

ATTACHMENT D
WUA TABLES

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>	Project 2085
		Proposed Action
Table Attachment D-1	Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Rainbow Trout	
Table Attachment D-2	Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Brown Trout	
Table Attachment D-3	Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Sacramento Sucker	
Table Attachment D-4	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Rainbow Trout.	
Table Attachment D-5	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Brown Trout.	
Table Attachment D-6	Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative.	
Table Attachment D-7	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Sacramento Sucker.	
Table Attachment D-8	Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative.	
Table Attachment D-9	Percent Reduction in Wetted Perimeter between Two Flows for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6.	
Table Attachment D-10	Percent Retention of Redd Habitat between Two Flows for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6.	
Table Attachment D-11	Depth Suitability vs. Flow Function for Rock Creek.	
		CDFG Alternative
Table Attachment D-12	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Rainbow Trout.	
Table Attachment D-13	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Brown Trout.	
Table Attachment D-14	Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative.	
Table Attachment D-15	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Sacramento Sucker.	
Table Attachment D-16	Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative.	
Table Attachment D-17	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action for Rainbow Trout.	
Table Attachment D-18	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Alternative for Brown Trout.	
Table Attachment D-19	Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action.	

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-20	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action for Sacramento Sucker.
Table Attachment D-21	Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action.

Project 2175

Proposed Action

Table Attachment D-22	Habitat-Flow Relationships for Rainbow Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.
Table Attachment D-23	Habitat-Flow Relationships for Brown Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.
Table Attachment D-24	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-25	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-26	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative.
Table Attachment D-27	Percent Reduction in Wetted Perimeter between Two Flows for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.
Table Attachment D-28	Percent Retention of Redd Habitat between Two Flows for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.
Table Attachment D-29	Percent Reduction in Wetted Perimeter between Two Flows for Balsam Creek – Diversion to Big Creek.
Table Attachment D-30	Percent Reduction in Wetted Perimeter between Two Flows for Adit No. 8 Creek – Diversion to Big Creek.
Table Attachment D-31	Percent Reduction in Wetted Perimeter between Two Flows for Ely Creek – Diversion to Big Creek.

CDFG Alternative

Table Attachment D-32	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-33	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-34	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative.
Table Attachment D-35	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-36	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-37	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action.

Project 67

Proposed Action

Table Attachment D-38	Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Florence Lake to Bear Creek.
Table Attachment D-39	Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Florence Lake to Bear Creek.

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-40	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-41	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-42	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek - Proposed vs. No Action Alternative.
Table Attachment D-43	Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Florence Lake to Bear Creek.
Table Attachment D-44	Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Florence Lake to Bear Creek.
Table Attachment D-45	Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Bear Creek to Mono Creek.
Table Attachment D-46	Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Bear Creek to Mono Creek.
Table Attachment D-47	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-48	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-49	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative.
Table Attachment D-50	Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Bear Creek to Mono Creek.
Table Attachment D-51	Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Bear Creek to Mono Creek.
Table Attachment D-52	Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.
Table Attachment D-53	Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.
Table Attachment D-54	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek- Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-55	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-56	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek- Proposed vs. No Action Alternative.
Table Attachment D-57	Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.
Table Attachment D-58	Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.
Table Attachment D-59	Habitat-Flow Relationships for Brown Trout in Bear Creek.
Table Attachment D-60	Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-61	Percent of Maximum WUA Provided for Trout in Bear Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative.
Table Attachment D-62	Percent Reduction in Wetted Perimeter between Two Flows for Bear Creek (Diversion to SF San Joaquin River).
Table Attachment D-63	Percent Retention of Redd Habitat between Two Flows for Bear Creek (Diversion to SF San Joaquin River).

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-64	Habitat-Flow Relationships for Rainbow Trout in Mono Creek (Diversion to SF San Joaquin River).
Table Attachment D-65	Habitat-Flow Relationships for Brown Trout in Mono Creek (Diversion to SF San Joaquin River).
Table Attachment D-66	
Table Attachment D-67	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-68	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-69	Percent of Maximum WUA Provided for Trout in Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative.
Table Attachment D-70	Percent Reduction in Wetted Perimeter between Two Flows for Mono Creek (Diversion to SF San Joaquin River).
Table Attachment D-71	Percent Retention of Redd Habitat between Two Flows for Mono Creek (Diversion to SF San Joaquin River).
Table Attachment D-72	Percent Reduction in Wetted Perimeter between Two Flows for Tombstone Creek.
Table Attachment D-73	Percent Reduction in Wetted Perimeter between Two Flows for North Slide Creek.
Table Attachment D-74	Percent Reduction in Wetted Perimeter between Two Flows for South Slide Creek.
Table Attachment D-75	Percent Reduction in Wetted Perimeter between Two Flows for Hooper Creek.
Table Attachment D-76	Percent Reduction in Wetted Perimeter between Two Flows for Crater Creek.
Table Attachment D-77	Percent Reduction in Wetted Perimeter between Two Flows for Chinquapin Creek.
Table Attachment D-78	Percent Reduction in Wetted Perimeter between Two Flows for Camp 62 Creek.
Table Attachment D-79	Depth Suitability versus Flow Function for Bolsillo Creek.
Table Attachment D-80	Percent Reduction in Wetted Perimeter between Two Flows for Pitman Creek.
Table Attachment D-81	Percent Reduction in Wetted Perimeter between Two flows for Balsam Creek – Forebay to Diversion.
Table Attachment D-82	Habitat-Flow Relationships for Rainbow Trout in North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake).
Table Attachment D-83	Habitat-Flow Relationships for Brown Trout in North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake).
Table Attachment D-84	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake) - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-85	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake) - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-86	Percent of Maximum WUA provided for Trout in North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake) - Proposed vs. No Action Alternative.
Table Attachment D-87	Percent Reduction in Wetted Perimeter between Two Flows for North Fork Stevenson Creek (Tunnel Outlet to Shaver Lake).
Table Attachment D-88	(Tunnel Outlet to Shaver Lake).
Table Attachment D-89	Habitat-Flow Relationships for Rainbow Trout in Big Creek, Dam 5 to Powerhouse 8/SJR.
Table Attachment D-90	Habitat-Flow Relationships for Brown Trout in Big Creek, Dam 5 to Powerhouse 8/SJR.
Table Attachment D-91	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-92	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-93	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative.
Table Attachment D-94	Percent Reduction in Wetted Perimeter between Two Flows for Big Creek, Dam 5 to Powerhouse 8/SJR.

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-94	Percent Retention of Redd Habitat between Two Flows for Big Creek, Dam 5 to Powerhouse 8/SJR.
Table Attachment D-95	Habitat-Flow Relationships for Rainbow Trout in Stevenson Creek.
Table Attachment D-96	Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek (Shaver Lake Dam to San Joaquin River) - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-97	Percent of Maximum WUA Provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - Proposed vs. No Action Alternative.
Table Attachment D-98	Percent Reduction in Wetted Perimeter between Two Flows for Stevenson Creek, Shaver Lake Dam to San Joaquin River.
Table Attachment D-99	Percent Retention of Redd Habitat between Two Flows for Stevenson Creek (Shaver Lake Dam to San Joaquin River).
	CDFG Alternative
Table Attachment D-100	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-101	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-102	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek- CDFG Alternative vs. No Action Alternative.
Table Attachment D-103	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-104	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-105	Percent of Maximum WUA provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action.
Table Attachment D-106	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-107	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-108	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative.
Table Attachment D-109	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-110	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-111	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action.
Table Attachment D-112	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-113	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-114	Percent of Maximum WUA provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative.

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-115	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-116	Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-117	Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action.
Table Attachment D-118	Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-119	Percent of Maximum WUA Provided for Trout in Bear Creek- CDFG Alternative vs. No Action Alternative.
Table Attachment D-120	Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-121	Percent of Maximum WUA Provided for Trout in Bear Creek - CDFG Alternative vs. Proposed Action.
Table Attachment D-122	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-123	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-124	Percent of Maximum WUA Provided for Trout in Mono Creek - CDFG Alternative vs. No Action Alternative.
Table Attachment D-125	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-126	Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-127	Percent of Maximum WUA Provided for Trout in Mono Creek - CDFG Alternative vs. Proposed Action.
Table Attachment D-128	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-129	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-130	Percent of Maximum WUA Provided for Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative.
Table Attachment D-131	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-132	Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-133	Percent of Maximum WUA provided for Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action.
Table Attachment D-134	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-135	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-136	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative.
Table Attachment D-137	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-138	Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Brown Trout.

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-139	Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action.
Table Attachment D-140	Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. No Action Alternative for Rainbow Trout.
Table Attachment D-141	Percent of Maximum WUA provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. No Action Alternative.
Table Attachment D-142	Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-143	Percent of Maximum WUA Provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. Proposed Action.

Project 120

Proposed Action	
Table Attachment D-144	Habitat-Flow Relationships for Rainbow Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-145	Habitat-Flow Relationships for Brown Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-146	Habitat-Flow Relationships for Hardhead in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-147	Habitat-Flow Relationships for Pikeminnow in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-148	Habitat-Flow Relationships for Sacramento Sucker in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-149	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Rainbow Trout.
Table Attachment D-150	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Brown Trout.
Table Attachment D-151	Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative.
Table Attachment D-152	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Sacramento Pikeminnow.
Table Attachment D-153	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Hardhead.
Table Attachment D-154	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Sacramento Sucker.
Table Attachment D-155	Percent of Maximum WUA provided for Native Transition Zone fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative.
Table Attachment D-156	Percent Reduction in Wetted Perimeter between Two Flows for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
Table Attachment D-157	Percent Retention of Redd Habitat between Two Flows for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.
CDFG Alternative	
Table Attachment D-158	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

List of Tables included in Attachment D.

<u>Table</u>	<u>Description</u>
Table Attachment D-159	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Brown Trout.
Table Attachment D-160	Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake – CDFG Alternative vs. No Action Alternative.
Table Attachment D-161	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Sacramento Pikeminnow.
Table Attachment D-162	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Hardhead.
Table Attachment D-163	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Sacramento Sucker.
Table Attachment D-164	Percent of Maximum WUA provided for Native Transition Zone fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative.
Table Attachment D-165	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout.
Table Attachment D-166	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Brown Trout.
Table Attachment D-167	Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action.
Table Attachment D-168	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Sacramento Pikeminnow.
Table Attachment D-169	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Hardhead.
Table Attachment D-170	Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Sacramento Sucker.
Table Attachment D-171	Percent of Maximum WUA Provided for Native Transition Zone Fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action Alternative.

Table Attachment D-1. Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Rainbow Trout.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	28,779	30,461	39,280	126	2,672
11.0	29,362	31,205	39,305	136	3,008
12.0	29,929	31,589	39,330	145	3,363
14.0	31,018	32,214	39,339	161	4,062
16.0	32,031	32,731	39,265	178	4,773
18.0	32,991	33,088	39,145	192	5,503
20.0	33,872	33,358	38,994	205	6,211
25.0	35,868	33,644	38,561	225	7,905
30.0	37,582	33,766	37,933	240	9,447
35.0	39,128	33,772	37,196	257	10,845
40.0	40,527	33,564	36,562	273	12,222
45.0	41,819	33,248	35,948	288	13,418
50.0	43,013	32,858	35,354	300	14,428
60.0	44,998	32,015	34,223	326	16,181
70.0	46,618	31,274	33,153	338	17,857
80.0	47,967	30,599	32,136	345	19,340
90.0	49,056	29,962	31,247	349	20,730
100.0	49,923	29,343	30,549	350	21,869
125.0	51,471	27,970	28,977	372	24,133
150.0	52,541	26,599	27,575	387	26,084
175.0	53,213	25,447	26,155	394	27,330
200.0	53,654	24,441	24,790	400	28,153
225.0	53,915	23,539	23,504	410	28,657
250.0	53,874	22,658	22,471	425	29,145
275.0	53,495	21,837	21,540	443	29,473
300.0	53,200	21,034	20,760	461	29,566
350.0	52,322	19,581	19,375	505	29,817
400.0	51,234	18,361	18,322	549	29,791
450.0	50,438	17,209	17,509	571	29,312
500.0	49,566	16,308	16,753	586	28,938
MAX WUA	53,915	33,772	39,339	586	29,817

Table Attachment D-2. Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Brown Trout.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	35,618	33,868	35,966	176	8,190
11.0	36,217	34,319	35,908	187	8,747
12.0	36,781	34,696	35,850	194	9,275
14.0	37,814	35,378	35,686	209	10,306
16.0	38,748	35,939	35,444	221	11,312
18.0	39,607	36,371	35,159	233	12,284
20.0	40,419	36,724	34,872	244	13,207
25.0	42,205	37,202	34,324	268	15,207
30.0	43,746	37,333	33,725	291	16,909
35.0	45,107	37,350	33,093	317	18,486
40.0	46,291	37,119	32,538	342	20,009
45.0	47,250	36,720	32,065	365	21,316
50.0	48,024	36,313	31,612	387	22,419
60.0	49,257	35,431	30,667	426	24,218
70.0	50,111	34,705	29,708	438	25,770
80.0	50,704	33,940	28,730	447	27,172
90.0	51,106	33,179	27,781	460	28,403
100.0	51,434	32,534	26,970	468	29,503
125.0	51,940	30,764	25,298	481	31,085
150.0	51,932	29,241	23,822	498	32,305
175.0	51,626	28,032	22,405	517	33,270
200.0	51,077	26,980	21,142	528	33,746
225.0	50,310	25,971	19,838	543	33,859
250.0	49,625	25,086	18,833	567	33,872
275.0	48,931	24,285	17,932	590	33,848
300.0	48,184	23,486	17,217	605	33,546
350.0	46,864	22,109	15,913	633	32,906
400.0	45,555	20,826	15,024	659	32,243
450.0	44,458	19,726	14,267	665	31,459
500.0	43,334	18,810	13,613	676	30,686
	51,940	37,350	35,966	676	33,872

Table Attachment D-3. Habitat-Flow Relationships for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 for Sacramento Sucker.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)	
	Adult	Juvenile
10.0	34,807	45,224
11.0	35,326	45,410
12.0	35,822	45,562
14.0	36,759	45,768
16.0	37,634	45,908
18.0	38,459	45,972
20.0	39,240	45,988
25.0	40,978	45,904
30.0	42,489	45,646
35.0	43,834	45,323
40.0	45,067	44,963
45.0	46,184	44,586
50.0	47,206	44,163
60.0	49,030	43,266
70.0	50,594	42,426
80.0	51,935	41,601
90.0	53,102	40,858
100.0	54,150	40,176
125.0	56,332	38,517
150.0	58,007	36,965
175.0	59,245	35,574
200.0	60,148	34,284
225.0	60,784	32,970
250.0	61,184	31,740
275.0	61,371	30,623
300.0	61,436	29,598
350.0	61,313	27,781
400.0	60,950	26,321
450.0	60,547	25,125
500.0	60,130	24,111
MAX WUA	61,436	45,988

Table Attachment D-4. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	47,967	35,868	3,935	2,942	-	-	-	-
Nov	80	10	47,967	28,779	3,935	2,361	-	-	-	-
Dec	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Jan	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Feb	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Mar	80	10	47,967	28,779	3,935	2,361	-	-	-	-
Apr 1	125	10	51,471	28,779	4,222	2,361	372	126	555	188
Apr 16	125	25	51,471	35,868	4,222	2,942	372	225	555	336
May	125	25	51,471	35,868	4,222	2,942	372	225	555	336
Jun	125	25	51,471	35,868	4,222	2,942	372	225	555	336
Jul	100	30	49,923	37,582	4,095	3,083	-	-	-	-
Aug	100	30	49,923	37,582	4,095	3,083	-	-	-	-
Sep 1	80	30	47,967	37,582	3,935	3,083	-	-	-	-
Sep 16	80	25	47,967	35,868	3,935	2,942	-	-	-	-

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	12.5	47,967	30,201	3,935	2,477	-	-	-	-
Nov	80	10	47,967	28,779	3,935	2,361	-	-	-	-
Dec	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Jan	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Feb	55	10	44,005	28,779	3,610	2,361	-	-	-	-
Mar	80	10	47,967	28,779	3,935	2,361	-	-	-	-
Apr 1	125	10	51,471	28,779	4,222	2,361	372	126	555	188
Apr 16	125	12.5	51,471	30,201	4,222	2,477	372	149	555	222
May	125	12.5	51,471	30,201	4,222	2,477	372	149	555	222
Jun	125	12.5	51,471	30,201	4,222	2,477	372	149	555	222
Jul	100	30	49,923	37,582	4,095	3,083	-	-	-	-
Aug	100	30	49,923	37,582	4,095	3,083	-	-	-	-
Sep 1	80	30	47,967	37,582	3,935	3,083	-	-	-	-
Sep 16	80	12.5	47,967	30,201	3,935	2,477	-	-	-	-

Table Attachment D-4. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	30,599	33,644	5,020	5,519	-	-	-	-
Nov	80	10	30,599	30,461	5,020	4,997	-	-	-	-
Dec	55	10	32,436	30,461	5,321	4,997	-	-	-	-
Jan	55	10	32,436	30,461	5,321	4,997	-	-	-	-
Feb	55	10	32,436	30,461	5,321	4,997	-	-	-	-
Mar	80	10	30,599	30,461	5,020	4,997	-	-	-	-
Apr 1	125	10	27,970	30,461	4,589	4,997	-	-	-	-
Apr 16	125	25	27,970	33,644	4,589	5,519	-	-	-	-
May	125	25	27,970	33,644	4,589	5,519	-	-	-	-
Jun	125	25	27,970	33,644	4,589	5,519	28,977	38,561	11,884	15,815
Jul	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557
Aug	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557
Sep 1	80	30	30,599	33,766	5,020	5,539	32,136	37,933	13,180	15,557
Sep 16	80	25	30,599	33,644	5,020	5,519	32,136	38,561	13,180	15,815

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	12.5	30,599	31,745	5,020	5,208	-	-	-	-	-	-	-	-
Nov	80	10	30,599	30,461	5,020	4,997	-	-	-	-	-	-	-	-
Dec	55	10	32,436	30,461	5,321	4,997	-	-	-	-	-	-	-	-
Jan	55	10	32,436	30,461	5,321	4,997	-	-	-	-	-	-	-	-
Feb	55	10	32,436	30,461	5,321	4,997	-	-	-	-	-	-	-	-
Mar	80	10	30,599	30,461	5,020	4,997	-	-	-	-	-	-	-	-
Apr 1	125	10	27,970	30,461	4,589	4,997	-	-	-	-	-	-	-	-
Apr 16	125	12.5	27,970	31,745	4,589	5,208	-	-	-	-	-	-	-	-
May	125	12.5	27,970	31,745	4,589	5,208	-	-	-	-	-	-	-	-
Jun	125	12.5	27,970	31,745	4,589	5,208	28,977	39,332	11,884	16,131	-	-	-	-
Jul	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557	-	-	-	-
Aug	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557	-	-	-	-
Sep 1	80	30	30,599	33,766	5,020	5,539	32,136	37,933	13,180	15,557	-	-	-	-
Sep 16	80	12.5	30,599	31,745	5,020	5,208	32,136	39,332	13,180	16,131	-	-	-	-

Table Attachment D-5. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	50,704	42,205	4,159	3,462	447	268	262	157
Nov	80	10	50,704	35,618	4,159	2,922	447	176	262	103
Dec	55	10	48,640	35,618	3,990	2,922	407	176	238	103
Jan	55	10	48,640	35,618	3,990	2,922	-	-	-	-
Feb	55	10	48,640	35,618	3,990	2,922	-	-	-	-
Mar	80	10	50,704	35,618	4,159	2,922	-	-	-	-
Apr 1	125	10	51,940	35,618	4,260	2,922	-	-	-	-
Apr 16	125	25	51,940	42,205	4,260	3,462	-	-	-	-
May	125	25	51,940	42,205	4,260	3,462	-	-	-	-
Jun	125	25	51,940	42,205	4,260	3,462	-	-	-	-
Jul	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Aug	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Sep 1	80	30	50,704	43,746	4,159	3,588	-	-	-	-
Sep 16	80	25	50,704	42,205	4,159	3,462	-	-	-	-

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	12.5	50,704	37,040	4,159	3,038	447	198	262	116
Nov	80	10	50,704	35,618	4,159	2,922	447	176	262	103
Dec	55	10	48,640	35,618	3,990	2,922	407	176	238	103
Jan	55	10	48,640	35,618	3,990	2,922	-	-	-	-
Feb	55	10	48,640	35,618	3,990	2,922	-	-	-	-
Mar	80	10	50,704	35,618	4,159	2,922	-	-	-	-
Apr 1	125	10	51,940	35,618	4,260	2,922	-	-	-	-
Apr 16	125	12.5	51,940	37,040	4,260	3,038	-	-	-	-
May	125	12.5	51,940	37,040	4,260	3,038	-	-	-	-
Jun	125	12.5	51,940	37,040	4,260	3,038	-	-	-	-
Jul	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Aug	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Sep 1	80	30	50,704	43,746	4,159	3,588	-	-	-	-
Sep 16	80	12.5	50,704	37,040	4,159	3,038	-	-	-	-

Table Attachment D-5. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	33,940	37,202	5,568	6,103	-	-	-	-
Nov	80	10	33,940	33,868	5,568	5,556	-	-	-	-
Dec	55	10	35,872	33,868	5,885	5,556	-	-	-	-
Jan	55	10	35,872	33,868	5,885	5,556	-	-	-	-
Feb	55	10	35,872	33,868	5,885	5,556	-	-	-	-
Mar	80	10	33,940	33,868	5,568	5,556	-	-	-	-
Apr 1	125	10	30,764	33,868	5,047	5,556	-	-	-	-
Apr 16	125	25	30,764	37,202	5,047	6,103	-	-	-	-
May	125	25	30,764	37,202	5,047	6,103	-	-	-	-
Jun	125	25	30,764	37,202	5,047	6,103	25,298	34,324	10,375	14,077
Jul	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832
Aug	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832
Sep 1	80	30	33,940	37,333	5,568	6,124	28,730	33,725	11,783	13,832
Sep 16	80	25	33,940	37,202	5,568	6,103	28,730	34,324	11,783	14,077

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	No Action	
Oct	80	12.5	33,940	34,866	5,568	5,720	-	-	-	-	-	-	-	
Nov	80	10	33,940	33,868	5,568	5,556	-	-	-	-	-	-	-	
Dec	55	10	35,872	33,868	5,885	5,556	-	-	-	-	-	-	-	
Jan	55	10	35,872	33,868	5,885	5,556	-	-	-	-	-	-	-	
Feb	55	10	35,872	33,868	5,885	5,556	-	-	-	-	-	-	-	
Mar	80	10	33,940	33,868	5,568	5,556	-	-	-	-	-	-	-	
Apr 1	125	10	30,764	33,868	5,047	5,556	-	-	-	-	-	-	-	
Apr 16	125	12.5	30,764	34,866	5,047	5,720	-	-	-	-	-	-	-	
May	125	12.5	30,764	34,866	5,047	5,720	-	-	-	-	-	-	-	
Jun	125	12.5	30,764	34,866	5,047	5,720	25,298	35,809	10,375	14,686	-	-	-	
Jul	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832	-	-	-	
Aug	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832	-	-	-	
Sep 1	80	30	33,940	37,333	5,568	6,124	28,730	33,725	11,783	13,832	-	-	-	
Sep 16	80	12.5	33,940	34,866	5,568	5,720	28,730	35,809	11,783	14,686	-	-	-	

Table Attachment D-6. Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat		
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	
Oct	80	25	Brown Trout Spawning	66%	40%	89%	67%	98%	81%	
Nov	80	10		66%	26%	89%	53%	98%	69%	
Dec	55	10		60%	26%	82%	53%	94%	69%	
Jan	55	10					82%	53%	94%	69%
Feb	55	10					82%	53%	94%	69%
Mar	80	10					89%	53%	98%	69%
Apr 1	125	10	Rainbow Trout Spawning	63%	22%	95%	53%	100%	69%	
Apr 16	125	25		63%	38%	95%	67%	100%	81%	
May	125	25		63%	38%	95%	67%	100%	81%	
Jun	125	25		63%	38%	95%	67%	100%	81%	
Jul	100	30					93%	70%	99%	84%
Aug	100	30					93%	70%	99%	84%
Sep 1	80	30					89%	70%	98%	84%
Sep 16	80	25					89%	67%	98%	81%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	
Oct	80	12.5	Brown Trout Spawning	66%	29%	89%	56%	98%	71%	
Nov	80	10		66%	26%	89%	53%	98%	69%	
Dec	55	10		60%	26%	82%	53%	94%	69%	
Jan	55	10					82%	53%	94%	69%
Feb	55	10					82%	53%	94%	69%
Mar	80	10					89%	53%	98%	69%
Apr 1	125	10	Rainbow Trout Spawning	63%	22%	95%	53%	100%	69%	
Apr 16	125	12.5		63%	25%	95%	56%	100%	71%	
May	125	12.5		63%	25%	95%	56%	100%	71%	
Jun	125	12.5		63%	25%	95%	56%	100%	71%	
Jul	100	30					93%	70%	99%	84%
Aug	100	30					93%	70%	99%	84%
Sep 1	80	30					89%	70%	98%	84%
Sep 16	80	12.5					89%	56%	98%	71%

Table Attachment D-7. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	51,935	40,978	4,260	3,361	41,601	45,904	6,825	7,530
Nov	80	10	51,935	34,807	4,260	2,855	41,601	45,224	6,825	7,419
Dec	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Jan	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Feb	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Mar	80	10	51,935	34,807	4,260	2,855	41,601	45,224	6,825	7,419
Apr 1	125	10	56,332	34,807	4,621	2,855	38,517	45,224	6,319	7,419
Apr 16	125	25	56,332	40,978	4,621	3,361	38,517	45,904	6,319	7,530
May	125	25	56,332	40,978	4,621	3,361	38,517	45,904	6,319	7,530
Jun	125	25	56,332	40,978	4,621	3,361	38,517	45,904	6,319	7,530
Jul	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488
Aug	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488
Sep 1	80	30	51,935	42,489	4,260	3,485	41,601	45,646	6,825	7,488
Sep 16	80	25	51,935	40,978	4,260	3,361	41,601	45,904	6,825	7,530

			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	80	12.5	51,935	36,056	4,260	2,957	41,601	45,614	6,825	7,483
Nov	80	10	51,935	34,807	4,260	2,855	41,601	45,224	6,825	7,419
Dec	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Jan	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Feb	55	10	48,118	34,807	3,947	2,855	43,715	45,224	7,171	7,419
Mar	80	10	51,935	34,807	4,260	2,855	41,601	45,224	6,825	7,419
Apr 1	125	10	56,332	34,807	4,621	2,855	38,517	45,224	6,319	7,419
Apr 16	125	12.5	56,332	36,056	4,621	2,957	38,517	45,614	6,319	7,483
May	125	12.5	56,332	36,056	4,621	2,957	38,517	45,614	6,319	7,483
Jun	125	12.5	56,332	36,056	4,621	2,957	38,517	45,614	6,319	7,483
Jul	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488
Aug	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488
Sep 1	80	30	51,935	42,489	4,260	3,485	41,601	45,646	6,825	7,488
Sep 16	80	12.5	51,935	36,056	4,260	2,957	41,601	45,614	6,825	7,483

Table Attachment D-8. Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Adult Sacramento Sucker Rearing Habitat	
	Proposed Action	No Action	Proposed Action	No Action
Oct	80	25	85%	67%
Nov	80	10	85%	57%
Dec	55	10	78%	57%
Jan	55	10	78%	57%
Feb	55	10	78%	57%
Mar	80	10	85%	57%
Apr 1	125	10	92%	57%
Apr 16	125	25	92%	67%
May	125	25	92%	67%
Jun	125	25	92%	67%
Jul	100	30	88%	69%
Aug	100	30	88%	69%
Sep 1	80	30	85%	69%
Sep 16	80	25	85%	67%

Dry Years

Month	Proposed Action	No Action	Proposed Action	No Action
Oct	80	12.5	85%	59%
Nov	80	10	85%	57%
Dec	55	10	78%	57%
Jan	55	10	78%	57%
Feb	55	10	78%	57%
Mar	80	10	85%	57%
Apr 1	125	10	92%	57%
Apr 16	125	12.5	92%	59%
May	125	12.5	92%	59%
Jun	125	12.5	92%	59%
Jul	100	30	88%	69%
Aug	100	30	88%	69%
Sep 1	80	30	85%	69%
Sep 16	80	12.5	85%	59%

Table Attachment D-9. Percent Reduction in Wetted Perimeter between Two Flows for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6.

		Start Flow ¹ (cfs)																												
Start Flow ¹	500	450	400	350	300	275	250	225	200	175	150	125	100	90	80	70	60	50	45	40	35	30	25	20	18	16	14	12	11	
WP ²	100.0	99.3	98.3	97.2	96.0	95.2	94.3	93.6	92.8	91.8	90.7	89.1	87.2	86.1	85.2	84.1	82.9	81.5	80.9	79.8	79.0	77.7	76.5	75.2	74.6	74.0	73.4	72.6	72.1	
End Flow ³ (cfs)	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	450	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	400	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	350	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	300	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	275	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	250	6	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	225	6	6	5	4	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	200	7	7	6	5	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	175	8	8	7	6	4	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	9	9	8	7	6	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	11	10	9	8	7	6	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	13	12	11	10	9	8	8	7	6	5	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	14	13	12	11	10	9	9	8	7	6	5	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	15	14	13	12	11	11	10	9	8	7	6	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	16	15	15	14	12	12	11	10	9	8	7	6	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	17	17	16	15	14	13	12	11	11	10	9	7	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	19	18	17	16	15	14	14	13	12	11	10	8	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-
	45	19	19	18	17	16	15	14	14	13	12	11	9	7	6	5	4	2	1	-	-	-	-	-	-	-	-	-	-	-
	40	20	20	19	18	17	16	15	15	14	13	12	10	8	7	6	5	4	2	1	-	-	-	-	-	-	-	-	-	-
35	21	20	20	19	18	17	16	16	15	14	13	11	9	8	7	6	5	3	2	1	-	-	-	-	-	-	-	-	-	
30	22	22	21	20	19	18	18	17	16	15	14	13	11	10	9	8	6	5	4	3	2	-	-	-	-	-	-	-	-	
25	24	23	22	21	20	20	19	18	18	17	16	14	12	11	10	9	8	6	5	4	3	2	-	-	-	-	-	-	-	
20	25	24	24	23	22	21	20	20	19	18	17	16	14	13	12	11	9	8	7	6	5	3	2	-	-	-	-	-	-	
18	25	25	24	23	22	22	21	20	20	19	18	16	14	13	12	11	10	8	8	7	6	4	2	1	-	-	-	-	-	
16	26	25	25	24	23	22	22	21	20	19	18	17	15	14	13	12	11	9	9	7	6	5	3	2	1	-	-	-	-	
14	27	26	25	25	24	23	22	22	21	20	19	18	16	15	14	13	11	10	9	8	7	6	4	2	2	1	-	-	-	
12	27	27	26	25	24	24	23	22	22	21	20	18	17	16	15	14	12	11	10	9	8	7	5	3	3	2	1	-	-	
11	28	27	27	26	25	24	24	23	22	21	20	19	17	16	15	14	13	12	11	10	9	7	6	4	3	3	2	1	-	
10	29	28	27	26	26	25	24	24	23	22	21	20	18	17	16	15	14	12	12	10	10	8	7	5	4	3	3	2	1	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-10. Percent Retention of Redd Habitat between Two Flows for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6.**A. Rainbow Trout**

		Start Flow ¹ (cfs)										
		500	400	300	200	100	80	60	50	40	30	25
End Flow ³ (cfs)	Starting WUA ²	1430	1347	1117	1071	961	950	847	760	676	587	546
	500	-	-	-	-	-	-	-	-	-	-	-
	400	89	-	-	-	-	-	-	-	-	-	-
	300	83	79	-	-	-	-	-	-	-	-	-
	200	73	73	98	-	-	-	-	-	-	-	-
	100	40	46	77	95	-	-	-	-	-	-	-
	80	35	41	74	94	100	-	-	-	-	-	-
	60	33	39	70	90	99	100	-	-	-	-	-
	50	30	33	64	85	95	97	99	-	-	-	-
	40	28	31	60	78	91	94	98	100	-	-	-
	30	26	29	52	65	82	89	96	100	100	-	-
	25	24	27	49	58	73	79	86	90	94	99	-
	10	14	15	28	30	46	57	68	74	81	89	93

B. Brown Trout

		Start Flow ¹ (cfs)										
		500	400	300	200	100	80	60	50	40	30	25
End Flow ³ (cfs)	Starting WUA ²	1414	1415	1272	1198	1148	1131	1052	943	817	685	631
	500	-	-	-	-	-	-	-	-	-	-	-
	400	88	-	-	-	-	-	-	-	-	-	-
	300	82	80	-	-	-	-	-	-	-	-	-
	200	69	72	96	-	-	-	-	-	-	-	-
	100	38	44	70	91	-	-	-	-	-	-	-
	80	32	39	66	89	100	-	-	-	-	-	-
	60	28	35	61	83	98	100	-	-	-	-	-
	50	25	28	54	78	93	97	99	-	-	-	-
	40	23	26	51	71	87	92	97	99	-	-	-
	30	20	24	44	58	76	83	92	96	99	-	-
	25	20	23	43	54	68	75	83	89	92	98	-
	10	14	14	24	26	40	50	62	69	77	87	92

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-11. Depth Suitability vs. Flow Function for Rock Creek.

Flow (cfs)	Rainbow Trout			Brown Trout		
	Adult	Juvenile	Fry	Adult	Juvenile	Fry
0.1	51.76	69.83	92.62	51.76	73.81	92.62
0.3	49.41	66.66	95.09	49.41	74.81	95.09
0.5	48.64	73.67	94.67	48.64	73.67	94.67
0.7	48.08	72.85	96.50	52.66	72.85	96.50
0.9	47.63	72.18	98.17	55.57	72.18	98.17
1.1	47.24	71.61	98.19	55.12	71.61	98.19
1.3	46.90	71.10	97.79	54.72	71.10	97.79
1.5	46.60	70.65	97.42	62.87	70.65	97.42
1.7	46.32	70.24	97.09	62.50	70.24	97.09
1.9	46.07	69.87	96.79	62.15	69.87	96.79
2.1	45.83	69.52	96.51	61.84	77.85	96.51
2.4	45.51	69.04	97.12	61.40	77.35	97.12
2.7	45.21	68.60	99.99	61.00	76.90	99.99
3.0	44.94	68.20	100.00	60.71	76.48	100.00
3.3	44.73	68.23	100.00	64.25	76.15	100.00
3.5	44.53	75.84	100.00	67.34	75.84	100.00
3.8	44.34	75.55	100.00	67.31	75.55	100.00
4.0	44.16	75.27	100.00	67.04	75.27	100.00
4.3	46.56	75.01	100.00	66.79	75.01	100.00
4.5	47.98	74.73	99.99	66.52	79.08	99.99
4.8	47.79	74.47	99.94	66.27	84.25	99.94
5.0	49.24	74.25	99.90	66.06	84.78	99.90
5.5	50.58	74.06	99.81	65.86	84.55	99.81
6.0	50.42	73.87	99.73	65.66	84.33	99.73
6.5	50.50	80.46	99.66	65.48	84.13	99.66
7.0	57.98	83.94	99.58	65.31	83.94	99.58
8.0	57.68	83.58	99.38	64.99	83.58	99.38
9.0	57.40	83.25	99.16	64.69	88.65	98.83
10.0	57.15	82.95	98.96	64.42	90.00	86.52
15.0	63.30	88.62	99.37	71.62	88.62	79.57

Table Attachment D-12. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	51,161	35,868	4,196	2,942	-	-	-	-
Nov	100	10	49,923	28,779	4,095	2,361	-	-	-	-
Dec	80	10	47,967	28,779	3,935	2,361	-	-	-	-
Jan	75	10	47,292	28,779	3,879	2,361	-	-	-	-
Feb	75	10	47,292	28,779	3,879	2,361	-	-	-	-
Mar	75	10	47,292	28,779	3,879	2,361	-	-	-	-
Apr 1	120	10	51,161	28,779	4,196	2,361	368	126	548	188
Apr 16	120	25	51,161	35,868	4,196	2,942	368	225	548	336
May	150	25	52,541	35,868	4,310	2,942	387	225	577	336
Jun	150	25	52,541	35,868	4,310	2,942	387	225	577	336
Jul	120	30	51,161	37,582	4,196	3,083	-	-	-	-
Aug	120	30	51,161	37,582	4,196	3,083	-	-	-	-
Sep 1	120	30	51,161	37,582	4,196	3,083	-	-	-	-
Sep 16	120	25	51,161	35,868	4,196	2,942	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	49,923	30,201	4,095	2,477	-	-	-	-	-	-	-	-
Nov	100	10	49,923	28,779	4,095	2,361	-	-	-	-	-	-	-	-
Dec	80	10	47,967	28,779	3,935	2,361	-	-	-	-	-	-	-	-
Jan	60	10	44,998	28,779	3,691	2,361	-	-	-	-	-	-	-	-
Feb	60	10	44,998	28,779	3,691	2,361	-	-	-	-	-	-	-	-
Mar	60	10	44,998	28,779	3,691	2,361	-	-	-	-	-	-	-	-
Apr 1	120	10	51,161	28,779	4,196	2,361	368	126	548	188	-	-	-	-
Apr 16	120	12.5	51,161	30,201	4,196	2,477	368	149	548	222	-	-	-	-
May	120	12.5	51,161	30,201	4,196	2,477	368	149	548	222	-	-	-	-
Jun	100	12.5	49,923	30,201	4,095	2,477	350	149	522	222	-	-	-	-
Jul	100	30	49,923	37,582	4,095	3,083	-	-	-	-	-	-	-	-
Aug	100	30	49,923	37,582	4,095	3,083	-	-	-	-	-	-	-	-
Sep 1	100	30	49,923	37,582	4,095	3,083	-	-	-	-	-	-	-	-
Sep 16	100	12.5	49,923	30,201	4,095	2,477	-	-	-	-	-	-	-	-

Table Attachment D-12. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	28,245	33,644	4,634	5,519	-	-	-	-
Nov	100	10	29,343	30,461	4,814	4,997	-	-	-	-
Dec	80	10	30,599	30,461	5,020	4,997	-	-	-	-
Jan	75	10	30,937	30,461	5,075	4,997	-	-	-	-
Feb	75	10	30,937	30,461	5,075	4,997	-	-	-	-
Mar	75	10	30,937	30,461	5,075	4,997	-	-	-	-
Apr 1	120	10	28,245	30,461	4,634	4,997	-	-	-	-
Apr 16	120	25	28,245	33,644	4,634	5,519	-	-	-	-
May	150	25	26,599	33,644	4,364	5,519	-	-	-	-
Jun	150	25	26,599	33,644	4,364	5,519	27,575	38,561	11,309	15,815
Jul	120	30	28,245	33,766	4,634	5,539	29,292	37,933	12,013	15,557
Aug	120	30	28,245	33,766	4,634	5,539	29,292	37,933	12,013	15,557
Sep 1	120	30	28,245	33,766	4,634	5,539	29,292	37,933	12,013	15,557
Sep 16	120	25	28,245	33,644	4,634	5,519	29,292	38,561	12,013	15,815

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	29,343	31,745	4,814	5,208	-	-	-	-	-	-	-	-
Nov	100	10	29,343	30,461	4,814	4,997	-	-	-	-	-	-	-	-
Dec	80	10	30,599	30,461	5,020	4,997	-	-	-	-	-	-	-	-
Jan	60	10	32,015	30,461	5,252	4,997	-	-	-	-	-	-	-	-
Feb	60	10	32,015	30,461	5,252	4,997	-	-	-	-	-	-	-	-
Mar	60	10	32,015	30,461	5,252	4,997	-	-	-	-	-	-	-	-
Apr 1	120	10	28,245	30,461	4,634	4,997	-	-	-	-	-	-	-	-
Apr 16	120	12.5	28,245	31,745	4,634	5,208	-	-	-	-	-	-	-	-
May	120	12.5	28,245	31,745	4,634	5,208	-	-	-	-	-	-	-	-
Jun	100	12.5	29,343	31,745	4,814	5,208	30,549	39,332	12,529	16,131	12,529	15,557	12,529	15,557
Jul	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557	12,529	15,557	12,529	15,557
Aug	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557	12,529	15,557	12,529	15,557
Sep 1	100	30	29,343	33,766	4,814	5,539	30,549	37,933	12,529	15,557	12,529	15,557	12,529	15,557
Sep 16	100	12.5	29,343	31,745	4,814	5,208	30,549	39,332	12,529	16,131	12,529	15,557	12,529	15,557

Table Attachment D-13. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	51,839	42,205	4,252	3,462	478	268	280	157
Nov	100	10	51,434	35,618	4,219	2,922	468	176	274	103
Dec	80	10	50,704	35,618	4,159	2,922	447	176	262	103
Jan	75	10	50,407	35,618	4,135	2,922	-	-	-	-
Feb	75	10	50,407	35,618	4,135	2,922	-	-	-	-
Mar	75	10	50,407	35,618	4,135	2,922	-	-	-	-
Apr 1	120	10	51,839	35,618	4,252	2,922	-	-	-	-
Apr 16	120	25	51,839	42,205	4,252	3,462	-	-	-	-
May	150	25	51,932	42,205	4,260	3,462	-	-	-	-
Jun	150	25	51,932	42,205	4,260	3,462	-	-	-	-
Jul	120	30	51,839	43,746	4,252	3,588	-	-	-	-
Aug	120	30	51,839	43,746	4,252	3,588	-	-	-	-
Sep 1	120	30	51,839	43,746	4,252	3,588	-	-	-	-
Sep 16	120	25	51,839	42,205	4,252	3,462	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	51,434	37,040	4,219	3,038	468	198	274	116
Nov	100	10	51,434	35,618	4,219	2,922	468	176	274	103
Dec	80	10	50,704	35,618	4,159	2,922	447	176	262	103
Jan	60	10	49,257	35,618	4,040	2,922	-	-	-	-
Feb	60	10	49,257	35,618	4,040	2,922	-	-	-	-
Mar	60	10	49,257	35,618	4,040	2,922	-	-	-	-
Apr 1	120	10	51,839	35,618	4,252	2,922	-	-	-	-
Apr 16	120	12.5	51,839	37,040	4,252	3,038	-	-	-	-
May	120	12.5	51,839	37,040	4,252	3,038	-	-	-	-
Jun	100	12.5	51,434	37,040	4,219	3,038	-	-	-	-
Jul	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Aug	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Sep 1	100	30	51,434	43,746	4,219	3,588	-	-	-	-
Sep 16	100	12.5	51,434	37,040	4,219	3,038	-	-	-	-

