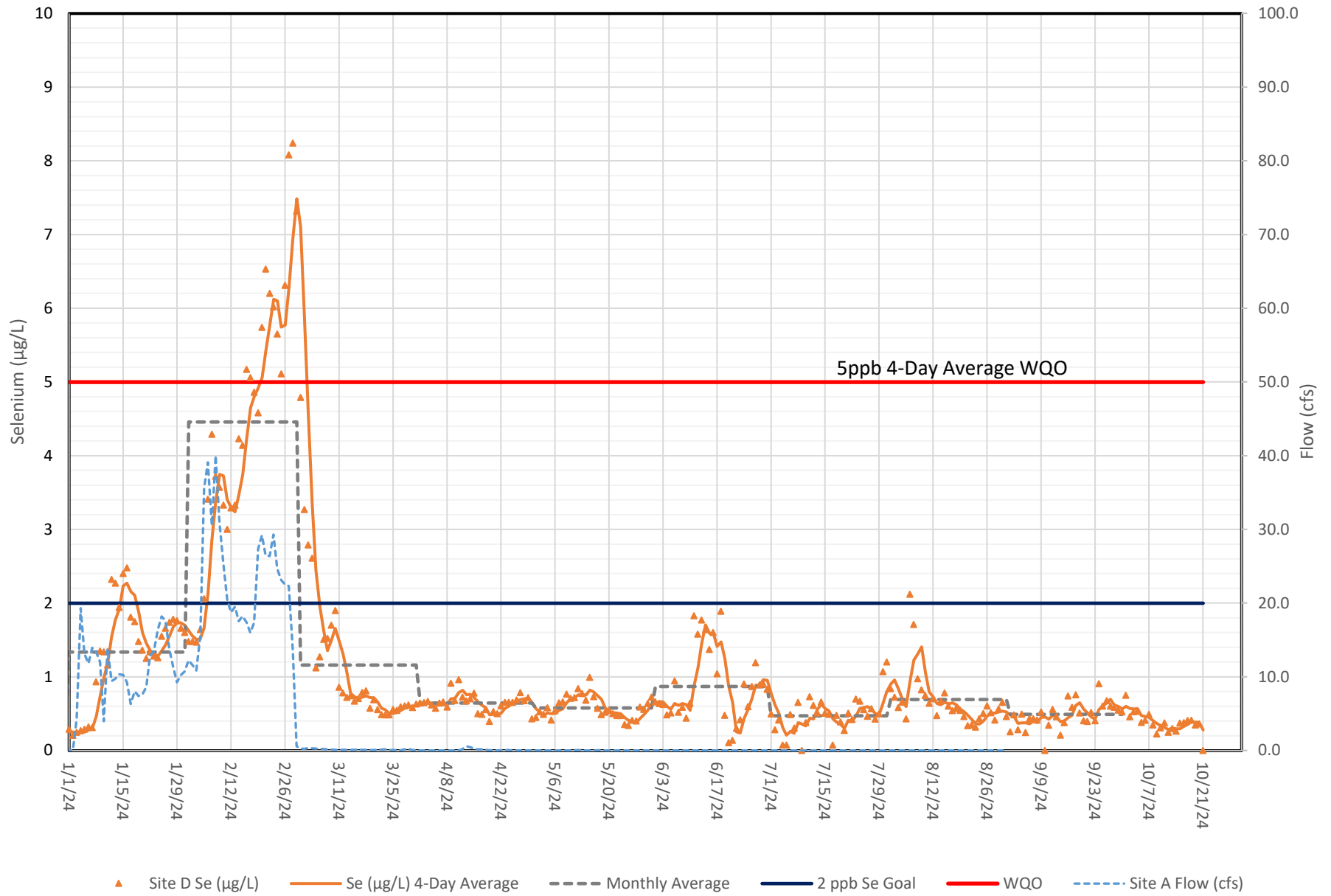
# Grassland Bypass Project Location Map

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

