



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

August 26, 2022

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water: Event 88” for the sample that was collected July 20, 2022. The results of this testing are summarized below.

Toxicity summary for the Grasslands Bypass Project ambient water sample.			
Sample Station	Toxicity relative to the Lab Water Control treatment?		
	<i>Selenastrum capricornutum</i>	<i>Daphnia magna</i>	Fathead Minnow
	Growth	Survival	Survival
GBP-88-D-TE	No	No	No

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

There was **no** significant reduction in growth in the Site D ambient water sample.

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

There was **no** significant reduction in survival in the Site D ambient water sample.

Acute Toxicity of Grasslands Bypass Project Ambient Water to Fathead Minnows

There was **no** significant reduction in survival in the Site D ambient water sample.

If you have any questions regarding the performance and interpretation of these tests, feel free to contact us at (707) 207-7760.

Sincerely,

Digitally signed by Stevi Vasquez
Date: 2022.08.26 14:57:24 -07'00'

Stevi Vasquez
Project Manager



Pacific EcoRisk is accredited in accordance with NELAP (ORELAP ID 4043). Pacific EcoRisk certifies that the test results reported herein conform to the most current NELAP requirements for parameters for which accreditation is required and available. Any exceptions to NELAP requirements are noted, where applicable, in the body of the report. This report shall not be reproduced, except in full, without the written consent of Pacific EcoRisk. This testing was performed under Lab Order 22166.

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

September 16, 2022

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water: Event 89” for the sample that was collected August 17, 2022. The results of this testing are summarized below.

Toxicity summary for the Grasslands Bypass Project ambient water sample.			
Sample Station	Toxicity relative to the Lab Water Control treatment?		
	<i>Selenastrum capricornutum</i>	<i>Daphnia magna</i>	Fathead Minnow
	Growth	Survival	Survival
GBP-89-D-TE	No	No	No

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

There was **no** significant reduction in growth in the Site D ambient water sample.

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

There was **no** significant reduction in survival in the Site D ambient water sample.

Acute Toxicity of Grasslands Bypass Project Ambient Water to Fathead Minnows

There was **no** significant reduction in survival in the Site D ambient water sample.

If you have any questions regarding the performance and interpretation of these tests, feel free to contact us at (707) 207-7760.

Sincerely,

Stevi Vasquez
 Project Manager



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

November 2, 2022

Chris:

I have enclosed our report “Evaluation of the Toxicity of Grasslands Bypass Project Ambient Water and Sediment Samples: Event 90” for the samples that were collected September 28, 2022. 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	No
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 were **no** significant reductions in algal growth in any of 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 any of the Grasslands Bypass Project ambient water samples.

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

There was **no** significant reduction in survival in the Site D sediment tested with *H. azteca*.