Table Attachment D-13. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	31,118	37,202	5,105	6,103	-	-	-	-
Nov	100	10	32,534	33,868	5,337	5,556	-	-	-	-
Dec	80	10	33,940	33,868	5,568	5,556	-	-	-	-
Jan	75	10	34,323	33,868	5,631	5,556	-	-	-	-
Feb	75	10	34,323	33,868	5,631	5,556	-	-	-	-
Mar	75	10	34,323	33,868	5,631	5,556	-	-	-	-
Apr 1	120	10	31,118	33,868	5,105	5,556	-	-	-	-
Apr 16	120	25	31,118	37,202	5,105	6,103	-	-	-	-
May	150	25	29,241	37,202	4,797	6,103	-	-	-	-
Jun	150	25	29,241	37,202	4,797	6,103	23,822	34,324	9,770	14,077
Jul	120	30	31,118	37,333	5,105	6,124	25,632	33,725	10,512	13,832
Aug	120	30	31,118	37,333	5,105	6,124	25,632	33,725	10,512	13,832
Sep 1	120	30	31,118	37,333	5,105	6,124	25,632	33,725	10,512	13,832
Sep 16	120	25	31,118	37,202	5,105	6,103	25,632	34,324	10,512	14,077
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	32,534	34,866	5,337	5,720	-	-	-	-
Nov	100	10	32,534	33,868	5,337	5,556	-	-	-	-
Dec	80	10	33,940	33,868	5,568	5,556	-	-	-	-
Jan	60	10	35,431	33,868	5,812	5,556	-	-	-	-
Feb	60	10	35,431	33,868	5,812	5,556	-	-	-	-
Mar	60	10	35,431	33,868	5,812	5,556	-	-	-	-
Apr 1	120	10	31,118	33,868	5,105	5,556	-	-	-	-
Apr 16	120	12.5	31,118	34,866	5,105	5,720	-	-	-	-
May	120	12.5	31,118	34,866	5,105	5,720	-	-	-	-
Jun	100	12.5	32,534	34,866	5,337	5,720	26,970	35,809	11,061	14,686
Jul	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832
Aug	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832
Sep 1	100	30	32,534	37,333	5,337	6,124	26,970	33,725	11,061	13,832
Sep 16	100	12.5	32,534	34,866	5,337	5,720	26,970	35,809	11,061	14,686

Table Attachment D-14. Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	Brown Trout Spawning	71%	40%	95%	67%	100%	81%
Nov	100	10		69%	26%	93%	53%	99%	69%
Dec	80	10		66%	26%	89%	53%	98%	69%
Jan	75	10			88%	53%	97%	69%	
Feb	75	10			88%	53%	97%	69%	
Mar	75	10			88%	53%	97%	69%	
Apr 1	120	10	Rainbow Trout Spawning	63%	22%	95%	53%	100%	69%
Apr 16	120	25		63%	38%	95%	67%	100%	81%
May	150	25		66%	38%	97%	67%	100%	81%
Jun	150	25		66%	38%	97%	67%	100%	81%
Jul	120	30			95%	70%	100%	84%	
Aug	120	30			95%	70%	100%	84%	
Sep 1	120	30			95%	70%	100%	84%	
Sep 16	120	25			95%	67%	100%	81%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	Brown Trout Spawning	69%	29%	93%	56%	99%	71%
Nov	100	10		69%	26%	93%	53%	99%	69%
Dec	80	10		66%	26%	89%	53%	98%	69%
Jan	60	10			83%	53%	95%	69%	
Feb	60	10			83%	53%	95%	69%	
Mar	60	10			83%	53%	95%	69%	
Apr 1	120	10	Rainbow Trout Spawning	63%	22%	95%	53%	100%	69%
Apr 16	120	12.5		63%	25%	95%	56%	100%	71%
May	120	12.5		63%	25%	95%	56%	100%	71%
Jun	100	12.5		60%	25%	93%	56%	99%	71%
Jul	100	30			93%	70%	99%	84%	
Aug	100	30			93%	70%	99%	84%	
Sep 1	100	30			93%	70%	99%	84%	
Sep 16	100	12.5			93%	56%	99%	71%	

Table Attachment D-15. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	55,896	40,978	4,585	3,361	38,849	45,904	6,373	7,530
Nov	100	10	54,150	34,807	4,442	2,855	40,176	45,224	6,591	7,419
Dec	80	10	51,935	34,807	4,260	2,855	41,601	45,224	6,825	7,419
Jan	75	10	51,265	34,807	4,205	2,855	42,013	45,224	6,892	7,419
Feb	75	10	51,265	34,807	4,205	2,855	42,013	45,224	6,892	7,419
Mar	75	10	51,265	34,807	4,205	2,855	42,013	45,224	6,892	7,419
Apr 1	120	10	55,896	34,807	4,585	2,855	38,849	45,224	6,373	7,419
Apr 16	120	25	55,896	40,978	4,585	3,361	38,849	45,904	6,373	7,530
May	150	25	58,007	40,978	4,758	3,361	36,965	45,904	6,064	7,530
Jun	150	25	58,007	40,978	4,758	3,361	36,965	45,904	6,064	7,530
Jul	120	30	55,896	42,489	4,585	3,485	38,849	45,646	6,373	7,488
Aug	120	30	55,896	42,489	4,585	3,485	38,849	45,646	6,373	7,488
Sep 1	120	30	55,896	42,489	4,585	3,485	38,849	45,646	6,373	7,488
Sep 16	120	25	55,896	40,978	4,585	3,361	38,849	45,904	6,373	7,530

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	54,150	36,056	4,442	2,957	40,176	45,614	6,591	7,483	6,591	7,483	6,591	7,419
Nov	100	10	54,150	34,807	4,442	2,855	40,176	45,224	6,825	7,419	6,825	7,419	6,825	7,419
Dec	80	10	51,935	34,807	4,260	2,855	41,601	45,224	7,098	7,419	7,098	7,419	7,098	7,419
Jan	60	10	49,030	34,807	4,022	2,855	43,266	45,224	7,098	7,419	7,098	7,419	7,098	7,419
Feb	60	10	49,030	34,807	4,022	2,855	43,266	45,224	7,098	7,419	7,098	7,419	7,098	7,419
Mar	60	10	49,030	34,807	4,022	2,855	43,266	45,224	6,373	7,419	6,373	7,419	6,373	7,419
Apr 1	120	10	55,896	34,807	4,585	2,855	38,849	45,224	6,373	7,483	6,373	7,483	6,373	7,483
Apr 16	120	12.5	55,896	36,056	4,585	2,957	38,849	45,614	6,373	7,483	6,373	7,483	6,373	7,483
May	120	12.5	55,896	36,056	4,585	2,957	38,849	45,614	6,373	7,483	6,373	7,483	6,373	7,483
Jun	100	12.5	54,150	36,056	4,442	2,957	40,176	45,614	6,591	7,483	6,591	7,483	6,591	7,483
Jul	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488	6,591	7,488	6,591	7,488
Aug	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488	6,591	7,488	6,591	7,488
Sep 1	100	30	54,150	42,489	4,442	3,485	40,176	45,646	6,591	7,488	6,591	7,488	6,591	7,488
Sep 16	100	12.5	54,150	36,056	4,442	2,957	40,176	45,614	6,591	7,483	6,591	7,483	6,591	7,483

Table Attachment D-16. Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Adult Sacramento Sucker Rearing Habitat	
	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	120	25	91%	67%
Nov	100	10	88%	57%
Dec	80	10	85%	57%
Jan	75	10	83%	57%
Feb	75	10	83%	57%
Mar	75	10	83%	57%
Apr 1	120	10	91%	57%
Apr 16	120	25	91%	67%
May	150	25	94%	67%
Jun	150	25	94%	67%
Jul	120	30	91%	69%
Aug	120	30	91%	69%
Sep 1	120	30	91%	69%
Sep 16	120	25	91%	67%

Dry Years

Month	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	100	12.5	88%	59%
Nov	100	10	88%	57%
Dec	80	10	85%	57%
Jan	60	10	80%	57%
Feb	60	10	80%	57%
Mar	60	10	80%	57%
Apr 1	120	10	91%	57%
Apr 16	120	12.5	91%	59%
May	120	12.5	91%	59%
Jun	100	12.5	88%	59%
Jul	100	30	88%	69%
Aug	100	30	88%	69%
Sep 1	100	30	88%	69%
Sep 16	100	12.5	88%	59%

Table Attachment D-17. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	51,161	47,967	4,196	3,935	-	-	-	-
Nov	100	80	49,923	47,967	4,095	3,935	-	-	-	-
Dec	80	55	47,967	44,005	3,935	3,610	-	-	-	-
Jan	75	55	47,292	44,005	3,879	3,610	-	-	-	-
Feb	75	55	47,292	44,005	3,879	3,610	-	-	-	-
Mar	75	80	47,292	47,967	3,879	3,935	-	-	-	-
Apr 1	120	125	51,161	51,471	4,196	4,222	368	372	548	555
Apr 16	120	125	51,161	51,471	4,196	4,222	368	372	548	555
May	150	125	52,541	51,471	4,310	4,222	387	372	577	555
Jun	150	125	52,541	51,471	4,310	4,222	387	372	577	555
Jul	120	100	51,161	49,923	4,196	4,095	-	-	-	-
Aug	120	100	51,161	49,923	4,196	4,095	-	-	-	-
Sep 1	120	80	51,161	47,967	4,196	3,935	-	-	-	-
Sep 16	120	80	51,161	47,967	4,196	3,935	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	49,923	47,967	4,095	3,935	-	-	-	-
Nov	100	80	49,923	47,967	4,095	3,935	-	-	-	-
Dec	80	55	47,967	44,005	3,935	3,610	-	-	-	-
Jan	60	55	44,998	44,005	3,691	3,610	-	-	-	-
Feb	60	55	44,998	44,005	3,691	3,610	-	-	-	-
Mar	60	80	44,998	47,967	3,691	3,935	-	-	-	-
Apr 1	120	125	51,161	51,471	4,196	4,222	368	372	548	555
Apr 16	120	125	51,161	51,471	4,196	4,222	368	372	548	555
May	120	125	51,161	51,471	4,196	4,222	368	372	548	555
Jun	100	125	49,923	51,471	4,095	4,222	350	372	522	555
Jul	100	100	49,923	49,923	4,095	4,095	-	-	-	-
Aug	100	100	49,923	49,923	4,095	4,095	-	-	-	-
Sep 1	100	80	49,923	47,967	4,095	3,935	-	-	-	-
Sep 16	100	80	49,923	47,967	4,095	3,935	-	-	-	-

Table Attachment D-17. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	28,245	30,599	4,634	5,020	-	-	-	-
Nov	100	80	29,343	30,599	4,814	5,020	-	-	-	-
Dec	80	55	30,599	32,436	5,020	5,321	-	-	-	-
Jan	75	55	30,937	32,436	5,075	5,321	-	-	-	-
Feb	75	55	30,937	32,436	5,075	5,321	-	-	-	-
Mar	75	80	30,937	30,599	5,075	5,020	-	-	-	-
Apr 1	120	125	28,245	27,970	4,634	4,589	-	-	-	-
Apr 16	120	125	28,245	27,970	4,634	4,589	-	-	-	-
May	150	125	26,599	27,970	4,364	4,589	-	-	-	-
Jun	150	125	26,599	27,970	4,364	4,589	27,575	28,977	11,309	11,884
Jul	120	100	28,245	29,343	4,634	4,814	29,292	30,549	12,013	12,529
Aug	120	100	28,245	29,343	4,634	4,814	29,292	30,549	12,013	12,529
Sep 1	120	80	28,245	30,599	4,634	5,020	29,292	32,136	12,013	13,180
Sep 16	120	80	28,245	30,599	4,634	5,020	29,292	32,136	12,013	13,180

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	29,343	30,599	4,814	5,020	-	-	-	-
Nov	100	80	29,343	30,599	4,814	5,020	-	-	-	-
Dec	80	55	30,599	32,436	5,020	5,321	-	-	-	-
Jan	60	55	32,015	32,436	5,252	5,321	-	-	-	-
Feb	60	55	32,015	32,436	5,252	5,321	-	-	-	-
Mar	60	80	32,015	30,599	5,252	5,020	-	-	-	-
Apr 1	120	125	28,245	27,970	4,634	4,589	-	-	-	-
Apr 16	120	125	28,245	27,970	4,634	4,589	-	-	-	-
May	120	125	28,245	27,970	4,634	4,589	-	-	-	-
Jun	100	125	29,343	27,970	4,814	4,589	30,549	28,977	12,529	11,884
Jul	100	100	29,343	29,343	4,814	4,814	30,549	30,549	12,529	12,529
Aug	100	100	29,343	29,343	4,814	4,814	30,549	30,549	12,529	12,529
Sep 1	100	80	29,343	30,599	4,814	5,020	30,549	32,136	12,529	13,180
Sep 16	100	80	29,343	30,599	4,814	5,020	30,549	32,136	12,529	13,180

Table Attachment D-18. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	51,839	50,704	4,252	4,159	478	447	280	262
Nov	100	80	51,434	50,704	4,219	4,159	468	447	274	262
Dec	80	55	50,704	48,640	4,159	3,990	447	407	262	238
Jan	75	55	50,407	48,640	4,135	3,990	-	-	-	-
Feb	75	55	50,407	48,640	4,135	3,990	-	-	-	-
Mar	75	80	50,407	50,704	4,135	4,159	-	-	-	-
Apr 1	120	125	51,839	51,940	4,252	4,260	-	-	-	-
Apr 16	120	125	51,839	51,940	4,252	4,260	-	-	-	-
May	150	125	51,932	51,940	4,260	4,260	-	-	-	-
Jun	150	125	51,932	51,940	4,260	4,260	-	-	-	-
Jul	120	100	51,839	51,434	4,252	4,219	-	-	-	-
Aug	120	100	51,839	51,434	4,252	4,219	-	-	-	-
Sep 1	120	80	51,839	50,704	4,252	4,159	-	-	-	-
Sep 16	120	80	51,839	50,704	4,252	4,159	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	51,434	50,704	4,219	4,159	468	447	274	262
Nov	100	80	51,434	50,704	4,219	4,159	468	447	274	262
Dec	80	55	50,704	48,640	4,159	3,990	447	407	262	238
Jan	60	55	49,257	48,640	4,040	3,990	-	-	-	-
Feb	60	55	49,257	48,640	4,040	3,990	-	-	-	-
Mar	60	80	49,257	50,704	4,040	4,159	-	-	-	-
Apr 1	120	125	51,839	51,940	4,252	4,260	-	-	-	-
Apr 16	120	125	51,839	51,940	4,252	4,260	-	-	-	-
May	120	125	51,839	51,940	4,252	4,260	-	-	-	-
Jun	100	125	51,434	51,940	4,219	4,260	-	-	-	-
Jul	100	100	51,434	51,434	4,219	4,219	-	-	-	-
Aug	100	100	51,434	51,434	4,219	4,219	-	-	-	-
Sep 1	100	80	51,434	50,704	4,219	4,159	-	-	-	-
Sep 16	100	80	51,434	50,704	4,219	4,159	-	-	-	-

Table Attachment D-18. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	31,118	33,940	5,105	5,568	-	-	-	-
Nov	100	80	32,534	33,940	5,337	5,568	-	-	-	-
Dec	80	55	33,940	35,872	5,568	5,885	-	-	-	-
Jan	75	55	34,323	35,872	5,631	5,885	-	-	-	-
Feb	75	55	34,323	35,872	5,631	5,885	-	-	-	-
Mar	75	80	34,323	33,940	5,631	5,568	-	-	-	-
Apr 1	120	125	31,118	30,764	5,105	5,047	-	-	-	-
Apr 16	120	125	31,118	30,764	5,105	5,047	-	-	-	-
May	150	125	29,241	30,764	4,797	5,047	-	-	-	-
Jun	150	125	29,241	30,764	4,797	5,047	23,822	25,298	9,770	10,375
Jul	120	100	31,118	32,534	5,105	5,337	25,632	26,970	10,512	11,061
Aug	120	100	31,118	32,534	5,105	5,337	25,632	26,970	10,512	11,061
Sep 1	120	80	31,118	33,940	5,105	5,568	25,632	28,730	10,512	11,783
Sep 16	120	80	31,118	33,940	5,105	5,568	25,632	28,730	10,512	11,783

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	32,534	33,940	5,337	5,568	-	-	-	-
Nov	100	80	32,534	33,940	5,337	5,568	-	-	-	-
Dec	80	55	33,940	35,872	5,568	5,885	-	-	-	-
Jan	60	55	35,431	35,872	5,812	5,885	-	-	-	-
Feb	60	55	35,431	35,872	5,812	5,885	-	-	-	-
Mar	60	80	35,431	33,940	5,812	5,568	-	-	-	-
Apr 1	120	125	31,118	30,764	5,105	5,047	-	-	-	-
Apr 16	120	125	31,118	30,764	5,105	5,047	-	-	-	-
May	120	125	31,118	30,764	5,105	5,047	-	-	-	-
Jun	100	125	32,534	30,764	5,337	5,047	26,970	25,298	11,061	10,375
Jul	100	100	32,534	32,534	5,337	5,337	26,970	26,970	11,061	11,061
Aug	100	100	32,534	32,534	5,337	5,337	26,970	26,970	11,061	11,061
Sep 1	100	80	32,534	33,940	5,337	5,568	26,970	28,730	11,061	11,783
Sep 16	100	80	32,534	33,940	5,337	5,568	26,970	28,730	11,061	11,783

Table Attachment D-19. Percent of Maximum WUA Provided for Trout in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat		
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	
Oct	120	80	Brown Trout Spawning	71%	66%	95%	89%	100%	98%	
Nov	100	80		69%	66%	93%	89%	99%	98%	
Dec	80	55		66%	60%	89%	82%	98%	94%	
Jan	75	55					88%	82%	97%	94%
Feb	75	55					88%	82%	97%	94%
Mar	75	80					88%	89%	97%	98%
Apr 1	120	125	Rainbow Trout Spawning	63%	63%	95%	95%	100%	100%	
Apr 16	120	125		63%	63%	95%	95%	100%	100%	
May	150	125		66%	63%	97%	95%	100%	100%	
Jun	150	125		66%	63%	97%	95%	100%	100%	
Jul	120	100					95%	93%	100%	99%
Aug	120	100					95%	93%	100%	99%
Sep 1	120	80					95%	89%	100%	98%
Sep 16	120	80					95%	89%	100%	98%

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	
Oct	100	80	Brown Trout Spawning	69%	66%	93%	89%	99%	98%	
Nov	100	80		69%	66%	93%	89%	99%	98%	
Dec	80	55		66%	60%	89%	82%	98%	94%	
Jan	60	55					83%	82%	95%	94%
Feb	60	55					83%	82%	95%	94%
Mar	60	80					83%	89%	95%	98%
Apr 1	120	125	Rainbow Trout Spawning	63%	63%	95%	95%	100%	100%	
Apr 16	120	125		63%	63%	95%	95%	100%	100%	
May	120	125		63%	63%	95%	95%	100%	100%	
Jun	100	125		60%	63%	93%	95%	99%	100%	
Jul	100	100					93%	93%	99%	99%
Aug	100	100					93%	93%	99%	99%
Sep 1	100	80					93%	89%	99%	98%
Sep 16	100	80					93%	89%	99%	98%

Table Attachment D-20. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	55,896	51,935	4,585	4,260	38,849	41,601	6,373	6,825
Nov	100	80	54,150	51,935	4,442	4,260	40,176	41,601	6,591	6,825
Dec	80	55	51,935	48,118	4,260	3,947	41,601	43,715	6,825	7,171
Jan	75	55	51,265	48,118	4,205	3,947	42,013	43,715	6,892	7,171
Feb	75	55	51,265	48,118	4,205	3,947	42,013	43,715	6,892	7,171
Mar	75	80	51,265	51,935	4,205	4,260	42,013	41,601	6,892	6,825
Apr 1	120	125	55,896	56,332	4,585	4,621	38,849	38,517	6,373	6,319
Apr 16	120	125	55,896	56,332	4,585	4,621	38,849	38,517	6,373	6,319
May	150	125	58,007	56,332	4,758	4,621	36,965	38,517	6,064	6,319
Jun	150	125	58,007	56,332	4,758	4,621	36,965	38,517	6,064	6,319
Jul	120	100	55,896	54,150	4,585	4,442	38,849	40,176	6,373	6,591
Aug	120	100	55,896	54,150	4,585	4,442	38,849	40,176	6,373	6,591
Sep 1	120	80	55,896	51,935	4,585	4,260	38,849	41,601	6,373	6,825
Sep 16	120	80	55,896	51,935	4,585	4,260	38,849	41,601	6,373	6,825

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	54,150	51,935	4,442	4,260	40,176	41,601	6,591	6,825
Nov	100	80	54,150	51,935	4,442	4,260	40,176	41,601	6,591	6,825
Dec	80	55	51,935	48,118	4,260	3,947	41,601	43,715	6,825	7,171
Jan	60	55	49,030	48,118	4,022	3,947	43,266	43,715	7,098	7,171
Feb	60	55	49,030	48,118	4,022	3,947	43,266	43,715	7,098	7,171
Mar	60	80	49,030	51,935	4,022	4,260	43,266	41,601	7,098	6,825
Apr 1	120	125	55,896	56,332	4,585	4,621	38,849	38,517	6,373	6,319
Apr 16	120	125	55,896	56,332	4,585	4,621	38,849	38,517	6,373	6,319
May	120	125	55,896	56,332	4,585	4,621	38,849	38,517	6,373	6,319
Jun	100	125	54,150	56,332	4,442	4,621	40,176	38,517	6,591	6,319
Jul	100	100	54,150	54,150	4,442	4,442	40,176	40,176	6,591	6,591
Aug	100	100	54,150	54,150	4,442	4,442	40,176	40,176	6,591	6,591
Sep 1	100	80	54,150	51,935	4,442	4,260	40,176	41,601	6,591	6,825
Sep 16	100	80	54,150	51,935	4,442	4,260	40,176	41,601	6,591	6,825

Table Attachment D-21. Percent of Maximum WUA Provided for Sacramento Sucker in the San Joaquin River from Mammoth Pool Dam to Mammoth Pool Powerhouse/Dam 6 - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)		Adult Sacramento Sucker Rearing Habitat	
	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	120	80	91%	85%
Nov	100	80	88%	85%
Dec	80	55	85%	78%
Jan	75	55	83%	78%
Feb	75	55	83%	78%
Mar	75	80	83%	85%
Apr 1	120	125	91%	92%
Apr 16	120	125	91%	92%
May	150	125	94%	92%
Jun	150	125	94%	92%
Jul	120	100	91%	88%
Aug	120	100	91%	88%
Sep 1	120	80	91%	85%
Sep 16	120	80	91%	85%

Dry Years

Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	100	80	88%	85%
Nov	100	80	88%	85%
Dec	80	55	85%	78%
Jan	60	55	80%	78%
Feb	60	55	80%	78%
Mar	60	80	80%	85%
Apr 1	120	125	91%	92%
Apr 16	120	125	91%	92%
May	120	125	91%	92%
Jun	100	125	88%	92%
Jul	100	100	88%	88%
Aug	100	100	88%	88%
Sep 1	100	80	88%	85%
Sep 16	100	80	88%	85%

Table Attachment D-22. Habitat-Flow Relationships for Rainbow Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
1.0	2,697	5,480	11,281	7	1,102
1.5	3,090	6,088	12,425	15	1,860
2.0	3,438	6,659	13,276	24	2,646
2.5	3,758	7,234	13,861	35	3,415
3.0	4,055	7,781	14,314	45	4,150
3.5	4,327	8,248	14,665	55	4,811
4.0	4,587	8,656	14,938	65	5,428
4.5	4,833	9,057	15,145	75	6,017
5.0	5,075	9,463	15,266	84	6,597
6.0	5,537	10,159	15,439	101	7,652
7.0	5,970	10,735	15,535	116	8,537
8.0	6,397	11,249	15,564	129	9,315
9.0	6,810	11,661	15,564	140	10,015
10.0	7,207	11,944	15,540	149	10,605
12.0	7,940	12,359	15,428	162	11,586
14.0	8,576	12,686	15,248	171	12,361
16.0	9,161	12,881	15,007	176	12,915
18.0	9,720	12,910	14,790	179	13,305
20.0	10,228	12,866	14,634	181	13,597
25.0	11,301	12,594	14,309	186	14,110
30.0	12,124	12,280	13,997	182	14,251
35.0	12,798	11,967	13,782	176	14,200
40.0	13,347	11,667	13,715	169	14,048
45.0	13,779	11,455	13,722	162	13,893
50.0	14,093	11,358	13,684	156	13,737
60.0	14,478	11,257	13,471	144	13,483
70.0	14,675	11,363	13,251	135	13,448
80.0	14,708	11,490	13,106	128	13,488
90.0	14,722	11,467	13,113	124	13,551
100.0	14,738	11,408	13,191	123	13,601
MAX WUA	14,738	12,910	15,564	186	14,251

Table Attachment D-23. Habitat-Flow Relationships for Brown Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
1.0	3,778	6,092	11,110	26	2,523
1.5	4,253	6,837	12,271	44	3,667
2.0	4,685	7,532	13,126	60	4,710
2.5	5,104	8,186	13,710	76	5,641
3.0	5,492	8,760	14,161	90	6,482
3.5	5,859	9,235	14,520	103	7,211
4.0	6,206	9,685	14,797	115	7,874
4.5	6,545	10,107	15,013	126	8,489
5.0	6,868	10,469	15,140	137	9,051
6.0	7,447	11,063	15,326	154	10,035
7.0	7,980	11,534	15,426	167	10,832
8.0	8,452	11,936	15,456	179	11,503
9.0	8,855	12,236	15,439	188	12,079
10.0	9,207	12,394	15,384	194	12,518
12.0	9,824	12,602	15,197	200	13,137
14.0	10,339	12,691	14,927	201	13,550
16.0	10,768	12,695	14,596	201	13,794
18.0	11,123	12,587	14,309	199	13,922
20.0	11,434	12,460	14,093	197	13,971
25.0	12,062	12,118	13,711	191	13,846
30.0	12,469	11,700	13,455	180	13,603
35.0	12,761	11,297	13,313	167	13,268
40.0	12,933	11,009	13,310	156	12,910
45.0	12,957	10,825	13,319	144	12,616
50.0	12,936	10,740	13,269	136	12,479
60.0	12,843	10,717	13,037	120	12,493
70.0	12,671	10,906	12,734	108	12,748
80.0	12,578	10,998	12,514	96	12,831
90.0	12,577	11,013	12,530	92	12,857
100.0	12,613	11,078	12,617	92	12,951
MAX WUA	12,957	12,695	15,456	201	13,971

Table Attachment D-24. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	6,397	2,697	525	221	-	-	-	-
Nov	7	1	5,970	2,697	490	221	-	-	-	-
Dec	7	1	5,970	2,697	490	221	-	-	-	-
Jan	7	1	5,970	2,697	490	221	-	-	-	-
Feb	7	1	5,970	2,697	490	221	-	-	-	-
Mar	7	1	5,970	2,697	490	221	-	-	-	-
Apr	12	1	7,940	2,697	651	221	162	7	241	10
May	12	1	7,940	2,697	651	221	162	7	241	10
Jun	12	1	7,940	2,697	651	221	162	7	241	10
Jul	12	1	7,940	2,697	651	221	-	-	-	-
Aug	12	1	7,940	2,697	651	221	-	-	-	-
Sep 1	12	1	7,940	2,697	651	221	-	-	-	-
Sep 16	12	1	7,940	2,697	651	221	-	-	-	-

Dry Years			Rainbow Trout Adult				Rainbow Trout Spawning			
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	6,397	2,697	525	221	-	-	-	-
Nov	7	1	5,970	2,697	490	221	-	-	-	-
Dec	7	1	5,970	2,697	490	221	-	-	-	-
Jan	7	1	5,970	2,697	490	221	-	-	-	-
Feb	7	1	5,970	2,697	490	221	-	-	-	-
Mar	7	1	5,970	2,697	490	221	-	-	-	-
Apr	12	1	7,940	2,697	651	221	162	7	241	10
May	12	1	7,940	2,697	651	221	162	7	241	10
Jun	12	1	7,940	2,697	651	221	162	7	241	10
Jul	12	1	7,940	2,697	651	221	-	-	-	-
Aug	12	1	7,940	2,697	651	221	-	-	-	-
Sep 1	12	1	7,940	2,697	651	221	-	-	-	-
Sep 16	12	1	7,940	2,697	651	221	-	-	-	-

Table Attachment D-24. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	11,249	5,480	1,845	899	-	-	-	-
Nov	7	1	10,735	5,480	1,761	899	-	-	-	-
Dec	7	1	10,735	5,480	1,761	899	-	-	-	-
Jan	7	1	10,735	5,480	1,761	899	-	-	-	-
Feb	7	1	10,735	5,480	1,761	899	-	-	-	-
Mar	7	1	10,735	5,480	1,761	899	-	-	-	-
Apr	12	1	12,359	5,480	2,027	899	-	-	-	-
May	12	1	12,359	5,480	2,027	899	-	-	-	-
Jun	12	1	12,359	5,480	2,531	1,851	15,428	11,281	6,327	4,627
Jul	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Aug	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Sep 1	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Sep 16	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	11,249	5,480	1,845	899	-	-	-	-
Nov	7	1	10,735	5,480	1,761	899	-	-	-	-
Dec	7	1	10,735	5,480	1,761	899	-	-	-	-
Jan	7	1	10,735	5,480	1,761	899	-	-	-	-
Feb	7	1	10,735	5,480	1,761	899	-	-	-	-
Mar	7	1	10,735	5,480	1,761	899	-	-	-	-
Apr	12	1	12,359	5,480	2,027	899	-	-	-	-
May	12	1	12,359	5,480	2,027	899	-	-	-	-
Jun	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Jul	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Aug	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Sep 1	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627
Sep 16	12	1	12,359	5,480	2,027	899	15,428	11,281	6,327	4,627

Table Attachment D-25. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	8,452	3,778	693	310	179	26	105	15
Nov	7	1	7,980	3,778	655	310	167	26	98	15
Dec	7	1	7,980	3,778	655	310	167	26	98	15
Jan	7	1	7,980	3,778	655	310	-	-	-	-
Feb	7	1	7,980	3,778	655	310	-	-	-	-
Mar	7	1	7,980	3,778	655	310	-	-	-	-
Apr	12	1	9,824	3,778	806	310	-	-	-	-
May	12	1	9,824	3,778	806	310	-	-	-	-
Jun	12	1	9,824	3,778	806	310	-	-	-	-
Jul	12	1	9,824	3,778	806	310	-	-	-	-
Aug	12	1	9,824	3,778	806	310	-	-	-	-
Sep 1	12	1	9,824	3,778	806	310	-	-	-	-
Sep 16	12	1	9,824	3,778	806	310	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	8,452	3,778	693	310	179	26	105	15
Nov	7	1	7,980	3,778	655	310	167	26	98	15
Dec	7	1	7,980	3,778	655	310	167	26	98	15
Jan	7	1	7,980	3,778	655	310	-	-	-	-
Feb	7	1	7,980	3,778	655	310	-	-	-	-
Mar	7	1	7,980	3,778	655	310	-	-	-	-
Apr	12	1	9,824	3,778	806	310	-	-	-	-
May	12	1	9,824	3,778	806	310	-	-	-	-
Jun	12	1	9,824	3,778	806	310	-	-	-	-
Jul	12	1	9,824	3,778	806	310	-	-	-	-
Aug	12	1	9,824	3,778	806	310	-	-	-	-
Sep 1	12	1	9,824	3,778	806	310	-	-	-	-
Sep 16	12	1	9,824	3,778	806	310	-	-	-	-

Table Attachment D-25. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	11,936	6,092	1,958	999	-	-	-	-
Nov	7	1	11,534	6,092	1,892	999	-	-	-	-
Dec	7	1	11,534	6,092	1,892	999	-	-	-	-
Jan	7	1	11,534	6,092	1,892	999	-	-	-	-
Feb	7	1	11,534	6,092	1,892	999	-	-	-	-
Mar	7	1	11,534	6,092	1,892	999	-	-	-	-
Apr	12	1	12,602	6,092	2,067	999	-	-	-	-
May	12	1	12,602	6,092	2,067	999	-	-	-	-
Jun	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Jul	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Aug	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Sep 1	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Sep 16	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	11,936	6,092	1,958	999	-	-	-	-
Nov	7	1	11,534	6,092	1,892	999	-	-	-	-
Dec	7	1	11,534	6,092	1,892	999	-	-	-	-
Jan	7	1	11,534	6,092	1,892	999	-	-	-	-
Feb	7	1	11,534	6,092	1,892	999	-	-	-	-
Mar	7	1	11,534	6,092	1,892	999	-	-	-	-
Apr	12	1	12,602	6,092	2,067	999	-	-	-	-
May	12	1	12,602	6,092	2,067	999	-	-	-	-
Jun	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Jul	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Aug	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Sep 1	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557
Sep 16	12	1	12,602	6,092	2,067	999	15,197	11,110	6,232	4,557

Table Attachment D-26. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	Brown Trout Spawning	89%	13%	43%	18%	65%	29%
Nov	7	1		83%	13%	41%	18%	62%	29%
Dec	7	1		83%	13%	41%	18%	62%	29%
Jan	7	1			41%	18%	62%	29%	
Feb	7	1			41%	18%	62%	29%	
Mar	7	1			41%	18%	62%	29%	
Apr	12	1	Rainbow Trout Spawning	87%	4%	54%	18%	76%	29%
May	12	1		87%	4%	54%	18%	76%	29%
Jun	12	1		87%	4%	54%	18%	76%	29%
Jul	12	1			54%	18%	76%	29%	
Aug	12	1			54%	18%	76%	29%	
Sep 1	12	1			54%	18%	76%	29%	
Sep 16	12	1			54%	18%	76%	29%	

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	1	Brown Trout Spawning	89%	13%	43%	18%	65%	29%
Nov	7	1		83%	13%	41%	18%	62%	29%
Dec	7	1		83%	13%	41%	18%	62%	29%
Jan	7	1			41%	18%	62%	29%	
Feb	7	1			41%	18%	62%	29%	
Mar	7	1			41%	18%	62%	29%	
Apr	12	1	Rainbow Trout Spawning	87%	4%	54%	18%	76%	29%
May	12	1		87%	4%	54%	18%	76%	29%
Jun	12	1		87%	4%	54%	18%	76%	29%
Jul	12	1			54%	18%	76%	29%	
Aug	12	1			54%	18%	76%	29%	
Sep 1	12	1			54%	18%	76%	29%	
Sep 16	12	1			54%	18%	76%	29%	

Table Attachment D-27. Percent Reduction in Wetted Perimeter between Two Flows for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.

Start Flow ¹	Start Flow ¹ (cfs)																												
	100	90	80	70	60	50	45	40	35	30	25	20	18	16	14	12	10	9	8	7	6	5	4.5	4	3.5	3	2.5	2	1.5
WP ²	44.8	43.8	42.7	41.4	39.9	38.8	38.1	37.2	35.7	34.3	32.9	31.6	30.9	30.3	29.5	28.6	27.7	27.3	26.7	26.2	25.6	25.0	24.6	24.3	23.9	23.4	22.8	22.0	21.1
100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	11	9	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	13	11	9	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	15	13	11	8	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	17	15	13	10	7	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	20	18	16	14	10	8	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	23	22	20	17	14	12	10	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	26	25	23	20	17	15	14	11	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	29	28	26	24	21	19	17	15	12	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	31	29	28	25	22	20	19	17	13	10	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	32	31	29	27	24	22	21	19	15	12	8	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	34	33	31	29	26	24	23	21	18	14	11	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	36	35	33	31	28	26	25	23	20	17	13	9	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	38	37	35	33	30	28	27	25	22	19	16	12	10	8	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-
9	39	38	36	34	32	30	28	27	24	20	17	14	12	10	7	5	2	-	-	-	-	-	-	-	-	-	-	-	-
8	40	39	37	35	33	31	30	28	25	22	19	15	14	12	9	7	4	2	-	-	-	-	-	-	-	-	-	-	-
7	42	40	39	37	34	33	31	30	27	24	21	17	15	14	11	9	6	4	2	-	-	-	-	-	-	-	-	-	-
6	43	42	40	38	36	34	33	31	28	25	22	19	17	15	13	11	8	6	4	2	-	-	-	-	-	-	-	-	-
5	44	43	41	40	37	36	34	33	30	27	24	21	19	18	15	13	10	8	7	5	2	-	-	-	-	-	-	-	-
4.5	45	44	42	40	38	36	35	34	31	28	25	22	20	19	16	14	11	10	8	6	4	1	-	-	-	-	-	-	-
4	46	45	43	41	39	37	36	35	32	29	26	23	21	20	18	15	12	11	9	7	5	3	1	-	-	-	-	-	-
3.5	47	45	44	42	40	38	37	36	33	30	28	24	23	21	19	17	14	12	11	9	7	4	3	2	-	-	-	-	-
3	48	47	45	44	41	40	39	37	34	32	29	26	24	23	21	18	16	14	12	11	9	6	5	4	2	-	-	-	-
2.5	49	48	47	45	43	41	40	39	36	34	31	28	26	25	23	20	18	16	15	13	11	9	8	6	4	3	-	-	-
2	51	50	48	47	45	43	42	41	38	36	33	30	29	27	25	23	21	19	18	16	14	12	11	10	8	6	4	-	-
1.5	53	52	50	49	47	45	45	43	41	38	36	33	32	30	28	26	24	22	21	19	17	15	14	13	11	10	7	4	-
1	56	55	53	52	50	49	48	46	44	42	40	37	36	34	32	30	28	27	26	24	22	20	19	18	17	15	13	9	6

1 Start Flow: Flow, in cfs, at which the ramping begins

2 WP: Wetted Perimeter, in feet, at the starting flow

3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-28. Percent Retention of Redd Habitat between Two Flows for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5.**A. Rainbow Trout**

		Start Flow ¹ (cfs)									
		100	80	60	40	30	20	14	10	7	5
End Flow ³ (cfs)	Starting WUA ²	125	130	145	169	182	181	171	149	116	84
	100	-	-	-	-	-	-	-	-	-	-
	80	100	-	-	-	-	-	-	-	-	-
	60	90	100	-	-	-	-	-	-	-	-
	40	90	100	100	-	-	-	-	-	-	-
	30	88	98	100	100	-	-	-	-	-	-
	20	88	98	100	100	100	-	-	-	-	-
	14	88	98	100	100	100	100	-	-	-	-
	10	86	96	98	98	98	100	100	-	-	-
	7	86	96	98	98	98	100	100	100	-	-
	5	86	96	98	98	98	100	100	100	100	-
	3	86	96	98	98	98	100	100	100	100	100
2	74	80	79	80	81	82	82	83	87	91	

B. Brown Trout

		Start Flow ¹ (cfs)									
		100	80	60	40	30	20	14	10	7	5
End Flow ³ (cfs)	Starting WUA ²	94	99	122	156	180	197	201	194	167	137
	100	-	-	-	-	-	-	-	-	-	-
	80	100	-	-	-	-	-	-	-	-	-
	60	85	99	-	-	-	-	-	-	-	-
	40	85	99	100	-	-	-	-	-	-	-
	30	82	98	100	100	-	-	-	-	-	-
	20	82	98	100	100	100	-	-	-	-	-
	14	82	98	100	100	100	100	-	-	-	-
	10	81	95	97	98	98	100	100	-	-	-
	7	81	95	97	98	98	100	100	100	-	-
	5	81	95	97	98	98	100	100	100	100	-
	3	81	95	97	98	98	100	100	100	100	100
2	76	86	83	81	83	84	85	85	89	92	

¹ Start Flow: Flow, in cfs, at which the ramping begins² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-29. Percent Reduction in Wetted Perimeter between Two Flows for Balsam Creek – Diversion to Big Creek.

		Start Flow ¹ (cfs)																									
Start Flow ¹		12	11	10	9	8	7	6	5.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.9	1.7	1.5	1.3	1.1	0.9	0.7	0.5	0.3	
WP ²		12.3	11.8	11.0	10.4	10.0	9.8	9.6	9.5	9.4	9.1	8.8	8.3	7.9	7.8	7.6	7.3	7.1	6.9	6.6	6.2	6.6	6.2	4.9	4.2	2.8	
End Flow ³ (cfs)	11	4																									
	10	10	7																								
	9	16	12	6																							
	8	18	15	9	3																						
	7	20	17	11	6	2																					
	6	22	19	13	8	4	2																				
	5.5	23	20	14	9	5	3	1																			
	5	24	21	15	10	7	4	2	1																		
	4.5	26	23	18	12	10	7	5	4	3																	
	4	28	25	20	15	12	10	8	7	6	3																
	3.5	32	30	24	20	17	15	13	12	11	8	6															
	3	36	33	28	24	21	19	17	17	16	13	10	5														
	2.7	37	34	30	25	23	21	19	18	17	15	12	7	2													
	2.4	38	36	31	27	24	22	21	20	19	16	14	9	4	2												
	2.1	40	38	33	29	27	25	23	23	22	19	17	12	7	5	3											
	1.9	42	40	36	32	29	28	26	25	24	22	20	15	11	9	7	4										
	1.7	44	42	38	34	32	30	28	28	27	24	22	18	13	11	10	7	3									
	1.5	46	44	40	36	34	32	31	30	30	27	25	21	17	15	13	10	7	4								
	1.3	50	48	44	41	39	37	36	35	34	32	30	26	22	21	19	16	13	10	7							
	1.1	54	52	48	45	43	42	41	40	40	38	36	32	28	27	25	23	20	17	14	8						
0.9	57	55	51	48	47	45	44	44	43	41	39	36	32	31	30	27	25	22	19	13	6						
0.7	60	59	56	53	51	50	49	48	48	46	45	41	38	37	36	33	31	29	26	21	14	8					
0.5	66	65	62	60	58	57	57	56	56	54	53	50	47	46	45	43	41	39	37	32	26	22	15				
0.3	77	76	74	73	72	71	71	70	70	69	68	66	64	64	63	62	60	59	57	54	50	47	42	32			
0.1	82	82	80	79	78	78	77	77	77	76	76	74	73	72	72	71	70	69	67	65	62	60	56	48	23		

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-30. Percent Reduction in Wetted Perimeter between Two Flows for Adit No. 8 Creek – Diversion to Big Creek.

		Start Flow ¹ (cfs)																									
Start Flow ¹	10	9	8	7	6	5.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.9	1.7	1.5	1.3	1.1	0.9	0.7	0.5	0.3				
WP ²	9.1	8.8	7.7	6.5	5.6	5.0	4.2	3.9	3.7	3.6	3.5	3.4	3.3	3.1	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.5	2.2				
End Flow ³ (cfs)	9	3																									
	8	15	13																								
	7	28	26	15																							
	6	39	37	28	15																						
	5.5	45	43	35	24	10																					
	5	54	53	46	36	25	16																				
	4.5	57	56	50	41	31	23	7																			
	4	59	58	52	43	34	26	11	4																		
	3.5	61	60	54	45	36	28	14	8	3																	
	3	62	61	55	47	38	31	17	11	7	3																
	2.7	63	62	56	48	39	32	19	12	8	5	2															
	2.4	63	62	57	49	41	34	20	14	10	7	4	2														
	2.1	65	64	59	52	44	37	25	19	15	12	9	7	5													
	1.9	66	65	60	53	45	38	26	20	17	14	11	9	7	2												
	1.7	67	66	61	54	46	39	27	22	18	15	12	11	9	4	2											
	1.5	67	66	61	55	47	41	29	23	20	17	14	12	11	5	4	2										
	1.3	68	67	62	56	48	42	31	25	22	19	16	14	13	8	6	4	2									
	1.1	69	68	63	57	49	43	32	27	23	21	18	16	15	10	8	6	4	2								
	0.9	69	69	64	58	50	44	34	28	25	22	20	18	16	12	10	8	7	4	2							
	0.7	70	69	65	59	52	46	35	30	27	25	22	20	19	14	13	11	9	7	5	3						
0.5	72	72	67	62	55	50	40	35	32	30	27	26	24	20	19	17	15	13	12	9	7						
0.3	75	75	71	66	60	55	46	42	39	37	35	34	32	29	27	26	24	23	21	19	17	11					
0.1	80	80	77	73	68	64	57	54	52	50	48	47	46	43	42	41	40	38	37	35	33	29	20				

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-31. Percent Reduction in Wetted Perimeter between Two Flows for Ely Creek – Diversion to Big Creek.