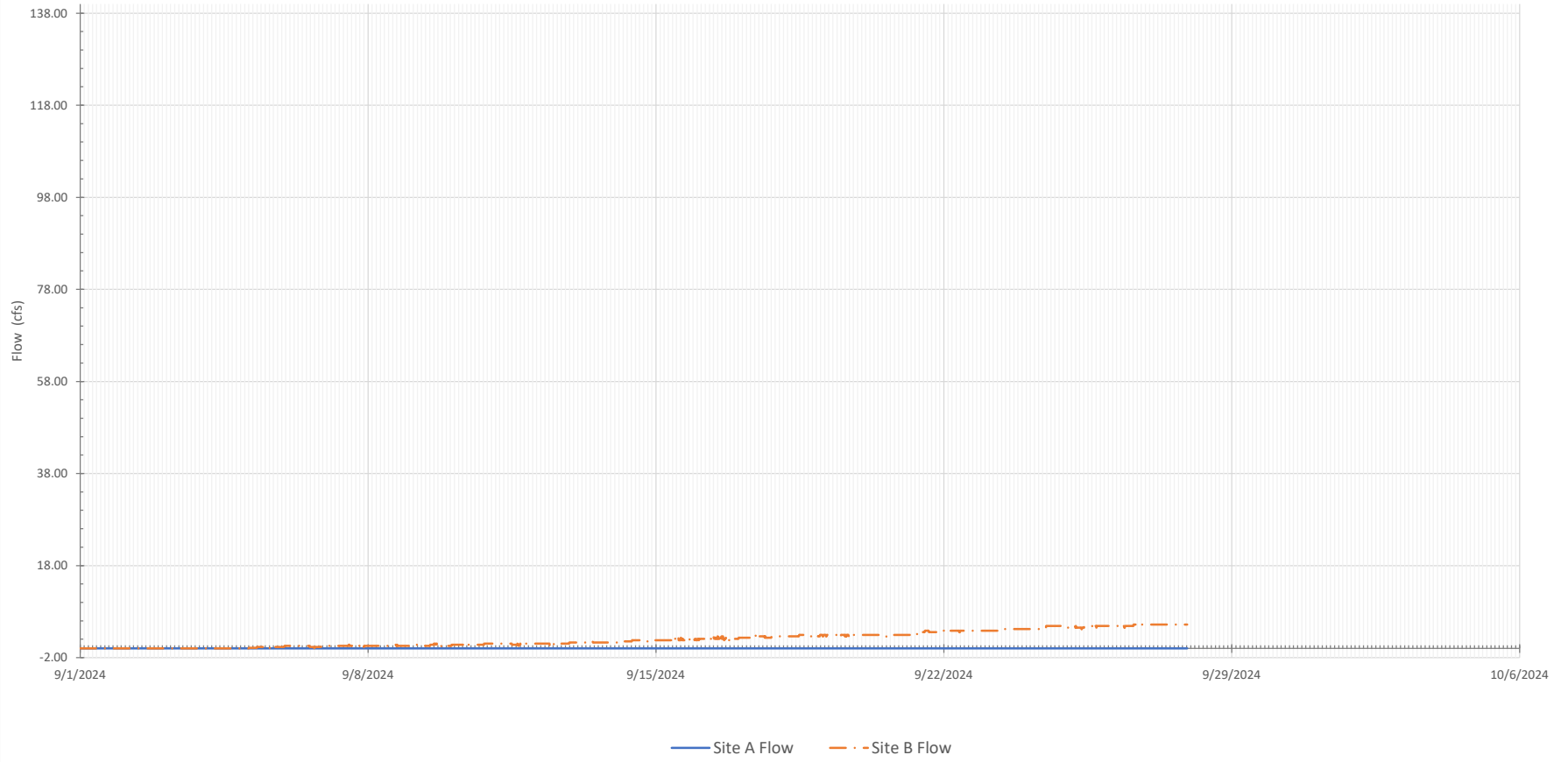
# Grassland Bypass Project - Site A & B Discharge & Rainfall