		Start Flow ¹ (cfs)																				
Start Flow ¹		8	7	6	5.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.9	1.7	1.5	1.3	1.1	0.9	0.7	0.5	0.3
WP ²		11.7	11.1	10.5	10.2	9.8	9.5	9.1	8.7	8.3	7.9	7.4	7.0	6.5	6.0	5.6	5.1	4.7	4.4	4.0	3.6	3.0
End Flow ³ (cfs)	7	5																				
	6	10	5																			
	5.5	13	8	3																		
	5	16	11	6	3																	
	4.5	19	15	10	7	4																
	4	22	18	13	10	7	4															
	3.5	25	22	17	14	11	8	4														
	3	29	25	21	18	16	12	9	5													
	2.7	32	29	25	22	20	17	13	9	5												
	2.4	36	33	29	27	24	21	18	15	10	6											
	2.1	40	37	34	31	29	26	23	20	16	12	6										
	1.9	44	41	38	36	34	31	28	25	21	17	12	6									
	1.7	49	46	43	41	39	37	34	31	28	24	19	14	8								
	1.5	52	50	47	45	43	41	39	36	33	29	25	20	14	7							
	1.3	56	54	51	49	48	46	44	41	38	35	31	26	21	14	8						
	1.1	60	58	55	54	52	50	48	46	43	40	37	33	28	22	16	9					
	0.9	62	60	58	57	55	54	52	49	47	44	41	37	33	27	21	14	6				
	0.7	65	64	61	60	59	57	56	54	51	49	46	42	38	33	28	21	14	8			
	0.5	69	68	66	65	64	62	61	59	57	54	52	48	45	40	36	30	24	18	11		
0.3	74	73	71	70	69	68	67	66	64	62	60	57	54	50	46	42	36	32	26	16		
0.1	86	86	85	84	84	83	82	82	81	80	79	77	76	73	71	69	66	64	61	55	47	

¹ Start Flow: Flow, in cfs, at which the ramping begins
² WP: Wetted Perimeter, in feet, at the starting flow
³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-32. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	1	7,207	2,697	591	221	-	-	-	-	-	-
Nov	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Dec	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Jan	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Feb	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Mar	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Apr	20	1	10,228	2,697	839	221	181	7	270	10	-	-
May	20	1	10,228	2,697	839	221	181	7	270	10	-	-
Jun	20	1	10,228	2,697	839	221	181	7	270	10	-	-
Jul	15	1	8,868	2,697	727	221	-	-	-	-	-	-
Aug	15	1	8,868	2,697	727	221	-	-	-	-	-	-
Sep 1	15	1	8,868	2,697	727	221	-	-	-	-	-	-
Sep 16	15	1	8,868	2,697	727	221	-	-	-	-	-	-

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Nov	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Dec	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Jan	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Feb	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Mar	7	1	5,970	2,697	490	221	-	-	-	-	-	-
Apr	15	1	8,868	2,697	727	221	174	7	259	10	-	-
May	15	1	8,868	2,697	727	221	174	7	259	10	-	-
Jun	15	1	8,868	2,697	727	221	174	7	259	10	-	-
Jul	10	1	7,207	2,697	591	221	-	-	-	-	-	-
Aug	10	1	7,207	2,697	591	221	-	-	-	-	-	-
Sep 1	10	1	7,207	2,697	591	221	-	-	-	-	-	-
Sep 16	10	1	7,207	2,697	591	221	-	-	-	-	-	-

Table Attachment D-32. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	1	11,944	5,480	1,959	899	-	-	-	-
Nov	7	1	10,735	5,480	1,761	899	-	-	-	-
Dec	7	1	10,735	5,480	1,761	899	-	-	-	-
Jan	7	1	10,735	5,480	1,761	899	-	-	-	-
Feb	7	1	10,735	5,480	1,761	899	-	-	-	-
Mar	7	1	10,735	5,480	1,761	899	-	-	-	-
Apr	20	1	12,866	5,480	2,111	899	-	-	-	-
May	20	1	12,866	5,480	2,111	899	-	-	-	-
Jun	20	1	12,866	5,480	2,401	1,851	14,634	11,281	6,002	4,627
Jul	15	1	12,783	5,480	2,097	899	15,128	11,281	6,204	4,627
Aug	15	1	12,783	5,480	2,097	899	15,128	11,281	6,204	4,627
Sep 1	15	1	12,783	5,480	2,097	899	15,128	11,281	6,204	4,627
Sep 16	15	1	12,783	5,480	2,097	899	15,128	11,281	6,204	4,627

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	10,735	5,480	1,761	899	-	-	-	-
Nov	7	1	10,735	5,480	1,761	899	-	-	-	-
Dec	7	1	10,735	5,480	1,761	899	-	-	-	-
Jan	7	1	10,735	5,480	1,761	899	-	-	-	-
Feb	7	1	10,735	5,480	1,761	899	-	-	-	-
Mar	7	1	10,735	5,480	1,761	899	-	-	-	-
Apr	15	1	12,783	5,480	2,097	899	-	-	-	-
May	15	1	12,783	5,480	2,097	899	-	-	-	-
Jun	15	1	12,783	5,480	2,097	899	15,128	11,281	6,204	4,627
Jul	10	1	11,944	5,480	1,959	899	15,540	11,281	6,373	4,627
Aug	10	1	11,944	5,480	1,959	899	15,540	11,281	6,373	4,627
Sep 1	10	1	11,944	5,480	1,959	899	15,540	11,281	6,373	4,627
Sep 16	10	1	11,944	5,480	1,959	899	15,540	11,281	6,373	4,627

Table Attachment D-33. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	1	9,207	3,778	755	310	194	26	114	15
Nov	7	1	7,980	3,778	655	310	167	26	98	15
Dec	7	1	7,980	3,778	655	310	167	26	98	15
Jan	7	1	7,980	3,778	655	310	-	-	-	-
Feb	7	1	7,980	3,778	655	310	-	-	-	-
Mar	7	1	7,980	3,778	655	310	-	-	-	-
Apr	20	1	11,434	3,778	938	310	-	-	-	-
May	20	1	11,434	3,778	938	310	-	-	-	-
Jun	20	1	11,434	3,778	938	310	-	-	-	-
Jul	15	1	10,554	3,778	866	310	-	-	-	-
Aug	15	1	10,554	3,778	866	310	-	-	-	-
Sep 1	15	1	10,554	3,778	866	310	-	-	-	-
Sep 16	15	1	10,554	3,778	866	310	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	7,980	3,778	655	310	167	26	98	15
Nov	7	1	7,980	3,778	655	310	167	26	98	15
Dec	7	1	7,980	3,778	655	310	167	26	98	15
Jan	7	1	7,980	3,778	655	310	-	-	-	-
Feb	7	1	7,980	3,778	655	310	-	-	-	-
Mar	7	1	7,980	3,778	655	310	-	-	-	-
Apr	15	1	10,554	3,778	866	310	-	-	-	-
May	15	1	10,554	3,778	866	310	-	-	-	-
Jun	15	1	10,554	3,778	866	310	-	-	-	-
Jul	10	1	9,207	3,778	755	310	-	-	-	-
Aug	10	1	9,207	3,778	755	310	-	-	-	-
Sep 1	10	1	9,207	3,778	755	310	-	-	-	-
Sep 16	10	1	9,207	3,778	755	310	-	-	-	-

Table Attachment D-33. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5- CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	1	12,394	6,092	2,033	999	-	-	-	-
Nov	7	1	11,534	6,092	1,892	999	-	-	-	-
Dec	7	1	11,534	6,092	1,892	999	-	-	-	-
Jan	7	1	11,534	6,092	1,892	999	-	-	-	-
Feb	7	1	11,534	6,092	1,892	999	-	-	-	-
Mar	7	1	11,534	6,092	1,892	999	-	-	-	-
Apr	20	1	12,460	6,092	2,044	999	-	-	-	-
May	20	1	12,460	6,092	2,044	999	-	-	-	-
Jun	20	1	12,460	6,092	2,044	999	14,093	11,110	5,780	4,557
Jul	15	1	12,693	6,092	2,082	999	14,762	11,110	6,054	4,557
Aug	15	1	12,693	6,092	2,082	999	14,762	11,110	6,054	4,557
Sep 1	15	1	12,693	6,092	2,082	999	14,762	11,110	6,054	4,557
Sep 16	15	1	12,693	6,092	2,082	999	14,762	11,110	6,054	4,557

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	11,534	6,092	1,892	999	-	-	-	-
Nov	7	1	11,534	6,092	1,892	999	-	-	-	-
Dec	7	1	11,534	6,092	1,892	999	-	-	-	-
Jan	7	1	11,534	6,092	1,892	999	-	-	-	-
Feb	7	1	11,534	6,092	1,892	999	-	-	-	-
Mar	7	1	11,534	6,092	1,892	999	-	-	-	-
Apr	15	1	12,693	6,092	2,082	999	-	-	-	-
May	15	1	12,693	6,092	2,082	999	-	-	-	-
Jun	15	1	12,693	6,092	2,082	999	14,762	11,110	6,054	4,557
Jul	10	1	12,394	6,092	2,033	999	15,384	11,110	6,309	4,557
Aug	10	1	12,394	6,092	2,033	999	15,384	11,110	6,309	4,557
Sep 1	10	1	12,394	6,092	2,033	999	15,384	11,110	6,309	4,557
Sep 16	10	1	12,394	6,092	2,033	999	15,384	11,110	6,309	4,557

Table Attachment D-34. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	1	Brown Trout Spawning	97%	13%	49%	18%	71%	29%
Nov	7	1		83%	13%	41%	18%	62%	29%
Dec	7	1		83%	13%	41%	18%	62%	29%
Jan	7	1			41%	18%	62%	29%	
Feb	7	1			41%	18%	62%	29%	
Mar	7	1			41%	18%	62%	29%	
Apr	20	1	Rainbow Trout Spawning	97%	4%	69%	18%	88%	29%
May	20	1		97%	4%	69%	18%	88%	29%
Jun	20	1		97%	4%	69%	18%	88%	29%
Jul	15	1			60%	18%	81%	29%	
Aug	15	1			60%	18%	81%	29%	
Sep 1	15	1			60%	18%	81%	29%	
Sep 16	15	1			60%	18%	81%	29%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	Brown Trout Spawning	83%	13%	41%	18%	62%	29%
Nov	7	1		83%	13%	41%	18%	62%	29%
Dec	7	1		83%	13%	41%	18%	62%	29%
Jan	7	1			41%	18%	62%	29%	
Feb	7	1			41%	18%	62%	29%	
Mar	7	1			41%	18%	62%	29%	
Apr	15	1	Rainbow Trout Spawning	93%	4%	60%	18%	81%	29%
May	15	1		93%	4%	60%	18%	81%	29%
Jun	15	1		93%	4%	60%	18%	81%	29%
Jul	10	1			49%	18%	71%	29%	
Aug	10	1			49%	18%	71%	29%	
Sep 1	10	1			49%	18%	71%	29%	
Sep 16	10	1			49%	18%	71%	29%	

Table Attachment D-35. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	7,207	6,397	591	525	-	-	-	-
Nov	7	7	5,970	5,970	490	490	-	-	-	-
Dec	7	7	5,970	5,970	490	490	-	-	-	-
Jan	7	7	5,970	5,970	490	490	-	-	-	-
Feb	7	7	5,970	5,970	490	490	-	-	-	-
Mar	7	7	5,970	5,970	490	490	-	-	-	-
Apr	20	12	10,228	7,940	839	651	181	162	270	241
May	20	12	10,228	7,940	839	651	181	162	270	241
Jun	20	12	10,228	7,940	839	651	181	162	270	241
Jul	15	12	8,868	7,940	727	651	-	-	-	-
Aug	15	12	8,868	7,940	727	651	-	-	-	-
Sep 1	15	12	8,868	7,940	727	651	-	-	-	-
Sep 16	15	12	8,868	7,940	727	651	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	8	5,970	6,397	490	525	-	-	-	-
Nov	7	7	5,970	5,970	490	490	-	-	-	-
Dec	7	7	5,970	5,970	490	490	-	-	-	-
Jan	7	7	5,970	5,970	490	490	-	-	-	-
Feb	7	7	5,970	5,970	490	490	-	-	-	-
Mar	7	7	5,970	5,970	490	490	-	-	-	-
Apr	15	12	8,868	7,940	727	651	174	162	259	241
May	15	12	8,868	7,940	727	651	174	162	259	241
Jun	15	12	8,868	7,940	727	651	174	162	259	241
Jul	10	12	7,207	7,940	591	651	-	-	-	-
Aug	10	12	7,207	7,940	591	651	-	-	-	-
Sep 1	10	12	7,207	7,940	591	651	-	-	-	-
Sep 16	10	12	7,207	7,940	591	651	-	-	-	-

Table Attachment D-35. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

Rainbow Trout Juvenile												Rainbow Trout Fry											
Normal Years																							
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer														
	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action													
Oct	10	8	11,944	11,249	1,959	1,845	-	-	-	-													
Nov	7	7	10,735	10,735	1,761	1,761	-	-	-	-													
Dec	7	7	10,735	10,735	1,761	1,761	-	-	-	-													
Jan	7	7	10,735	10,735	1,761	1,761	-	-	-	-													
Feb	7	7	10,735	10,735	1,761	1,761	-	-	-	-													
Mar	7	7	10,735	10,735	1,761	1,761	-	-	-	-													
Apr	20	12	12,866	12,359	2,111	2,027	-	-	-	-													
May	20	12	12,866	12,359	2,111	2,027	-	-	-	-													
Jun	20	12	12,866	12,359	2,401	2,531	14,634	15,428	6,002	6,327													
Jul	15	12	12,783	12,359	2,097	2,027	15,128	15,428	6,204	6,327													
Aug	15	12	12,783	12,359	2,097	2,027	15,128	15,428	6,204	6,327													
Sep 1	15	12	12,783	12,359	2,097	2,027	15,128	15,428	6,204	6,327													
Sep 16	15	12	12,783	12,359	2,097	2,027	15,128	15,428	6,204	6,327													

Dry Years											
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	
Oct	7	8	10,735	11,249	1,761	1,845	-	-	-	-	
Nov	7	7	10,735	10,735	1,761	1,761	-	-	-	-	
Dec	7	7	10,735	10,735	1,761	1,761	-	-	-	-	
Jan	7	7	10,735	10,735	1,761	1,761	-	-	-	-	
Feb	7	7	10,735	10,735	1,761	1,761	-	-	-	-	
Mar	7	7	10,735	10,735	1,761	1,761	-	-	-	-	
Apr	15	12	12,783	12,359	2,097	2,027	-	-	-	-	
May	15	12	12,783	12,359	2,097	2,027	-	-	-	-	
Jun	15	12	12,783	12,359	2,097	2,027	15,128	15,428	6,204	6,327	
Jul	10	12	11,944	12,359	1,959	2,027	15,540	15,428	6,373	6,327	
Aug	10	12	11,944	12,359	1,959	2,027	15,540	15,428	6,373	6,327	
Sep 1	10	12	11,944	12,359	1,959	2,027	15,540	15,428	6,373	6,327	
Sep 16	10	12	11,944	12,359	1,959	2,027	15,540	15,428	6,373	6,327	

Table Attachment D-36. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	9,207	8,452	755	693	194	179	114	105
Nov	7	7	7,980	7,980	655	655	167	167	98	98
Dec	7	7	7,980	7,980	655	655	167	167	98	98
Jan	7	7	7,980	7,980	655	655	-	-	-	-
Feb	7	7	7,980	7,980	655	655	-	-	-	-
Mar	7	7	7,980	7,980	655	655	-	-	-	-
Apr	20	12	11,434	9,824	938	806	-	-	-	-
May	20	12	11,434	9,824	938	806	-	-	-	-
Jun	20	12	11,434	9,824	938	806	-	-	-	-
Jul	15	12	10,554	9,824	866	806	-	-	-	-
Aug	15	12	10,554	9,824	866	806	-	-	-	-
Sep 1	15	12	10,554	9,824	866	806	-	-	-	-
Sep 16	15	12	10,554	9,824	866	806	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	8	7,980	8,452	655	693	167	179	98	105
Nov	7	7	7,980	7,980	655	655	167	167	98	98
Dec	7	7	7,980	7,980	655	655	167	167	98	98
Jan	7	7	7,980	7,980	655	655	-	-	-	-
Feb	7	7	7,980	7,980	655	655	-	-	-	-
Mar	7	7	7,980	7,980	655	655	-	-	-	-
Apr	15	12	10,554	9,824	866	806	-	-	-	-
May	15	12	10,554	9,824	866	806	-	-	-	-
Jun	15	12	10,554	9,824	866	806	-	-	-	-
Jul	10	12	9,207	9,824	755	806	-	-	-	-
Aug	10	12	9,207	9,824	755	806	-	-	-	-
Sep 1	10	12	9,207	9,824	755	806	-	-	-	-
Sep 16	10	12	9,207	9,824	755	806	-	-	-	-

Table Attachment D-36. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	12,394	11,936	2,033	1,958	-	-	-	-
Nov	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Dec	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Jan	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Feb	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Mar	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Apr	20	12	12,460	12,602	2,044	2,067	-	-	-	-
May	20	12	12,460	12,602	2,044	2,067	-	-	-	-
Jun	20	12	12,460	12,602	2,044	2,067	14,093	15,197	5,780	6,232
Jul	15	12	12,693	12,602	2,082	2,067	14,762	15,197	6,054	6,232
Aug	15	12	12,693	12,602	2,082	2,067	14,762	15,197	6,054	6,232
Sep 1	15	12	12,693	12,602	2,082	2,067	14,762	15,197	6,054	6,232
Sep 16	15	12	12,693	12,602	2,082	2,067	14,762	15,197	6,054	6,232

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	8	11,534	11,936	1,892	1,958	-	-	-	-
Nov	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Dec	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Jan	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Feb	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Mar	7	7	11,534	11,534	1,892	1,892	-	-	-	-
Apr	15	12	12,693	12,602	2,082	2,067	-	-	-	-
May	15	12	12,693	12,602	2,082	2,067	-	-	-	-
Jun	15	12	12,693	12,602	2,082	2,067	14,762	15,197	6,054	6,232
Jul	10	12	12,394	12,602	2,033	2,067	15,384	15,197	6,309	6,232
Aug	10	12	12,394	12,602	2,033	2,067	15,384	15,197	6,309	6,232
Sep 1	10	12	12,394	12,602	2,033	2,067	15,384	15,197	6,309	6,232
Sep 16	10	12	12,394	12,602	2,033	2,067	15,384	15,197	6,309	6,232

Table Attachment D-37. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 4 to Powerhouse 2/2A/Dam 5 - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	Brown Trout Spawning	97%	89%	49%	43%	71%	65%
Nov	7	7		83%	83%	41%	41%	62%	62%
Dec	7	7		83%	83%	41%	41%	62%	62%
Jan	7	7			41%	41%	62%	62%	
Feb	7	7			41%	41%	62%	62%	
Mar	7	7			41%	41%	62%	62%	
Apr	20	12	Rainbow Trout Spawning	97%	87%	69%	54%	88%	76%
May	20	12		97%	87%	69%	54%	88%	76%
Jun	20	12		97%	87%	69%	54%	88%	76%
Jul	15	12			60%	54%	81%	76%	
Aug	15	12			60%	54%	81%	76%	
Sep 1	15	12			60%	54%	81%	76%	
Sep 16	15	12			60%	54%	81%	76%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	8	Brown Trout Spawning	83%	89%	41%	43%	62%	65%
Nov	7	7		83%	83%	41%	41%	62%	62%
Dec	7	7		83%	83%	41%	41%	62%	62%
Jan	7	7			41%	41%	62%	62%	
Feb	7	7			41%	41%	62%	62%	
Mar	7	7			41%	41%	62%	62%	
Apr	15	12	Rainbow Trout Spawning	93%	87%	60%	54%	81%	76%
May	15	12		93%	87%	60%	54%	81%	76%
Jun	15	12		93%	87%	60%	54%	81%	76%
Jul	10	12			49%	54%	71%	76%	
Aug	10	12			49%	54%	71%	76%	
Sep 1	10	12			49%	54%	71%	76%	
Sep 16	10	12			49%	54%	71%	76%	

Table Attachment D-38. Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Florence Lake to Bear Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	11,567	18,735	25,747	2,013	11,988
12.0	12,614	19,276	25,665	2,398	13,836
14.0	13,568	19,597	25,433	2,722	15,377
16.0	14,446	19,768	25,087	2,980	16,653
18.0	15,239	19,863	24,716	3,175	17,699
20.0	15,954	19,884	24,329	3,311	18,499
25.0	17,422	19,850	23,251	3,540	19,866
30.0	18,590	19,450	22,120	3,653	20,762
35.0	19,521	18,930	21,124	3,708	21,393
40.0	20,137	18,453	20,247	3,691	21,712
45.0	20,536	18,007	19,398	3,627	21,874
50.0	20,841	17,533	18,694	3,529	21,927
55.0	21,060	17,108	18,019	3,405	21,916
60.0	21,247	16,710	17,442	3,255	21,784
65.0	21,383	16,382	16,972	3,093	21,615
70.0	21,495	16,101	16,595	2,929	21,424
75.0	21,581	15,817	16,315	2,756	21,183
80.0	21,616	15,573	16,093	2,585	20,929
85.0	21,666	15,334	15,908	2,414	20,676
90.0	21,669	15,121	15,744	2,248	20,411
95.0	21,635	14,925	15,606	2,077	20,159
100.0	21,589	14,726	15,525	1,913	19,917
125.0	21,035	13,715	15,822	1,256	18,877
150.0	20,437	13,133	16,459	898	18,341
175.0	20,243	12,898	16,971	740	18,862
200.0	19,982	13,025	17,333	676	20,032
225.0	19,907	13,357	17,773	634	21,593
250.0	19,850	13,710	18,438	599	23,078
275.0	19,883	14,135	19,213	557	24,099
300.0	20,020	14,682	19,916	522	24,668
MAX WUA	21,669	19,884	25,747	3,708	24,668

Table Attachment D-39. Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Florence Lake to Bear Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	15,164	19,586	25,109	2,380	16,846
12.0	16,203	19,865	24,995	2,719	18,577
14.0	17,083	19,901	24,744	3,005	19,921
16.0	17,782	19,787	24,365	3,229	20,951
18.0	18,371	19,653	23,949	3,401	21,780
20.0	18,851	19,539	23,520	3,516	22,416
25.0	19,602	19,174	22,391	3,625	23,290
30.0	20,035	18,514	21,232	3,575	23,524
35.0	20,260	17,852	20,207	3,444	23,530
40.0	20,376	17,330	19,339	3,277	23,369
45.0	20,365	16,846	18,487	3,091	23,109
50.0	20,252	16,419	17,768	2,872	22,797
55.0	20,115	16,051	17,094	2,624	22,436
60.0	19,943	15,732	16,529	2,365	21,930
65.0	19,792	15,470	16,062	2,115	21,377
70.0	19,661	15,228	15,698	1,886	20,868
75.0	19,491	15,000	15,422	1,678	20,422
80.0	19,288	14,798	15,191	1,504	20,050
85.0	19,083	14,627	15,005	1,357	19,698
90.0	18,886	14,481	14,842	1,232	19,355
95.0	18,715	14,314	14,710	1,120	19,038
100.0	18,540	14,140	14,632	1,027	18,781
125.0	17,891	13,408	14,907	708	18,250
150.0	17,538	12,980	15,504	510	18,470
175.0	17,401	12,986	16,024	430	19,522
200.0	17,333	13,228	16,404	400	21,015
225.0	17,361	13,457	16,913	397	22,648
250.0	17,396	13,677	17,621	403	24,235
275.0	17,525	14,108	18,432	404	25,505
300.0	17,732	14,558	19,181	407	26,378
MAX WUA	20,376	19,901	25,109	3,625	26,378

Table Attachment D-40. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	17	18,590	14,843	1,525	1,217	-	-	-	-
Nov	25	15	17,422	14,007	1,429	1,149	-	-	-	-
Dec	25	15	17,422	14,007	1,429	1,149	-	-	-	-
Jan	25	15	17,422	14,007	1,429	1,149	-	-	-	-
Feb	25	15	17,422	14,007	1,429	1,149	-	-	-	-
Mar	25	15	17,422	14,007	1,429	1,149	-	-	-	-
Apr	40	15	20,137	14,007	1,652	1,149	3,691	2,851	5,505	4,252
May	40	27	20,137	17,889	1,652	1,467	3,691	3,585	5,505	5,347
Jun	40	27	20,137	17,889	1,652	1,467	3,691	3,585	5,505	5,347
Jul	35	27	19,521	17,889	1,601	1,467	-	-	-	-
Aug	35	27	19,521	17,889	1,601	1,467	-	-	-	-
Sep	35	27	19,521	17,889	1,601	1,467	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	13	18,590	13,091	1,525	1,074	-	-	-	-
Nov	25	11	17,422	12,091	1,429	992	-	-	-	-
Dec	25	11	17,422	12,091	1,429	992	-	-	-	-
Jan	25	11	17,422	12,091	1,429	992	-	-	-	-
Feb	25	11	17,422	12,091	1,429	992	-	-	-	-
Mar	25	11	17,422	12,091	1,429	992	-	-	-	-
Apr	40	11	20,137	12,091	1,652	992	3,691	2,206	5,505	3,289
May	40	20	20,137	15,954	1,652	1,309	3,691	3,311	5,505	4,938
Jun	40	20	20,137	15,954	1,652	1,309	3,691	3,311	5,505	4,938
Jul	35	20	19,521	15,954	1,601	1,309	-	-	-	-
Aug	35	20	19,521	15,954	1,601	1,309	-	-	-	-
Sep	35	20	19,521	15,954	1,601	1,309	-	-	-	-

Table Attachment D-40. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	17	19,450	19,816	3,191	3,251	-	-	-	-
Nov	25	15	19,850	19,683	3,256	3,229	-	-	-	-
Dec	25	15	19,850	19,683	3,256	3,229	-	-	-	-
Jan	25	15	19,850	19,683	3,256	3,229	-	-	-	-
Feb	25	15	19,850	19,683	3,256	3,229	-	-	-	-
Mar	25	15	19,850	19,683	3,256	3,229	-	-	-	-
Apr	40	15	18,453	19,683	3,027	3,229	-	-	-	-
May	40	27	18,453	19,690	3,027	3,230	-	-	-	-
Jun	40	27	18,453	19,690	3,027	3,230	20,247	22,798	8,304	9,350
Jul	35	27	18,930	19,690	3,105	3,230	21,124	22,798	8,663	9,350
Aug	35	27	18,930	19,690	3,105	3,230	21,124	22,798	8,663	9,350
Sep	35	27	18,930	19,690	3,105	3,230	21,124	22,798	8,663	9,350

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	13	19,450	19,437	3,191	3,189	-	-	-	-
Nov	25	11	19,850	19,005	3,256	3,118	-	-	-	-
Dec	25	11	19,850	19,005	3,256	3,118	-	-	-	-
Jan	25	11	19,850	19,005	3,256	3,118	-	-	-	-
Feb	25	11	19,850	19,005	3,256	3,118	-	-	-	-
Mar	25	11	19,850	19,005	3,256	3,118	-	-	-	-
Apr	40	11	18,453	19,005	3,027	3,118	-	-	-	-
May	40	20	18,453	19,884	3,027	3,262	-	-	-	-
Jun	40	20	18,453	19,884	3,027	3,262	20,247	24,329	8,304	9,978
Jul	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978
Aug	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978
Sep	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978

Table Attachment D-41. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	17	20,035	18,077	1,643	1,483	3,575	3,315	2,094	1,942
Nov	25	15	19,602	17,432	1,608	1,430	3,625	3,117	2,124	1,826
Dec	25	15	19,602	17,432	1,608	1,430	3,625	3,117	2,124	1,826
Jan	25	15	19,602	17,432	1,608	1,430	-	-	-	-
Feb	25	15	19,602	17,432	1,608	1,430	-	-	-	-
Mar	25	15	19,602	17,432	1,608	1,430	-	-	-	-
Apr	40	15	20,376	17,432	1,671	1,430	-	-	-	-
May	40	27	20,376	19,775	1,671	1,622	-	-	-	-
Jun	40	27	20,376	19,775	1,671	1,622	-	-	-	-
Jul	35	27	20,260	19,775	1,662	1,622	-	-	-	-
Aug	35	27	20,260	19,775	1,662	1,622	-	-	-	-
Sep	35	27	20,260	19,775	1,662	1,622	-	-	-	-

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	13	20,035	16,643	1,643	1,365	3,575	2,862	2,094	1,677
Nov	25	11	19,602	15,684	1,608	1,286	3,625	2,550	2,124	1,494
Dec	25	11	19,602	15,684	1,608	1,286	3,625	2,550	2,124	1,494
Jan	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Feb	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Mar	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Apr	40	11	20,376	15,684	1,671	1,286	-	-	-	-
May	40	20	20,376	18,851	1,671	1,546	-	-	-	-
Jun	40	20	20,376	18,851	1,671	1,546	-	-	-	-
Jul	35	20	20,260	18,851	1,662	1,546	-	-	-	-
Aug	35	20	20,260	18,851	1,662	1,546	-	-	-	-
Sep	35	20	20,260	18,851	1,662	1,546	-	-	-	-

Table Attachment D-41. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek- Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	17	18,514	19,720	3,037	3,235	-	-	-	-
Nov	25	15	19,174	19,844	3,146	3,255	-	-	-	-
Dec	25	15	19,174	19,844	3,146	3,255	-	-	-	-
Jan	25	15	19,174	19,844	3,146	3,255	-	-	-	-
Feb	25	15	19,174	19,844	3,146	3,255	-	-	-	-
Mar	25	15	19,174	19,844	3,146	3,255	-	-	-	-
Apr	40	15	17,330	19,844	2,843	3,255	-	-	-	-
May	40	27	17,330	18,910	2,843	3,102	-	-	-	-
Jun	40	27	17,330	18,910	2,843	3,102	19,339	21,927	7,931	8,993
Jul	35	27	17,852	18,910	2,929	3,102	20,207	21,927	8,288	8,993
Aug	35	27	17,852	18,910	2,929	3,102	20,207	21,927	8,288	8,993
Sep	35	27	17,852	18,910	2,929	3,102	20,207	21,927	8,288	8,993

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	13	18,514	19,883	3,037	3,262	-	-	-	-
Nov	25	11	19,174	19,725	3,146	3,236	-	-	-	-
Dec	25	11	19,174	19,725	3,146	3,236	-	-	-	-
Jan	25	11	19,174	19,725	3,146	3,236	-	-	-	-
Feb	25	11	19,174	19,725	3,146	3,236	-	-	-	-
Mar	25	11	19,174	19,725	3,146	3,236	-	-	-	-
Apr	40	11	17,330	19,725	2,843	3,236	-	-	-	-
May	40	20	17,330	19,539	2,843	3,205	-	-	-	-
Jun	40	20	17,330	19,539	2,843	3,205	19,339	23,520	7,931	9,646
Jul	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646
Aug	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646
Sep	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646

Table Attachment D-42. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	17	Brown Trout Spawning	99%	91%	86%	68%	98%	89%
Nov	25	15		100%	86%	80%	65%	96%	86%
Dec	25	15		100%	86%	80%	65%	96%	86%
Jan	25	15				80%	65%	96%	86%
Feb	25	15				80%	65%	96%	86%
Mar	25	15				80%	65%	96%	86%
Apr	40	15	Rainbow Trout Spawning	100%	77%	93%	65%	100%	86%
May	40	27		100%	97%	93%	83%	100%	97%
Jun	40	27		100%	97%	93%	83%	100%	97%
Jul	35	27				90%	83%	99%	97%
Aug	35	27				90%	83%	99%	97%
Sep	35	27				90%	83%	99%	97%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	30	13	Brown Trout Spawning	99%	79%	86%	60%	98%	82%
Nov	25	11		100%	70%	80%	56%	96%	77%
Dec	25	11		100%	70%	80%	56%	96%	77%
Jan	25	11				80%	56%	96%	77%
Feb	25	11				80%	56%	96%	77%
Mar	25	11				80%	56%	96%	77%
Apr	40	11	Rainbow Trout Spawning	100%	59%	93%	56%	100%	77%
May	40	20		100%	89%	93%	74%	100%	93%
Jun	40	20		100%	89%	93%	74%	100%	93%
Jul	35	20				90%	74%	99%	93%
Aug	35	20				90%	74%	99%	93%
Sep	35	20				90%	74%	99%	93%

Table Attachment D-43. Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Florence Lake to Bear Creek.

		Start Flow ¹ (cfs)																											
Start Flow ¹	300	275	250	225	200	175	150	125	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	18	16	14	12
WP ²	69.4	67.5	65.3	63.7	61.3	59.0	57.0	54.9	51.8	51.0	50.4	49.9	49.4	48.9	48.3	47.6	46.9	46.2	45.8	45.4	45.0	44.4	43.4	42.3	41.4	40.9	40.4	39.8	39.2
End Flow ³ (cfs)	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	275	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	250	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	225	8	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	200	12	9	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	175	15	13	10	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	18	16	13	10	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	21	19	16	14	10	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	25	23	21	19	16	12	9	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	95	26	24	22	20	17	14	11	7	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	27	25	23	21	18	15	12	8	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	85	28	26	24	22	19	15	13	9	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	29	27	24	22	19	16	13	10	5	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	30	28	25	23	20	17	14	11	6	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	30	29	26	24	21	18	15	12	7	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	65	31	30	27	25	22	19	17	13	8	7	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	32	31	28	26	24	21	18	15	10	8	7	6	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-
	55	33	32	29	27	25	22	19	16	11	9	8	7	6	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-
	50	34	32	30	28	25	22	20	17	12	10	9	8	7	6	5	4	2	1	-	-	-	-	-	-	-	-	-	-
	45	35	33	30	29	26	23	20	17	12	11	10	9	8	7	6	5	3	2	1	-	-	-	-	-	-	-	-	-
40	35	33	31	29	27	24	21	18	13	12	11	10	9	8	7	5	4	3	2	1	-	-	-	-	-	-	-	-	
35	36	34	32	30	28	25	22	19	14	13	12	11	10	9	8	7	5	4	3	2	1	-	-	-	-	-	-	-	
30	37	36	34	32	29	26	24	21	16	15	14	13	12	11	10	9	7	6	5	4	3	2	-	-	-	-	-	-	
25	39	37	35	34	31	28	26	23	18	17	16	15	14	13	12	11	10	8	8	7	6	5	3	-	-	-	-	-	
20	40	39	37	35	33	30	27	25	20	19	18	17	16	15	14	13	12	10	10	9	8	7	5	2	-	-	-	-	
18	41	39	37	36	33	31	28	25	21	20	19	18	17	16	15	14	13	11	11	10	9	8	6	3	1	-	-	-	
16	42	40	38	37	34	31	29	26	22	21	20	19	18	17	16	15	14	12	12	11	10	9	7	4	2	1	-	-	
14	43	41	39	38	35	33	30	27	23	22	21	20	19	19	18	16	15	14	13	12	11	10	8	6	4	3	2	-	
12	44	42	40	39	36	34	31	29	24	23	22	22	21	20	19	18	16	15	14	14	13	12	10	7	5	4	3	2	
10	45	43	41	40	38	35	33	30	26	25	24	23	22	22	21	19	18	17	16	16	15	14	12	10	7	6	5	4	

1 Start Flow: Flow, in cfs, at which the ramping begins

2 WP: Wetted Perimeter, in feet, at the starting flow

3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-44. Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Florence Lake to Bear Creek.

A. Rainbow Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	40	30	25
End Flow ³ (cfs)	Starting WUA ²	523	675	904	1911	2586	3257	3689	3657	3539
	300	-	-	-	-	-	-	-	-	-
	200	94	-	-	-	-	-	-	-	-
	150	85	98	-	-	-	-	-	-	-
	100	73	93	100	-	-	-	-	-	-
	80	73	93	100	100	-	-	-	-	-
	60	69	92	99	100	100	-	-	-	-
	40	69	92	99	100	100	100	-	-	-
	30	67	89	97	99	99	100	100	-	-
	25	66	86	94	98	98	99	100	100	-
	20	66	86	94	98	98	99	100	100	100
	15	63	83	92	97	98	99	100	100	100
	11	62	81	90	94	95	95	96	97	98

B. Brown Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	40	30	25
End Flow ³ (cfs)	Starting WUA ²	396	399	516	1025	1506	2372	3280	3580	3625
	300	-	-	-	-	-	-	-	-	-
	200	91	-	-	-	-	-	-	-	-
	150	75	95	-	-	-	-	-	-	-
	100	54	83	98	-	-	-	-	-	-
	80	54	83	98	100	-	-	-	-	-
	60	47	77	95	100	100	-	-	-	-
	40	47	77	95	100	100	100	-	-	-
	30	45	73	92	98	99	99	100	-	-
	25	45	72	89	95	97	98	99	100	-
	20	45	72	89	95	97	98	99	100	100
	15	41	67	85	94	96	98	99	100	100
	11	40	66	82	92	93	95	96	97	98

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-45. Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Bear Creek to Mono Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	10,948	18,278	28,434	108	15,129
12.0	11,860	19,183	28,513	122	17,206
14.0	12,720	19,828	28,503	134	18,953
16.0	13,544	20,359	28,400	143	20,475
18.0	14,340	20,727	28,241	150	21,760
20.0	15,090	21,029	28,032	157	22,900
25.0	16,771	21,554	27,299	167	25,303
30.0	18,221	21,704	26,506	172	27,022
35.0	19,426	21,624	25,770	176	28,339
40.0	20,430	21,426	25,182	179	29,205
45.0	21,252	21,255	24,593	179	29,702
50.0	21,925	21,041	23,966	179	29,927
55.0	22,542	20,774	23,389	180	29,955
60.0	23,085	20,491	22,832	184	29,851
65.0	23,556	20,214	22,299	192	29,648
70.0	23,994	19,967	21,788	201	29,362
75.0	24,369	19,721	21,302	213	29,048
80.0	24,658	19,486	20,823	224	28,640
85.0	24,874	19,235	20,363	233	28,153
90.0	25,061	18,996	19,910	241	27,651
95.0	25,217	18,752	19,466	246	27,144
100.0	25,344	18,497	19,039	249	26,647
125.0	25,528	17,169	17,358	233	24,233
150.0	25,048	15,984	16,283	215	22,149
175.0	24,463	14,800	15,437	211	20,809
200.0	23,906	13,666	14,677	213	19,812
225.0	23,417	12,835	14,005	212	19,180
250.0	22,949	12,247	13,405	208	18,765
275.0	22,461	11,675	13,062	201	18,466
300.0	22,071	11,212	12,873	198	18,265
MAX WUA	25,528	21,704	28,513	249	29,955

Table Attachment D-46. Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Bear Creek to Mono Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	14,608	19,904	27,809	137	19,073
12.0	15,612	20,576	27,865	148	20,822
14.0	16,504	21,040	27,815	157	22,264
16.0	17,287	21,388	27,690	164	23,517
18.0	17,987	21,630	27,516	171	24,580
20.0	18,623	21,817	27,299	176	25,500
25.0	19,932	21,946	26,521	180	27,268
30.0	20,956	21,906	25,662	179	28,263
35.0	21,756	21,705	24,890	179	28,748
40.0	22,416	21,441	24,280	180	28,797
45.0	22,878	21,173	23,675	179	28,594
50.0	23,198	20,801	23,038	178	28,140
55.0	23,423	20,480	22,436	182	27,560
60.0	23,559	20,187	21,853	186	26,827
65.0	23,651	19,941	21,283	194	26,053
70.0	23,713	19,681	20,759	203	25,318
75.0	23,730	19,427	20,279	211	24,630
80.0	23,699	19,144	19,814	218	23,892
85.0	23,593	18,881	19,367	223	23,157
90.0	23,462	18,629	18,923	227	22,486
95.0	23,309	18,330	18,482	228	21,871
100.0	23,140	18,052	18,060	227	21,318
125.0	22,260	16,628	16,426	206	19,170
150.0	21,317	15,318	15,431	200	17,818
175.0	20,502	14,002	14,635	204	17,206
200.0	19,764	12,825	13,942	211	16,758
225.0	19,034	12,160	13,349	214	16,443
250.0	18,328	11,553	12,831	211	16,181
275.0	17,541	11,015	12,539	203	15,974
300.0	16,774	10,617	12,377	195	15,782
MAX WUA	23,730	21,946	27,865	228	28,797

Table Attachment D-47. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	19	19,827	14,715	1,626	1,207	-	-	-	-
Nov	32	17	18,703	13,942	1,534	1,144	-	-	-	-
Dec	31	17	18,462	13,942	1,514	1,144	-	-	-	-
Jan	29	17	17,931	13,942	1,471	1,144	-	-	-	-
Feb	29	17	17,931	13,942	1,471	1,144	-	-	-	-
Mar	29	17	17,931	13,942	1,471	1,144	-	-	-	-
Apr	50	17	21,925	13,942	1,798	1,144	179	147	267	219
May	50	30	21,925	18,221	1,798	1,495	179	172	267	257
Jun	50	30	21,925	18,221	1,798	1,495	179	172	267	257
Jul	42	30	20,758	18,221	1,703	1,495	-	-	-	-
Aug	42	30	20,758	18,221	1,703	1,495	-	-	-	-
Sep	42	30	20,758	18,221	1,703	1,495	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	14	19,827	12,720	1,626	1,043	-	-	-	-
Nov	32	12	18,703	11,860	1,534	973	-	-	-	-
Dec	31	12	18,462	11,860	1,514	973	-	-	-	-
Jan	29	12	17,931	11,860	1,471	973	-	-	-	-
Feb	29	12	17,931	11,860	1,471	973	-	-	-	-
Mar	29	12	17,931	11,860	1,471	973	-	-	-	-
Apr	50	12	21,925	11,860	1,798	973	179	122	267	182
May	50	22	21,925	15,763	1,798	1,293	179	161	267	240
Jun	50	22	21,925	15,763	1,798	1,293	179	161	267	240
Jul	42	22	20,758	15,763	1,703	1,293	-	-	-	-
Aug	42	22	20,758	15,763	1,703	1,293	-	-	-	-
Sep	42	22	20,758	15,763	1,703	1,293	-	-	-	-

Table Attachment D-47. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	19	21,545	20,878	3,534	3,425	-	-	-	-
Nov	32	17	21,672	20,543	3,555	3,370	-	-	-	-
Dec	31	17	21,688	20,543	3,558	3,370	-	-	-	-
Jan	29	17	21,674	20,543	3,556	3,370	-	-	-	-
Feb	29	17	21,674	20,543	3,556	3,370	-	-	-	-
Mar	29	17	21,674	20,543	3,556	3,370	-	-	-	-
Apr	50	17	21,041	20,543	3,452	3,370	-	-	-	-
May	50	30	21,041	21,704	3,452	3,561	-	-	-	-
Jun	50	30	21,041	21,704	3,452	3,561	23,966	26,506	9,829	10,871
Jul	42	30	21,358	21,704	3,504	3,561	24,946	26,506	10,231	10,871
Aug	42	30	21,358	21,704	3,504	3,561	24,946	26,506	10,231	10,871
Sep	42	30	21,358	21,704	3,504	3,561	24,946	26,506	10,231	10,871

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	14	21,545	19,828	3,534	3,253	-	-	-	-
Nov	32	12	21,672	19,183	3,555	3,147	-	-	-	-
Dec	31	12	21,688	19,183	3,558	3,147	-	-	-	-
Jan	29	12	21,674	19,183	3,556	3,147	-	-	-	-
Feb	29	12	21,674	19,183	3,556	3,147	-	-	-	-
Mar	29	12	21,674	19,183	3,556	3,147	-	-	-	-
Apr	50	12	21,041	19,183	3,452	3,147	-	-	-	-
May	50	22	21,041	21,239	3,452	3,484	-	-	-	-
Jun	50	22	21,041	21,239	3,452	3,484	23,966	27,739	9,829	11,376
Jul	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376
Aug	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376
Sep	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376

Table Attachment D-48. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	19	22,020	18,305	1,806	1,501	179	173	105	101
Nov	32	17	21,276	17,637	1,745	1,447	179	167	105	98
Dec	31	17	21,116	17,637	1,732	1,447	179	167	105	98
Jan	29	17	20,751	17,637	1,702	1,447	-	-	-	-
Feb	29	17	20,751	17,637	1,702	1,447	-	-	-	-
Mar	29	17	20,751	17,637	1,702	1,447	-	-	-	-
Apr	50	17	23,198	17,637	1,903	1,447	-	-	-	-
May	50	30	23,198	20,956	1,903	1,719	-	-	-	-
Jun	50	30	23,198	20,956	1,903	1,719	-	-	-	-
Jul	42	30	22,601	20,956	1,854	1,719	-	-	-	-
Aug	42	30	22,601	20,956	1,854	1,719	-	-	-	-
Sep	42	30	22,601	20,956	1,854	1,719	-	-	-	-

			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	14	22,020	16,504	1,806	1,354	179	157	105	92
Nov	32	12	21,276	15,612	1,745	1,281	179	148	105	87
Dec	31	12	21,116	15,612	1,732	1,281	179	148	105	87
Jan	29	12	20,751	15,612	1,702	1,281	-	-	-	-
Feb	29	12	20,751	15,612	1,702	1,281	-	-	-	-
Mar	29	12	20,751	15,612	1,702	1,281	-	-	-	-
Apr	50	12	23,198	15,612	1,903	1,281	-	-	-	-
May	50	22	23,198	19,147	1,903	1,571	-	-	-	-
Jun	50	22	23,198	19,147	1,903	1,571	-	-	-	-
Jul	42	22	22,601	19,147	1,854	1,571	-	-	-	-
Aug	42	22	22,601	19,147	1,854	1,571	-	-	-	-
Sep	42	22	22,601	19,147	1,854	1,571	-	-	-	-

Table Attachment D-48. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	19	21,599	21,723	3,543	3,564	-	-	-	-
Nov	32	17	21,825	21,509	3,580	3,529	-	-	-	-
Dec	31	17	21,866	21,509	3,587	3,529	-	-	-	-
Jan	29	17	21,914	21,509	3,595	3,529	-	-	-	-
Feb	29	17	21,914	21,509	3,595	3,529	-	-	-	-
Mar	29	17	21,914	21,509	3,595	3,529	-	-	-	-
Apr	50	17	20,801	21,509	3,412	3,529	-	-	-	-
May	50	30	20,801	21,906	3,412	3,594	-	-	-	-
Jun	50	30	20,801	21,906	3,412	3,594	23,038	25,662	9,448	10,525
Jul	42	30	21,334	21,906	3,500	3,594	24,038	25,662	9,858	10,525
Aug	42	30	21,334	21,906	3,500	3,594	24,038	25,662	9,858	10,525
Sep	42	30	21,334	21,906	3,500	3,594	24,038	25,662	9,858	10,525

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	14	21,599	21,040	3,543	3,452	-	-	-	-	-	-	-	-
Nov	32	12	21,825	20,576	3,580	3,376	-	-	-	-	-	-	-	-
Dec	31	12	21,866	20,576	3,587	3,376	-	-	-	-	-	-	-	-
Jan	29	12	21,914	20,576	3,595	3,376	-	-	-	-	-	-	-	-
Feb	29	12	21,914	20,576	3,595	3,376	-	-	-	-	-	-	-	-
Mar	29	12	21,914	20,576	3,595	3,376	-	-	-	-	-	-	-	-
Apr	50	12	20,801	20,576	3,412	3,376	-	-	-	-	-	-	-	-
May	50	22	20,801	21,869	3,412	3,588	-	-	-	-	-	-	-	-
Jun	50	22	20,801	21,869	3,412	3,588	23,038	26,988	9,448	11,068	9,448	11,068	9,858	11,068
Jul	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068	9,858	11,068	9,858	11,068
Aug	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068	9,858	11,068	9,858	11,068
Sep	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068	9,858	11,068	9,858	11,068

Table Attachment D-49. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	19	Brown Trout Spawning	79%	76%	78%	58%	93%	77%
Nov	32	17		79%	74%	73%	55%	90%	74%
Dec	31	17		79%	74%	72%	55%	89%	74%
Jan	29	17			70%	55%	87%	74%	
Feb	29	17			70%	55%	87%	74%	
Mar	29	17			70%	55%	87%	74%	
Apr	50	17	Rainbow Trout Spawning	72%	59%	86%	55%	98%	74%
May	50	30		72%	69%	86%	71%	98%	88%
Jun	50	30		72%	69%	86%	71%	98%	88%
Jul	42	30			81%	71%	95%	88%	
Aug	42	30			81%	71%	95%	88%	
Sep	42	30			81%	71%	95%	88%	

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	37	14	Brown Trout Spawning	79%	69%	78%	50%	93%	70%
Nov	32	12		79%	65%	73%	46%	90%	66%
Dec	31	12		79%	65%	72%	46%	89%	66%
Jan	29	12			70%	46%	87%	66%	
Feb	29	12			70%	46%	87%	66%	
Mar	29	12			70%	46%	87%	66%	
Apr	50	12	Rainbow Trout Spawning	72%	49%	86%	46%	98%	66%
May	50	22		72%	65%	86%	62%	98%	81%
Jun	50	22		72%	65%	86%	62%	98%	81%
Jul	42	22			81%	62%	95%	81%	
Aug	42	22			81%	62%	95%	81%	
Sep	42	22			81%	62%	95%	81%	

Table Attachment D-50. Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Bear Creek to Mono Creek.

		Start Flow ¹ (cfs)																													
Start Flow ¹		300	275	250	225	200	175	150	125	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	18	16	14	12	
WP ²		74.0	72.9	71.8	70.8	69.6	68.3	67.0	65.6	63.1	62.8	62.4	62.1	61.7	61.3	60.8	60.2	59.7	59.2	58.4	57.7	56.8	55.9	54.5	52.9	50.9	50.1	49.2	48.5	47.5	
End Flow ³ (cfs)	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	275	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	250	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	225	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	200	6	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	175	8	6	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	9	8	7	5	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	11	10	9	7	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	15	13	12	11	9	8	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	95	15	14	13	11	10	8	6	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	16	14	13	12	10	9	7	5	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	85	16	15	14	12	11	9	7	5	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	17	15	14	13	11	10	8	6	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	17	16	15	13	12	10	9	7	3	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	18	17	15	14	13	11	9	7	4	3	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	65	19	17	16	15	14	12	10	8	5	4	4	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	19	18	17	16	14	13	11	9	5	5	4	4	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	55	20	19	18	16	15	13	12	10	6	6	5	5	4	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	21	20	19	17	16	15	13	11	7	7	6	6	5	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-
	45	22	21	20	19	17	16	14	12	9	8	8	7	7	6	5	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-
40	23	22	21	20	18	17	15	13	10	9	9	8	8	7	6	6	5	4	3	1	-	-	-	-	-	-	-	-	-	-	
35	25	23	22	21	20	18	17	15	11	11	10	10	9	9	8	7	6	6	4	3	2	-	-	-	-	-	-	-	-	-	
30	26	25	24	23	22	20	19	17	14	13	13	12	12	11	10	9	9	8	7	5	4	2	-	-	-	-	-	-	-	-	
25	29	27	26	25	24	23	21	19	16	16	15	15	14	14	13	12	11	11	9	8	7	5	3	-	-	-	-	-	-	-	
20	31	30	29	28	27	25	24	22	19	19	18	18	18	17	16	15	15	14	13	12	10	9	7	4	-	-	-	-	-	-	
18	32	31	30	29	28	27	25	24	21	20	20	19	19	18	18	17	16	15	14	13	12	10	8	5	2	-	-	-	-	-	
16	33	32	31	30	29	28	27	25	22	22	21	21	20	20	19	18	18	17	16	15	13	12	10	7	3	2	-	-	-	-	
14	35	34	32	32	30	29	28	26	23	23	22	22	21	21	20	19	19	18	17	16	15	13	11	8	5	3	2	-	-	-	
12	36	35	34	33	32	30	29	28	25	24	24	23	23	22	22	21	20	20	19	18	16	15	13	10	7	5	4	2	-	-	
10	38	37	36	35	34	32	31	30	27	26	26	26	25	25	24	23	23	22	21	20	19	17	15	13	9	8	6	5	3	-	

1 Start Flow: Flow, in cfs, at which the ramping begins

2 WP: Wetted Perimeter, in feet, at the starting flow

3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-51. Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Bear Creek to Mono Creek.

A. Rainbow Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	40	30	25
End Flow ³ (cfs)	Starting WUA ²	194	212	215	249	224	184	179	172	167
	300	-	-	-	-	-	-	-	-	-
	200	93	-	-	-	-	-	-	-	-
	150	93	99	-	-	-	-	-	-	-
	100	74	90	99	-	-	-	-	-	-
	80	70	87	98	99	-	-	-	-	-
	60	64	77	85	86	92	-	-	-	-
	40	38	47	56	62	75	94	-	-	-
	30	25	26	39	51	66	88	99	-	-
	25	20	22	34	45	60	83	95	99	-
	20	18	22	33	45	59	83	95	99	100
	17	18	22	33	45	59	83	95	99	100
	12	18	21	30	41	55	77	89	94	96

B. Brown Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	40	30	25
End Flow ³ (cfs)	Starting WUA ²	192	211	200	227	218	186	180	179	180
	300	-	-	-	-	-	-	-	-	-
	200	92	-	-	-	-	-	-	-	-
	150	92	99	-	-	-	-	-	-	-
	100	70	84	98	-	-	-	-	-	-
	80	67	81	96	99	-	-	-	-	-
	60	61	74	87	88	91	-	-	-	-
	40	34	41	53	60	72	92	-	-	-
	30	23	21	31	43	57	81	98	-	-
	25	19	17	26	38	51	75	93	98	-
	20	16	17	24	37	50	74	93	98	100
	17	16	17	24	37	50	74	93	98	100
	12	16	17	23	33	46	69	87	93	95

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-52. Habitat-Flow Relationships for Rainbow Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	13,698	22,178	31,805	131	14,039
12.0	14,787	23,123	31,809	148	16,011
14.0	15,812	23,805	31,779	162	17,661
16.0	16,780	24,404	31,684	173	19,111
18.0	17,705	24,845	31,544	181	20,356
20.0	18,588	25,214	31,372	189	21,474
25.0	20,581	25,831	30,717	201	23,882
30.0	22,295	26,100	29,950	208	25,635
35.0	23,738	26,102	29,204	214	26,933
40.0	24,968	25,907	28,626	218	27,762
45.0	26,014	25,733	28,026	217	28,230
50.0	26,922	25,475	27,329	214	28,464
55.0	27,745	25,121	26,696	215	28,536
60.0	28,481	24,754	26,042	220	28,464
65.0	29,142	24,380	25,403	232	28,347
70.0	29,761	24,004	24,787	247	28,201
75.0	30,305	23,623	24,172	266	28,038
80.0	30,723	23,278	23,545	284	27,750
85.0	31,041	22,924	22,937	299	27,355
90.0	31,313	22,596	22,344	311	26,968
95.0	31,554	22,263	21,764	320	26,596
100.0	31,757	21,906	21,205	326	26,230
125.0	32,070	19,969	19,065	312	24,086
150.0	31,609	18,330	17,674	293	22,303
175.0	30,962	16,791	16,617	289	21,046
200.0	30,337	15,330	15,714	293	20,177
225.0	29,659	14,316	14,871	290	19,741
250.0	29,029	13,587	14,105	282	19,491
275.0	28,359	12,874	13,618	271	19,322
300.0	27,744	12,313	13,306	262	19,270
MAX WUA	32,070	26,102	31,809	326	28,536

Table Attachment D-53. Habitat-Flow Relationships for Brown Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
10.0	17,936	24,223	30,880	158	18,599
12.0	19,114	25,047	30,868	169	20,228
14.0	20,166	25,641	30,801	179	21,576
16.0	21,120	26,125	30,703	187	22,802
18.0	21,988	26,521	30,586	194	23,847
20.0	22,779	26,833	30,447	199	24,773
25.0	24,447	27,184	29,791	203	26,592
30.0	25,797	27,310	28,948	202	27,664
35.0	26,922	27,147	28,146	205	28,182
40.0	27,871	26,823	27,495	209	28,319
45.0	28,578	26,470	26,822	209	28,241
50.0	29,115	25,928	26,058	210	27,906
55.0	29,521	25,474	25,360	215	27,485
60.0	29,795	25,008	24,663	223	26,873
65.0	29,991	24,604	23,974	236	26,232
70.0	30,125	24,183	23,350	251	25,631
75.0	30,198	23,783	22,762	265	25,087
80.0	30,210	23,357	22,173	278	24,469
85.0	30,120	22,983	21,607	288	23,835
90.0	29,985	22,611	21,044	295	23,233
95.0	29,810	22,163	20,479	299	22,687
100.0	29,617	21,719	19,935	300	22,199
125.0	28,579	19,549	17,892	276	20,149
150.0	27,389	17,632	16,618	270	18,975
175.0	26,235	15,948	15,617	276	18,406
200.0	25,107	14,395	14,804	285	17,919
225.0	23,966	13,551	14,065	285	17,651
250.0	22,938	12,775	13,410	278	17,459
275.0	21,859	12,084	12,993	262	17,295
300.0	20,732	11,540	12,712	247	17,239
MAX WUA	30,210	27,310	30,880	300	28,319

Table Attachment D-54. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek- Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	26.5	28,746	20,924	2,358	1,716	-	-	-	-
Nov	57	24.5	28,039	20,182	2,300	1,655	-	-	-	-
Dec	56	24.5	27,892	20,182	2,288	1,655	-	-	-	-
Jan	47	24.5	26,377	20,182	2,164	1,655	-	-	-	-
Feb	47	24.5	26,377	20,182	2,164	1,655	-	-	-	-
Mar	47	24.5	26,377	20,182	2,164	1,655	-	-	-	-
Apr	75	24.5	30,305	20,182	2,486	1,655	266	198	396	296
May	75	43	30,305	25,596	2,486	2,099	266	217	396	324
Jun	75	43	30,305	25,596	2,486	2,099	266	217	396	324
Jul	72	43	29,979	25,596	2,459	2,099	-	-	-	-
Aug	72	43	29,979	25,596	2,459	2,099	-	-	-	-
Sep	67	43	29,390	25,596	2,411	2,099	-	-	-	-

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	20	28,746	18,588	2,358	1,525	-	-	-	-	-	-	-	-
Nov	57	17	28,039	17,242	2,300	1,414	-	-	-	-	-	-	-	-
Dec	56	17	27,892	17,242	2,288	1,414	-	-	-	-	-	-	-	-
Jan	47	17	26,377	17,242	2,164	1,414	-	-	-	-	-	-	-	-
Feb	47	17	26,377	17,242	2,164	1,414	-	-	-	-	-	-	-	-
Mar	47	17	26,377	17,242	2,164	1,414	-	-	-	-	-	-	-	-
Apr	75	17	30,305	17,242	2,486	1,414	266	177	396	264	-	-	-	-
May	75	31	30,305	22,584	2,486	1,852	266	209	396	311	-	-	-	-
Jun	75	31	30,305	22,584	2,486	1,852	266	209	396	311	-	-	-	-
Jul	72	31	29,979	22,584	2,459	1,852	-	-	-	-	-	-	-	-
Aug	72	31	29,979	22,584	2,459	1,852	-	-	-	-	-	-	-	-
Sep	67	31	29,390	22,584	2,411	1,852	-	-	-	-	-	-	-	-

Table Attachment D-54. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek- Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	26.5	24,604	25,885	4,036	4,246	-	-	-	-
Nov	57	24.5	24,975	25,707	4,097	4,217	-	-	-	-
Dec	56	24.5	25,048	25,707	4,109	4,217	-	-	-	-
Jan	47	24.5	25,630	25,707	4,205	4,217	-	-	-	-
Feb	47	24.5	25,630	25,707	4,205	4,217	-	-	-	-
Mar	47	24.5	25,630	25,707	4,205	4,217	-	-	-	-
Apr	75	24.5	23,623	25,707	3,875	4,217	-	-	-	-
May	75	43	23,623	25,802	3,875	4,233	-	-	-	-
Jun	75	43	23,623	25,802	3,875	4,233	24,172	28,266	9,914	11,592
Jul	72	43	23,851	25,802	3,913	4,233	24,541	28,266	10,065	11,592
Aug	72	43	23,851	25,802	3,913	4,233	24,541	28,266	10,065	11,592
Sep	67	43	24,229	25,802	3,975	4,233	25,157	28,266	10,317	11,592

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	20	24,604	25,214	4,036	4,136	-	-	-	-
Nov	57	17	24,975	24,624	4,097	4,040	-	-	-	-
Dec	56	17	25,048	24,624	4,109	4,040	-	-	-	-
Jan	47	17	25,630	24,624	4,205	4,040	-	-	-	-
Feb	47	17	25,630	24,624	4,205	4,040	-	-	-	-
Mar	47	17	25,630	24,624	4,205	4,040	-	-	-	-
Apr	75	17	23,623	24,624	3,875	4,040	-	-	-	-
May	75	31	23,623	26,100	3,875	4,282	-	-	-	-
Jun	75	31	23,623	26,100	3,875	4,282	24,172	29,801	9,914	12,222
Jul	72	31	23,851	26,100	3,913	4,282	24,541	29,801	10,065	12,222
Aug	72	31	23,851	26,100	3,913	4,282	24,541	29,801	10,065	12,222
Sep	67	31	24,229	26,100	3,975	4,282	25,157	29,801	10,317	12,222

Table Attachment D-55. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	26.5	29,873	24,717	2,450	2,027	228	203	134	119
Nov	57	24.5	29,631	24,113	2,430	1,978	218	202	128	118
Dec	56	24.5	29,576	24,113	2,426	1,978	217	202	127	118
Jan	47	24.5	28,793	24,113	2,362	1,978	-	-	-	-
Feb	47	24.5	28,793	24,113	2,362	1,978	-	-	-	-
Mar	47	24.5	28,793	24,113	2,362	1,978	-	-	-	-
Apr	75	24.5	30,198	24,113	2,477	1,978	-	-	-	-
May	75	43	30,198	28,295	2,477	2,321	-	-	-	-
Jun	75	43	30,198	28,295	2,477	2,321	-	-	-	-
Jul	72	43	30,154	28,295	2,473	2,321	-	-	-	-
Aug	72	43	30,154	28,295	2,473	2,321	-	-	-	-
Sep	67	43	30,044	28,295	2,464	2,321	-	-	-	-

			Brown Trout Adult				Brown Trout Spawning			
Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	20	29,873	22,779	2,450	1,868	228	199	134	117
Nov	57	17	29,631	21,554	2,430	1,768	218	190	128	111
Dec	56	17	29,576	21,554	2,426	1,768	217	190	127	111
Jan	47	17	28,793	21,554	2,362	1,768	-	-	-	-
Feb	47	17	28,793	21,554	2,362	1,768	-	-	-	-
Mar	47	17	28,793	21,554	2,362	1,768	-	-	-	-
Apr	75	17	30,198	21,554	2,477	1,768	-	-	-	-
May	75	31	30,198	26,022	2,477	2,134	-	-	-	-
Jun	75	31	30,198	26,022	2,477	2,134	-	-	-	-
Jul	72	31	30,154	26,022	2,473	2,134	-	-	-	-
Aug	72	31	30,154	26,022	2,473	2,134	-	-	-	-
Sep	67	31	30,044	26,022	2,464	2,134	-	-	-	-

Table Attachment D-55. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	26.5	24,847	27,209	4,076	4,464	-	-	-	-
Nov	57	24.5	25,288	27,114	4,148	4,448	-	-	-	-
Dec	56	24.5	25,381	27,114	4,164	4,448	-	-	-	-
Jan	47	24.5	26,254	27,114	4,307	4,448	-	-	-	-
Feb	47	24.5	26,254	27,114	4,307	4,448	-	-	-	-
Mar	47	24.5	26,254	27,114	4,307	4,448	-	-	-	-
Apr	75	24.5	23,783	27,114	3,902	4,448	-	-	-	-
May	75	43	23,783	26,611	3,902	4,366	-	-	-	-
Jun	75	43	23,783	26,611	3,902	4,366	22,762	27,091	9,335	11,111
Jul	72	43	24,023	26,611	3,941	4,366	23,114	27,091	9,480	11,111
Aug	72	43	24,023	26,611	3,941	4,366	23,114	27,091	9,480	11,111
Sep	67	43	24,435	26,611	4,009	4,366	23,724	27,091	9,730	11,111

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	20	24,847	26,833	4,076	4,402	-	-	-	-
Nov	57	17	25,288	26,323	4,148	4,318	-	-	-	-
Dec	56	17	25,381	26,323	4,164	4,318	-	-	-	-
Jan	47	17	26,254	26,323	4,307	4,318	-	-	-	-
Feb	47	17	26,254	26,323	4,307	4,318	-	-	-	-
Mar	47	17	26,254	26,323	4,307	4,318	-	-	-	-
Apr	75	17	23,783	26,323	3,902	4,318	-	-	-	-
May	75	31	23,783	27,277	3,902	4,475	-	-	-	-
Jun	75	31	23,783	27,277	3,902	4,475	22,762	28,788	9,335	11,807
Jul	72	31	24,023	27,277	3,941	4,475	23,114	28,788	9,480	11,807
Aug	72	31	24,023	27,277	3,941	4,475	23,114	28,788	9,480	11,807
Sep	67	31	24,435	27,277	4,009	4,475	23,724	28,788	9,730	11,807

Table Attachment D-56. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek- Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	26.5	Brown Trout Spawning	76%	68%	90%	65%	99%	82%
Nov	57	24.5		73%	67%	87%	63%	98%	80%
Dec	56	24.5		72%	67%	87%	63%	98%	80%
Jan	47	24.5	Rainbow Trout Spawning			82%	63%	95%	80%
Feb	47	24.5				82%	63%	95%	80%
Mar	47	24.5				82%	63%	95%	80%
Apr	75	24.5		82%	61%	94%	63%	100%	80%
May	75	43		82%	67%	94%	80%	100%	94%
Jun	75	43		82%	67%	94%	80%	100%	94%
Jul	72	43				93%	80%	100%	94%
Aug	72	43				93%	80%	100%	94%
Sep	67	43				92%	80%	99%	94%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	62	20	Brown Trout Spawning	76%	66%	90%	58%	99%	75%
Nov	57	17		73%	63%	87%	54%	98%	71%
Dec	56	17		72%	63%	87%	54%	98%	71%
Jan	47	17	Rainbow Trout Spawning			82%	54%	95%	71%
Feb	47	17				82%	54%	95%	71%
Mar	47	17				82%	54%	95%	71%
Apr	75	17		82%	54%	94%	54%	100%	71%
May	75	31		82%	64%	94%	70%	100%	86%
Jun	75	31		82%	64%	94%	70%	100%	86%
Jul	72	31				93%	70%	100%	86%
Aug	72	31				93%	70%	100%	86%
Sep	67	31				92%	70%	99%	86%

Table Attachment D-57. Percent Reduction in Wetted Perimeter between Two Flows for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.

		Start Flow ¹ (cfs)																														
Start Flow ¹		300	275	250	225	200	175	150	125	100	95	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	18	16	14	12		
WP ²		74.0	72.9	71.8	70.8	69.6	68.3	67.0	65.6	63.1	62.8	62.4	62.1	61.7	61.3	60.8	60.2	59.7	59.2	58.4	57.7	56.8	55.9	54.5	52.9	50.9	50.1	49.2	48.5	47.5		
End Flow ³ (cfs)	300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	275	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	250	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	225	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	200	6	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	175	8	6	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	9	8	7	5	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	11	10	9	7	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	15	13	12	11	9	8	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	95	15	14	13	11	10	8	6	4	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	16	14	13	12	10	9	7	5	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	85	16	15	14	12	11	9	7	5	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	17	15	14	13	11	10	8	6	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	75	17	16	15	13	12	10	9	7	3	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	18	17	15	14	13	11	9	7	4	3	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	65	19	17	16	15	14	12	10	8	5	4	4	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	19	18	17	16	14	13	11	9	5	5	4	4	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	55	20	19	18	16	15	13	12	10	6	6	5	5	4	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	21	20	19	17	16	15	13	11	7	7	6	6	5	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	45	22	21	20	19	17	16	14	12	9	8	8	7	7	6	5	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-
40	23	22	21	20	18	17	15	13	10	9	9	8	8	7	6	6	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-	
35	25	23	22	21	20	18	17	15	11	11	10	10	9	9	8	7	6	6	4	3	2	-	-	-	-	-	-	-	-	-	-	
30	26	25	24	23	22	20	19	17	14	13	13	12	12	11	10	9	9	8	7	5	4	2	-	-	-	-	-	-	-	-	-	
25	29	27	26	25	24	23	21	19	16	16	15	15	14	14	13	12	11	11	9	8	7	5	3	-	-	-	-	-	-	-	-	
20	31	30	29	28	27	25	24	22	19	19	18	18	18	17	16	15	15	14	13	12	10	9	7	4	-	-	-	-	-	-	-	
18	32	31	30	29	28	27	25	24	21	20	20	19	19	18	18	17	16	15	14	13	12	10	8	5	2	-	-	-	-	-	-	
16	33	32	31	30	29	28	27	25	22	22	21	21	20	20	19	18	18	17	16	15	13	12	10	7	3	2	-	-	-	-	-	
14	35	34	32	32	30	29	28	26	23	23	22	22	21	21	20	19	19	18	17	16	15	13	11	8	5	3	2	-	-	-	-	
12	36	35	34	33	32	30	29	28	25	24	24	23	23	22	22	21	20	20	19	18	16	15	13	10	7	5	4	2	-	-	-	
10	38	37	36	35	34	32	31	30	27	26	26	26	25	25	24	23	23	22	21	20	19	17	15	13	9	8	6	5	3	-	-	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-58. Percent Retention of Redd Habitat between Two Flows for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek.

A. Rainbow Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	45	30	25
End Flow ³ (cfs)	Starting WUA ²	194	212	215	249	224	184	179	172	167
	300	-	-	-	-	-	-	-	-	-
	200	93	-	-	-	-	-	-	-	-
	150	93	99	-	-	-	-	-	-	-
	100	74	90	99	-	-	-	-	-	-
	80	70	87	98	99	-	-	-	-	-
	60	64	77	85	86	92	-	-	-	-
	40	38	47	56	62	75	94	-	-	-
	30	25	26	39	51	66	88	97	-	-
	25	20	22	34	45	60	83	93	99	-
	20	18	22	33	45	59	83	93	99	100
	17	18	22	33	45	59	83	93	99	100
	12	18	21	30	41	55	77	87	94	96

B. Brown Trout

		Start Flow ¹ (cfs)								
		300	200	150	100	80	60	45	30	25
End Flow ³ (cfs)	Starting WUA ²	192	211	200	227	218	186	179	179	180
	300	-	-	-	-	-	-	-	-	-
	200	92	-	-	-	-	-	-	-	-
	150	92	99	-	-	-	-	-	-	-
	100	70	84	98	-	-	-	-	-	-
	80	67	81	96	99	-	-	-	-	-
	60	61	74	87	88	91	-	-	-	-
	40	34	41	53	60	72	92	-	-	-
	30	23	21	31	43	57	81	95	-	-
	25	19	17	26	38	51	75	90	98	-
	20	16	17	24	37	50	74	89	98	100
	17	16	17	24	37	50	74	89	98	100
	12	16	17	23	33	46	69	84	93	95

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-59. Habitat-Flow Relationships for Brown Trout in Bear Creek.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
1.0	3,334	5,818	11,639	10	2,891
1.5	3,880	6,836	12,691	11	3,945
2.0	4,364	7,718	13,471	12	4,824
2.5	4,820	8,478	14,021	12	5,552
3.0	5,231	9,082	14,456	13	6,174
3.5	5,616	9,614	14,820	13	6,727
4.0	5,981	10,072	15,110	13	7,230
4.5	6,318	10,464	15,340	13	7,653
5.0	6,636	10,847	15,546	14	8,041
6.0	7,233	11,535	15,783	14	8,642
7.0	7,793	12,109	15,947	15	9,010
8.0	8,305	12,633	16,086	15	9,339
9.0	8,768	13,008	16,168	16	9,612
10.0	9,179	13,256	16,228	16	9,783
12.5	10,032	13,530	16,403	17	10,017
15.0	10,754	13,740	16,652	19	10,287
17.5	11,368	13,792	16,719	19	10,407
20.0	11,843	13,766	16,721	19	10,539
25.0	12,660	13,703	16,505	18	10,570
30.0	13,297	13,765	16,055	15	10,336
35.0	13,786	13,686	15,562	15	10,134
40.0	14,121	13,291	15,020	16	9,798
45.0	14,342	12,872	14,445	17	9,544
50.0	14,444	12,490	13,952	17	9,309
60.0	14,494	11,714	12,898	18	8,927
70.0	14,373	10,970	11,993	18	8,510
80.0	14,120	10,415	11,154	18	8,145
90.0	13,862	10,054	10,365	18	7,879
100.0	13,580	9,630	9,664	18	7,571
125.0	12,892	8,867	8,571	19	6,985
MAX WUA	14,494	13,792	16,721	19	10,570

Table Attachment D-60. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	7	2	7,793	4,364	639	358	15	12	9	7
Nov	7	2	7,793	4,364	639	358	15	12	9	7
Dec	6	2	7,233	4,364	593	358	14	12	8	7
Jan	4	2	5,981	4,364	491	358	-	-	-	-
Feb	4	2	5,981	4,364	491	358	-	-	-	-
Mar	4	2	5,981	4,364	491	358	-	-	-	-
Apr	10	2	9,179	4,364	753	358	-	-	-	-
May	10	3	9,179	5,231	753	429	-	-	-	-
Jun	10	3	9,179	5,231	753	429	-	-	-	-
Jul	7	3	7,793	5,231	639	429	-	-	-	-
Aug	7	3	7,793	5,231	639	429	-	-	-	-
Sep	7	3	7,793	5,231	639	429	-	-	-	-

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	7	1	7,793	3,334	639	273	15	10	9	6
Nov	7	1	7,793	3,334	639	273	15	10	9	6
Dec	6	1	7,233	3,334	593	273	14	10	8	6
Jan	4	1	5,981	3,334	491	273	-	-	-	-
Feb	4	1	5,981	3,334	491	273	-	-	-	-
Mar	4	1	5,981	3,334	491	273	-	-	-	-
Apr	10	1	9,179	3,334	753	273	-	-	-	-
May	10	2	9,179	4,364	753	358	-	-	-	-
Jun	10	2	9,179	4,364	753	358	-	-	-	-
Jul	7	2	7,793	4,364	639	358	-	-	-	-
Aug	7	2	7,793	4,364	639	358	-	-	-	-
Sep	7	2	7,793	4,364	639	358	-	-	-	-

Table Attachment D-60. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	7	2	12,109	7,718	1,987	1,266	-	-	-	-
Nov	7	2	12,109	7,718	1,987	1,266	-	-	-	-
Dec	6	2	11,535	7,718	1,892	1,266	-	-	-	-
Jan	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Feb	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Mar	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Apr	10	2	13,256	7,718	2,175	1,266	-	-	-	-
May	10	3	13,256	9,082	2,175	1,490	-	-	-	-
Jun	10	3	13,256	9,082	2,175	1,490	16,228	14,456	6,656	5,929
Jul	7	3	12,109	9,082	1,987	1,490	15,947	14,456	6,540	5,929
Aug	7	3	12,109	9,082	1,987	1,490	15,947	14,456	6,540	5,929
Sep	7	3	12,109	9,082	1,987	1,490	15,947	14,456	6,540	5,929
Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	7	1	12,109	5,818	1,987	954	-	-	-	-
Nov	7	1	12,109	5,818	1,987	954	-	-	-	-
Dec	6	1	11,535	5,818	1,892	954	-	-	-	-
Jan	4	1	10,072	5,818	1,652	954	-	-	-	-
Feb	4	1	10,072	5,818	1,652	954	-	-	-	-
Mar	4	1	10,072	5,818	1,652	954	-	-	-	-
Apr	10	1	13,256	5,818	2,175	954	-	-	-	-
May	10	2	13,256	7,718	2,175	1,266	-	-	-	-
Jun	10	2	13,256	7,718	2,175	1,266	16,228	13,471	6,656	5,525
Jul	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525
Aug	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525
Sep	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525

Table Attachment D-61. Percent of Maximum WUA Provided for Trout in Bear Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Brown Trout Spawning	Spawning Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action
Oct	7	2	Brown Trout Spawning	77%	62%	54%	30%
Nov	7	2		77%	62%	54%	30%
Dec	6	2		74%	62%	50%	30%
Jan	4	2			41%	30%	
Feb	4	2			41%	30%	
Mar	4	2			41%	30%	
Apr	10	2			63%	30%	
May	10	3			63%	36%	
Jun	10	3			63%	36%	
Jul	7	3			54%	36%	
Aug	7	3			54%	36%	
Sep	7	3			54%	36%	

Dry Years

Month	Proposed Action	No Action	Brown Trout Spawning	Proposed Action	No Action	Proposed Action	No Action
Oct	7	1		Brown Trout Spawning	77%	53%	54%
Nov	7	1	77%		53%	54%	23%
Dec	6	1	74%		53%	50%	23%
Jan	4	1			41%	23%	
Feb	4	1			41%	23%	
Mar	4	1			41%	23%	
Apr	10	1			63%	23%	
May	10	2			63%	30%	
Jun	10	2			63%	30%	
Jul	7	2			54%	30%	
Aug	7	2			54%	30%	
Sep	7	2			54%	30%	

Table Attachment D-62. Percent Reduction in Wetted Perimeter between Two Flows for Bear Creek (Diversion to SF San Joaquin River).

Start Flow ¹	Start Flow ¹ (cfs)																												
	125	100	90	80	70	60	50	45	40	35	30	25	20	18	15	13	10	9	8	7	6	5	4.5	4	3.5	3	2.5	2	1.5
WP ²	46.6	44.8	44.0	43.4	42.5	41.4	40.3	39.6	38.4	37.5	36.4	34.9	33.3	32.5	31.7	30.4	28.7	28.1	27.5	26.6	25.5	24.6	24.3	23.9	23.5	23.1	22.5	21.5	20.1
125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	7	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	9	5	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	11	8	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	13	10	8	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	15	12	10	9	7	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	17	14	13	11	9	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	19	16	15	13	12	9	7	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	22	19	17	16	14	12	10	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	25	22	21	20	18	16	14	12	9	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	28	26	24	23	21	20	17	16	13	11	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.5	30	27	26	25	23	22	19	18	15	13	11	7	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	32	29	28	27	25	24	22	20	18	16	13	9	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.5	35	32	31	30	28	27	25	23	21	19	16	13	9	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	38	36	35	34	32	31	29	28	25	24	21	18	14	12	9	6	-	-	-	-	-	-	-	-	-	-	-	-	-
9	40	37	36	35	34	32	30	29	27	25	23	19	16	14	11	8	2	-	-	-	-	-	-	-	-	-	-	-	-
8	41	39	38	37	35	34	32	31	29	27	25	21	18	16	13	10	4	2	-	-	-	-	-	-	-	-	-	-	-
7	43	41	40	39	37	36	34	33	31	29	27	24	20	18	16	13	7	5	3	-	-	-	-	-	-	-	-	-	-
6	45	43	42	41	40	38	37	36	34	32	30	27	23	22	19	16	11	9	7	4	-	-	-	-	-	-	-	-	-
5	47	45	44	43	42	41	39	38	36	34	32	29	26	24	22	19	14	12	10	7	3	-	-	-	-	-	-	-	-
4.5	48	46	45	44	43	41	40	39	37	35	33	30	27	25	23	20	15	14	12	9	5	2	-	-	-	-	-	-	-
4	49	47	46	45	44	42	41	40	38	36	34	32	28	27	25	21	17	15	13	10	6	3	1	-	-	-	-	-	-
3.5	50	48	47	46	45	43	42	41	39	37	35	33	30	28	26	23	18	16	14	12	8	5	3	2	-	-	-	-	-
3	51	49	48	47	46	44	43	42	40	39	37	34	31	29	27	24	20	18	16	13	10	6	5	3	2	-	-	-	-
2.5	52	50	49	48	47	46	44	43	42	40	38	36	33	31	29	26	22	20	18	16	12	9	7	6	4	3	-	-	-
2	54	52	51	50	49	48	47	46	44	43	41	38	35	34	32	29	25	24	22	19	16	13	11	10	8	7	4	-	-
1.5	57	55	54	54	53	51	50	49	48	46	45	42	40	38	36	34	30	28	27	24	21	18	17	16	14	13	10	6	-
1	60	59	58	57	56	55	54	53	52	51	49	47	44	43	42	39	35	34	33	30	27	25	24	22	21	20	18	14	8

1 Start Flow: Flow, in cfs, at which the ramping begins
 2 WP: Wetted Perimeter, in feet, at the starting flow
 3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-63. Percent Retention of Redd Habitat between Two Flows for Bear Creek (Diversion to SF San Joaquin River).

A. Brown Trout

		Start Flow ¹ (cfs)										
		125	100	80	60	40	30	20	15	10	7	4
End Flow ³ (cfs)	Starting WUA ²	22	18	18	18	16	15	19	19	16	15	13
	125	-	-	-	-	-	-	-	-	-	-	-
	100	61	-	-	-	-	-	-	-	-	-	-
	80	61	100	-	-	-	-	-	-	-	-	-
	60	61	100	100	-	-	-	-	-	-	-	-
	40	61	100	100	100	-	-	-	-	-	-	-
	30	61	100	100	100	100	-	-	-	-	-	-
	20	42	72	72	72	75	92	-	-	-	-	-
	15	42	72	72	72	75	92	100	-	-	-	-
	10	42	72	72	72	75	92	100	100	-	-	-
	7	42	72	72	72	75	92	100	100	100	-	-
	4	21	29	30	33	42	62	73	81	92	98	-
1	21	29	30	33	42	62	73	81	92	98	100	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-64. Habitat-Flow Relationships for Rainbow Trout in Mono Creek (Diversion to SF San Joaquin River).

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
5.0	4,568	9,027	14,150	1,256	6,003
5.5	4,798	9,381	14,326	1,334	6,542
6.0	5,031	9,668	14,463	1,411	7,066
6.5	5,269	9,903	14,565	1,489	7,566
7.0	5,516	10,079	14,639	1,565	8,032
7.5	5,763	10,213	14,707	1,638	8,461
8.0	6,008	10,337	14,751	1,710	8,869
8.5	6,244	10,460	14,770	1,781	9,259
9.0	6,472	10,568	14,772	1,845	9,626
9.5	6,696	10,657	14,746	1,908	9,973
10.0	6,916	10,723	14,714	1,965	10,304
11.0	7,323	10,861	14,594	2,074	10,907
12.0	7,710	10,959	14,434	2,174	11,438
13.0	8,078	11,035	14,252	2,269	11,909
14.0	8,430	11,093	14,057	2,356	12,321
15.0	8,766	11,135	13,873	2,435	12,697
20.0	10,112	11,206	13,094	2,711	13,980
25.0	11,121	11,183	12,602	2,794	14,512
30.0	11,913	10,972	12,349	2,827	14,847
35.0	12,516	10,719	12,186	2,785	14,996
40.0	12,901	10,505	12,093	2,660	14,987
50.0	13,302	10,255	12,001	2,401	15,018
60.0	13,578	10,187	11,801	2,205	14,865
70.0	13,762	10,273	11,376	1,968	14,437
80.0	13,941	10,250	10,969	1,742	13,789
90.0	14,164	10,164	10,679	1,567	13,191
100.0	14,329	10,022	10,559	1,436	12,806
125.0	14,356	9,489	10,885	1,182	12,233
150.0	14,417	9,376	11,438	1,061	11,826
175.0	14,416	9,872	11,661	957	11,906
MAX WUA	14,417	11,206	14,772	2,827	15,018

Table Attachment D-65. Habitat-Flow Relationships for Brown Trout in Mono Creek (Diversion to SF San Joaquin River).