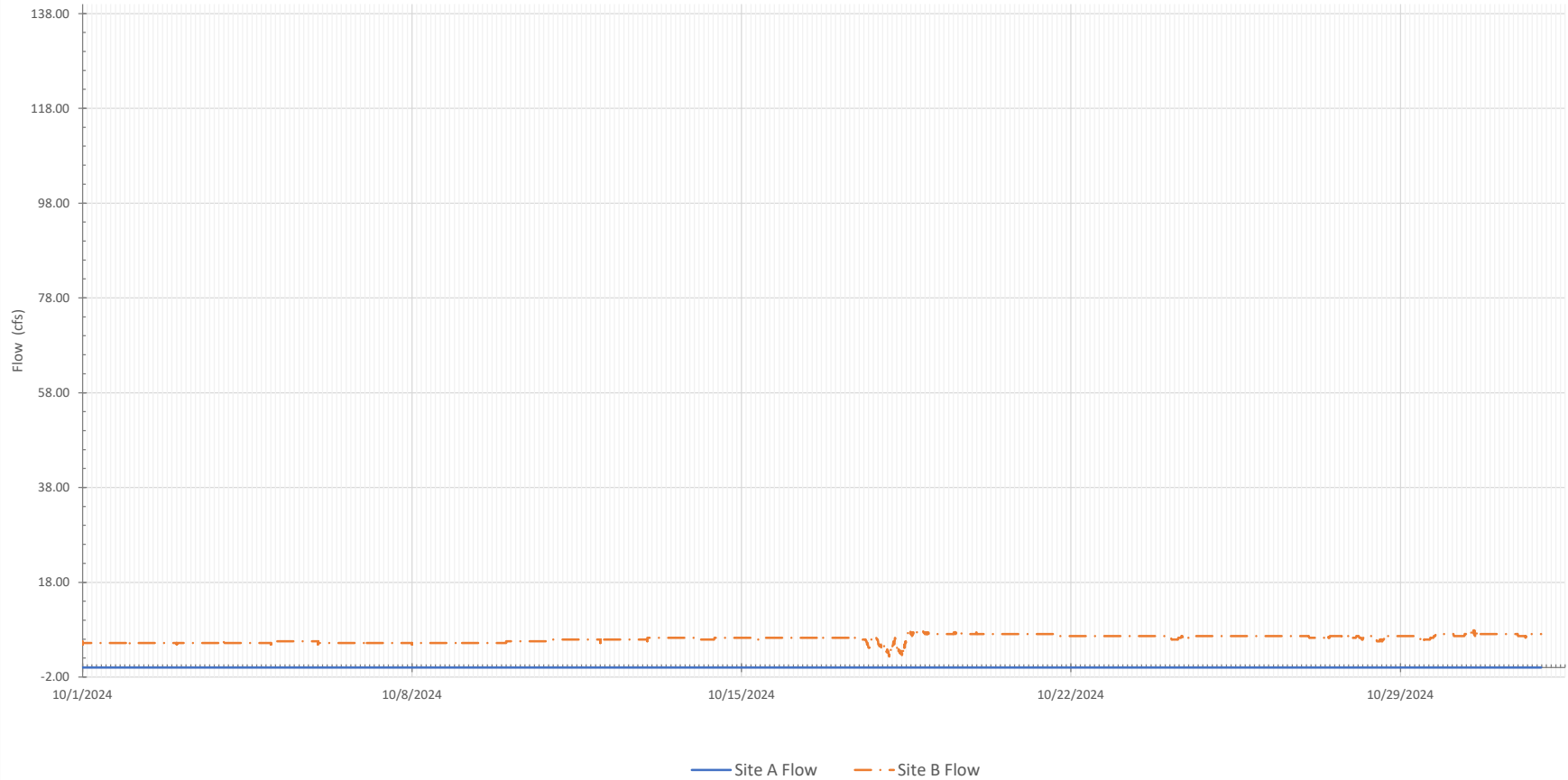
# Mud Slough Selenium



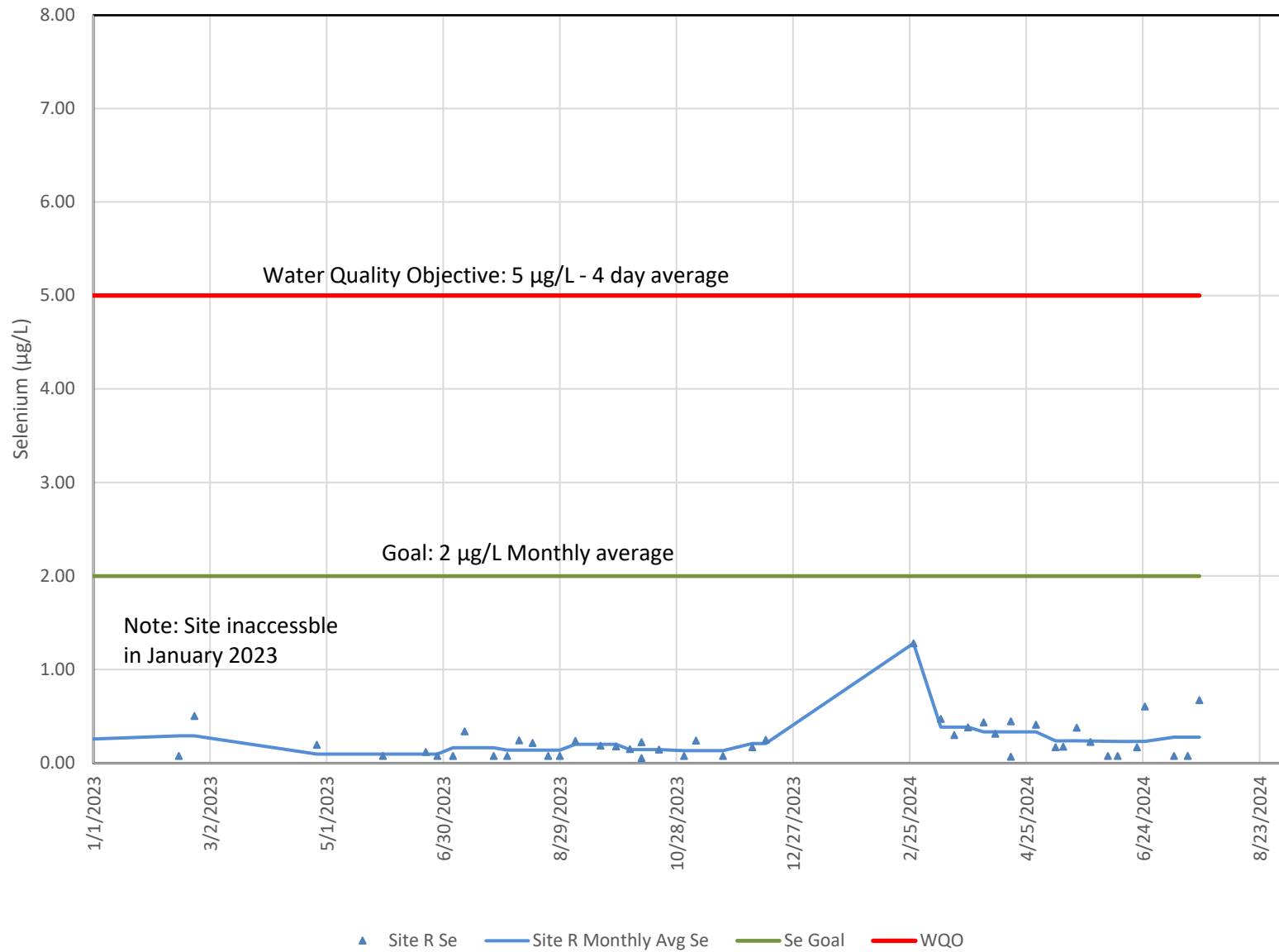
### Site A & B Flow 2024



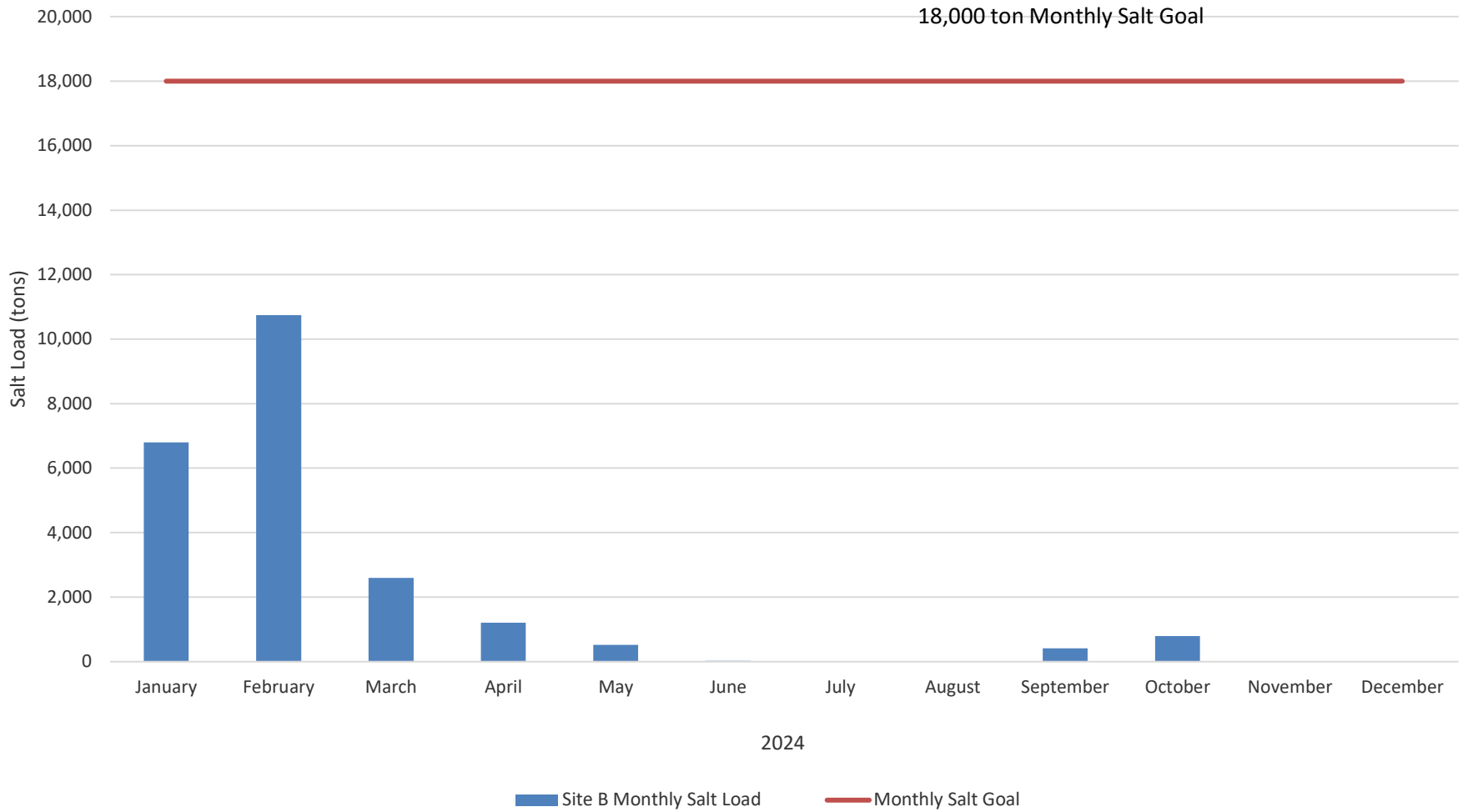
Site A & B Flow  
2024



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



### San Luis Drain Site B Monthly Salt Load





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

September 19, 2024

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water Sample: Event 113” for the sample that was collected August 21, 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 testing 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 testing 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> )
8/21/24 (1431)	Lab Water Control	2.26
	GBP-113-D-TE	3.24

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

The results for this testing 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 testing 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
8/21/24 (1443)	Lab Water Control	100
	GBP-113-D-TE	100

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

The results for this testing 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 testing 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
8/21/24 (1445)	Lab Water Control	100