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
5.0	6,482	9,709	14,000	1,652	8,325
5.5	6,772	9,925	14,171	1,729	8,840
6.0	7,041	10,064	14,297	1,801	9,312
6.5	7,299	10,149	14,379	1,873	9,765
7.0	7,540	10,204	14,439	1,944	10,187
7.5	7,770	10,265	14,493	2,012	10,579
8.0	7,993	10,322	14,521	2,077	10,947
8.5	8,202	10,373	14,524	2,138	11,290
9.0	8,398	10,411	14,507	2,192	11,613
9.5	8,582	10,443	14,463	2,245	11,906
10.0	8,755	10,464	14,417	2,289	12,163
11.0	9,083	10,479	14,271	2,370	12,635
12.0	9,377	10,493	14,092	2,440	13,056
13.0	9,626	10,502	13,890	2,508	13,409
14.0	9,843	10,491	13,680	2,570	13,709
15.0	10,033	10,470	13,487	2,626	13,984
20.0	10,760	10,330	12,694	2,799	14,840
25.0	11,126	10,181	12,233	2,813	15,065
30.0	11,286	9,994	11,997	2,761	15,021
35.0	11,384	9,869	11,853	2,635	14,876
40.0	11,449	9,755	11,745	2,435	14,672
50.0	11,596	9,710	11,608	2,079	14,371
60.0	11,757	9,736	11,355	1,812	14,066
70.0	11,923	9,832	10,859	1,529	13,483
80.0	11,994	9,835	10,408	1,273	12,721
90.0	11,983	9,809	10,073	1,099	12,066
100.0	11,968	9,701	9,904	967	11,628
125.0	11,874	9,463	10,276	709	11,162
150.0	12,009	9,646	10,925	597	11,277
175.0	12,324	10,291	11,165	537	11,940
MAX WUA	12,324	10,502	14,524	2,813	15,065

Table Attachment D-66. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	7.5	11,121	5,763	912	473	-	-	-	-
Nov	25	7.5	11,121	5,763	912	473	-	-	-	-
Dec 1	25	7.5	11,121	5,763	912	473	-	-	-	-
Dec 16	25	7.5	11,121	5,763	912	473	-	-	-	-
Jan	18	7.5	9,573	5,763	785	473	-	-	-	-
Feb	18	7.5	9,573	5,763	785	473	-	-	-	-
Mar	18	7.5	9,573	5,763	785	473	-	-	-	-
Apr	25	7.5	11,121	5,763	912	473	2,794	1,638	4,166	2,443
May	25	13	11,121	8,078	912	663	2,794	2,269	4,166	3,383
Jun	25	13	11,121	8,078	912	663	2,794	2,269	4,166	3,383
Jul	30	13	11,913	8,078	977	663	-	-	-	-
Aug	30	13	11,913	8,078	977	663	-	-	-	-
Sep 1	25	13	11,121	8,078	912	663	-	-	-	-
Sep 16	25	13	11,121	8,078	912	663	-	-	-	-

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	No Action	
Oct	25	6	11,121	5,031	912	413	-	-	-	-	-	-	-	
Nov	25	5	11,121	4,568	912	375	-	-	-	-	-	-	-	
Dec 1	25	5	11,121	4,568	912	375	-	-	-	-	-	-	-	
Dec 16	25	5	11,121	4,568	912	375	-	-	-	-	-	-	-	
Jan	18	5	9,573	4,568	785	375	-	-	-	-	-	-	-	
Feb	18	5	9,573	4,568	785	375	-	-	-	-	-	-	-	
Mar	18	5	9,573	4,568	785	375	-	-	-	-	-	-	-	
Apr	25	5	11,121	4,568	912	375	2,794	1,256	4,166	1,873	-	-	-	
May	25	9	11,121	6,472	912	531	2,794	1,845	4,166	2,752	-	-	-	
Jun	25	9	11,121	6,472	912	531	2,794	1,845	4,166	2,752	-	-	-	
Jul	30	9	11,913	6,472	977	531	-	-	-	-	-	-	-	
Aug	30	9	11,913	6,472	977	531	-	-	-	-	-	-	-	
Sep 1	25	9	11,121	6,472	912	531	-	-	-	-	-	-	-	
Sep 16	25	9	11,121	6,472	912	531	-	-	-	-	-	-	-	

Table Attachment D-66. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
Nov	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
Dec 1	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
Dec 16	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
Jan	18	7.5	11,177	10,213	1,834	1,675	-	-	-	-
Feb	18	7.5	11,177	10,213	1,834	1,675	-	-	-	-
Mar	18	7.5	11,177	10,213	1,834	1,675	-	-	-	-
Apr	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
May	25	13	11,183	11,035	1,835	1,810	-	-	-	-
Jun	25	13	11,183	11,035	1,835	1,810	12,602	14,252	5,168	5,845
Jul	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Aug	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Sep 1	25	13	11,183	11,035	1,835	1,810	12,602	14,252	5,168	5,845
Sep 16	25	13	11,183	11,035	1,835	1,810	12,602	14,252	5,168	5,845

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	6	11,183	9,668	1,835	1,586	-	-	-	-
Nov	25	5	11,183	9,027	1,835	1,481	-	-	-	-
Dec 1	25	5	11,183	9,027	1,835	1,481	-	-	-	-
Dec 16	25	5	11,183	9,027	1,835	1,481	-	-	-	-
Jan	18	5	11,177	9,027	1,834	1,481	-	-	-	-
Feb	18	5	11,177	9,027	1,834	1,481	-	-	-	-
Mar	18	5	11,177	9,027	1,834	1,481	-	-	-	-
Apr	25	5	11,183	9,027	1,835	1,481	-	-	-	-
May	25	9	11,183	10,568	1,835	1,734	-	-	-	-
Jun	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058
Jul	30	9	10,972	10,568	1,800	1,734	12,349	14,772	5,065	6,058
Aug	30	9	10,972	10,568	1,800	1,734	12,349	14,772	5,065	6,058
Sep 1	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058
Sep 16	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058

Table Attachment D-67. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	7.5	11,126	7,770	913	637	2,813	2,012	1,648	1,179
Nov	25	7.5	11,126	7,770	913	637	2,813	2,012	1,648	1,179
Dec 1	25	7.5	11,126	7,770	913	637	2,813	2,012	1,648	1,179
Dec 16	25	7.5	11,126	7,770	913	637	2,813	2,012	1,648	1,179
Jan	18	7.5	10,469	7,770	859	637	-	-	-	-
Feb	18	7.5	10,469	7,770	859	637	-	-	-	-
Mar	18	7.5	10,469	7,770	859	637	-	-	-	-
Apr	25	7.5	11,126	7,770	913	637	-	-	-	-
May	25	13	11,126	9,626	913	790	-	-	-	-
Jun	25	13	11,126	9,626	913	790	-	-	-	-
Jul	30	13	11,286	9,626	926	790	-	-	-	-
Aug	30	13	11,286	9,626	926	790	-	-	-	-
Sep 1	25	13	11,126	9,626	913	790	-	-	-	-
Sep 16	25	13	11,126	9,626	913	790	-	-	-	-

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	6	11,126	7,041	913	578	2,813	1,801	1,648	1,055
Nov	25	5	11,126	6,482	913	532	2,813	1,652	1,648	968
Dec 1	25	5	11,126	6,482	913	532	2,813	1,652	1,648	968
Dec 16	25	5	11,126	6,482	913	532	2,813	1,652	1,648	968
Jan	18	5	10,469	6,482	859	532	-	-	-	-
Feb	18	5	10,469	6,482	859	532	-	-	-	-
Mar	18	5	10,469	6,482	859	532	-	-	-	-
Apr	25	5	11,126	6,482	913	532	-	-	-	-
May	25	9	11,126	8,398	913	689	-	-	-	-
Jun	25	9	11,126	8,398	913	689	-	-	-	-
Jul	30	9	11,286	8,398	926	689	-	-	-	-
Aug	30	9	11,286	8,398	926	689	-	-	-	-
Sep 1	25	9	11,126	8,398	913	689	-	-	-	-
Sep 16	25	9	11,126	8,398	913	689	-	-	-	-

Table Attachment D-67. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry's Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
Nov	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
Dec 1	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
Dec 16	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
Jan	18	7.5	10,386	10,265	1,704	1,684	-	-	-	-
Feb	18	7.5	10,386	10,265	1,704	1,684	-	-	-	-
Mar	18	7.5	10,386	10,265	1,704	1,684	-	-	-	-
Apr	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
May	25	13	10,181	10,502	1,670	1,723	-	-	-	-
Jun	25	13	10,181	10,502	1,670	1,723	12,233	13,890	5,017	5,697
Jul	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Aug	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Sep 1	25	13	10,181	10,502	1,670	1,723	12,233	13,890	5,017	5,697
Sep 16	25	13	10,181	10,502	1,670	1,723	12,233	13,890	5,017	5,697

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	6	10,181	10,064	1,670	1,651	-	-	-	-
Nov	25	5	10,181	9,709	1,670	1,593	-	-	-	-
Dec 1	25	5	10,181	9,709	1,670	1,593	-	-	-	-
Dec 16	25	5	10,181	9,709	1,670	1,593	-	-	-	-
Jan	18	5	10,386	9,709	1,704	1,593	-	-	-	-
Feb	18	5	10,386	9,709	1,704	1,593	-	-	-	-
Mar	18	5	10,386	9,709	1,704	1,593	-	-	-	-
Apr	25	5	10,181	9,709	1,670	1,593	-	-	-	-
May	25	9	10,181	10,411	1,670	1,708	-	-	-	-
Jun	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Jul	30	9	9,994	10,411	1,640	1,708	11,997	14,507	4,920	5,950
Aug	30	9	9,994	10,411	1,640	1,708	11,997	14,507	4,920	5,950
Sep 1	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Sep 16	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950

Table Attachment D-68. Percent of Maximum WUA Provided for Trout in Mono Creek (Diversion to SF San Joaquin River) - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	7.5	Brown Trout Spawning	100%	72%	77%	40%	90%	63%
Nov	25	7.5		100%	72%	77%	40%	90%	63%
Dec 1	25	7.5		100%	72%	77%	40%	90%	63%
Dec 16	25	7.5		100%	72%	77%	40%	90%	63%
Jan	18	7.5				66%	40%	85%	63%
Feb	18	7.5				66%	40%	85%	63%
Mar	18	7.5				66%	40%	85%	63%
Apr	25	7.5	Rainbow Trout Spawning	99%	58%	77%	40%	90%	63%
May	25	13		99%	80%	77%	56%	90%	78%
Jun	25	13		99%	80%	77%	56%	90%	78%
Jul	30	13					83%	56%	92%
Aug	30	13				83%	56%	92%	78%
Sep 1	25	13				77%	56%	90%	78%
Sep 16	25	13				77%	56%	90%	78%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	25	6	Brown Trout Spawning	100%	64%	77%	35%	90%	57%
Nov	25	5		100%	59%	77%	32%	90%	53%
Dec 1	25	5		100%	59%	77%	32%	90%	53%
Dec 16	25	5		100%	59%	77%	32%	90%	53%
Jan	18	5				66%	32%	85%	53%
Feb	18	5				66%	32%	85%	53%
Mar	18	5				66%	32%	85%	53%
Apr	25	5	Rainbow Trout Spawning	99%	44%	77%	32%	90%	53%
May	25	9		99%	65%	77%	45%	90%	68%
Jun	25	9		99%	65%	77%	45%	90%	68%
Jul	30	9					83%	45%	92%
Aug	30	9				83%	45%	92%	68%
Sep 1	25	9				77%	45%	90%	68%
Sep 16	25	9				77%	45%	90%	68%

Table Attachment D-69. Percent Reduction in Wetted Perimeter between Two Flows for Mono Creek (Diversion to SF San Joaquin River).

		Start Flow ¹ (cfs)																												
Start Flow ¹	175	150	125	100	90	80	70	60	50	40	35	30	25	20	15	14	13	12	11	10	9.5	9	8.5	8	7.5	7	6.5	6	5.5	
WP ²	46.0	44.3	42.2	39.8	38.7	37.8	36.8	36.0	34.9	33.1	32.0	31.0	29.7	28.4	27.1	26.8	26.5	26.2	25.8	25.4	25.0	24.9	24.7	24.4	24.1	23.7	23.4	23.0	22.6	
End Flow ³ (cfs)	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	150	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	13	10	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	16	13	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	18	15	10	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	20	17	13	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	22	19	15	10	7	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	24	21	17	12	10	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	40	28	25	21	17	15	12	10	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	35	30	28	24	20	17	15	13	11	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	30	33	30	26	22	20	18	16	14	11	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	25	35	33	29	25	23	21	19	17	15	10	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	38	36	33	29	27	25	23	21	19	14	11	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	41	39	36	32	30	28	26	25	22	18	15	13	9	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	42	39	36	33	31	29	27	25	23	19	16	14	10	6	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	42	40	37	33	32	30	28	26	24	20	17	15	11	7	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	43	41	38	34	32	31	29	27	25	21	18	16	12	8	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-
	11	44	42	39	35	33	32	30	28	26	22	20	17	13	9	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-
	10	45	43	40	36	35	33	31	29	27	23	21	18	15	11	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-
9.5	46	43	41	37	35	34	32	30	28	24	22	19	16	12	8	7	5	4	3	1	-	-	-	-	-	-	-	-	-	
9	46	44	41	38	36	34	32	31	29	25	22	20	16	12	8	7	6	5	3	2	1	-	-	-	-	-	-	-	-	
8.5	46	44	42	38	36	35	33	31	29	25	23	20	17	13	9	8	7	6	4	3	2	1	-	-	-	-	-	-	-	
8	47	45	42	39	37	35	34	32	30	26	24	21	18	14	10	9	8	7	5	4	2	2	1	-	-	-	-	-	-	
7.5	48	45	43	39	38	36	34	33	31	27	25	22	19	15	11	10	9	8	6	5	4	3	2	1	-	-	-	-	-	
7	48	46	44	40	39	37	35	34	32	28	26	23	20	16	12	11	10	9	8	6	5	5	4	3	2	-	-	-	-	
6.5	49	47	45	41	40	38	36	35	33	29	27	25	21	18	14	13	12	11	9	8	7	6	5	4	3	2	-	-	-	
6	50	48	45	42	41	39	37	36	34	31	28	26	23	19	15	14	13	12	11	9	8	8	7	6	5	3	2	-	-	
5.5	51	49	46	43	42	40	38	37	35	32	29	27	24	20	16	16	15	13	12	11	10	9	8	7	6	5	3	2	-	
5	52	50	47	44	43	41	40	38	36	33	31	28	25	22	18	17	16	15	14	12	11	11	10	9	8	6	5	3	2	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

Table Attachment D-70. Percent Retention of Redd Habitat between Two Flows for Mono Creek (Diversion to SF San Joaquin River).

A. Rainbow Trout

		Start Flow ¹ (cfs)									
		175	125	100	75	50	40	30	20	15	10
End Flow ³ (cfs)	Starting WUA ²	973	1186	1435	1851	2400	2663	2825	2708	2435	1967
	175	-	-	-	-	-	-	-	-	-	-
	125	100	-	-	-	-	-	-	-	-	-
	100	100	100	-	-	-	-	-	-	-	-
	75	97	99	100	-	-	-	-	-	-	-
	50	96	99	99	100	-	-	-	-	-	-
	40	93	96	97	98	100	-	-	-	-	-
	30	92	95	97	98	100	100	-	-	-	-
	20	88	92	91	93	95	96	98	-	-	-
	15	85	89	85	88	91	92	95	99	-	-
	10	78	82	77	76	82	84	87	94	98	-
	9	78	81	76	76	81	83	87	94	97	100
7.5	75	78	73	70	77	79	83	90	95	99	

B Brown Trout

		Start Flow ¹ (cfs)									
		175	125	100	75	50	40	30	20	15	10
End Flow ³ (cfs)	Starting WUA ²	549	714	969	1395	2076	2434	2755	2795	2626	2296
	175	-	-	-	-	-	-	-	-	-	-
	125	98	-	-	-	-	-	-	-	-	-
	100	98	100	-	-	-	-	-	-	-	-
	75	91	98	100	-	-	-	-	-	-	-
	50	91	97	99	99	-	-	-	-	-	-
	40	86	92	95	98	100	-	-	-	-	-
	30	85	91	94	97	100	100	-	-	-	-
	20	80	86	86	91	95	96	98	-	-	-
	15	77	83	80	85	91	92	95	99	-	-
	10	73	77	71	73	81	83	87	94	98	-
	9	73	76	71	72	80	82	86	93	97	100
7.5	71	75	69	68	76	78	82	90	95	99	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-71. Percent Reduction in Wetted Perimeter between Two Flows for Tombstone Creek.

		Start Flow ¹ (cfs)															
Start Flow ¹		7.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.5	0.3
WP ²		11.7	10.4	10.1	9.8	9.4	8.9	8.5	7.9	6.8	6.2	5.7	5.1	4.5	4.1	3.4	2.6
End Flow ³ (cfs)	5	11															
	4.5	13	3														
	4	16	6	3													
	3.5	20	10	7	4												
	3	24	15	12	9	5											
	2.7	27	18	16	13	9	4										
	2.4	32	24	22	19	16	11	7									
	2.1	42	35	33	30	27	23	20	14								
	1.8	47	41	39	37	34	30	27	22	9							
	1.5	51	45	44	42	39	36	33	28	17	8						
	1.2	56	51	49	48	45	42	40	35	25	17	10					
	0.9	62	57	56	54	52	49	47	43	34	28	21	12				
	0.7	65	61	60	58	56	54	52	48	40	34	28	20	9			
	0.5	71	67	66	65	63	61	60	57	50	45	40	33	24	16		
	0.3	78	75	74	73	72	71	69	67	62	58	54	49	42	36	24	
0.1	89	88	87	87	86	86	85	84	81	80	78	75	72	69	63	51	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-72. Percent Reduction in Wetted Perimeter between Two Flows for North Slide Creek.

		Start Flow ¹ (cfs)																						
Start Flow ¹		7.5	5	4.5	4	3.5	3	2.7	2.5	2.4	2.3	2.2	2.1	2	1.9	1.8	1.7	1.6	1.5	1.2	0.9	0.7	0.5	0.3
WP ²		8.1	5.8	5.4	5.3	5.1	4.9	4.7	4.7	4.6	4.6	4.6	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.2	4.1	3.9	3.8	3.5
End Flow ³ (cfs)	5	28																						
	4.5	33	7																					
	4	35	10	3																				
	3.5	37	13	7	4																			
	3	40	17	10	7	4																		
	2.7	42	19	13	10	7	3																	
	2.5	42	20	14	11	8	4	1																
	2.4	43	21	15	12	9	5	2	1															
	2.3	43	21	15	13	9	6	3	2	1														
	2.2	44	22	16	13	10	6	4	2	2	1													
	2.1	44	22	17	14	11	7	4	3	2	1	1												
	2	45	23	17	14	11	8	5	4	3	2	1	1											
	1.9	45	23	18	15	12	8	6	4	4	3	2	1	1										
	1.8	45	24	18	16	13	9	6	5	4	4	3	2	1	1									
	1.7	46	25	19	16	13	10	7	6	5	4	4	3	2	2	1								
	1.6	46	25	20	17	14	10	8	7	6	5	4	4	3	2	2	1							
	1.5	47	26	20	18	15	11	9	7	7	6	5	5	4	3	2	2	1						
	1.2	48	28	23	20	17	14	11	10	9	9	8	7	7	6	5	4	4	3					
	0.9	50	30	25	23	20	17	14	13	12	12	11	10	10	9	8	8	7	6	3				
0.7	51	32	27	25	22	19	17	16	15	14	14	13	12	12	11	10	10	9	6	3				
0.5	53	35	30	28	25	22	20	19	18	18	17	17	16	15	15	14	13	13	10	7	4			
0.3	56	39	35	32	30	27	25	24	23	23	22	22	21	21	20	19	19	18	15	13	10	6		
0.1	63	49	45	43	41	38	37	36	35	35	34	34	33	33	32	32	31	31	29	26	24	21	15	

¹ Start Flow: Flow, in cfs, at which the ramping begins
² WP: Wetted Perimeter, in feet, at the starting flow
³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-73. Percent Reduction in Wetted Perimeter between Two Flows for South Slide Creek.

		Start Flow ¹ (cfs)																						
Start Flow ¹		7.5	5	4.5	4	3.5	3	2.7	2.5	2.4	2.3	2.2	2.1	2	1.9	1.8	1.7	1.6	1.5	1.2	0.9	0.7	0.5	0.3
WP ²		8.1	5.8	5.4	5.3	5.1	4.9	4.7	4.7	4.6	4.6	4.6	4.5	4.5	4.5	4.4	4.4	4.4	4.3	4.2	4.1	3.9	3.8	3.5
End Flow ³ (cfs)	5	28																						
	4.5	33	7																					
	4	35	10	3																				
	3.5	37	13	7	4																			
	3	40	17	10	7	4																		
	2.7	42	19	13	10	7	3																	
	2.5	42	20	14	11	8	4	1																
	2.4	43	21	15	12	9	5	2	1															
	2.3	43	21	15	13	9	6	3	2	1														
	2.2	44	22	16	13	10	6	4	2	2	1													
	2.1	44	22	17	14	11	7	4	3	2	1	1												
	2	45	23	17	14	11	8	5	4	3	2	1	1											
	1.9	45	23	18	15	12	8	6	4	4	3	2	1	1										
	1.8	45	24	18	16	13	9	6	5	4	4	3	2	1	1									
	1.7	46	25	19	16	13	10	7	6	5	4	4	3	2	2	1								
	1.6	46	25	20	17	14	10	8	7	6	5	4	4	3	2	2	1							
	1.5	47	26	20	18	15	11	9	7	7	6	5	5	4	3	2	2	1						
	1.2	48	28	23	20	17	14	11	10	9	9	8	7	7	6	5	4	4	3					
	0.9	50	30	25	23	20	17	14	13	12	12	11	10	10	9	8	8	7	6	3				
0.7	51	32	27	25	22	19	17	16	15	14	14	13	12	12	11	10	10	9	6	3				
0.5	53	35	30	28	25	22	20	19	18	18	17	17	16	15	15	14	13	13	10	7	4			
0.3	56	39	35	32	30	27	25	24	23	23	22	22	21	21	20	19	19	18	15	13	10	6		
0.1	63	49	45	43	41	38	37	36	35	35	34	34	33	33	32	32	31	31	29	26	24	21	15	

¹ Start Flow: Flow, in cfs, at which the ramping begins
² WP: Wetted Perimeter, in feet, at the starting flow
³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-74. Percent Reduction in Wetted Perimeter between Two Flows for Hooper Creek.

		Start Flow ¹ (cfs)																					
Start Flow ¹		25	20	17.5	15	12.5	10	7.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.5	0.3
WP ²		13.0	12.5	12.1	11.3	10.5	10.0	9.3	8.6	8.3	8.1	8.0	7.7	7.4	7.1	6.9	6.8	6.6	6.3	6.0	5.7	5.1	4.9
End Flow ³ (cfs)	20	4																					
	17.5	7	4																				
	15	14	10	7																			
	12.5	19	16	13	6																		
	10	23	20	17	11	5																	
	7.5	29	26	23	17	12	7																
	5	34	32	29	24	19	14	8															
	4.5	37	34	32	27	22	18	11	4														
	4	38	35	33	28	23	19	12	5	1													
	3.5	38	36	34	29	24	20	14	6	3	1												
	3	41	38	36	31	27	23	17	10	6	5	4											
	2.7	43	41	39	34	30	26	20	14	10	9	8	4										
	2.4	45	43	41	37	32	29	23	17	13	12	11	8	4									
	2.1	47	45	43	38	34	31	25	19	16	15	13	10	6	3								
	1.8	48	46	44	40	36	32	27	21	18	17	16	12	8	5	2							
	1.5	50	48	46	42	38	34	29	23	21	19	18	15	11	8	6	3						
	1.2	52	50	48	44	40	37	32	26	23	22	21	18	15	11	9	7	4					
	0.9	54	52	50	46	43	40	35	30	27	26	25	22	18	15	13	11	8	4				
	0.7	56	54	53	49	46	43	38	33	31	30	29	26	23	20	18	15	13	9	5			
0.5	61	59	57	54	51	49	45	40	38	37	36	33	30	28	26	24	22	19	15	10			
0.3	63	61	60	57	54	51	48	43	41	40	39	37	34	32	30	28	26	23	19	15	5		
0.1	70	69	68	65	63	61	58	54	53	52	51	49	47	45	44	42	40	38	35	32	24	20	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-75. Percent Reduction in Wetted Perimeter between Two Flows for Crater Creek.

		Start Flow ¹ (cfs)																							
Start Flow ¹		35	30	25	20	17.5	15	12.5	10	7.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.5	0.3
WP ²		17.5	17.0	16.5	15.9	15.3	14.5	13.7	13.0	12.3	11.6	11.4	11.2	11.1	10.8	10.5	10.3	10.0	9.7	9.3	8.0	8.9	8.0	6.6	6.0
End Flow ³ (cfs)	30	3																							
	25	6	3																						
	20	9	6	3																					
	17.5	13	10	7	4																				
	15	17	15	12	9	5																			
	12.5	22	20	17	14	11	6																		
	10	26	24	21	18	15	10	5																	
	7.5	30	28	25	23	20	15	10	5																
	5	34	32	30	27	24	20	15	11	6															
	4.5	35	33	31	28	26	21	17	12	7	1														
	4	36	34	32	30	27	23	18	14	9	3	2													
	3.5	37	35	33	31	28	24	19	15	10	5	3	2												
	3	39	37	35	33	30	26	21	17	13	7	6	4	3											
	2.7	40	38	36	34	31	27	23	19	15	9	8	6	5	2										
	2.4	41	40	37	35	33	29	25	21	16	11	10	8	7	4	2									
	2.1	43	41	39	37	35	31	27	23	19	14	12	11	9	7	5	3								
	1.8	45	43	41	39	37	34	29	26	22	17	15	14	13	10	8	6	4							
	1.5	47	46	44	42	40	36	32	29	25	20	19	17	16	14	12	10	7	4						
	1.2	49	48	46	44	42	39	35	31	28	23	22	20	19	17	15	13	11	7	4					
	0.9	51	50	48	46	44	41	37	34	31	26	25	24	23	20	19	17	14	11	8	4				
0.7	54	53	51	50	48	45	41	38	35	31	30	29	28	25	24	22	20	17	13	10	6				
0.5	62	61	60	59	57	55	52	49	46	43	42	41	40	39	37	36	34	32	29	26	23	18			
0.3	66	65	64	63	61	59	56	54	52	49	48	47	46	45	43	42	40	38	36	33	30	26	10		
0.1	73	72	71	70	69	67	65	63	61	58	58	57	56	55	54	53	52	50	48	46	44	40	27	19	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-76. Percent Reduction in Wetted Perimeter between Two Flows for Chinquapin Creek.

		Start Flow ¹ (cfs)																			
Start Flow ¹		15	12.5	10	7.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.5	0.3	
WP ²		12.0	11.7	11.4	11.0	10.6	10.5	10.4	10.4	10.2	10.1	10.0	9.8	9.6	9.3	8.9	8.4	7.9	7.1	6.2	
End Flow ³ (cfs)	20																				
	17.5	2																			
	15	5	3																		
	12.5	8	6	3																	
	10	11	9	6	4																
	7.5	12	10	7	4	1															
	5	13	11	8	5	2	1														
	4.5	13	11	9	6	3	2	1													
	4	15	12	10	7	4	3	2	1												
	3.5	15	13	11	8	5	4	3	2	1											
	3	16	14	12	9	6	5	4	4	2	1										
	2.7	18	16	14	11	8	7	6	5	4	3	2									
	2.4	20	18	15	13	10	9	8	7	6	5	4	2								
	2.1	22	20	18	16	12	12	11	10	9	8	7	5	3							
	1.8	25	23	21	19	16	15	14	14	12	12	10	9	7	4						
	1.5	29	28	26	23	21	20	19	19	17	17	16	14	12	9	6					
	1.2	34	33	31	29	26	25	25	24	23	22	21	20	18	16	12	7				
0.9	41	39	38	36	33	33	32	31	31	30	29	28	26	24	21	16	10				
0.7	48	47	45	44	42	41	41	40	39	39	38	37	36	33	31	27	21	13			
0.5	64	63	62	61	59	59	59	58	58	57	57	56	55	54	52	49	45	39	30		

¹ Start Flow: Flow, in cfs, at which the ramping begins
² WP: Wetted Perimeter, in feet, at the starting flow
³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-77. Percent Reduction in Wetted Perimeter between Two Flows for Camp 62 Creek.

		Start Flow ¹ (cfs)																						
Start Flow ¹		25	20	18	15	13	10	7.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.8	1.5	1.2	0.9	0.7	0.5	0.3	
WP ²		13.2	12.6	12.3	12.1	11.8	11.5	10.5	9.7	9.4	9.2	9.0	8.7	8.5	8.3	8.1	7.9	7.7	7.4	6.3	6.0	5.5	4.8	
End Flow ³ (cfs)	20	5																						
	17.5	7	2																					
	15	9	4	2																				
	12.5	11	6	4	2																			
	10	13	9	7	5	2																		
	7.5	21	17	15	13	11	9																	
	5	27	23	22	20	18	16	8																
	4.5	29	25	23	22	20	18	10	2															
	4	30	27	25	24	22	20	12	5	3														
	3.5	32	29	27	26	24	22	14	7	5	3													
	3	34	31	30	28	26	25	17	10	8	6	3												
	2.7	36	33	31	30	28	26	19	12	10	8	5	2											
	2.4	37	34	33	31	30	28	21	14	12	10	8	4	2										
	2.1	39	36	35	33	32	30	23	17	15	12	10	7	5	3									
	1.8	40	37	36	35	33	31	25	18	17	14	12	9	7	5	2								
	1.5	42	39	38	36	35	33	27	21	19	17	14	12	10	7	5	3							
	1.2	44	41	40	38	37	35	29	23	22	20	17	14	13	10	8	6	3						
	0.9	52	50	49	48	47	45	40	35	33	32	30	27	26	24	22	20	18	15					
	0.7	55	53	52	51	49	48	43	38	37	35	33	31	30	28	26	24	22	20	5				
0.5	58	56	55	54	53	52	47	43	42	40	39	37	35	34	32	30	28	26	13	8				
0.3	64	62	61	60	59	58	54	50	49	48	46	45	44	42	41	39	37	35	24	20	13			
0.1	78	76	76	75	75	74	72	69	69	68	67	66	65	64	63	62	61	60	53	50	46	38		

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-78. Depth Suitability versus Flow Function for Bolsillo Creek.

Flow (cfs)	Brook Trout - S&A			Brook Trout - Bovee
	Adult	Juvenile	Fry	Adult
0.1	34.05	45.96	98.61	73.95
0.2	35.61	43.33	99.95	75.28
0.3	36.60	40.19	97.22	69.84
0.5	37.74	43.35	99.49	74.37
0.7	36.44	45.28	99.48	74.15
0.9	35.43	45.96	98.10	76.60
1.2	34.07	44.19	98.20	77.24
1.5	36.28	50.99	98.26	78.73
1.8	36.81	55.78	97.22	85.62
2.2	37.49	54.45	94.28	84.59
2.4	37.18	53.99	93.04	85.98
2.7	38.73	53.25	92.14	87.14
3.0	39.36	52.58	93.53	88.11
3.5	40.52	51.39	93.98	86.19
4.0	44.54	52.11	93.17	87.42
4.5	48.67	55.34	93.98	87.58
5.0	47.61	55.42	93.20	85.70
5.5	46.81	57.77	94.66	84.25
5.9	46.25	57.41	94.51	83.24
6.0	46.10	57.73	94.45	82.97
6.5	45.45	58.48	94.22	81.81
7.0	44.88	59.15	93.95	80.78
7.5	44.41	59.74	93.99	80.42
8.0	44.62	59.17	94.57	81.78
8.5	45.40	58.59	94.84	81.36
9.0	47.69	63.16	94.48	82.45
9.5	48.89	64.62	94.50	83.54
10.0	48.62	64.26	95.09	84.18
12.0	53.28	68.17	93.99	90.80
14.0	56.16	68.75	94.09	92.73

Table Attachment D-79. Percent Reduction in Wetted Perimeter between Two Flows for Pitman Creek.

		Start Flow ¹ (cfs)																															
Start Flow ¹		25	20	18	16	14	12	10	9	8	7	6	5	4	3.8	3.5	3.3	3	2.8	2.5	2.3	2	1.8	1.6	1.4	1.2	0.9	0.7	0.5	0.3			
WP ²		18.1	17.0	15.8	14.8	13.2	12.0	10.7	10.1	9.4	9.0	8.5	8.1	7.6	7.5	7.3	7.2	7.0	6.9	6.7	6.5	6.3	6.1	6.0	5.8	5.7	5.5	5.2	4.9	4.5			
End Flow ³ (cfs)	20	6																															
	18	13	7																														
	16	18	13	6																													
	14	27	22	16	11																												
	12	34	30	24	19	9																											
	10	41	37	32	27	19	11																										
	9	44	41	36	32	24	16	6																									
	8	48	45	40	36	29	21	12	6																								
	7	51	47	43	39	32	25	16	11	5																							
	6	53	50	46	42	35	29	20	15	9	5																						
	5	55	52	49	45	39	33	24	20	14	9	5																					
	4	58	55	52	49	42	37	29	25	19	15	11	6																				
	3.75	59	56	53	49	43	38	30	26	21	17	13	8	2																			
	3.5	59	57	54	50	45	39	32	27	22	18	14	9	4	2																		
	3.25	60	58	54	51	46	40	33	29	24	20	16	11	5	4	2																	
	3	61	59	55	52	47	41	34	30	25	21	18	13	7	6	4	2																
	2.75	62	60	57	54	48	43	36	32	27	23	20	15	10	8	6	5	3															
	2.5	63	61	58	55	49	44	38	34	29	25	22	17	12	10	9	7	5	3														
	2.25	64	62	59	56	51	46	39	36	31	27	24	20	15	13	11	10	8	5	3													
	2	65	63	60	57	52	48	41	38	33	30	26	22	17	16	14	13	11	8	6	3												
1.8	66	64	61	59	54	49	43	39	35	32	28	24	19	18	16	15	13	11	8	6	3												
1.6	67	65	62	60	55	50	44	41	37	33	30	26	22	20	19	17	15	13	11	8	5	3											
1.4	68	66	63	61	56	52	46	42	38	35	32	28	24	22	21	19	17	15	13	11	8	5	2										
1.2	69	67	64	62	57	53	47	44	40	37	34	30	25	24	23	21	19	17	15	13	10	7	5	2									
0.9	70	68	65	63	59	55	49	46	42	39	36	33	28	27	26	24	23	21	18	16	13	11	9	6	4								
0.7	71	69	67	65	60	56	51	48	45	41	39	35	31	30	29	27	26	24	22	19	17	14	12	10	8	4							
0.5	73	71	69	67	63	59	54	51	48	45	42	39	35	34	33	31	30	28	26	24	21	19	17	15	13	9	6						
0.3	75	74	72	70	66	63	58	55	52	50	47	45	41	40	39	37	36	34	33	31	29	27	25	23	21	17	14	9					
0.1	79	78	76	75	72	69	65	63	60	58	56	54	51	50	49	48	47	45	44	42	40	39	37	35	34	31	28	24	9				

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-80. Percent Reduction in Wetted Perimeter between Two flows for Balsam Creek – Forebay to Diversion.

		Start Flow ¹ (cfs)																																
Start Flow ¹	20	15	14	13	12	11	10	9	8	7	6	5.5	5	4.5	4	3.5	3	2.7	2.4	2.1	1.9	1.7	2	1	1	1	1	1	0					
WP ²	13.8	13.0	12.8	12.6	12.3	12.1	11.9	11.8	11.6	11.4	11.2	11.1	11.0	10.9	10.8	10.7	10.6	10.5	10.4	10.3	10.2	10.0	9.8	9.6	9.3	8.9	8.2	7.7	7.3					
End Flow ³ (cfs)	15	5																																
	14	7	2																															
	13	9	3	2																														
	12	10	5	4	2																													
	11	12	7	6	4	2																												
	10	13	8	7	5	3	1																											
	9	15	10	8	7	5	3	1																										
	8	16	11	10	8	6	4	3	2																									
	7	17	13	11	10	8	6	5	3	2																								
	6	19	14	13	11	9	8	6	5	3	2																							
	5.5	19	15	13	12	10	8	7	6	4	2	1																						
	5	20	15	14	12	11	9	8	6	5	3	1	1																					
	4.5	21	16	15	13	11	10	8	7	6	4	2	2	1																				
	4	21	17	15	14	12	10	9	8	6	5	3	2	2	1																			
	3.5	22	18	16	15	13	11	10	9	7	6	4	3	3	2	1																		
	3	23	18	17	16	14	12	11	10	8	7	5	4	4	3	2	1																	
	2.7	23	19	18	16	15	13	12	10	9	7	6	5	4	4	3	2	1																
	2.4	24	20	19	17	16	14	13	11	10	8	7	6	6	5	4	3	2	1															
	2.1	25	21	20	18	17	15	14	13	11	10	8	7	7	6	5	4	3	2	1														
	1.9	26	22	21	19	18	16	15	14	12	10	9	8	8	7	6	5	4	3	2	1													
1.7	27	23	22	20	19	17	16	15	13	12	10	10	9	8	7	6	5	5	4	2	1													
1.5	28	24	23	22	20	19	18	16	15	13	12	11	11	10	9	8	7	7	5	4	3	2												
1.3	30	26	25	24	22	21	19	18	17	15	14	13	13	12	11	10	10	9	8	6	6	4	2											
1.1	32	28	27	26	24	23	22	21	19	18	16	16	15	15	14	13	12	11	10	9	8	7	5	3										
0.9	35	32	30	29	28	26	25	24	23	22	20	20	19	19	18	17	16	15	15	13	12	11	10	7	5									
0.7	40	37	36	35	34	32	31	30	29	28	27	26	26	25	24	24	23	22	21	20	19	18	17	15	12	8								
0.5	44	41	40	39	38	36	35	34	33	32	31	31	30	29	29	28	27	27	26	25	24	23	22	20	17	13	6							
0.3	47	44	43	42	41	39	39	38	37	36	34	34	34	33	32	32	31	30	30	29	28	27	26	24	22	18	11	5						
0.1	54	51	51	50	49	48	47	46	45	44	44	43	43	42	42	41	41	40	39	39	38	37	36	34	32	29	23	18	14					

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-81. Habitat-Flow Relationships for Rainbow Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
3.0	4,683	9,618	16,048	128	3,710
3.5	4,975	10,013	16,296	141	4,254
4.0	5,251	10,338	16,472	152	4,776
4.5	5,511	10,612	16,587	162	5,261
5.0	5,757	10,861	16,678	170	5,712
5.5	5,990	11,095	16,740	178	6,144
6.0	6,215	11,302	16,771	185	6,537
6.5	6,429	11,484	16,773	190	6,904
7.0	6,634	11,651	16,746	194	7,247
7.5	6,828	11,800	16,711	196	7,561
8.0	7,018	11,925	16,674	198	7,850
8.5	7,204	12,034	16,640	200	8,125
9.0	7,386	12,130	16,600	201	8,384
10.0	7,715	12,298	16,532	202	8,861
11.0	8,005	12,447	16,460	201	9,322
12.0	8,282	12,566	16,420	201	9,752
13.0	8,537	12,645	16,352	200	10,156
14.0	8,767	12,713	16,286	199	10,538
15.0	8,981	12,759	16,248	198	10,871
17.5	9,476	12,795	16,061	192	11,617
20.0	9,914	12,732	15,834	187	12,243
25.0	10,624	12,520	15,302	178	13,104
30.0	11,160	12,259	14,805	167	13,479
35.0	11,563	11,967	14,428	156	13,628
40.0	11,855	11,678	14,093	145	13,642
45.0	12,070	11,449	13,764	136	13,606
50.0	12,175	11,251	13,462	127	13,538
60.0	12,266	10,882	12,992	112	13,273
70.0	12,173	10,589	12,645	96	13,024
80.0	12,076	10,302	12,370	85	12,811
MAX WUA	12,266	12,795	16,773	202	13,642

Table Attachment D-82. Habitat-Flow Relationships for Brown Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
3.0	6,657	10,478	15,828	139	5,697
3.5	6,989	10,861	16,039	150	6,302
4.0	7,298	11,155	16,186	159	6,846
4.5	7,588	11,401	16,283	165	7,318
5.0	7,857	11,643	16,364	169	7,746
5.5	8,117	11,851	16,417	173	8,142
6.0	8,358	12,032	16,438	175	8,507
6.5	8,578	12,179	16,436	177	8,832
7.0	8,778	12,306	16,400	177	9,130
7.5	8,968	12,425	16,358	177	9,412
8.0	9,146	12,531	16,315	177	9,674
8.5	9,313	12,610	16,276	177	9,914
9.0	9,467	12,678	16,228	176	10,125
10.0	9,749	12,803	16,145	173	10,509
11.0	9,995	12,892	16,062	171	10,855
12.0	10,216	12,970	16,015	169	11,188
13.0	10,415	13,003	15,942	167	11,485
14.0	10,593	13,027	15,865	166	11,765
15.0	10,756	13,053	15,814	165	12,011
17.5	11,094	12,984	15,602	159	12,478
20.0	11,373	12,848	15,351	152	12,801
25.0	11,762	12,422	14,782	140	13,115
30.0	11,993	12,013	14,257	128	13,172
35.0	12,059	11,681	13,863	117	13,171
40.0	12,056	11,419	13,556	107	13,041
45.0	11,982	11,192	13,258	99	12,867
50.0	11,889	11,021	12,973	94	12,706
60.0	11,668	10,670	12,513	84	12,353
70.0	11,482	10,418	12,105	75	11,951
80.0	11,405	10,158	11,802	67	11,626
MAX WUA	12,059	13,053	16,438	177	13,172

Table Attachment D-83. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	4	8,282	5,251	679	431	-	-	-	-		
Nov	12	4	8,282	5,251	679	431	-	-	-	-		
Dec	12	4	8,282	5,251	679	431	-	-	-	-		
Jan	12	3.5	8,282	4,975	679	408	-	-	-	-		
Feb	12	3.5	8,282	4,975	679	408	-	-	-	-		
Mar	12	3.5	8,282	4,975	679	408	-	-	-	-		
Apr	12	5	8,282	5,757	679	472	201	170	299	254		
May	12	5	8,282	5,757	679	472	201	170	299	254		
Jun	12	5	8,282	5,757	679	472	201	170	299	254		
Jul	12	4.5	8,282	5,511	679	452	-	-	-	-		
Aug	12	4.5	8,282	5,511	679	452	-	-	-	-		
Sep	12	4.5	8,282	5,511	679	452	-	-	-	-		

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	3	8,282	4,683	679	384	-	-	-	-		
Nov	12	3	8,282	4,683	679	384	-	-	-	-		
Dec	12	3	8,282	4,683	679	384	-	-	-	-		
Jan	12	3	8,282	4,683	679	384	-	-	-	-		
Feb	12	3	8,282	4,683	679	384	-	-	-	-		
Mar	12	3	8,282	4,683	679	384	-	-	-	-		
Apr	12	4	8,282	5,251	679	431	201	152	299	227		
May	12	4	8,282	5,251	679	431	201	152	299	227		
Jun	12	4	8,282	5,251	679	431	201	152	299	227		
Jul	12	3.5	8,282	4,975	679	408	-	-	-	-		
Aug	12	3.5	8,282	4,975	679	408	-	-	-	-		
Sep	12	3.5	8,282	4,975	679	408	-	-	-	-		

Table Attachment D-83. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	4	12,566	10,338	2,061	1,696	-	-	-	-
Nov	12	4	12,566	10,338	2,061	1,696	-	-	-	-
Dec	12	4	12,566	10,338	2,061	1,696	-	-	-	-
Jan	12	3.5	12,566	10,013	2,061	1,643	-	-	-	-
Feb	12	3.5	12,566	10,013	2,061	1,643	-	-	-	-
Mar	12	3.5	12,566	10,013	2,061	1,643	-	-	-	-
Apr	12	5	12,566	10,861	2,061	1,782	-	-	-	-
May	12	5	12,566	10,861	2,061	1,782	-	-	-	-
Jun	12	5	12,566	10,861	2,061	1,782	16,420	16,678	6,734	6,840
Jul	12	4.5	12,566	10,612	2,061	1,741	16,420	16,587	6,734	6,803
Aug	12	4.5	12,566	10,612	2,061	1,741	16,420	16,587	6,734	6,803
Sep	12	4.5	12,566	10,612	2,061	1,741	16,420	16,587	6,734	6,803

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Nov	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Dec	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Jan	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Feb	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Mar	12	3	12,566	9,618	2,061	1,578	-	-	-	-
Apr	12	4	12,566	10,338	2,061	1,696	-	-	-	-
May	12	4	12,566	10,338	2,061	1,696	-	-	-	-
Jun	12	4	12,566	10,338	2,061	1,696	16,420	16,472	6,734	6,756
Jul	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684
Aug	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684
Sep	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684

Table Attachment D-84. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	4	10,216	7,298	838	599	169	159	99	93
Nov	12	4	10,216	7,298	838	599	169	159	99	93
Dec	12	4	10,216	7,298	838	599	169	159	99	93
Jan	12	3.5	10,216	6,989	838	573	-	-	-	-
Feb	12	3.5	10,216	6,989	838	573	-	-	-	-
Mar	12	3.5	10,216	6,989	838	573	-	-	-	-
Apr	12	5	10,216	7,857	838	644	-	-	-	-
May	12	5	10,216	7,857	838	644	-	-	-	-
Jun	12	5	10,216	7,857	838	644	-	-	-	-
Jul	12	4.5	10,216	7,588	838	622	-	-	-	-
Aug	12	4.5	10,216	7,588	838	622	-	-	-	-
Sep	12	4.5	10,216	7,588	838	622	-	-	-	-

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	3	10,216	6,657	838	546	169	139	99	82	99	82	99	82
Nov	12	3	10,216	6,657	838	546	169	139	99	82	99	82	99	82
Dec	12	3	10,216	6,657	838	546	169	139	99	82	99	82	99	82
Jan	12	3	10,216	6,657	838	546	-	-	-	-	-	-	-	-
Feb	12	3	10,216	6,657	838	546	-	-	-	-	-	-	-	-
Mar	12	3	10,216	6,657	838	546	-	-	-	-	-	-	-	-
Apr	12	4	10,216	7,298	838	599	-	-	-	-	-	-	-	-
May	12	4	10,216	7,298	838	599	-	-	-	-	-	-	-	-
Jun	12	4	10,216	7,298	838	599	-	-	-	-	-	-	-	-
Jul	12	3.5	10,216	6,989	838	573	-	-	-	-	-	-	-	-
Aug	12	3.5	10,216	6,989	838	573	-	-	-	-	-	-	-	-
Sep	12	3.5	10,216	6,989	838	573	-	-	-	-	-	-	-	-

Table Attachment D-84. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Nov	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Dec	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Jan	12	3.5	12,970	10,861	2,128	1,782	-	-	-	-
Feb	12	3.5	12,970	10,861	2,128	1,782	-	-	-	-
Mar	12	3.5	12,970	10,861	2,128	1,782	-	-	-	-
Apr	12	5	12,970	11,643	2,128	1,910	-	-	-	-
May	12	5	12,970	11,643	2,128	1,910	-	-	-	-
Jun	12	5	12,970	11,643	2,128	1,910	16,015	16,364	6,568	6,711
Jul	12	4.5	12,970	11,401	2,128	1,870	16,015	16,283	6,568	6,678
Aug	12	4.5	12,970	11,401	2,128	1,870	16,015	16,283	6,568	6,678
Sep	12	4.5	12,970	11,401	2,128	1,870	16,015	16,283	6,568	6,678
Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Nov	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Dec	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Jan	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Feb	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Mar	12	3	12,970	10,478	2,128	1,719	-	-	-	-
Apr	12	4	12,970	11,155	2,128	1,830	-	-	-	-
May	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Jun	12	4	12,970	11,155	2,128	1,830	16,015	16,186	6,568	6,638
Jul	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578
Aug	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578
Sep	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578

Table Attachment D-85. Percent of Maximum WUA provided for Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	4	Brown Trout Spawning	95%	90%	68%	43%	85%	61%
Nov	12	4		95%	90%	68%	43%	85%	61%
Dec	12	4		95%	90%	68%	43%	85%	61%
Jan	12	3.5	Rainbow Trout Spawning			68%	41%	85%	58%
Feb	12	3.5				68%	41%	85%	58%
Mar	12	3.5				68%	41%	85%	58%
Apr	12	5		99%	84%	68%	47%	85%	65%
May	12	5		99%	84%	68%	47%	85%	65%
Jun	12	5		99%	84%	68%	47%	85%	65%
Jul	12	4.5				68%	45%	85%	63%
Aug	12	4.5				68%	45%	85%	63%
Sep	12	4.5				68%	45%	85%	63%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	12	3	Brown Trout Spawning	95%	79%	68%	38%	85%	55%
Nov	12	3		95%	79%	68%	38%	85%	55%
Dec	12	3		95%	79%	68%	38%	85%	55%
Jan	12	3	Rainbow Trout Spawning			68%	38%	85%	55%
Feb	12	3				68%	38%	85%	55%
Mar	12	3				68%	38%	85%	55%
Apr	12	4		99%	75%	68%	43%	85%	61%
May	12	4		99%	75%	68%	43%	85%	61%
Jun	12	4		99%	75%	68%	43%	85%	61%
Jul	12	3.5				68%	41%	85%	58%
Aug	12	3.5				68%	41%	85%	58%
Sep	12	3.5				68%	41%	85%	58%

Table Attachment D-86. Percent Reduction in Wetted Perimeter between Two Flows for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake.

		Start Flow ¹ (cfs)																															
Start Flow ¹		80	70	60	50	45	40	35	30	25	20	18	15	14	13	12	11	10	9	8.5	8	7.5	7	6.5	6	5.5	5	4.5	4	3.5			
WP ²		41.1	40.3	39.5	38.4	37.8	37.2	36.6	35.7	34.8	33.7	32.9	32.1	31.7	31.1	30.7	30.4	29.9	29.5	29.2	29.0	28.7	28.5	28.2	27.9	27.5	27.3	26.9	26.5	26.0			
End Flow ³ (cfs)	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	70	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	60	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	50	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	45	8	6	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	40	9	8	6	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	35	11	9	7	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	30	13	11	9	7	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	25	15	14	12	9	8	6	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	18	17	15	12	11	10	8	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17.5	20	18	17	14	13	12	10	8	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	22	20	19	16	15	14	12	10	8	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14	23	21	20	17	16	15	13	11	9	6	4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13	24	23	21	19	18	16	15	13	11	8	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12	25	24	22	20	19	17	16	14	12	9	7	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11	26	25	23	21	20	18	17	15	13	10	8	5	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10	27	26	24	22	21	20	18	16	14	11	9	7	5	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9	28	27	25	23	22	21	19	18	15	12	10	8	7	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8.5	29	28	26	24	23	22	20	18	16	13	11	9	8	6	5	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	30	28	27	24	23	22	21	19	17	14	12	10	9	7	6	5	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
7.5	30	29	27	25	24	23	22	20	18	15	13	11	9	8	7	5	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	
7	31	29	28	26	25	24	22	20	18	15	13	11	10	8	7	6	5	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	
6.5	32	30	29	27	26	24	23	21	19	16	14	12	11	9	8	7	6	4	4	3	2	1	-	-	-	-	-	-	-	-	-	-	
6	32	31	29	27	26	25	24	22	20	17	15	13	12	10	9	8	7	5	4	4	3	2	1	-	-	-	-	-	-	-	-	-	
5.5	33	32	30	28	27	26	25	23	21	18	16	14	13	11	10	9	8	7	6	5	4	3	2	1	-	-	-	-	-	-	-	-	
5	34	32	31	29	28	27	25	24	22	19	17	15	14	12	11	10	9	7	7	6	5	4	3	2	1	-	-	-	-	-	-	-	
4.5	35	33	32	30	29	28	27	25	23	20	18	16	15	14	13	12	10	9	8	7	6	6	5	4	2	1	-	-	-	-	-	-	
4	36	34	33	31	30	29	28	26	24	21	20	18	16	15	14	13	12	10	9	9	8	7	6	5	4	3	2	-	-	-	-	-	
3.5	37	36	34	32	31	30	29	27	25	23	21	19	18	17	15	15	13	12	11	10	10	9	8	7	6	5	3	2	-	-	-	-	
3	38	37	36	34	33	32	30	29	27	24	23	21	20	18	17	16	15	14	13	12	11	11	10	9	8	7	5	4	2	-	-	-	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-87. Percent Retention of Redd Habitat between Two Flows for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake.

A. Rainbow Trout

		Start Flow ¹ (cfs)								
		80	60	40	30	20	15	10	7.5	5
End Flow ³ (cfs)	Starting WUA ²	87	112	145	167	187	197	200	194	167
	80	-	-	-	-	-	-	-	-	-
	60	100	-	-	-	-	-	-	-	-
	40	99	100	-	-	-	-	-	-	-
	30	99	100	100	-	-	-	-	-	-
	20	99	100	99	99	-	-	-	-	-
	15	96	97	97	98	99	-	-	-	-
	10	96	96	94	94	97	98	-	-	-
	7.5	93	93	91	91	95	98	99	-	-
	5	80	85	86	88	94	97	99	100	-
3	64	73	77	80	86	90	94	96	98	

B. Brown Trout

		Start Flow ¹ (cfs)								
		80	60	40	30	20	15	10	7.5	5
End Flow ³ (cfs)	Starting WUA ²	68	83	107	128	152	165	173	175	165
	80	-	-	-	-	-	-	-	-	-
	60	100	-	-	-	-	-	-	-	-
	40	98	100	-	-	-	-	-	-	-
	30	98	100	100	-	-	-	-	-	-
	20	93	97	99	99	-	-	-	-	-
	15	92	95	97	97	99	-	-	-	-
	10	92	95	95	95	96	98	-	-	-
	7.5	88	91	93	92	94	97	99	-	-
	5	69	78	82	85	90	95	99	100	-
3	54	62	69	74	81	86	93	95	97	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-88. Habitat-Flow Relationships for Rainbow Trout in Big Creek, Dam 5 to Powerhouse 8/SJR.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
1.0	6,667	7,410	12,351	126	702
1.5	7,078	8,056	12,673	176	1,158
2.0	7,454	8,555	12,950	228	1,645
2.5	7,786	8,960	13,191	276	2,141
3.0	8,093	9,313	13,378	320	2,632
3.5	8,379	9,612	13,524	362	3,130
4.0	8,652	9,852	13,646	403	3,619
4.5	8,909	10,037	13,736	446	4,103
5.0	9,156	10,185	13,785	487	4,555
6.0	9,630	10,415	13,861	546	5,356
7.0	10,052	10,612	13,922	606	6,089
8.0	10,435	10,771	13,981	661	6,718
9.0	10,790	10,889	14,017	713	7,267
10.0	11,124	10,973	14,016	761	7,763
12.0	11,700	11,042	13,940	843	8,620
14.0	12,157	11,028	13,821	900	9,252
16.0	12,544	11,020	13,666	938	9,743
18.0	12,896	11,011	13,479	934	10,076
20.0	13,200	10,990	13,250	914	10,334
25.0	13,854	10,783	12,725	867	10,906
30.0	14,384	10,519	12,292	817	11,441
35.0	14,778	10,209	11,800	795	11,964
40.0	15,104	9,920	11,331	783	12,409
45.0	15,343	9,710	10,905	766	12,693
50.0	15,506	9,505	10,543	754	12,919
60.0	15,836	9,016	10,259	727	13,238
70.0	16,027	8,662	10,216	701	13,600
80.0	16,089	8,334	10,158	681	13,905
90.0	16,010	8,171	10,008	651	14,161
100.0	15,851	8,038	9,781	627	14,249
MAX WUA	16,089	11,042	14,017	938	14,249

Table Attachment D-89. Habitat-Flow Relationships for Brown Trout in Big Creek, Dam 5 to Powerhouse 8/SJR.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
1.0	8,663	8,344	11,621	217	2,118
1.5	9,163	8,995	11,873	292	2,915
2.0	9,576	9,491	12,098	344	3,632
2.5	9,932	9,910	12,282	385	4,306
3.0	10,262	10,270	12,425	421	4,942
3.5	10,567	10,547	12,540	455	5,528
4.0	10,851	10,767	12,632	489	6,049
4.5	11,123	10,929	12,690	524	6,539
5.0	11,381	11,046	12,719	552	6,972
6.0	11,834	11,237	12,783	594	7,710
7.0	12,218	11,417	12,846	637	8,350
8.0	12,542	11,575	12,903	677	8,884
9.0	12,831	11,682	12,905	714	9,344
10.0	13,085	11,741	12,882	745	9,734
12.0	13,519	11,720	12,809	772	10,266
14.0	13,897	11,673	12,713	764	10,595
16.0	14,222	11,652	12,581	746	10,828
18.0	14,453	11,598	12,413	722	11,009
20.0	14,651	11,461	12,182	703	11,190
25.0	14,953	11,091	11,669	670	11,714
30.0	15,179	10,714	11,279	663	12,100
35.0	15,246	10,246	10,831	669	12,383
40.0	15,205	9,856	10,383	665	12,516
45.0	15,154	9,579	9,971	651	12,560
50.0	15,077	9,308	9,611	633	12,594
60.0	14,731	8,822	9,340	593	12,743
70.0	14,414	8,512	9,316	560	13,028
80.0	14,036	8,351	9,269	525	13,200
90.0	13,661	8,334	9,145	486	13,209
100.0	13,432	8,238	8,958	451	13,194
MAX WUA	15,246	11,741	12,905	772	13,209

Table Attachment D-90. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	3	10,435	8,093	856	664	-	-	-	-		
Nov	7	2.5	10,052	7,786	825	639	-	-	-	-		
Dec	7	2	10,052	7,454	825	611	-	-	-	-		
Jan	7	2	10,052	7,454	825	611	-	-	-	-		
Feb	7	2	10,052	7,454	825	611	-	-	-	-		
Mar	7	2	10,052	7,454	825	611	-	-	-	-		
Apr	12	3	11,700	8,093	960	664	843	320	1,258	478		
May	12	3	11,700	8,093	960	664	843	320	1,258	478		
Jun	12	3	11,700	8,093	960	664	843	320	1,258	478		
Jul	12	3	11,700	8,093	960	664	-	-	-	-		
Aug	12	3	11,700	8,093	960	664	-	-	-	-		
Sep	12	3	11,700	8,093	960	664	-	-	-	-		

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	2	10,435	7,454	856	611	-	-	-	-		
Nov	7	1.5	10,052	7,078	825	581	-	-	-	-		
Dec	7	1	10,052	6,667	825	547	-	-	-	-		
Jan	7	1	10,052	6,667	825	547	-	-	-	-		
Feb	7	1	10,052	6,667	825	547	-	-	-	-		
Mar	7	1	10,052	6,667	825	547	-	-	-	-		
Apr	12	2	11,700	7,454	960	611	843	228	1,258	339		
May	12	2	11,700	7,454	960	611	843	228	1,258	339		
Jun	12	2	11,700	7,454	960	611	843	228	1,258	339		
Jul	12	2	11,700	7,454	960	611	-	-	-	-		
Aug	12	2	11,700	7,454	960	611	-	-	-	-		
Sep	12	2	11,700	7,454	960	611	-	-	-	-		

Table Attachment D-90. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	3	10,771	9,313	1,767	1,528	-	-	-	-
Nov	7	2.5	10,612	8,960	1,741	1,470	-	-	-	-
Dec	7	2	10,612	8,555	1,741	1,403	-	-	-	-
Jan	7	2	10,612	8,555	1,741	1,403	-	-	-	-
Feb	7	2	10,612	8,555	1,741	1,403	-	-	-	-
Mar	7	2	10,612	8,555	1,741	1,403	-	-	-	-
Apr	12	3	11,042	9,313	1,811	1,528	-	-	-	-
May	12	3	11,042	9,313	1,811	1,528	-	-	-	-
Jun	12	3	11,042	9,313	1,811	1,528	13,940	13,378	5,717	5,487
Jul	12	3	11,042	9,313	1,811	1,528	13,940	13,378	5,717	5,487
Aug	12	3	11,042	9,313	1,811	1,528	13,940	13,378	5,717	5,487
Sep	12	3	11,042	9,313	1,811	1,528	13,940	13,378	5,717	5,487

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	2	10,771	8,555	1,767	1,403	-	-	-	-
Nov	7	1.5	10,612	8,056	1,741	1,322	-	-	-	-
Dec	7	1	10,612	7,410	1,741	1,216	-	-	-	-
Jan	7	1	10,612	7,410	1,741	1,216	-	-	-	-
Feb	7	1	10,612	7,410	1,741	1,216	-	-	-	-
Mar	7	1	10,612	7,410	1,741	1,216	-	-	-	-
Apr	12	2	11,042	8,555	1,811	1,403	-	-	-	-
May	12	2	11,042	8,555	1,811	1,403	-	-	-	-
Jun	12	2	11,042	8,555	1,811	1,403	13,940	12,950	5,717	5,311
Jul	12	2	11,042	8,555	1,811	1,403	13,940	12,950	5,717	5,311
Aug	12	2	11,042	8,555	1,811	1,403	13,940	12,950	5,717	5,311
Sep	12	2	11,042	8,555	1,811	1,403	13,940	12,950	5,717	5,311

Table Attachment D-91. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	3	12,542	10,262	1,029	842	677	421	397	247
Nov	7	2.5	12,218	9,932	1,002	815	637	385	373	226
Dec	7	2	12,218	9,576	1,002	785	637	344	373	202
Jan	7	2	12,218	9,576	1,002	785	-	-	-	-
Feb	7	2	12,218	9,576	1,002	785	-	-	-	-
Mar	7	2	12,218	9,576	1,002	785	-	-	-	-
Apr	12	3	13,519	10,262	1,109	842	-	-	-	-
May	12	3	13,519	10,262	1,109	842	-	-	-	-
Jun	12	3	13,519	10,262	1,109	842	-	-	-	-
Jul	12	3	13,519	10,262	1,109	842	-	-	-	-
Aug	12	3	13,519	10,262	1,109	842	-	-	-	-
Sep	12	3	13,519	10,262	1,109	842	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	2	12,542	9,576	1,029	785	677	344	397	202
Nov	7	1.5	12,218	9,163	1,002	752	637	292	373	171
Dec	7	1	12,218	8,663	1,002	711	637	217	373	127
Jan	7	1	12,218	8,663	1,002	711	-	-	-	-
Feb	7	1	12,218	8,663	1,002	711	-	-	-	-
Mar	7	1	12,218	8,663	1,002	711	-	-	-	-
Apr	12	2	13,519	9,576	1,109	785	-	-	-	-
May	12	2	13,519	9,576	1,109	785	-	-	-	-
Jun	12	2	13,519	9,576	1,109	785	-	-	-	-
Jul	12	2	13,519	9,576	1,109	785	-	-	-	-
Aug	12	2	13,519	9,576	1,109	785	-	-	-	-
Sep	12	2	13,519	9,576	1,109	785	-	-	-	-

Table Attachment D-91. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	3	11,575	10,270	1,899	1,685	-	-	-	-
Nov	7	2.5	11,417	9,910	1,873	1,626	-	-	-	-
Dec	7	2	11,417	9,491	1,873	1,557	-	-	-	-
Jan	7	2	11,417	9,491	1,873	1,557	-	-	-	-
Feb	7	2	11,417	9,491	1,873	1,557	-	-	-	-
Mar	7	2	11,417	9,491	1,873	1,557	-	-	-	-
Apr	12	3	11,720	10,270	1,923	1,685	-	-	-	-
May	12	3	11,720	10,270	1,923	1,685	-	-	-	-
Jun	12	3	11,720	10,270	1,923	1,685	12,809	12,425	5,253	5,096
Jul	12	3	11,720	10,270	1,923	1,685	12,809	12,425	5,253	5,096
Aug	12	3	11,720	10,270	1,923	1,685	12,809	12,425	5,253	5,096
Sep	12	3	11,720	10,270	1,923	1,685	12,809	12,425	5,253	5,096

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Nov	7	1.5	11,417	8,995	1,873	1,476	-	-	-	-
Dec	7	1	11,417	8,344	1,873	1,369	-	-	-	-
Jan	7	1	11,417	8,344	1,873	1,369	-	-	-	-
Feb	7	1	11,417	8,344	1,873	1,369	-	-	-	-
Mar	7	1	11,417	8,344	1,873	1,369	-	-	-	-
Apr	12	2	11,720	9,491	1,923	1,557	-	-	-	-
May	12	2	11,720	9,491	1,923	1,557	-	-	-	-
Jun	12	2	11,720	9,491	1,923	1,557	12,809	12,098	5,253	4,962
Jul	12	2	11,720	9,491	1,923	1,557	12,809	12,098	5,253	4,962
Aug	12	2	11,720	9,491	1,923	1,557	12,809	12,098	5,253	4,962
Sep	12	2	11,720	9,491	1,923	1,557	12,809	12,098	5,253	4,962

Table Attachment D-92. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	3	Brown Trout Spawning	88%	55%	65%	50%	82%	67%
Nov	7	2.5		83%	50%	62%	48%	80%	65%
Dec	7	2		83%	45%	62%	46%	80%	63%
Jan	7	2			62%	46%	80%	63%	
Feb	7	2			62%	46%	80%	63%	
Mar	7	2			62%	46%	80%	63%	
Apr	12	3	Rainbow Trout Spawning	90%	34%	73%	50%	89%	67%
May	12	3		90%	34%	73%	50%	89%	67%
Jun	12	3		90%	34%	73%	50%	89%	67%
Jul	12	3			73%	50%	89%	67%	
Aug	12	3			73%	50%	89%	67%	
Sep	12	3			73%	50%	89%	67%	

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	8	2	Brown Trout Spawning	88%	45%	65%	46%	82%	63%
Nov	7	1.5		83%	38%	62%	44%	80%	60%
Dec	7	1		83%	28%	62%	41%	80%	57%
Jan	7	1			62%	41%	80%	57%	
Feb	7	1			62%	41%	80%	57%	
Mar	7	1			62%	41%	80%	57%	
Apr	12	2	Rainbow Trout Spawning	90%	24%	73%	46%	89%	63%
May	12	2		90%	24%	73%	46%	89%	63%
Jun	12	2		90%	24%	73%	46%	89%	63%
Jul	12	2			73%	46%	89%	63%	
Aug	12	2			73%	46%	89%	63%	
Sep	12	2			73%	46%	89%	63%	

Table Attachment D-93. Percent Reduction in Wetted Perimeter between Two Flows for Big Creek, Dam 5 to Powerhouse 8/SJR.

Start Flow ¹	Start Flow ¹ (cfs)																												
	100	90	80	70	60	50	45	40	35	30	25	20	18	16	14	12	10	9	8	7	6	5	4.5	4	3.5	3	2.5	2	1.5
WP ²	41.7	41.0	40.4	39.7	38.7	37.2	36.2	35.5	34.6	34.0	33.3	32.3	31.8	31.2	30.7	30.2	29.6	29.3	29.0	28.6	28.2	27.5	27.2	26.9	26.6	26.2	25.8	25.4	24.9
100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	7	6	4	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	11	9	8	6	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	13	12	10	9	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	15	14	12	11	8	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	17	15	14	13	10	7	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	18	17	16	14	12	9	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	20	19	18	16	14	10	8	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	23	21	20	19	17	13	11	9	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	24	22	21	20	18	14	12	10	8	6	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	25	24	23	21	19	16	14	12	10	8	6	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	26	25	24	23	21	17	15	13	11	10	8	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	28	26	25	24	22	19	17	15	13	11	9	6	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	29	28	27	25	23	20	18	16	14	13	11	8	7	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
9	30	28	27	26	24	21	19	17	15	14	12	9	8	6	5	3	1	-	-	-	-	-	-	-	-	-	-	-	-
8	30	29	28	27	25	22	20	18	16	15	13	10	9	7	6	4	2	1	-	-	-	-	-	-	-	-	-	-	-
7	31	30	29	28	26	23	21	19	17	16	14	11	10	9	7	5	4	2	1	-	-	-	-	-	-	-	-	-	-
6	32	31	30	29	27	24	22	21	19	17	15	13	11	10	8	7	5	4	3	1	-	-	-	-	-	-	-	-	-
5	34	33	32	31	29	26	24	22	21	19	17	15	14	12	10	9	7	6	5	4	2	-	-	-	-	-	-	-	-
4.5	35	34	33	32	30	27	25	23	22	20	18	16	15	13	12	10	8	7	6	5	4	1	-	-	-	-	-	-	-
4	35	34	33	32	30	28	26	24	22	21	19	17	15	14	12	11	9	8	7	6	4	2	1	-	-	-	-	-	-
3.5	36	35	34	33	31	28	26	25	23	22	20	18	16	15	13	12	10	9	8	7	5	3	2	1	-	-	-	-	-
3	37	36	35	34	32	30	28	26	24	23	21	19	18	16	15	13	12	11	10	8	7	5	4	3	2	-	-	-	-
2.5	38	37	36	35	33	30	29	27	25	24	22	20	19	17	16	14	13	12	11	10	8	6	5	4	3	1	-	-	-
2	39	38	37	36	34	32	30	28	27	25	24	21	20	19	17	16	14	13	12	11	10	8	6	6	5	3	2	-	-
1.5	40	39	38	37	36	33	31	30	28	27	25	23	22	20	19	18	16	15	14	13	12	10	8	8	7	5	4	2	-
1	42	41	41	40	38	35	34	32	31	29	28	26	24	23	22	21	19	18	17	16	15	13	12	11	10	8	7	5	3

1 Start Flow: Flow, in cfs, at which the ramping begins
 2 WP: Wetted Perimeter, in feet, at the starting flow
 3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-94. Percent Retention of Redd Habitat between Two Flows for Big Creek, Dam 5 to Powerhouse 8/SJR.

A. Rainbow Trout

		Start Flow ¹ (cfs)									
		100	80	60	40	30	20	14	10	8	5
End Flow ³ (cfs)	Starting WUA ²	638	698	755	808	823	874	826	676	572	400
	100	-	-	-	-	-	-	-	-	-	-
	80	100	-	-	-	-	-	-	-	-	-
	60	96	98	-	-	-	-	-	-	-	-
	40	87	91	97	-	-	-	-	-	-	-
	30	87	91	97	100	-	-	-	-	-	-
	20	72	78	86	90	95	-	-	-	-	-
	14	61	67	75	81	89	98	-	-	-	-
	10	61	67	75	81	87	95	99	-	-	-
	8	60	66	74	80	84	87	90	94	-	-
	5	60	64	70	72	75	76	80	86	92	-
	3	57	61	67	69	72	72	76	83	88	97
2	57	61	67	69	72	72	76	83	88	97	

B. Brown Trout

		Start Flow ¹ (cfs)									
		100	80	60	40	30	20	14	10	8	5
End Flow ³ (cfs)	Starting WUA ²	468	539	608	672	664	679	704	658	577	451
	100	-	-	-	-	-	-	-	-	-	-
	80	100	-	-	-	-	-	-	-	-	-
	60	93	96	-	-	-	-	-	-	-	-
	40	80	89	97	-	-	-	-	-	-	-
	30	80	89	97	100	-	-	-	-	-	-
	20	62	72	83	89	92	-	-	-	-	-
	14	54	63	72	77	85	97	-	-	-	-
	10	54	63	72	77	84	96	99	-	-	-
	8	53	61	70	76	84	94	94	95	-	-
	5	53	61	70	72	78	86	86	88	92	-
	3	50	58	66	69	75	83	83	86	90	97
2	50	58	66	69	75	83	83	86	90	97	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-95. Habitat-Flow Relationships for Rainbow Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
2.0	4,874	9,361	13,466	15	2,575
2.5	5,325	9,886	13,618	23	3,228
3.0	5,745	10,327	13,677	31	3,832
3.5	6,132	10,719	13,673	40	4,413
4.0	6,498	11,026	13,619	48	4,950
4.5	6,843	11,255	13,541	56	5,447
5.0	7,169	11,417	13,444	66	5,902
5.5	7,479	11,538	13,320	75	6,309
6.0	7,781	11,619	13,190	85	6,675
7.0	8,349	11,719	12,890	103	7,331
8.0	8,862	11,739	12,562	121	7,873
9.0	9,334	11,697	12,230	135	8,307
10.0	9,776	11,611	11,924	148	8,647
12.0	10,545	11,364	11,406	162	9,169
14.0	11,153	11,095	10,953	166	9,547
16.0	11,615	10,817	10,524	167	9,831
18.0	11,972	10,549	10,141	168	10,017
20.0	12,260	10,292	9,774	168	10,117
25.0	12,835	9,621	9,031	165	10,117
30.0	13,288	8,946	8,550	161	9,959
35.0	13,587	8,347	8,242	158	9,892
40.0	13,773	7,885	7,949	156	9,900
45.0	13,851	7,469	7,735	151	9,878
50.0	13,809	7,167	7,576	141	9,819
60.0	13,515	6,856	7,420	99	9,613
70.0	13,257	6,684	7,452	77	9,553
80.0	12,971	6,577	7,650	64	9,539
90.0	12,736	6,517	7,965	58	9,679
100.0	12,558	6,513	8,484	55	9,890
125.0	12,508	6,931	9,539	48	10,711
MAX WUA	13,851	11,739	13,677	168	10,711

Table Attachment D-96. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	5	3	7,169	5,745	588	471	-	-	-	-
Nov	5	2.5	7,169	5,325	588	437	-	-	-	-
Dec	5	2	7,169	4,874	588	400	-	-	-	-
Jan	5	2	7,169	4,874	588	400	-	-	-	-
Feb	5	2	7,169	4,874	588	400	-	-	-	-
Mar	5	2	7,169	4,874	588	400	-	-	-	-
Apr	10	3	9,776	5,745	802	471	148	31	221	46
May	10	3	9,776	5,745	802	471	148	31	221	46
Jun	10	3	9,776	5,745	802	471	148	31	221	46
Jul	8	3	8,862	5,745	727	471	-	-	-	-
Aug	8	3	8,862	5,745	727	471	-	-	-	-
Sep	8	3	8,862	5,745	727	471	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	5	3	7,169	5,745	588	471	-	-	-	-
Nov	5	2.5	7,169	5,325	588	437	-	-	-	-
Dec	5	2	7,169	4,874	588	400	-	-	-	-
Jan	5	2	7,169	4,874	588	400	-	-	-	-
Feb	5	2	7,169	4,874	588	400	-	-	-	-
Mar	5	2	7,169	4,874	588	400	-	-	-	-
Apr	10	3	9,776	5,745	802	471	148	31	221	46
May	10	3	9,776	5,745	802	471	148	31	221	46
Jun	10	3	9,776	5,745	802	471	148	31	221	46
Jul	8	3	8,862	5,745	727	471	-	-	-	-
Aug	8	3	8,862	5,745	727	471	-	-	-	-
Sep	8	3	8,862	5,745	727	471	-	-	-	-

Table Attachment D-96. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek (Shaver Lake Dam to San Joaquin River) - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	5	3	11,417	10,327	1,873	1,694	-	-	-	-
Nov	5	2.5	11,417	9,886	1,873	1,622	-	-	-	-
Dec	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Jan	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Feb	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Mar	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Apr	10	3	11,611	10,327	1,905	1,694	-	-	-	-
May	10	3	11,611	10,327	1,905	1,694	-	-	-	-
Jun	10	3	11,611	10,327	1,905	1,694	11,924	13,677	4,890	5,609
Jul	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Aug	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Sep	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	5	3	11,417	10,327	1,873	1,694	-	-	-	-
Nov	5	2.5	11,417	9,886	1,873	1,622	-	-	-	-
Dec	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Jan	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Feb	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Mar	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Apr	10	3	11,611	10,327	1,905	1,694	-	-	-	-
May	10	3	11,611	10,327	1,905	1,694	-	-	-	-
Jun	10	3	11,611	10,327	1,905	1,694	11,924	13,677	4,890	5,609
Jul	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Aug	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Sep	8	3	11,417	10,327	1,926	1,694	12,562	13,677	5,152	5,609

Table Attachment D-97. Percent of Maximum WUA Provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action
Oct	5	3				52%	41%
Nov	5	2.5				52%	38%
Dec	5	2				52%	35%
Jan	5	2				52%	35%
Feb	5	2				52%	35%
Mar	5	2				52%	35%
Apr	10	3	Rainbow Trout Spawning	88%	18%	71%	41%
May	10	3		88%	18%	71%	41%
Jun	10	3		88%	18%	71%	41%
Jul	8	3				64%	41%
Aug	8	3				64%	41%
Sep	8	3				64%	41%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action
Oct	5	3				52%	41%
Nov	5	2.5				52%	38%
Dec	5	2				52%	35%
Jan	5	2				52%	35%
Feb	5	2				52%	35%
Mar	5	2				52%	35%
Apr	10	3	Rainbow Trout Spawning	88%	18%	71%	41%
May	10	3		88%	18%	71%	41%
Jun	10	3		88%	18%	71%	41%
Jul	8	3				64%	41%
Aug	8	3				64%	41%
Sep	8	3				64%	41%

Table Attachment D-98. Percent Reduction in Wetted Perimeter between Two Flows for Stevenson Creek, Shaver Lake Dam to San Joaquin River.

Start Flow ¹	Start Flow ¹ (cfs)																												
	125	100	90	80	70	60	50	45	40	35	30	25	20	18	16	14	12	10	9	8	7	6	5.5	5	4.5	4	3.5	3	2.5
WP ²	39.8	37.1	35.9	34.6	33.4	32.0	30.8	30.2	29.5	28.8	28.0	27.1	26.0	25.5	24.9	24.4	23.8	23.3	22.9	22.6	22.3	21.9	21.8	21.6	21.4	21.2	20.9	20.6	20.1
125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
100	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
90	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
80	13	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
70	16	10	7	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	20	14	11	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	23	17	14	11	8	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	24	19	16	13	10	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	26	21	18	15	12	8	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	28	23	20	17	14	10	7	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	30	25	22	19	16	13	9	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	32	27	24	21	19	15	12	10	8	6	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	35	30	28	25	22	19	16	14	12	10	7	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18	36	31	29	26	24	20	17	16	14	11	9	6	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	37	33	30	28	25	22	19	17	15	13	11	8	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	39	34	32	29	27	24	21	19	17	15	13	10	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	40	36	34	31	29	25	23	21	19	17	15	12	8	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-
10	41	37	35	33	30	27	24	23	21	19	17	14	10	8	7	4	2	-	-	-	-	-	-	-	-	-	-	-	-
9	42	38	36	34	31	28	25	24	22	20	18	15	12	10	8	6	4	2	-	-	-	-	-	-	-	-	-	-	-
8	43	39	37	35	32	29	27	25	23	21	19	17	13	11	9	7	5	3	1	-	-	-	-	-	-	-	-	-	-
7	44	40	38	36	33	30	28	26	25	23	20	18	14	13	11	9	7	5	3	2	-	-	-	-	-	-	-	-	-
6	45	41	39	37	34	31	29	27	26	24	22	19	16	14	12	10	8	6	4	3	1	-	-	-	-	-	-	-	-
5.5	45	41	39	37	35	32	29	28	26	24	22	20	16	15	13	11	9	7	5	4	2	1	-	-	-	-	-	-	-
5	46	42	40	38	35	32	30	28	27	25	23	20	17	15	13	12	9	7	6	4	3	2	1	-	-	-	-	-	-
4.5	46	42	40	38	36	33	31	29	27	26	23	21	18	16	14	12	10	8	7	5	4	2	2	1	-	-	-	-	-
4	47	43	41	39	37	34	31	30	28	26	24	22	19	17	15	13	11	9	8	6	5	3	3	2	1	-	-	-	-
3.5	47	44	42	40	37	35	32	31	29	27	25	23	20	18	16	14	12	10	9	8	6	5	4	3	2	1	-	-	-
3	48	45	43	41	38	36	33	32	30	29	26	24	21	19	18	16	14	12	10	9	8	6	6	5	4	3	2	-	-
2.5	49	46	44	42	40	37	35	33	32	30	28	26	23	21	19	18	16	14	12	11	10	8	7	7	6	5	4	2	-
2	51	47	45	43	41	39	36	35	34	32	30	28	25	23	21	20	18	16	15	13	12	11	10	9	8	7	6	5	3

1 Start Flow: Flow, in cfs, at which the ramping begins

2 WP: Wetted Perimeter, in feet, at the starting flow

3 End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-99. Percent Retention of Redd Habitat between Two Flows for Stevenson Creek, Shaver Lake Dam to San Joaquin River.

A. Rainbow Trout

		Start Flow ¹ (cfs)									
		125	100	80	60	40	30	20	10	7	5
End Flow ³ (cfs)	Starting WUA ²	262	282	316	415	641	667	767	702	531	382
	125	-	-	-	-	-	-	-	-	-	-
	100	100	-	-	-	-	-	-	-	-	-
	80	99	100	-	-	-	-	-	-	-	-
	60	99	100	100	-	-	-	-	-	-	-
	40	99	100	100	100	-	-	-	-	-	-
	30	99	100	100	100	100	-	-	-	-	-
	20	99	100	100	100	100	100	-	-	-	-
	10	89	92	95	97	99	100	100	-	-	-
	7	89	92	95	97	99	100	100	100	-	-
	5	84	87	88	93	98	99	100	100	100	-
	3	51	53	56	62	59	61	69	77	86	95
2	38	38	38	42	37	40	51	60	72	83	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-100. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	40	17	20,137	14,843	1,652	1,217	-	-	-	-
Nov	35	15	19,521	14,007	1,601	1,149	-	-	-	-
Dec	30	15	18,590	14,007	1,525	1,149	-	-	-	-
Jan	30	15	18,590	14,007	1,525	1,149	-	-	-	-
Feb	30	15	18,590	14,007	1,525	1,149	-	-	-	-
Mar	30	15	18,590	14,007	1,525	1,149	-	-	-	-
Apr	45	15	20,536	14,007	1,684	1,149	3,627	2,851	5,409	4,252
May	45	27	20,536	17,889	1,684	1,467	3,627	3,585	5,409	5,347
Jun	45	27	20,536	17,889	1,684	1,467	3,627	3,585	5,409	5,347
Jul	40	27	20,137	17,889	1,652	1,467	-	-	-	-
Aug	40	27	20,137	17,889	1,652	1,467	-	-	-	-
Sep	40	27	20,137	17,889	1,652	1,467	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	35	13	19,521	13,091	1,601	1,074	-	-	-	-	-	-	-	-
Nov	35	11	19,521	12,091	1,601	992	-	-	-	-	-	-	-	-
Dec	25	11	17,422	12,091	1,429	992	-	-	-	-	-	-	-	-
Jan	25	11	17,422	12,091	1,429	992	-	-	-	-	-	-	-	-
Feb	25	11	17,422	12,091	1,429	992	-	-	-	-	-	-	-	-
Mar	25	11	17,422	12,091	1,429	992	-	-	-	-	-	-	-	-
Apr	40	11	20,137	12,091	1,652	992	3,691	2,206	5,505	3,289	5,505	3,289	5,505	3,289
May	40	20	20,137	15,954	1,652	1,309	3,691	3,311	5,505	4,938	5,505	4,938	5,505	4,938
Jun	40	20	20,137	15,954	1,652	1,309	3,691	3,311	5,505	4,938	5,505	4,938	5,505	4,938
Jul	35	20	19,521	15,954	1,601	1,309	-	-	-	-	-	-	-	-
Aug	35	20	19,521	15,954	1,601	1,309	-	-	-	-	-	-	-	-
Sep	35	20	19,521	15,954	1,601	1,309	-	-	-	-	-	-	-	-

Table Attachment D-100. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	40	17	18,453	19,816	3,027	3,251	-	-	-	-	-	-
Nov	35	15	18,930	19,683	3,105	3,229	-	-	-	-	-	-
Dec	30	15	19,450	19,683	3,191	3,229	-	-	-	-	-	-
Jan	30	15	19,450	19,683	3,191	3,229	-	-	-	-	-	-
Feb	30	15	19,450	19,683	3,191	3,229	-	-	-	-	-	-
Mar	30	15	19,450	19,683	3,191	3,229	-	-	-	-	-	-
Apr	45	15	18,007	19,683	2,954	3,229	-	-	-	-	-	-
May	45	27	18,007	19,690	2,954	3,230	-	-	-	-	-	-
Jun	45	27	18,007	19,690	2,954	3,230	19,398	22,798	7,956	9,350		
Jul	40	27	18,453	19,690	3,027	3,230	20,247	22,798	8,304	9,350		
Aug	40	27	18,453	19,690	3,027	3,230	20,247	22,798	8,304	9,350		
Sep	40	27	18,453	19,690	3,027	3,230	20,247	22,798	8,304	9,350		
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	35	13	18,930	19,437	3,105	3,189	-	-	-	-	-	-
Nov	35	11	18,930	19,005	3,105	3,118	-	-	-	-	-	-
Dec	25	11	19,850	19,005	3,256	3,118	-	-	-	-	-	-
Jan	25	11	19,850	19,005	3,256	3,118	-	-	-	-	-	-
Feb	25	11	19,850	19,005	3,256	3,118	-	-	-	-	-	-
Mar	25	11	19,850	19,005	3,256	3,118	-	-	-	-	-	-
Apr	40	11	18,453	19,005	3,027	3,118	-	-	-	-	-	-
May	40	20	18,453	19,884	3,027	3,262	-	-	-	-	-	-
Jun	40	20	18,453	19,884	3,027	3,262	20,247	24,329	8,304	9,978		
Jul	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978		
Aug	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978		
Sep	35	20	18,930	19,884	3,105	3,262	21,124	24,329	8,663	9,978		

Table Attachment D-101. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	40	17	20,376	18,077	1,671	1,483	3,277	3,315	1,920	1,942
Nov	35	15	20,260	17,432	1,662	1,430	3,444	3,117	2,018	1,826
Dec	30	15	20,035	17,432	1,643	1,430	3,575	3,117	2,094	1,826
Jan	30	15	20,035	17,432	1,643	1,430	-	-	-	-
Feb	30	15	20,035	17,432	1,643	1,430	-	-	-	-
Mar	30	15	20,035	17,432	1,643	1,430	-	-	-	-
Apr	45	15	20,365	17,432	1,670	1,430	-	-	-	-
May	45	27	20,365	19,775	1,670	1,622	-	-	-	-
Jun	45	27	20,365	19,775	1,670	1,622	-	-	-	-
Jul	40	27	20,376	19,775	1,671	1,622	-	-	-	-
Aug	40	27	20,376	19,775	1,671	1,622	-	-	-	-
Sep	40	27	20,376	19,775	1,671	1,622	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	35	13	20,260	16,643	1,662	1,365	3,444	2,862	2,018	1,677
Nov	35	11	20,260	15,684	1,662	1,286	3,444	2,550	2,018	1,494
Dec	25	11	19,602	15,684	1,608	1,286	3,625	2,550	2,124	1,494
Jan	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Feb	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Mar	25	11	19,602	15,684	1,608	1,286	-	-	-	-
Apr	40	11	20,376	15,684	1,671	1,286	-	-	-	-
May	40	20	20,376	18,851	1,671	1,546	-	-	-	-
Jun	40	20	20,376	18,851	1,671	1,546	-	-	-	-
Jul	35	20	20,260	18,851	1,662	1,546	-	-	-	-
Aug	35	20	20,260	18,851	1,662	1,546	-	-	-	-
Sep	35	20	20,260	18,851	1,662	1,546	-	-	-	-

Table Attachment D-101. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	40	17	17,330	19,720	2,843	3,235	-	-	-	-	-	-
Nov	35	15	17,852	19,844	2,929	3,255	-	-	-	-	-	-
Dec	30	15	18,514	19,844	3,037	3,255	-	-	-	-	-	-
Jan	30	15	18,514	19,844	3,037	3,255	-	-	-	-	-	-
Feb	30	15	18,514	19,844	3,037	3,255	-	-	-	-	-	-
Mar	30	15	18,514	19,844	3,037	3,255	-	-	-	-	-	-
Apr	45	15	16,846	19,844	2,764	3,255	-	-	-	-	-	-
May	45	27	16,846	18,910	2,764	3,102	-	-	-	-	-	-
Jun	45	27	16,846	18,910	2,764	3,102	18,487	21,927	7,582	8,993		
Jul	40	27	17,330	18,910	2,843	3,102	19,339	21,927	7,931	8,993		
Aug	40	27	17,330	18,910	2,843	3,102	19,339	21,927	7,931	8,993		
Sep	40	27	17,330	18,910	2,843	3,102	19,339	21,927	7,931	8,993		

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	35	13	17,852	19,883	2,929	3,262	-	-	-	-	-	-
Nov	35	11	17,852	19,725	2,929	3,236	-	-	-	-	-	-
Dec	25	11	19,174	19,725	3,146	3,236	-	-	-	-	-	-
Jan	25	11	19,174	19,725	3,146	3,236	-	-	-	-	-	-
Feb	25	11	19,174	19,725	3,146	3,236	-	-	-	-	-	-
Mar	25	11	19,174	19,725	3,146	3,236	-	-	-	-	-	-
Apr	40	11	17,330	19,725	2,843	3,236	-	-	-	-	-	-
May	40	20	17,330	19,539	2,843	3,205	-	-	-	-	-	-
Jun	40	20	17,330	19,539	2,843	3,205	19,339	23,520	7,931	9,646		
Jul	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646		
Aug	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646		
Sep	35	20	17,852	19,539	2,929	3,205	20,207	23,520	8,288	9,646		