	GBP-113-D-TE	97.5



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

October 29, 2024

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water and Sediment Samples: Event 114” for the samples that were collected September 23, 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	<i>Hyaella azteca</i>
	Growth	Survival	Survival	Survival
Site D	No	No	No	Yes
Site B3	No	No	No	
Site F	No	No	No	
Site R	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 samples.

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

There were **no** significant reductions in survival in any of the Grasslands Bypass Project ambient water samples.

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

There were **no** significant reductions in survival in the Grasslands Bypass Project ambient water samples.

**Acute Toxicity of Grasslands Bypass Ambient Sediment to *Hyaella azteca***

There was a significant reduction in survival in the Site D sediment tested with *H. azteca*.

### 3. RESULTS

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

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

Test Initiation Date (Time)	Treatment/Sample ID	Mean Algal Cell Density (cells/mL x 10 <sup>6</sup> )
9/24/24 (1505)	Lab Water Control	1.72
	GBP-114-D-TE	5.79
	GBP-114-B3-TE	4.21
	GBP-114-F-TE	5.50
	GBP-114-R-TE	4.46

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

The results for this testing are summarized in Table 3. There were ***no*** significant reductions in survival in any of the Grasslands Bypass Project ambient water samples. The test data and summary of statistical analyses for this testing are presented in Appendix C.

Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
9/24/24 (1503)	Lab Water Control	95.0
	GBP-114-D-TE	100
	GBP-114-B3-TE	100
	GBP-114-F-TE	95.0
	GBP-114-R-TE	100



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

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

Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival
9/24/24 (1631)	Lab Water Control	100
	GBP-114-D-TE	100
	GBP-114-B3-TE	100
	GBP-114-F-TE	100
	GBP-114-R-TE	100

### 3.4 Effects of the Grasslands Bypass Project Sediment on *Hyaella azteca*

The results of this test are summarized in Table 5. There was a 41.6% effect in survival in the Grasslands Bypass Project sediment sample; the TST analysis resulted in a Fail. The test data and summary of statistical analyses for this test is present in Appendix E.

Test Initiation Date (Time)	Treatment/Sample ID	Mean % Survival	TST Analysis	% Effect
9/26/24 (1421)	Lab Control	96.2		
	GBP-114-D-SE	56.2	Fail	41.6%





Chris Linneman  
Summers Engineering, Inc.  
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Hanford, CA 93230

November 7, 2024

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water Sample: Event 115” for the sample that was collected October 16, 2024. The results of this testing are summarized below.

Toxicity summary for Grasslands Bypass Project ambient water sample.			
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 testing 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 testing 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> )
10/16/24 (1520)	Lab Water Control	2.82
	GBP-115-D-TE	6.54

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

The results for this testing 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 testing 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
10/16/24 (1527)	Lab Water Control	100
	GBP-115-D-TE	100

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

The results for this testing 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 testing 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
10/16/24 (1456)	Lab Water Control	100
	GBP-115-D-TE	100