Table Attachment D-102. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek- CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	40	17	Brown Trout Spawning	90%	91%	93%	68%	100%	89%
Nov	35	15		95%	86%	90%	65%	99%	86%
Dec	30	15		99%	86%	86%	65%	98%	86%
Jan	30	15			86%	65%	98%	86%	
Feb	30	15			86%	65%	98%	86%	
Mar	30	15			86%	65%	98%	86%	
Apr	45	15	Rainbow Trout Spawning	98%	77%	95%	65%	100%	86%
May	45	27		98%	97%	95%	83%	100%	97%
Jun	45	27		98%	97%	95%	83%	100%	97%
Jul	40	27			93%	83%	100%	97%	
Aug	40	27			93%	83%	100%	97%	
Sep	40	27			93%	83%	100%	97%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	35	13	Brown Trout Spawning	95%	79%	90%	60%	99%	82%
Nov	35	11		95%	70%	90%	56%	99%	77%
Dec	25	11		100%	70%	80%	56%	96%	77%
Jan	25	11			80%	56%	96%	77%	
Feb	25	11			80%	56%	96%	77%	
Mar	25	11			80%	56%	96%	77%	
Apr	40	11	Rainbow Trout Spawning	100%	59%	93%	56%	100%	77%
May	40	20		100%	89%	93%	74%	100%	93%
Jun	40	20		100%	89%	93%	74%	100%	93%
Jul	35	20			90%	74%	99%	93%	
Aug	35	20			90%	74%	99%	93%	
Sep	35	20			90%	74%	99%	93%	

Table Attachment D-103. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	40	30	20,137	18,590	1,652	1,525	-	-	-	-
Nov	35	25	19,521	17,422	1,601	1,429	-	-	-	-
Dec	30	25	18,590	17,422	1,525	1,429	-	-	-	-
Jan	30	25	18,590	17,422	1,525	1,429	-	-	-	-
Feb	30	25	18,590	17,422	1,525	1,429	-	-	-	-
Mar	30	25	18,590	17,422	1,525	1,429	-	-	-	-
Apr	45	40	20,536	20,137	1,684	1,652	3,627	3,691	5,409	5,505
May	45	40	20,536	20,137	1,684	1,652	3,627	3,691	5,409	5,505
Jun	45	40	20,536	20,137	1,684	1,652	3,627	3,691	5,409	5,505
Jul	40	35	20,137	19,521	1,652	1,601	-	-	-	-
Aug	40	35	20,137	19,521	1,652	1,601	-	-	-	-
Sep	40	35	20,137	19,521	1,652	1,601	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	35	30	19,521	18,590	1,601	1,525	-	-	-	-
Nov	35	25	19,521	17,422	1,601	1,429	-	-	-	-
Dec	25	25	17,422	17,422	1,429	1,429	-	-	-	-
Jan	25	25	17,422	17,422	1,429	1,429	-	-	-	-
Feb	25	25	17,422	17,422	1,429	1,429	-	-	-	-
Mar	25	25	17,422	17,422	1,429	1,429	-	-	-	-
Apr	40	40	20,137	20,137	1,652	1,652	3,691	3,691	5,505	5,505
May	40	40	20,137	20,137	1,652	1,652	3,691	3,691	5,505	5,505
Jun	40	40	20,137	20,137	1,652	1,652	3,691	3,691	5,505	5,505
Jul	35	35	19,521	19,521	1,601	1,601	-	-	-	-
Aug	35	35	19,521	19,521	1,601	1,601	-	-	-	-
Sep	35	35	19,521	19,521	1,601	1,601	-	-	-	-

Table Attachment D-103. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	40	30	18,453	19,450	3,027	3,191	-	-	-	-
Nov	35	25	18,930	19,850	3,105	3,256	-	-	-	-
Dec	30	25	19,450	19,850	3,191	3,256	-	-	-	-
Jan	30	25	19,450	19,850	3,191	3,256	-	-	-	-
Feb	30	25	19,450	19,850	3,191	3,256	-	-	-	-
Mar	30	25	19,450	19,850	3,191	3,256	-	-	-	-
Apr	45	40	18,007	18,453	2,954	3,027	-	-	-	-
May	45	40	18,007	18,453	2,954	3,027	-	-	-	-
Jun	45	40	18,007	18,453	2,954	3,027	19,398	20,247	7,956	8,304
Jul	40	35	18,453	18,930	3,027	3,105	20,247	21,124	8,304	8,663
Aug	40	35	18,453	18,930	3,027	3,105	20,247	21,124	8,304	8,663
Sep	40	35	18,453	18,930	3,027	3,105	20,247	21,124	8,304	8,663

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	35	30	18,930	19,450	3,105	3,191	-	-	-	-
Nov	35	25	18,930	19,850	3,105	3,256	-	-	-	-
Dec	25	25	19,850	19,850	3,256	3,256	-	-	-	-
Jan	25	25	19,850	19,850	3,256	3,256	-	-	-	-
Feb	25	25	19,850	19,850	3,256	3,256	-	-	-	-
Mar	25	25	19,850	19,850	3,256	3,256	-	-	-	-
Apr	40	40	18,453	18,453	3,027	3,027	-	-	-	-
May	40	40	18,453	18,453	3,027	3,027	-	-	-	-
Jun	40	40	18,453	18,453	3,027	3,027	20,247	20,247	8,304	8,304
Jul	35	35	18,930	18,930	3,105	3,105	21,124	21,124	8,663	8,663
Aug	35	35	18,930	18,930	3,105	3,105	21,124	21,124	8,663	8,663
Sep	35	35	18,930	18,930	3,105	3,105	21,124	21,124	8,663	8,663

Table Attachment D-104. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	40	30	20,376	20,035	1,671	1,643	3,277	3,575	1,920	2,094
Nov	35	25	20,260	19,602	1,662	1,608	3,444	3,625	2,018	2,124
Dec	30	25	20,035	19,602	1,643	1,608	3,575	3,625	2,094	2,124
Jan	30	25	20,035	19,602	1,643	1,608	-	-	-	-
Feb	30	25	20,035	19,602	1,643	1,608	-	-	-	-
Mar	30	25	20,035	19,602	1,643	1,608	-	-	-	-
Apr	45	40	20,365	20,376	1,670	1,671	-	-	-	-
May	45	40	20,365	20,376	1,670	1,671	-	-	-	-
Jun	45	40	20,365	20,376	1,670	1,671	-	-	-	-
Jul	40	35	20,376	20,260	1,671	1,662	-	-	-	-
Aug	40	35	20,376	20,260	1,671	1,662	-	-	-	-
Sep	40	35	20,376	20,260	1,671	1,662	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	35	30	20,260	20,035	1,662	1,643	3,444	3,575	2,018	2,094
Nov	35	25	20,260	19,602	1,662	1,608	3,444	3,625	2,018	2,124
Dec	25	25	19,602	19,602	1,608	1,608	3,625	3,625	2,124	2,124
Jan	25	25	19,602	19,602	1,608	1,608	-	-	-	-
Feb	25	25	19,602	19,602	1,608	1,608	-	-	-	-
Mar	25	25	19,602	19,602	1,608	1,608	-	-	-	-
Apr	40	40	20,376	20,376	1,671	1,671	-	-	-	-
May	40	40	20,376	20,376	1,671	1,671	-	-	-	-
Jun	40	40	20,376	20,376	1,671	1,671	-	-	-	-
Jul	35	35	20,260	20,260	1,662	1,662	-	-	-	-
Aug	35	35	20,260	20,260	1,662	1,662	-	-	-	-
Sep	35	35	20,260	20,260	1,662	1,662	-	-	-	-

Table Attachment D-104. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	40	30	17,330	18,514	2,843	3,037	-	-	-	-
Nov	35	25	17,852	19,174	2,929	3,146	-	-	-	-
Dec	30	25	18,514	19,174	3,037	3,146	-	-	-	-
Jan	30	25	18,514	19,174	3,037	3,146	-	-	-	-
Feb	30	25	18,514	19,174	3,037	3,146	-	-	-	-
Mar	30	25	18,514	19,174	3,037	3,146	-	-	-	-
Apr	45	40	16,846	17,330	2,764	2,843	-	-	-	-
May	45	40	16,846	17,330	2,764	2,843	-	-	-	-
Jun	45	40	16,846	17,330	2,764	2,843	18,487	19,339	7,582	7,931
Jul	40	35	17,330	17,852	2,843	2,929	19,339	20,207	7,931	8,288
Aug	40	35	17,330	17,852	2,843	2,929	19,339	20,207	7,931	8,288
Sep	40	35	17,330	17,852	2,843	2,929	19,339	20,207	7,931	8,288

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	35	30	17,852	18,514	2,929	3,037	-	-	-	-
Nov	35	25	17,852	19,174	2,929	3,146	-	-	-	-
Dec	25	25	19,174	19,174	3,146	3,146	-	-	-	-
Jan	25	25	19,174	19,174	3,146	3,146	-	-	-	-
Feb	25	25	19,174	19,174	3,146	3,146	-	-	-	-
Mar	25	25	19,174	19,174	3,146	3,146	-	-	-	-
Apr	40	40	17,330	17,330	2,843	2,843	-	-	-	-
May	40	40	17,330	17,330	2,843	2,843	-	-	-	-
Jun	40	40	17,330	17,330	2,843	2,843	19,339	19,339	7,931	7,931
Jul	35	35	17,852	17,852	2,929	2,929	20,207	20,207	8,288	8,288
Aug	35	35	17,852	17,852	2,929	2,929	20,207	20,207	8,288	8,288
Sep	35	35	17,852	17,852	2,929	2,929	20,207	20,207	8,288	8,288

Table Attachment D-105. Percent of Maximum WUA provided for Trout in South Fork San Joaquin River from Florence Lake to Bear Creek - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	40	30	Brown Trout Spawning	90%	99%	93%	86%	100%	98%
Nov	35	25		95%	100%	90%	80%	99%	96%
Dec	30	25		99%	100%	86%	80%	98%	96%
Jan	30	25			86%	80%	98%	96%	
Feb	30	25			86%	80%	98%	96%	
Mar	30	25			86%	80%	98%	96%	
Apr	45	40	Rainbow Trout Spawning	98%	100%	95%	93%	100%	100%
May	45	40		98%	100%	95%	93%	100%	100%
Jun	45	40		98%	100%	95%	93%	100%	100%
Jul	40	35			93%	90%	100%	99%	
Aug	40	35			93%	90%	100%	99%	
Sep	40	35			93%	90%	100%	99%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	35	30	Brown Trout Spawning	95%	99%	90%	86%	99%	98%
Nov	35	25		95%	100%	90%	80%	99%	96%
Dec	25	25		100%	100%	80%	80%	96%	96%
Jan	25	25			80%	80%	96%	96%	
Feb	25	25			80%	80%	96%	96%	
Mar	25	25			80%	80%	96%	96%	
Apr	40	40	Rainbow Trout Spawning	100%	100%	93%	93%	100%	100%
May	40	40		100%	100%	93%	93%	100%	100%
Jun	40	40		100%	100%	93%	93%	100%	100%
Jul	35	35			90%	90%	99%	99%	
Aug	35	35			90%	90%	99%	99%	
Sep	35	35			90%	90%	99%	99%	

Table Attachment D-106. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	47	19	21,521	14,715	1,765	1,207	-	-	-	-
Nov	42	17	20,758	13,942	1,703	1,144	-	-	-	-
Dec	36	17	19,627	13,942	1,610	1,144	-	-	-	-
Jan	34	17	19,185	13,942	1,574	1,144	-	-	-	-
Feb	34	17	19,185	13,942	1,574	1,144	-	-	-	-
Mar	34	17	19,185	13,942	1,574	1,144	-	-	-	-
Apr	57	17	22,759	13,942	1,867	1,144	182	147	271	219
May	57	30	22,759	18,221	1,867	1,495	182	172	271	257
Jun	55	30	22,542	18,221	1,849	1,495	180	172	269	257
Jul	48	30	21,656	18,221	1,776	1,495	-	-	-	-
Aug	47	30	21,521	18,221	1,765	1,495	-	-	-	-
Sep	47	30	21,521	18,221	1,765	1,495	-	-	-	-

Dry Years			CDFG Alternative		CDFG Alternative		CDFG Alternative		CDFG Alternative		CDFG Alternative	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	42	14	20,758	12,720	1,703	1,043	-	-	-	-	-	-
Nov	42	12	20,758	11,860	1,703	973	-	-	-	-	-	-
Dec	30	12	18,221	11,860	1,495	973	-	-	-	-	-	-
Jan	29	12	17,931	11,860	1,471	973	-	-	-	-	-	-
Feb	29	12	17,931	11,860	1,471	973	-	-	-	-	-	-
Mar	29	12	17,931	11,860	1,471	973	-	-	-	-	-	-
Apr	50	12	21,925	11,860	1,798	973	179	122	267	182	-	-
May	50	22	21,925	15,763	1,798	1,293	179	161	267	240	-	-
Jun	49	22	21,790	15,763	1,787	1,293	179	161	267	240	-	-
Jul	42	22	20,758	15,763	1,703	1,293	-	-	-	-	-	-
Aug	42	22	20,758	15,763	1,703	1,293	-	-	-	-	-	-
Sep	42	22	20,758	15,763	1,703	1,293	-	-	-	-	-	-

Table Attachment D-106. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	47	19	21,170	20,878	3,473	3,425	-	-	-	-	-	-
Nov	42	17	21,358	20,543	3,504	3,370	-	-	-	-	-	-
Dec	36	17	21,584	20,543	3,541	3,370	-	-	-	-	-	-
Jan	34	17	21,640	20,543	3,550	3,370	-	-	-	-	-	-
Feb	34	17	21,640	20,543	3,550	3,370	-	-	-	-	-	-
Mar	34	17	21,640	20,543	3,550	3,370	-	-	-	-	-	-
Apr	57	17	20,661	20,543	3,389	3,370	-	-	-	-	-	-
May	57	30	20,661	21,704	3,389	3,561	-	-	-	-	-	-
Jun	55	30	20,774	21,704	3,408	3,561	23,389	26,506	9,592	10,871		
Jul	48	30	21,127	21,704	3,466	3,561	24,216	26,506	9,932	10,871		
Aug	47	30	21,170	21,704	3,473	3,561	24,342	26,506	9,983	10,871		
Sep	47	30	21,170	21,704	3,473	3,561	24,342	26,506	9,983	10,871		
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	42	14	21,358	19,828	3,504	3,253	-	-	-	-	-	-
Nov	42	12	21,358	19,183	3,504	3,147	-	-	-	-	-	-
Dec	30	12	21,704	19,183	3,561	3,147	-	-	-	-	-	-
Jan	29	12	21,674	19,183	3,556	3,147	-	-	-	-	-	-
Feb	29	12	21,674	19,183	3,556	3,147	-	-	-	-	-	-
Mar	29	12	21,674	19,183	3,556	3,147	-	-	-	-	-	-
Apr	50	12	21,041	19,183	3,452	3,147	-	-	-	-	-	-
May	50	22	21,041	21,239	3,452	3,484	-	-	-	-	-	-
Jun	49	22	21,084	21,239	3,459	3,484	24,091	27,739	9,880	11,376		
Jul	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376		
Aug	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376		
Sep	42	22	21,358	21,239	3,504	3,484	24,946	27,739	10,231	11,376		

Table Attachment D-107. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	47	19	23,006	18,305	1,887	1,501	179	173	105	101		
Nov	42	17	22,601	17,637	1,854	1,447	179	167	105	98		
Dec	36	17	21,888	17,637	1,795	1,447	179	167	105	98		
Jan	34	17	21,596	17,637	1,771	1,447	-	-	-	-		
Feb	34	17	21,596	17,637	1,771	1,447	-	-	-	-		
Mar	34	17	21,596	17,637	1,771	1,447	-	-	-	-		
Apr	57	17	23,478	17,637	1,926	1,447	-	-	-	-		
May	57	30	23,478	20,956	1,926	1,719	-	-	-	-		
Jun	55	30	23,423	20,956	1,921	1,719	-	-	-	-		
Jul	48	30	23,070	20,956	1,892	1,719	-	-	-	-		
Aug	47	30	23,006	20,956	1,887	1,719	-	-	-	-		
Sep	47	30	23,006	20,956	1,887	1,719	-	-	-	-		

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	42	14	22,601	16,504	1,854	1,354	179	157	105	92				
Nov	42	12	22,601	15,612	1,854	1,281	179	148	105	87				
Dec	30	12	20,956	15,612	1,719	1,281	179	148	105	87				
Jan	29	12	20,751	15,612	1,702	1,281	-	-	-	-				
Feb	29	12	20,751	15,612	1,702	1,281	-	-	-	-				
Mar	29	12	20,751	15,612	1,702	1,281	-	-	-	-				
Apr	50	12	23,198	15,612	1,903	1,281	-	-	-	-				
May	50	22	23,198	19,147	1,903	1,571	-	-	-	-				
Jun	49	22	23,134	19,147	1,898	1,571	-	-	-	-				
Jul	42	22	22,601	19,147	1,854	1,571	-	-	-	-				
Aug	42	22	22,601	19,147	1,854	1,571	-	-	-	-				
Sep	42	22	22,601	19,147	1,854	1,571	-	-	-	-				

Table Attachment D-107. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	47	19	21,024	21,723	3,449	3,564	-	-	-	-
Nov	42	17	21,334	21,509	3,500	3,529	-	-	-	-
Dec	36	17	21,652	21,509	3,552	3,529	-	-	-	-
Jan	34	17	21,745	21,509	3,567	3,529	-	-	-	-
Feb	34	17	21,745	21,509	3,567	3,529	-	-	-	-
Mar	34	17	21,745	21,509	3,567	3,529	-	-	-	-
Apr	57	17	20,363	21,509	3,341	3,529	-	-	-	-
May	57	30	20,363	21,906	3,341	3,594	-	-	-	-
Jun	55	30	20,480	21,906	3,360	3,594	22,436	25,662	9,201	10,525
Jul	48	30	20,950	21,906	3,437	3,594	23,293	25,662	9,553	10,525
Aug	47	30	21,024	21,906	3,449	3,594	23,420	25,662	9,605	10,525
Sep	47	30	21,024	21,906	3,449	3,594	23,420	25,662	9,605	10,525

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	42	14	21,334	21,040	3,500	3,452	-	-	-	-
Nov	42	12	21,334	20,576	3,500	3,376	-	-	-	-
Dec	30	12	21,906	20,576	3,594	3,376	-	-	-	-
Jan	29	12	21,914	20,576	3,595	3,376	-	-	-	-
Feb	29	12	21,914	20,576	3,595	3,376	-	-	-	-
Mar	29	12	21,914	20,576	3,595	3,376	-	-	-	-
Apr	50	12	20,801	20,576	3,412	3,376	-	-	-	-
May	50	22	20,801	21,869	3,412	3,588	-	-	-	-
Jun	49	22	20,875	21,869	3,425	3,588	23,165	26,988	9,501	11,068
Jul	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068
Aug	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068
Sep	42	22	21,334	21,869	3,500	3,588	24,038	26,988	9,858	11,068

Table Attachment D-108. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	47	19	Brown Trout Spawning	78%	76%	84%	58%	97%	77%
Nov	42	17		79%	74%	81%	55%	95%	74%
Dec	36	17		79%	74%	77%	55%	92%	74%
Jan	34	17			75%	55%	91%	74%	
Feb	34	17			75%	55%	91%	74%	
Mar	34	17			75%	55%	91%	74%	
Apr	57	17	Rainbow Trout Spawning	73%	59%	89%	55%	99%	74%
May	57	30		73%	69%	89%	71%	99%	88%
Jun	55	30		72%	69%	88%	71%	99%	88%
Jul	48	30			85%	71%	97%	88%	
Aug	47	30			84%	71%	97%	88%	
Sep	47	30			84%	71%	97%	88%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	42	14	Brown Trout Spawning	79%	69%	81%	50%	95%	70%
Nov	42	12		79%	65%	81%	46%	95%	66%
Dec	30	12		79%	65%	71%	46%	88%	66%
Jan	29	12			70%	46%	87%	66%	
Feb	29	12			70%	46%	87%	66%	
Mar	29	12			70%	46%	87%	66%	
Apr	50	12	Rainbow Trout Spawning	72%	49%	86%	46%	98%	66%
May	50	22		72%	65%	86%	62%	98%	81%
Jun	49	22		72%	65%	85%	62%	97%	81%
Jul	42	22			81%	62%	95%	81%	
Aug	42	22			81%	62%	95%	81%	
Sep	42	22			81%	62%	95%	81%	

Table Attachment D-109. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	47	37	21,521	19,827	1,765	1,626	-	-	-	-
Nov	42	32	20,758	18,703	1,703	1,534	-	-	-	-
Dec	36	31	19,627	18,462	1,610	1,514	-	-	-	-
Jan	34	29	19,185	17,931	1,574	1,471	-	-	-	-
Feb	34	29	19,185	17,931	1,574	1,471	-	-	-	-
Mar	34	29	19,185	17,931	1,574	1,471	-	-	-	-
Apr	57	50	22,759	21,925	1,867	1,798	182	179	271	267
May	57	50	22,759	21,925	1,867	1,798	182	179	271	267
Jun	55	50	22,542	21,925	1,849	1,798	180	179	269	267
Jul	48	42	21,656	20,758	1,776	1,703	-	-	-	-
Aug	47	42	21,521	20,758	1,765	1,703	-	-	-	-
Sep	47	42	21,521	20,758	1,765	1,703	-	-	-	-

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	42	37	20,758	19,827	1,703	1,626	-	-	-	-	-	-	-	-
Nov	42	32	20,758	18,703	1,703	1,534	-	-	-	-	-	-	-	-
Dec	30	31	18,221	18,462	1,495	1,514	-	-	-	-	-	-	-	-
Jan	29	29	17,931	17,931	1,471	1,471	-	-	-	-	-	-	-	-
Feb	29	29	17,931	17,931	1,471	1,471	-	-	-	-	-	-	-	-
Mar	29	29	17,931	17,931	1,471	1,471	-	-	-	-	-	-	-	-
Apr	50	50	21,925	21,925	1,798	1,798	179	179	267	267	-	-	-	-
May	50	50	21,925	21,925	1,798	1,798	179	179	267	267	-	-	-	-
Jun	49	50	21,790	21,925	1,787	1,798	179	179	267	267	-	-	-	-
Jul	42	42	20,758	20,758	1,703	1,703	-	-	-	-	-	-	-	-
Aug	42	42	20,758	20,758	1,703	1,703	-	-	-	-	-	-	-	-
Sep	42	42	20,758	20,758	1,703	1,703	-	-	-	-	-	-	-	-

Table Attachment D-109. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	47	37	21,170	21,545	3,473	3,534	-	-	-	-
Nov	42	32	21,358	21,672	3,504	3,555	-	-	-	-
Dec	36	31	21,584	21,688	3,541	3,558	-	-	-	-
Jan	34	29	21,640	21,674	3,550	3,556	-	-	-	-
Feb	34	29	21,640	21,674	3,550	3,556	-	-	-	-
Mar	34	29	21,640	21,674	3,550	3,556	-	-	-	-
Apr	57	50	20,661	21,041	3,389	3,452	-	-	-	-
May	57	50	20,661	21,041	3,389	3,452	-	-	-	-
Jun	55	50	20,774	21,041	3,408	3,452	23,389	23,966	9,592	9,829
Jul	48	42	21,127	21,358	3,466	3,504	24,216	24,946	9,932	10,231
Aug	47	42	21,170	21,358	3,473	3,504	24,342	24,946	9,983	10,231
Sep	47	42	21,170	21,358	3,473	3,504	24,342	24,946	9,983	10,231

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	42	37	21,358	21,545	3,504	3,534	-	-	-	-	-	-	-	-
Nov	42	32	21,358	21,672	3,504	3,555	-	-	-	-	-	-	-	-
Dec	30	31	21,704	21,688	3,561	3,558	-	-	-	-	-	-	-	-
Jan	29	29	21,674	21,674	3,556	3,556	-	-	-	-	-	-	-	-
Feb	29	29	21,674	21,674	3,556	3,556	-	-	-	-	-	-	-	-
Mar	29	29	21,674	21,674	3,556	3,556	-	-	-	-	-	-	-	-
Apr	50	50	21,041	21,041	3,452	3,452	-	-	-	-	-	-	-	-
May	50	50	21,041	21,041	3,452	3,452	-	-	-	-	-	-	-	-
Jun	49	50	21,084	21,041	3,459	3,452	24,091	23,966	9,880	9,829	9,880	9,829	9,880	9,829
Jul	42	42	21,358	21,358	3,504	3,504	24,946	24,946	10,231	10,231	10,231	10,231	10,231	10,231
Aug	42	42	21,358	21,358	3,504	3,504	24,946	24,946	10,231	10,231	10,231	10,231	10,231	10,231
Sep	42	42	21,358	21,358	3,504	3,504	24,946	24,946	10,231	10,231	10,231	10,231	10,231	10,231

Table Attachment D-110. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	47	37	23,006	22,020	1,887	1,806	179	179	105	105
Nov	42	32	22,601	21,276	1,854	1,745	179	179	105	105
Dec	36	31	21,888	21,116	1,795	1,732	179	179	105	105
Jan	34	29	21,596	20,751	1,771	1,702	-	-	-	-
Feb	34	29	21,596	20,751	1,771	1,702	-	-	-	-
Mar	34	29	21,596	20,751	1,771	1,702	-	-	-	-
Apr	57	50	23,478	23,198	1,926	1,903	-	-	-	-
May	57	50	23,478	23,198	1,926	1,903	-	-	-	-
Jun	55	50	23,423	23,198	1,921	1,903	-	-	-	-
Jul	48	42	23,070	22,601	1,892	1,854	-	-	-	-
Aug	47	42	23,006	22,601	1,887	1,854	-	-	-	-
Sep	47	42	23,006	22,601	1,887	1,854	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	42	37	22,601	22,020	1,854	1,806	179	179	105	105
Nov	42	32	22,601	21,276	1,854	1,745	179	179	105	105
Dec	30	31	20,956	21,116	1,719	1,732	179	179	105	105
Jan	29	29	20,751	20,751	1,702	1,702	-	-	-	-
Feb	29	29	20,751	20,751	1,702	1,702	-	-	-	-
Mar	29	29	20,751	20,751	1,702	1,702	-	-	-	-
Apr	50	50	23,198	23,198	1,903	1,903	-	-	-	-
May	50	50	23,198	23,198	1,903	1,903	-	-	-	-
Jun	49	50	23,134	23,198	1,898	1,903	-	-	-	-
Jul	42	42	22,601	22,601	1,854	1,854	-	-	-	-
Aug	42	42	22,601	22,601	1,854	1,854	-	-	-	-
Sep	42	42	22,601	22,601	1,854	1,854	-	-	-	-

Table Attachment D-110. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	47	37	21,024	21,599	3,449	3,543	-	-	-	-
Nov	42	32	21,334	21,825	3,500	3,580	-	-	-	-
Dec	36	31	21,652	21,866	3,552	3,587	-	-	-	-
Jan	34	29	21,745	21,914	3,567	3,595	-	-	-	-
Feb	34	29	21,745	21,914	3,567	3,595	-	-	-	-
Mar	34	29	21,745	21,914	3,567	3,595	-	-	-	-
Apr	57	50	20,363	20,801	3,341	3,412	-	-	-	-
May	57	50	20,363	20,801	3,341	3,412	-	-	-	-
Jun	55	50	20,480	20,801	3,360	3,412	22,436	23,038	9,201	9,448
Jul	48	42	20,950	21,334	3,437	3,500	23,293	24,038	9,553	9,858
Aug	47	42	21,024	21,334	3,449	3,500	23,420	24,038	9,605	9,858
Sep	47	42	21,024	21,334	3,449	3,500	23,420	24,038	9,605	9,858

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	42	37	21,334	21,599	3,500	3,543	-	-	-	-	-	-	-	-
Nov	42	32	21,334	21,825	3,500	3,580	-	-	-	-	-	-	-	-
Dec	30	31	21,906	21,866	3,594	3,587	-	-	-	-	-	-	-	-
Jan	29	29	21,914	21,914	3,595	3,595	-	-	-	-	-	-	-	-
Feb	29	29	21,914	21,914	3,595	3,595	-	-	-	-	-	-	-	-
Mar	29	29	21,914	21,914	3,595	3,595	-	-	-	-	-	-	-	-
Apr	50	50	20,801	20,801	3,412	3,412	-	-	-	-	-	-	-	-
May	50	50	20,801	20,801	3,412	3,412	-	-	-	-	-	-	-	-
Jun	49	50	20,875	20,801	3,425	3,412	23,165	23,038	9,501	9,448	9,501	9,448	9,501	9,448
Jul	42	42	21,334	21,334	3,500	3,500	24,038	24,038	9,858	9,858	9,858	9,858	9,858	9,858
Aug	42	42	21,334	21,334	3,500	3,500	24,038	24,038	9,858	9,858	9,858	9,858	9,858	9,858
Sep	42	42	21,334	21,334	3,500	3,500	24,038	24,038	9,858	9,858	9,858	9,858	9,858	9,858

Table Attachment D-111. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Bear Creek to Mono Creek - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	47	37	Brown Trout Spawning	78%	79%	84%	78%	97%	93%
Nov	42	32		79%	79%	81%	73%	95%	90%
Dec	36	31		79%	79%	77%	72%	92%	89%
Jan	34	29			75%	70%	91%	87%	
Feb	34	29			75%	70%	91%	87%	
Mar	34	29			75%	70%	91%	87%	
Apr	57	50	Rainbow Trout Spawning	73%	72%	89%	86%	99%	98%
May	57	50		73%	72%	89%	86%	99%	98%
Jun	55	50		72%	72%	88%	86%	99%	98%
Jul	48	42			85%	81%	97%	95%	
Aug	47	42			84%	81%	97%	95%	
Sep	47	42			84%	81%	97%	95%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	42	37	Brown Trout Spawning	79%	79%	81%	78%	95%	93%
Nov	42	32		79%	79%	81%	73%	95%	90%
Dec	30	31		79%	79%	71%	72%	88%	89%
Jan	29	29			70%	70%	87%	87%	
Feb	29	29			70%	70%	87%	87%	
Mar	29	29			70%	70%	87%	87%	
Apr	50	50	Rainbow Trout Spawning	72%	72%	86%	86%	98%	98%
May	50	50		72%	72%	86%	86%	98%	98%
Jun	49	50		72%	72%	85%	86%	97%	98%
Jul	42	42			81%	81%	95%	95%	
Aug	42	42			81%	81%	95%	95%	
Sep	42	42			81%	81%	95%	95%	

Table Attachment D-112. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	77	26.5	30,472	20,924	2,499	1,716	-	-	-	-
Nov	67	24.5	29,390	20,182	2,411	1,655	-	-	-	-
Dec	56	24.5	27,892	20,182	2,288	1,655	-	-	-	-
Jan	54	24.5	27,580	20,182	2,262	1,655	-	-	-	-
Feb	54	24.5	27,580	20,182	2,262	1,655	-	-	-	-
Mar	64	24.5	29,010	20,182	2,380	1,655	-	-	-	-
Apr	92	24.5	31,410	20,182	2,576	1,655	314	198	469	296
May	92	43	31,410	25,596	2,576	2,099	314	217	469	324
Jun	85	43	31,041	25,596	2,546	2,099	299	217	445	324
Jul	78	43	30,556	25,596	2,506	2,099	-	-	-	-
Aug	77	43	30,472	25,596	2,499	2,099	-	-	-	-
Sep	77	43	30,472	25,596	2,499	2,099	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	67	20	29,390	18,588	2,411	1,525	-	-	-	-	-	-	-	-
Nov	67	17	29,390	17,242	2,411	1,414	-	-	-	-	-	-	-	-
Dec	50	17	26,922	17,242	2,208	1,414	-	-	-	-	-	-	-	-
Jan	49	17	26,741	17,242	2,193	1,414	-	-	-	-	-	-	-	-
Feb	49	17	26,741	17,242	2,193	1,414	-	-	-	-	-	-	-	-
Mar	49	17	26,741	17,242	2,193	1,414	-	-	-	-	-	-	-	-
Apr	80	17	30,723	17,242	2,520	1,414	284	177	424	264	-	-	-	-
May	80	31	30,723	22,584	2,520	1,852	284	209	424	311	-	-	-	-
Jun	74	31	30,196	22,584	2,477	1,852	262	209	391	311	-	-	-	-
Jul	67	31	29,390	22,584	2,411	1,852	-	-	-	-	-	-	-	-
Aug	67	31	29,390	22,584	2,411	1,852	-	-	-	-	-	-	-	-
Sep	67	31	29,390	22,584	2,411	1,852	-	-	-	-	-	-	-	-

Table Attachment D-112. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	77	26.5	23,485	25,885	3,853	4,246	-	-	-	-	-	-
Nov	67	24.5	24,229	25,707	3,975	4,217	-	-	-	-	-	-
Dec	56	24.5	25,048	25,707	4,109	4,217	-	-	-	-	-	-
Jan	54	24.5	25,192	25,707	4,133	4,217	-	-	-	-	-	-
Feb	54	24.5	25,192	25,707	4,133	4,217	-	-	-	-	-	-
Mar	64	24.5	24,455	25,707	4,012	4,217	-	-	-	-	-	-
Apr	92	24.5	22,462	25,707	3,685	4,217	-	-	-	-	-	-
May	92	43	22,462	25,802	3,685	4,233	-	-	-	-	-	-
Jun	85	43	22,924	25,802	3,761	4,233	22,937	28,266	9,407	11,592		
Jul	78	43	23,416	25,802	3,841	4,233	23,796	28,266	9,759	11,592		
Aug	77	43	23,485	25,802	3,853	4,233	23,921	28,266	9,811	11,592		
Sep	77	43	23,485	25,802	3,853	4,233	23,921	28,266	9,811	11,592		

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	67	20	24,229	25,214	3,975	4,136	-	-	-	-	-	-	-	-
Nov	67	17	24,229	24,624	3,975	4,040	-	-	-	-	-	-	-	-
Dec	50	17	25,475	24,624	4,179	4,040	-	-	-	-	-	-	-	-
Jan	49	17	25,527	24,624	4,188	4,040	-	-	-	-	-	-	-	-
Feb	49	17	25,527	24,624	4,188	4,040	-	-	-	-	-	-	-	-
Mar	49	17	25,527	24,624	4,188	4,040	-	-	-	-	-	-	-	-
Apr	80	17	23,278	24,624	3,819	4,040	-	-	-	-	-	-	-	-
May	80	31	23,278	26,100	3,819	4,282	-	-	-	-	-	-	-	-
Jun	74	31	23,699	26,100	3,888	4,282	24,295	29,801	9,964	12,222				
Jul	67	31	24,229	26,100	3,975	4,282	25,157	29,801	10,317	12,222				
Aug	67	31	24,229	26,100	3,975	4,282	25,157	29,801	10,317	12,222				
Sep	67	31	24,229	26,100	3,975	4,282	25,157	29,801	10,317	12,222				

Table Attachment D-113. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	77	26.5	30,203	24,717	2,477	2,027	270	203	158	119
Nov	67	24.5	30,044	24,113	2,464	1,978	242	202	142	118
Dec	56	24.5	29,576	24,113	2,426	1,978	217	202	127	118
Jan	54	24.5	29,440	24,113	2,415	1,978	-	-	-	-
Feb	54	24.5	29,440	24,113	2,415	1,978	-	-	-	-
Mar	64	24.5	29,952	24,113	2,457	1,978	-	-	-	-
Apr	92	24.5	29,915	24,113	2,454	1,978	-	-	-	-
May	92	43	29,915	28,295	2,454	2,321	-	-	-	-
Jun	85	43	30,120	28,295	2,471	2,321	-	-	-	-
Jul	78	43	30,205	28,295	2,478	2,321	-	-	-	-
Aug	77	43	30,203	28,295	2,477	2,321	-	-	-	-
Sep	77	43	30,203	28,295	2,477	2,321	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	67	20	30,044	22,779	2,464	1,868	242	199	142	117	142	117	142	117
Nov	67	17	30,044	21,554	2,464	1,768	242	190	142	111	142	111	142	111
Dec	50	17	29,115	21,554	2,388	1,768	210	190	123	111	123	111	123	111
Jan	49	17	29,007	21,554	2,379	1,768	-	-	-	-	-	-	-	-
Feb	49	17	29,007	21,554	2,379	1,768	-	-	-	-	-	-	-	-
Mar	49	17	29,007	21,554	2,379	1,768	-	-	-	-	-	-	-	-
Apr	80	17	30,210	21,554	2,478	1,768	-	-	-	-	-	-	-	-
May	80	31	30,210	26,022	2,478	2,134	-	-	-	-	-	-	-	-
Jun	74	31	30,183	26,022	2,476	2,134	-	-	-	-	-	-	-	-
Jul	67	31	30,044	26,022	2,464	2,134	-	-	-	-	-	-	-	-
Aug	67	31	30,044	26,022	2,464	2,134	-	-	-	-	-	-	-	-
Sep	67	31	30,044	26,022	2,464	2,134	-	-	-	-	-	-	-	-

Table Attachment D-113. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	77	26.5	23,613	27,209	3,874	4,464	-	-	-	-
Nov	67	24.5	24,435	27,114	4,009	4,448	-	-	-	-
Dec	56	24.5	25,381	27,114	4,164	4,448	-	-	-	-
Jan	54	24.5	25,565	27,114	4,194	4,448	-	-	-	-
Feb	54	24.5	25,565	27,114	4,194	4,448	-	-	-	-
Mar	64	24.5	24,685	27,114	4,050	4,448	-	-	-	-
Apr	92	24.5	22,432	27,114	3,680	4,448	-	-	-	-
May	92	43	22,432	26,611	3,680	4,366	-	-	-	-
Jun	85	43	22,983	26,611	3,770	4,366	21,607	27,091	8,861	11,111
Jul	78	43	23,528	26,611	3,860	4,366	22,409	27,091	9,190	11,111
Aug	77	43	23,613	26,611	3,874	4,366	22,526	27,091	9,239	11,111
Sep	77	43	23,613	26,611	3,874	4,366	22,526	27,091	9,239	11,111

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	67	20	24,435	26,833	4,009	4,402	-	-	-	-	-	-	-	-
Nov	67	17	24,435	26,323	4,009	4,318	-	-	-	-	-	-	-	-
Dec	50	17	25,928	26,323	4,254	4,318	-	-	-	-	-	-	-	-
Jan	49	17	26,037	26,323	4,271	4,318	-	-	-	-	-	-	-	-
Feb	49	17	26,037	26,323	4,271	4,318	-	-	-	-	-	-	-	-
Mar	49	17	26,037	26,323	4,271	4,318	-	-	-	-	-	-	-	-
Apr	80	17	23,357	26,323	3,832	4,318	-	-	-	-	-	-	-	-
May	80	31	23,357	27,277	3,832	4,475	-	-	-	-	-	-	-	-
Jun	74	31	23,863	27,277	3,915	4,475	22,879	28,788	9,383	11,807	9,383	11,807	9,383	11,807
Jul	67	31	24,435	27,277	4,009	4,475	23,724	28,788	9,730	11,807	9,730	11,807	9,730	11,807
Aug	67	31	24,435	27,277	4,009	4,475	23,724	28,788	9,730	11,807	9,730	11,807	9,730	11,807
Sep	67	31	24,435	27,277	4,009	4,475	23,724	28,788	9,730	11,807	9,730	11,807	9,730	11,807

Table Attachment D-114. Percent of Maximum WUA provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	77	26.5	Brown Trout Spawning	90%	68%	95%	65%	100%	82%
Nov	67	24.5		81%	67%	92%	63%	99%	80%
Dec	56	24.5		72%	67%	87%	63%	98%	80%
Jan	54	24.5			86%	63%	97%	80%	
Feb	54	24.5			86%	63%	97%	80%	
Mar	64	24.5			90%	63%	99%	80%	
Apr	92	24.5	Rainbow Trout Spawning	96%	61%	98%	63%	99%	80%
May	92	43		96%	67%	98%	80%	99%	94%
Jun	85	43		92%	67%	97%	80%	100%	94%
Jul	78	43			95%	80%	100%	94%	
Aug	77	43			95%	80%	100%	94%	
Sep	77	43			95%	80%	100%	94%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	67	20	Brown Trout Spawning	81%	66%	92%	58%	99%	75%
Nov	67	17		81%	63%	92%	54%	99%	71%
Dec	50	17		70%	63%	84%	54%	96%	71%
Jan	49	17			83%	54%	96%	71%	
Feb	49	17			83%	54%	96%	71%	
Mar	49	17			83%	54%	96%	71%	
Apr	80	17	Rainbow Trout Spawning	87%	54%	96%	54%	100%	71%
May	80	31		87%	64%	96%	70%	100%	86%
Jun	74	31		80%	64%	94%	70%	100%	86%
Jul	67	31			92%	70%	99%	86%	
Aug	67	31			92%	70%	99%	86%	
Sep	67	31			92%	70%	99%	86%	

Table Attachment D-115. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	77	62	30,472	28,746	2,499	2,358	-	-	-	-
Nov	67	57	29,390	28,039	2,411	2,300	-	-	-	-
Dec	56	56	27,892	27,892	2,288	2,288	-	-	-	-
Jan	54	47	27,580	26,377	2,262	2,164	-	-	-	-
Feb	54	47	27,580	26,377	2,262	2,164	-	-	-	-
Mar	64	47	29,010	26,377	2,380	2,164	-	-	-	-
Apr	92	75	31,410	30,305	2,576	2,486	314	266	469	396
May	92	75	31,410	30,305	2,576	2,486	314	266	469	396
Jun	85	75	31,041	30,305	2,546	2,486	299	266	445	396
Jul	78	72	30,556	29,979	2,506	2,459	-	-	-	-
Aug	77	72	30,472	29,979	2,499	2,459	-	-	-	-
Sep	77	67	30,472	29,390	2,499	2,411	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	67	62	29,390	28,746	2,411	2,358	-	-	-	-
Nov	67	57	29,390	28,039	2,411	2,300	-	-	-	-
Dec	50	56	26,922	27,892	2,208	2,288	-	-	-	-
Jan	49	47	26,741	26,377	2,193	2,164	-	-	-	-
Feb	49	47	26,741	26,377	2,193	2,164	-	-	-	-
Mar	49	47	26,741	26,377	2,193	2,164	-	-	-	-
Apr	80	75	30,723	30,305	2,520	2,486	284	266	424	396
May	80	75	30,723	30,305	2,520	2,486	284	266	424	396
Jun	74	75	30,196	30,305	2,477	2,486	262	266	391	396
Jul	67	72	29,390	29,979	2,411	2,459	-	-	-	-
Aug	67	72	29,390	29,979	2,411	2,459	-	-	-	-
Sep	67	67	29,390	29,390	2,411	2,411	-	-	-	-

Table Attachment D-115. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	77	62	23,485	24,604	3,853	4,036	-	-	-	-
Nov	67	57	24,229	24,975	3,975	4,097	-	-	-	-
Dec	56	56	25,048	25,048	4,109	4,109	-	-	-	-
Jan	54	47	25,192	25,630	4,133	4,205	-	-	-	-
Feb	54	47	25,192	25,630	4,133	4,205	-	-	-	-
Mar	64	47	24,455	25,630	4,012	4,205	-	-	-	-
Apr	92	75	22,462	23,623	3,685	3,875	-	-	-	-
May	92	75	22,462	23,623	3,685	3,875	-	-	-	-
Jun	85	75	22,924	23,623	3,761	3,875	22,937	24,172	9,407	9,914
Jul	78	72	23,416	23,851	3,841	3,913	23,796	24,541	9,759	10,065
Aug	77	72	23,485	23,851	3,853	3,913	23,921	24,541	9,811	10,065
Sep	77	67	23,485	24,229	3,853	3,975	23,921	25,157	9,811	10,317

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Nov	67	57	24,229	24,975	3,975	4,097	-	-	-	-	-	-		
Dec	50	56	25,475	25,048	4,179	4,109	-	-	-	-	-	-		
Jan	49	47	25,527	25,630	4,188	4,205	-	-	-	-	-	-		
Feb	49	47	25,527	25,630	4,188	4,205	-	-	-	-	-	-		
Mar	49	47	25,527	25,630	4,188	4,205	-	-	-	-	-	-		
Apr	80	75	23,278	23,623	3,819	3,875	-	-	-	-	-	-		
May	80	75	23,278	23,623	3,819	3,875	-	-	-	-	-	-		
Jun	74	75	23,699	23,623	3,888	3,875	24,295	24,172	9,964	9,914	-	-		
Jul	67	72	24,229	23,851	3,975	3,913	25,157	24,541	10,317	10,065	-	-		
Aug	67	72	24,229	23,851	3,975	3,913	25,157	24,541	10,317	10,065	-	-		
Sep	67	67	24,229	24,229	3,975	3,975	25,157	25,157	10,317	10,317	-	-		

Table Attachment D-116. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	77	62	30,203	29,873	2,477	2,450	270	228	158	134
Nov	67	57	30,044	29,631	2,464	2,430	242	218	142	128
Dec	56	56	29,576	29,576	2,426	2,426	217	217	127	127
Jan	54	47	29,440	28,793	2,415	2,362	-	-	-	-
Feb	54	47	29,440	28,793	2,415	2,362	-	-	-	-
Mar	64	47	29,952	28,793	2,457	2,362	-	-	-	-
Apr	92	75	29,915	30,198	2,454	2,477	-	-	-	-
May	92	75	29,915	30,198	2,454	2,477	-	-	-	-
Jun	85	75	30,120	30,198	2,471	2,477	-	-	-	-
Jul	78	72	30,205	30,154	2,478	2,473	-	-	-	-
Aug	77	72	30,203	30,154	2,477	2,473	-	-	-	-
Sep	77	67	30,203	30,044	2,477	2,464	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	67	62	30,044	29,873	2,464	2,450	242	228	142	134
Nov	67	57	30,044	29,631	2,464	2,430	242	218	142	128
Dec	50	56	29,115	29,576	2,388	2,426	210	217	123	127
Jan	49	47	29,007	28,793	2,379	2,362	-	-	-	-
Feb	49	47	29,007	28,793	2,379	2,362	-	-	-	-
Mar	49	47	29,007	28,793	2,379	2,362	-	-	-	-
Apr	80	75	30,210	30,198	2,478	2,477	-	-	-	-
May	80	75	30,210	30,198	2,478	2,477	-	-	-	-
Jun	74	75	30,183	30,198	2,476	2,477	-	-	-	-
Jul	67	72	30,044	30,154	2,464	2,473	-	-	-	-
Aug	67	72	30,044	30,154	2,464	2,473	-	-	-	-
Sep	67	67	30,044	30,044	2,464	2,464	-	-	-	-

Table Attachment D-116. Comparisons of Flow, WUA, and Number of Fish Supported for South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	77	62	23,613	24,847	3,874	4,076	-	-	-	-
Nov	67	57	24,435	25,288	4,009	4,148	-	-	-	-
Dec	56	56	25,381	25,381	4,164	4,164	-	-	-	-
Jan	54	47	25,565	26,254	4,194	4,307	-	-	-	-
Feb	54	47	25,565	26,254	4,194	4,307	-	-	-	-
Mar	64	47	24,685	26,254	4,050	4,307	-	-	-	-
Apr	92	75	22,432	23,783	3,680	3,902	-	-	-	-
May	92	75	22,432	23,783	3,680	3,902	-	-	-	-
Jun	85	75	22,983	23,783	3,770	3,902	21,607	22,762	8,861	9,335
Jul	78	72	23,528	24,023	3,860	3,941	22,409	23,114	9,190	9,480
Aug	77	72	23,613	24,023	3,874	3,941	22,526	23,114	9,239	9,480
Sep	77	67	23,613	24,435	3,874	4,009	22,526	23,724	9,239	9,730

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	67	62	24,435	24,847	4,009	4,076	-	-	-	-	-	-	-	-
Nov	67	57	24,435	25,288	4,009	4,148	-	-	-	-	-	-	-	-
Dec	50	56	25,928	25,381	4,254	4,164	-	-	-	-	-	-	-	-
Jan	49	47	26,037	26,254	4,271	4,307	-	-	-	-	-	-	-	-
Feb	49	47	26,037	26,254	4,271	4,307	-	-	-	-	-	-	-	-
Mar	49	47	26,037	26,254	4,271	4,307	-	-	-	-	-	-	-	-
Apr	80	75	23,357	23,783	3,832	3,902	-	-	-	-	-	-	-	-
May	80	75	23,357	23,783	3,832	3,902	-	-	-	-	-	-	-	-
Jun	74	75	23,863	23,783	3,915	3,902	22,879	22,762	9,383	9,335	9,383	9,335	9,383	9,335
Jul	67	72	24,435	24,023	4,009	3,941	23,724	23,114	9,730	9,480	9,730	9,480	9,730	9,480
Aug	67	72	24,435	24,023	4,009	3,941	23,724	23,114	9,730	9,480	9,730	9,480	9,730	9,480
Sep	67	67	24,435	24,435	4,009	4,009	23,724	23,724	9,730	9,730	9,730	9,730	9,730	9,730

Table Attachment D-117. Percent of Maximum WUA Provided for Trout in South Fork San Joaquin River from Mono Creek to Rattlesnake Creek - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	77	62	Brown Trout Spawning	90%	76%	95%	90%	100%	99%
Nov	67	57		81%	73%	92%	87%	99%	98%
Dec	56	56		72%	72%	87%	87%	98%	98%
Jan	54	47			86%	82%	97%	95%	
Feb	54	47			86%	82%	97%	95%	
Mar	64	47			90%	82%	99%	95%	
Apr	92	75	Rainbow Trout Spawning	96%	82%	98%	94%	99%	100%
May	92	75		96%	82%	98%	94%	99%	100%
Jun	85	75		92%	82%	97%	94%	100%	100%
Jul	78	72			95%	93%	100%	100%	
Aug	77	72			95%	93%	100%	100%	
Sep	77	67			95%	92%	100%	99%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	67	62	Brown Trout Spawning	81%	76%	92%	90%	99%	99%
Nov	67	57		81%	73%	92%	87%	99%	98%
Dec	50	56		70%	72%	84%	87%	96%	98%
Jan	49	47			83%	82%	96%	95%	
Feb	49	47			83%	82%	96%	95%	
Mar	49	47			83%	82%	96%	95%	
Apr	80	75	Rainbow Trout Spawning	87%	82%	96%	94%	100%	100%
May	80	75		87%	82%	96%	94%	100%	100%
Jun	74	75		80%	82%	94%	94%	100%	100%
Jul	67	72			92%	93%	99%	100%	
Aug	67	72			92%	93%	99%	100%	
Sep	67	67			92%	92%	99%	99%	

Table Attachment D-118. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
	CDFG Alternative	No Action								
Oct	7	2	7,793	4,364	639	358	15	12	9	7
Nov	7	2	7,793	4,364	639	358	15	12	9	7
Dec	6	2	7,233	4,364	593	358	14	12	8	7
Jan	4	2	5,981	4,364	491	358	-	-	-	-
Feb	4	2	5,981	4,364	491	358	-	-	-	-
Mar	4	2	5,981	4,364	491	358	-	-	-	-
Apr	12	2	9,861	4,364	809	358	-	-	-	-
May	12	3	9,861	5,231	809	429	-	-	-	-
Jun	10	3	9,179	5,231	753	429	-	-	-	-
Jul	8	3	8,305	5,231	681	429	-	-	-	-
Aug	7	3	7,793	5,231	639	429	-	-	-	-
Sep	7	3	7,793	5,231	639	429	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Nov	7	1	7,793	3,334	639	273	15	10	9	6				
Dec	5	1	6,636	3,334	544	273	14	10	8	6				
Jan	4	1	5,981	3,334	491	273	-	-	-	-				
Feb	4	1	5,981	3,334	491	273	-	-	-	-				
Mar	4	1	5,981	3,334	491	273	-	-	-	-				
Apr	10	1	9,179	3,334	753	273	-	-	-	-				
May	10	2	9,179	4,364	753	358	-	-	-	-				
Jun	9	2	8,768	4,364	719	358	-	-	-	-				
Jul	7	2	7,793	4,364	639	358	-	-	-	-				
Aug	7	2	7,793	4,364	639	358	-	-	-	-				
Sep	7	2	7,793	4,364	639	358	-	-	-	-				

Table Attachment D-118. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	2	12,109	7,718	1,987	1,266	-	-	-	-
Nov	7	2	12,109	7,718	1,987	1,266	-	-	-	-
Dec	6	2	11,535	7,718	1,892	1,266	-	-	-	-
Jan	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Feb	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Mar	4	2	10,072	7,718	1,652	1,266	-	-	-	-
Apr	12	2	13,475	7,718	2,211	1,266	-	-	-	-
May	12	3	13,475	9,082	2,211	1,490	-	-	-	-
Jun	10	3	13,256	9,082	2,175	1,490	16,228	14,456	6,656	5,929
Jul	8	3	12,633	9,082	2,072	1,490	16,086	14,456	6,597	5,929
Aug	7	3	12,109	9,082	1,987	1,490	15,947	14,456	6,540	5,929
Sep	7	3	12,109	9,082	1,987	1,490	15,947	14,456	6,540	5,929
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1	12,109	5,818	1,987	954	-	-	-	-
Nov	7	1	12,109	5,818	1,987	954	-	-	-	-
Dec	5	1	10,847	5,818	1,779	954	-	-	-	-
Jan	4	1	10,072	5,818	1,652	954	-	-	-	-
Feb	4	1	10,072	5,818	1,652	954	-	-	-	-
Mar	4	1	10,072	5,818	1,652	954	-	-	-	-
Apr	10	1	13,256	5,818	2,175	954	-	-	-	-
May	10	2	13,256	7,718	2,175	1,266	-	-	-	-
Jun	9	2	13,008	7,718	2,134	1,266	16,168	13,471	6,631	5,525
Jul	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525
Aug	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525
Sep	7	2	12,109	7,718	1,987	1,266	15,947	13,471	6,540	5,525

Table Attachment D-119. Percent of Maximum WUA Provided for Trout in Bear Creek- CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Brown Trout Spawning	Spawning Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	2	Brown Trout Spawning	77%	62%	54%	30%
Nov	7	2		77%	62%	54%	30%
Dec	6	2		74%	62%	50%	30%
Jan	4	2			41%	30%	
Feb	4	2			41%	30%	
Mar	4	2			41%	30%	
Apr	12	2			68%	30%	
May	12	3			68%	36%	
Jun	10	3			63%	36%	
Jul	8	3			57%	36%	
Aug	7	3			54%	36%	
Sep	7	3			54%	36%	

Dry Years

Month	CDFG Alternative	No Action	Brown Trout Spawning	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	7	1		Brown Trout Spawning	77%	53%	54%
Nov	7	1	77%		53%	54%	23%
Dec	5	1	71%		53%	46%	23%
Jan	4	1			41%	23%	
Feb	4	1			41%	23%	
Mar	4	1			41%	23%	
Apr	10	1			63%	23%	
May	10	2			63%	30%	
Jun	9	2			60%	30%	
Jul	7	2			54%	30%	
Aug	7	2			54%	30%	
Sep	7	2			54%	30%	

Table Attachment D-120. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	7	7	7,793	7,793	639	639	15	15	9	9
Nov	7	7	7,793	7,793	639	639	15	15	9	9
Dec	6	6	7,233	7,233	593	593	14	14	8	8
Jan	4	4	5,981	5,981	491	491	-	-	-	-
Feb	4	4	5,981	5,981	491	491	-	-	-	-
Mar	4	4	5,981	5,981	491	491	-	-	-	-
Apr	12	10	9,861	9,179	809	753	-	-	-	-
May	12	10	9,861	9,179	809	753	-	-	-	-
Jun	10	10	9,179	9,179	753	753	-	-	-	-
Jul	8	7	8,305	7,793	681	639	-	-	-	-
Aug	7	7	7,793	7,793	639	639	-	-	-	-
Sep	7	7	7,793	7,793	639	639	-	-	-	-

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	7	7,793	7,793	639	639	15	15	9	9	9	9	9	9
Nov	7	7	7,793	7,793	639	639	15	15	9	9	9	9	9	9
Dec	5	6	6,636	7,233	544	593	14	14	8	8	8	8	8	8
Jan	4	4	5,981	5,981	491	491	-	-	-	-	-	-	-	-
Feb	4	4	5,981	5,981	491	491	-	-	-	-	-	-	-	-
Mar	4	4	5,981	5,981	491	491	-	-	-	-	-	-	-	-
Apr	10	10	9,179	9,179	753	753	-	-	-	-	-	-	-	-
May	10	10	9,179	9,179	753	753	-	-	-	-	-	-	-	-
Jun	9	10	8,768	9,179	719	753	-	-	-	-	-	-	-	-
Jul	7	7	7,793	7,793	639	639	-	-	-	-	-	-	-	-
Aug	7	7	7,793	7,793	639	639	-	-	-	-	-	-	-	-
Sep	7	7	7,793	7,793	639	639	-	-	-	-	-	-	-	-

Table Attachment D-120. Comparisons of Flow, WUA, and Number of Fish Supported for Bear Creek - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	7	7	12,109	12,109	1,987	1,987	-	-	-	-
Nov	7	7	12,109	12,109	1,987	1,987	-	-	-	-
Dec	6	6	11,535	11,535	1,892	1,892	-	-	-	-
Jan	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Feb	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Mar	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Apr	12	10	13,475	13,256	2,211	2,175	-	-	-	-
May	12	10	13,475	13,256	2,211	2,175	-	-	-	-
Jun	10	10	13,256	13,256	2,175	2,175	16,228	16,228	6,656	6,656
Jul	8	7	12,633	12,109	2,072	1,987	16,086	15,947	6,597	6,540
Aug	7	7	12,109	12,109	1,987	1,987	15,947	15,947	6,540	6,540
Sep	7	7	12,109	12,109	1,987	1,987	15,947	15,947	6,540	6,540

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	7	7	12,109	12,109	1,987	1,987	-	-	-	-
Nov	7	7	12,109	12,109	1,987	1,987	-	-	-	-
Dec	5	6	10,847	11,535	1,779	1,892	-	-	-	-
Jan	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Feb	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Mar	4	4	10,072	10,072	1,652	1,652	-	-	-	-
Apr	10	10	13,256	13,256	2,175	2,175	-	-	-	-
May	10	10	13,256	13,256	2,175	2,175	-	-	-	-
Jun	9	10	13,008	13,256	2,134	2,175	16,168	16,228	6,631	6,656
Jul	7	7	12,109	12,109	1,987	1,987	15,947	15,947	6,540	6,540
Aug	7	7	12,109	12,109	1,987	1,987	15,947	15,947	6,540	6,540
Sep	7	7	12,109	12,109	1,987	1,987	15,947	15,947	6,540	6,540

Table Attachment D-121. Percent of Maximum WUA Provided for Trout in Bear Creek - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)		Brown Trout Spawning	Spawning Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	7	Brown Trout Spawning	77%	77%	54%	54%
Nov	7	7		77%	77%	54%	54%
Dec	6	6		74%	74%	50%	50%
Jan	4	4				41%	41%
Feb	4	4				41%	41%
Mar	4	4				41%	41%
Apr	12	10				68%	63%
May	12	10				68%	63%
Jun	10	10				63%	63%
Jul	8	7				57%	54%
Aug	7	7				54%	54%
Sep	7	7				54%	54%

Dry Years

Month	CDFG Alternative	Proposed Action	Brown Trout Spawning	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	7	7		Brown Trout Spawning	77%	77%	54%
Nov	7	7	77%		77%	54%	54%
Dec	5	6	71%		74%	46%	50%
Jan	4	4				41%	41%
Feb	4	4				41%	41%
Mar	4	4				41%	41%
Apr	10	10				63%	63%
May	10	10				63%	63%
Jun	9	10				60%	63%
Jul	7	7				54%	54%
Aug	7	7				54%	54%
Sep	7	7				54%	54%

Table Attachment D-122. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	30	7.5	11,913	5,763	977	473	-	-	-	-
Nov	25	7.5	11,121	5,763	912	473	-	-	-	-
Dec 1	20	7.5	10,112	5,763	829	473	-	-	-	-
Dec 16	20	7.5	10,112	5,763	829	473	-	-	-	-
Jan	20	7.5	10,112	5,763	829	473	-	-	-	-
Feb	20	7.5	10,112	5,763	829	473	-	-	-	-
Mar	30	7.5	11,913	5,763	977	473	-	-	-	-
Apr	35	7.5	12,516	5,763	1,027	473	2,785	1,638	4,153	2,443
May	35	13	12,516	8,078	1,027	663	2,785	2,269	4,153	3,383
Jun	30	13	11,913	8,078	977	663	2,827	2,269	4,216	3,383
Jul	30	13	11,913	8,078	977	663	-	-	-	-
Aug	30	13	11,913	8,078	977	663	-	-	-	-
Sep 1	30	13	11,913	8,078	977	663	-	-	-	-
Sep 16	30	13	11,913	8,078	977	663	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	25	6	11,121	5,031	912	413	-	-	-	-
Nov	25	5	11,121	4,568	912	375	-	-	-	-
Dec 1	20	5	10,112	4,568	829	375	-	-	-	-
Dec 16	20	5	10,112	4,568	829	375	-	-	-	-
Jan	20	5	10,112	4,568	829	375	-	-	-	-
Feb	20	5	10,112	4,568	829	375	-	-	-	-
Mar	20	5	10,112	4,568	829	375	-	-	-	-
Apr	30	5	11,913	4,568	977	375	2,827	1,256	4,216	1,873
May	30	9	11,913	6,472	977	531	2,827	1,845	4,216	2,752
Jun	25	9	11,121	6,472	912	531	2,794	1,845	4,166	2,752
Jul	25	9	11,121	6,472	912	531	-	-	-	-
Aug	25	9	11,121	6,472	912	531	-	-	-	-
Sep 1	25	9	11,121	6,472	912	531	-	-	-	-
Sep 16	25	9	11,121	6,472	912	531	-	-	-	-

Table Attachment D-122. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	30	7.5	10,972	10,213	1,800	1,675	-	-	-	-
Nov	25	7.5	11,183	10,213	1,835	1,675	-	-	-	-
Dec 1	20	7.5	11,206	10,213	1,838	1,675	-	-	-	-
Dec 16	20	7.5	11,206	10,213	1,838	1,675	-	-	-	-
Jan	20	7.5	11,206	10,213	1,838	1,675	-	-	-	-
Feb	20	7.5	11,206	10,213	1,838	1,675	-	-	-	-
Mar	30	7.5	10,972	10,213	1,800	1,675	-	-	-	-
Apr	35	7.5	10,719	10,213	1,758	1,675	-	-	-	-
May	35	13	10,719	11,035	1,758	1,810	-	-	-	-
Jun	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Jul	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Aug	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Sep 1	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845
Sep 16	30	13	10,972	11,035	1,800	1,810	12,349	14,252	5,065	5,845

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	25	6	11,183	9,668	1,835	1,586	-	-	-	-	-	-	-	-
Nov	25	5	11,183	9,027	1,835	1,481	-	-	-	-	-	-	-	-
Dec 1	20	5	11,206	9,027	1,838	1,481	-	-	-	-	-	-	-	-
Dec 16	20	5	11,206	9,027	1,838	1,481	-	-	-	-	-	-	-	-
Jan	20	5	11,206	9,027	1,838	1,481	-	-	-	-	-	-	-	-
Feb	20	5	11,206	9,027	1,838	1,481	-	-	-	-	-	-	-	-
Mar	20	5	11,206	9,027	1,838	1,481	-	-	-	-	-	-	-	-
Apr	30	5	10,972	9,027	1,800	1,481	-	-	-	-	-	-	-	-
May	30	9	10,972	10,568	1,800	1,734	-	-	-	-	-	-	-	-
Jun	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058	5,168	6,058	5,168	6,058
Jul	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058	5,168	6,058	5,168	6,058
Aug	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058	5,168	6,058	5,168	6,058
Sep 1	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058	5,168	6,058	5,168	6,058
Sep 16	25	9	11,183	10,568	1,835	1,734	12,602	14,772	5,168	6,058	5,168	6,058	5,168	6,058

Table Attachment D-123. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	30	7.5	11,286	7,770	926	637	2,761	2,012	1,617	1,179
Nov	25	7.5	11,126	7,770	913	637	2,813	2,012	1,648	1,179
Dec 1	20	7.5	10,760	7,770	883	637	2,799	2,012	1,640	1,179
Dec 16	20	7.5	10,760	7,770	883	637	2,799	2,012	1,640	1,179
Jan	20	7.5	10,760	7,770	883	637	-	-	-	-
Feb	20	7.5	10,760	7,770	883	637	-	-	-	-
Mar	30	7.5	11,286	7,770	926	637	-	-	-	-
Apr	35	7.5	11,384	7,770	934	637	-	-	-	-
May	35	13	11,384	9,626	934	790	-	-	-	-
Jun	30	13	11,286	9,626	926	790	-	-	-	-
Jul	30	13	11,286	9,626	926	790	-	-	-	-
Aug	30	13	11,286	9,626	926	790	-	-	-	-
Sep 1	30	13	11,286	9,626	926	790	-	-	-	-
Sep 16	30	13	11,286	9,626	926	790	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	25	6	11,126	7,041	913	578	2,813	1,801	1,648	1,055
Nov	25	5	11,126	6,482	913	532	2,813	1,652	1,648	968
Dec 1	20	5	10,760	6,482	883	532	2,799	1,652	1,640	968
Dec 16	20	5	10,760	6,482	883	532	2,799	1,652	1,640	968
Jan	20	5	10,760	6,482	883	532	-	-	-	-
Feb	20	5	10,760	6,482	883	532	-	-	-	-
Mar	20	5	10,760	6,482	883	532	-	-	-	-
Apr	30	5	11,286	6,482	926	532	-	-	-	-
May	30	9	11,286	8,398	926	689	-	-	-	-
Jun	25	9	11,126	8,398	913	689	-	-	-	-
Jul	25	9	11,126	8,398	913	689	-	-	-	-
Aug	25	9	11,126	8,398	913	689	-	-	-	-
Sep 1	25	9	11,126	8,398	913	689	-	-	-	-
Sep 16	25	9	11,126	8,398	913	689	-	-	-	-

Table Attachment D-123. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	30	7.5	9,994	10,265	1,640	1,684	-	-	-	-
Nov	25	7.5	10,181	10,265	1,670	1,684	-	-	-	-
Dec 1	20	7.5	10,330	10,265	1,695	1,684	-	-	-	-
Dec 16	20	7.5	10,330	10,265	1,695	1,684	-	-	-	-
Jan	20	7.5	10,330	10,265	1,695	1,684	-	-	-	-
Feb	20	7.5	10,330	10,265	1,695	1,684	-	-	-	-
Mar	30	7.5	9,994	10,265	1,640	1,684	-	-	-	-
Apr	35	7.5	9,869	10,265	1,619	1,684	-	-	-	-
May	35	13	9,869	10,502	1,619	1,723	-	-	-	-
Jun	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Jul	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Aug	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Sep 1	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697
Sep 16	30	13	9,994	10,502	1,640	1,723	11,997	13,890	4,920	5,697

Dry Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	25	6	10,181	10,064	1,670	1,651	-	-	-	-
Nov	25	5	10,181	9,709	1,670	1,593	-	-	-	-
Dec 1	20	5	10,330	9,709	1,695	1,593	-	-	-	-
Dec 16	20	5	10,330	9,709	1,695	1,593	-	-	-	-
Jan	20	5	10,330	9,709	1,695	1,593	-	-	-	-
Feb	20	5	10,330	9,709	1,695	1,593	-	-	-	-
Mar	20	5	10,330	9,709	1,695	1,593	-	-	-	-
Apr	30	5	9,994	9,709	1,640	1,593	-	-	-	-
May	30	9	9,994	10,411	1,640	1,708	-	-	-	-
Jun	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Jul	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Aug	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Sep 1	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950
Sep 16	25	9	10,181	10,411	1,670	1,708	12,233	14,507	5,017	5,950

Table Attachment D-124. Percent of Maximum WUA Provided for Trout in Mono Creek - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	30	7.5	Brown Trout Spawning	98%	72%	83%	40%	92%	63%
Nov	25	7.5		100%	72%	77%	40%	90%	63%
Dec 1	20	7.5		100%	72%	70%	40%	87%	63%
Dec 16	20	7.5		100%	72%	70%	40%	87%	63%
Jan	20	7.5			70%	40%	87%	63%	
Feb	20	7.5			70%	40%	87%	63%	
Mar	30	7.5			83%	40%	92%	63%	
Apr	35	7.5	Rainbow Trout Spawning	98%	58%	87%	40%	92%	63%
May	35	13		98%	80%	87%	56%	92%	78%
Jun	30	13		100%	80%	83%	56%	92%	78%
Jul	30	13				83%	56%	92%	78%
Aug	30	13			83%	56%	92%	78%	
Sep 1	30	13			83%	56%	92%	78%	
Sep 16	30	13			83%	56%	92%	78%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	25	6	Brown Trout Spawning	100%	64%	77%	35%	90%	57%
Nov	25	5		100%	59%	77%	32%	90%	53%
Dec 1	20	5		100%	59%	70%	32%	87%	53%
Dec 16	20	5		100%	59%	70%	32%	87%	53%
Jan	20	5			70%	32%	87%	53%	
Feb	20	5			70%	32%	87%	53%	
Mar	20	5			70%	32%	87%	53%	
Apr	30	5	Rainbow Trout Spawning	100%	44%	83%	32%	92%	53%
May	30	9		100%	65%	83%	45%	92%	68%
Jun	25	9		99%	65%	77%	45%	90%	68%
Jul	25	9				77%	45%	90%	68%
Aug	25	9			77%	45%	90%	68%	
Sep 1	25	9			77%	45%	90%	68%	
Sep 16	25	9			77%	45%	90%	68%	

Table Attachment D-125. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	30	25	11,913	11,121	977	912	-	-	-	-
Nov	25	25	11,121	11,121	912	912	-	-	-	-
Dec 1	20	25	10,112	11,121	829	912	-	-	-	-
Dec 16	20	25	10,112	11,121	829	912	-	-	-	-
Jan	20	18	10,112	9,573	829	785	-	-	-	-
Feb	20	18	10,112	9,573	829	785	-	-	-	-
Mar	30	18	11,913	9,573	977	785	-	-	-	-
Apr	35	25	12,516	11,121	1,027	912	2,785	2,794	4,153	4,166
May	35	25	12,516	11,121	1,027	912	2,785	2,794	4,153	4,166
Jun	30	25	11,913	11,121	977	912	2,827	2,794	4,216	4,166
Jul	30	30	11,913	11,913	977	977	-	-	-	-
Aug	30	30	11,913	11,913	977	977	-	-	-	-
Sep 1	30	25	11,913	11,121	977	912	-	-	-	-
Sep 16	30	25	11,913	11,121	977	912	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	25	25	11,121	11,121	912	912	-	-	-	-
Nov	25	25	11,121	11,121	912	912	-	-	-	-
Dec 1	20	25	10,112	11,121	829	912	-	-	-	-
Dec 16	20	25	10,112	11,121	829	912	-	-	-	-
Jan	20	18	10,112	9,573	829	785	-	-	-	-
Feb	20	18	10,112	9,573	829	785	-	-	-	-
Mar	20	18	10,112	9,573	829	785	-	-	-	-
Apr	30	25	11,913	11,121	977	912	2,827	2,794	4,216	4,166
May	30	25	11,913	11,121	977	912	2,827	2,794	4,216	4,166
Jun	25	25	11,121	11,121	912	912	2,794	2,794	4,166	4,166
Jul	25	30	11,121	11,913	912	977	-	-	-	-
Aug	25	30	11,121	11,913	912	977	-	-	-	-
Sep 1	25	25	11,121	11,121	912	912	-	-	-	-
Sep 16	25	25	11,121	11,121	912	912	-	-	-	-

Table Attachment D-125. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	30	25	10,972	11,183	1,800	1,835	-	-	-	-
Nov	25	25	11,183	11,183	1,835	1,835	-	-	-	-
Dec 1	20	25	11,206	11,183	1,838	1,835	-	-	-	-
Dec 16	20	25	11,206	11,183	1,838	1,835	-	-	-	-
Jan	20	18	11,206	11,177	1,838	1,834	-	-	-	-
Feb	20	18	11,206	11,177	1,838	1,834	-	-	-	-
Mar	30	18	10,972	11,177	1,800	1,834	-	-	-	-
Apr	35	25	10,719	11,183	1,758	1,835	-	-	-	-
May	35	25	10,719	11,183	1,758	1,835	-	-	-	-
Jun	30	25	10,972	11,183	1,800	1,835	12,349	12,602	5,065	5,168
Jul	30	30	10,972	10,972	1,800	1,800	12,349	12,349	5,065	5,065
Aug	30	30	10,972	10,972	1,800	1,800	12,349	12,349	5,065	5,065
Sep 1	30	25	10,972	11,183	1,800	1,835	12,349	12,602	5,065	5,168
Sep 16	30	25	10,972	11,183	1,800	1,835	12,349	12,602	5,065	5,168

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Nov	25	25	11,183	11,183	1,835	1,835	-	-	-	-	-	-	-	-
Dec 1	20	25	11,206	11,183	1,838	1,835	-	-	-	-	-	-	-	-
Dec 16	20	25	11,206	11,183	1,838	1,835	-	-	-	-	-	-	-	-
Jan	20	18	11,206	11,177	1,838	1,834	-	-	-	-	-	-	-	-
Feb	20	18	11,206	11,177	1,838	1,834	-	-	-	-	-	-	-	-
Mar	20	18	11,206	11,177	1,838	1,834	-	-	-	-	-	-	-	-
Apr	30	25	10,972	11,183	1,800	1,835	-	-	-	-	-	-	-	-
May	30	25	10,972	11,183	1,800	1,835	-	-	-	-	-	-	-	-
Jun	25	25	11,183	11,183	1,835	1,835	12,602	12,602	5,168	5,168	5,168	5,168	5,168	5,168
Jul	25	30	11,183	10,972	1,835	1,800	12,602	12,349	5,168	5,065	5,168	5,065	5,168	5,065
Aug	25	30	11,183	10,972	1,835	1,800	12,602	12,349	5,168	5,065	5,168	5,065	5,168	5,065
Sep 1	25	25	11,183	11,183	1,835	1,835	12,602	12,602	5,168	5,168	5,168	5,168	5,168	5,168
Sep 16	25	25	11,183	11,183	1,835	1,835	12,602	12,602	5,168	5,168	5,168	5,168	5,168	5,168

Table Attachment D-126. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout.

Brown Trout Adult											Brown Trout Spawning											
Normal Years																						
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer		Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer		
	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	
Oct	30	25	11,286	11,126	926	913	2,761	2,813	1,617	1,648	Oct	25	25	11,126	11,126	913	913	2,813	2,813	1,648	1,648	
Nov	25	25	11,126	11,126	883	913	2,799	2,813	1,640	1,648	Dec 1	20	25	10,760	11,126	883	913	2,799	2,813	1,640	1,648	
Dec 1	20	25	10,760	11,126	883	913	2,799	2,813	1,640	1,648	Dec 16	20	25	10,760	11,126	883	913	2,799	2,813	1,640	1,648	
Dec 16	20	25	10,760	11,126	883	913	-	-	-	-	Jan	20	18	10,760	10,469	883	859	-	-	-	-	
Jan	20	18	10,760	10,469	883	859	-	-	-	-	Feb	20	18	10,760	10,469	883	859	-	-	-	-	
Feb	20	18	10,760	10,469	883	859	-	-	-	-	Mar	30	18	11,286	10,469	926	859	-	-	-	-	
Mar	30	18	11,286	10,469	926	859	-	-	-	-	Apr	35	25	11,384	11,126	934	913	-	-	-	-	
Apr	35	25	11,384	11,126	934	913	-	-	-	-	May	35	25	11,384	11,126	934	913	-	-	-	-	
May	35	25	11,384	11,126	934	913	-	-	-	-	Jun	30	25	11,286	11,126	926	913	-	-	-	-	
Jun	30	25	11,286	11,126	926	913	-	-	-	-	Jul	30	30	11,286	11,286	926	926	-	-	-	-	
Jul	30	30	11,286	11,286	926	926	-	-	-	-	Aug	30	30	11,286	11,286	926	926	-	-	-	-	
Aug	30	30	11,286	11,286	926	926	-	-	-	-	Sep 1	30	25	11,286	11,126	926	913	-	-	-	-	
Sep 1	30	25	11,286	11,126	926	913	-	-	-	-	Sep 16	30	25	11,286	11,126	926	913	-	-	-	-	
Sep 16	30	25	11,286	11,126	926	913	-	-	-	-												

Dry Years										
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	25	25	11,126	11,126	913	913	2,813	2,813	1,648	1,648
Nov	25	25	11,126	11,126	913	913	2,813	2,813	1,648	1,648
Dec 1	20	25	10,760	11,126	883	913	2,799	2,813	1,640	1,648
Dec 16	20	25	10,760	11,126	883	913	2,799	2,813	1,640	1,648
Jan	20	18	10,760	10,469	883	859	-	-	-	-
Feb	20	18	10,760	10,469	883	859	-	-	-	-
Mar	20	18	10,760	10,469	883	859	-	-	-	-
Apr	30	25	11,286	11,126	926	913	-	-	-	-
May	30	25	11,286	11,126	926	913	-	-	-	-
Jun	25	25	11,126	11,126	913	913	-	-	-	-
Jul	25	30	11,126	11,286	913	926	-	-	-	-
Aug	25	30	11,126	11,286	913	926	-	-	-	-
Sep 1	25	25	11,126	11,126	913	913	-	-	-	-
Sep 16	25	25	11,126	11,126	913	913	-	-	-	-

Table Attachment D-126. Comparisons of Flow, WUA, and Number of Fish Supported for Mono Creek - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	30	25	9,994	10,181	1,640	1,670	-	-	-	-		
Nov	25	25	10,181	10,181	1,670	1,670	-	-	-	-		
Dec 1	20	25	10,330	10,181	1,695	1,670	-	-	-	-		
Dec 16	20	25	10,330	10,181	1,695	1,670	-	-	-	-		
Jan	20	18	10,330	10,386	1,695	1,704	-	-	-	-		
Feb	20	18	10,330	10,386	1,695	1,704	-	-	-	-		
Mar	30	18	9,994	10,386	1,640	1,704	-	-	-	-		
Apr	35	25	9,869	10,181	1,619	1,670	-	-	-	-		
May	35	25	9,869	10,181	1,619	1,670	-	-	-	-		
Jun	30	25	9,994	10,181	1,640	1,670	11,997	12,233	4,920	5,017		
Jul	30	30	9,994	9,994	1,640	1,640	11,997	11,997	4,920	4,920		
Aug	30	30	9,994	9,994	1,640	1,640	11,997	11,997	4,920	4,920		
Sep 1	30	25	9,994	10,181	1,640	1,670	11,997	12,233	4,920	5,017		
Sep 16	30	25	9,994	10,181	1,640	1,670	11,997	12,233	4,920	5,017		

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	25	25	10,181	10,181	1,670	1,670	-	-	-	-		
Nov	25	25	10,181	10,181	1,670	1,670	-	-	-	-		
Dec 1	20	25	10,330	10,181	1,695	1,670	-	-	-	-		
Dec 16	20	25	10,330	10,181	1,695	1,670	-	-	-	-		
Jan	20	18	10,330	10,386	1,695	1,704	-	-	-	-		
Feb	20	18	10,330	10,386	1,695	1,704	-	-	-	-		
Mar	20	18	10,330	10,386	1,695	1,704	-	-	-	-		
Apr	30	25	9,994	10,181	1,640	1,670	-	-	-	-		
May	30	25	9,994	10,181	1,640	1,670	-	-	-	-		
Jun	25	25	10,181	10,181	1,670	1,670	12,233	12,233	5,017	5,017		
Jul	25	30	10,181	9,994	1,670	1,640	12,233	11,997	5,017	4,920		
Aug	25	30	10,181	9,994	1,670	1,640	12,233	11,997	5,017	4,920		
Sep 1	25	25	10,181	10,181	1,670	1,670	12,233	12,233	5,017	5,017		
Sep 16	25	25	10,181	10,181	1,670	1,670	12,233	12,233	5,017	5,017		

Table Attachment D-127. Percent of Maximum WUA Provided for Trout in Mono Creek - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	30	25	Brown Trout Spawning	98%	100%	83%	77%	92%	90%
Nov	25	25		100%	100%	77%	77%	90%	90%
Dec 1	20	25		100%	100%	70%	77%	87%	90%
Dec 16	20	25		100%	100%	70%	77%	87%	90%
Jan	20	18			70%	66%	87%	85%	
Feb	20	18			70%	66%	87%	85%	
Mar	30	18			83%	66%	92%	85%	
Apr	35	25	Rainbow Trout Spawning	98%	99%	87%	77%	92%	90%
May	35	25		98%	99%	87%	77%	92%	90%
Jun	30	25		100%	99%	83%	77%	92%	90%
Jul	30	30			83%	83%	92%	92%	
Aug	30	30			83%	83%	92%	92%	
Sep 1	30	25			83%	77%	92%	90%	
Sep 16	30	25			83%	77%	92%	90%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	25	25	Brown Trout Spawning	100%	100%	77%	77%	90%	90%
Nov	25	25		100%	100%	77%	77%	90%	90%
Dec 1	20	25		100%	100%	70%	77%	87%	90%
Dec 16	20	25		100%	100%	70%	77%	87%	90%
Jan	20	18			70%	66%	87%	85%	
Feb	20	18			70%	66%	87%	85%	
Mar	20	18			70%	66%	87%	85%	
Apr	30	25	Rainbow Trout Spawning	100%	99%	83%	77%	92%	90%
May	30	25		100%	99%	83%	77%	92%	90%
Jun	25	25		99%	99%	77%	77%	90%	90%
Jul	25	30			77%	83%	90%	92%	
Aug	25	30			77%	83%	90%	92%	
Sep 1	25	25			77%	77%	90%	90%	
Sep 16	25	25			77%	77%	90%	90%	

Table Attachment D-128. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	4	8,282	5,251	679	431	-	-	-	-		
Nov	12	4	8,282	5,251	679	431	-	-	-	-		
Dec	12	4	8,282	5,251	679	431	-	-	-	-		
Jan	8	3.5	7,018	4,975	576	408	-	-	-	-		
Feb	8	3.5	7,018	4,975	576	408	-	-	-	-		
Mar	8	3.5	7,018	4,975	576	408	-	-	-	-		
Apr	25	5	10,624	5,757	871	472	178	170	265	254		
May	25	5	10,624	5,757	871	472	178	170	265	254		
Jun	20	5	9,914	5,757	813	472	187	170	279	254		
Jul	15	4.5	8,981	5,511	737	452	-	-	-	-		
Aug	15	4.5	8,981	5,511	737	452	-	-	-	-		
Sep	12	4.5	8,282	5,511	679	452	-	-	-	-		

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	3	8,282	4,683	679	384	-	-	-	-		
Nov	12	3	8,282	4,683	679	384	-	-	-	-		
Dec	12	3	8,282	4,683	679	384	-	-	-	-		
Jan	8	3	7,018	4,683	576	384	-	-	-	-		
Feb	8	3	7,018	4,683	576	384	-	-	-	-		
Mar	8	3	7,018	4,683	576	384	-	-	-	-		
Apr	20	4	9,914	5,251	813	431	187	152	279	227		
May	20	4	9,914	5,251	813	431	187	152	279	227		
Jun	20	4	9,914	5,251	813	431	187	152	279	227		
Jul	12	3.5	8,282	4,975	679	408	-	-	-	-		
Aug	12	3.5	8,282	4,975	679	408	-	-	-	-		
Sep	12	3.5	8,282	4,975	679	408	-	-	-	-		

Table Attachment D-128. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	4	12,566	10,338	2,061	1,696	-	-	-	-		
Nov	12	4	12,566	10,338	2,061	1,696	-	-	-	-		
Dec	12	4	12,566	10,338	2,061	1,696	-	-	-	-		
Jan	8	3.5	11,925	10,013	1,956	1,643	-	-	-	-		
Feb	8	3.5	11,925	10,013	1,956	1,643	-	-	-	-		
Mar	8	3.5	11,925	10,013	1,956	1,643	-	-	-	-		
Apr	25	5	12,520	10,861	2,054	1,782	-	-	-	-		
May	25	5	12,520	10,861	2,054	1,782	-	-	-	-		
Jun	20	5	12,732	10,861	2,089	1,782	15,834	16,678	6,494	6,840		
Jul	15	4.5	12,759	10,612	2,093	1,741	16,248	16,587	6,664	6,803		
Aug	15	4.5	12,759	10,612	2,093	1,741	16,248	16,587	6,664	6,803		
Sep	12	4.5	12,566	10,612	2,061	1,741	16,420	16,587	6,734	6,803		

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	3	12,566	9,618	2,061	1,578	-	-	-	-		
Nov	12	3	12,566	9,618	2,061	1,578	-	-	-	-		
Dec	12	3	12,566	9,618	2,061	1,578	-	-	-	-		
Jan	8	3	11,925	9,618	1,956	1,578	-	-	-	-		
Feb	8	3	11,925	9,618	1,956	1,578	-	-	-	-		
Mar	8	3	11,925	9,618	1,956	1,578	-	-	-	-		
Apr	20	4	12,732	10,338	2,089	1,696	-	-	-	-		
May	20	4	12,732	10,338	2,089	1,696	-	-	-	-		
Jun	20	4	12,732	10,338	2,089	1,696	15,834	16,472	6,494	6,756		
Jul	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684		
Aug	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684		
Sep	12	3.5	12,566	10,013	2,061	1,643	16,420	16,296	6,734	6,684		

Table Attachment D-129. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	4	10,216	7,298	838	599	169	159	99	93
Nov	12	4	10,216	7,298	838	599	169	159	99	93
Dec	12	4	10,216	7,298	838	599	169	159	99	93
Jan	8	3.5	9,146	6,989	750	573	-	-	-	-
Feb	8	3.5	9,146	6,989	750	573	-	-	-	-
Mar	8	3.5	9,146	6,989	750	573	-	-	-	-
Apr	25	5	11,762	7,857	965	644	-	-	-	-
May	25	5	11,762	7,857	965	644	-	-	-	-
Jun	20	5	11,373	7,857	933	644	-	-	-	-
Jul	15	4.5	10,756	7,588	882	622	-	-	-	-
Aug	15	4.5	10,756	7,588	882	622	-	-	-	-
Sep	12	4.5	10,216	7,588	838	622	-	-	-	-

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	3	10,216	6,657	838	546	169	139	99	82
Nov	12	3	10,216	6,657	838	546	169	139	99	82
Dec	12	3	10,216	6,657	838	546	169	139	99	82
Jan	8	3	9,146	6,657	750	546	-	-	-	-
Feb	8	3	9,146	6,657	750	546	-	-	-	-
Mar	8	3	9,146	6,657	750	546	-	-	-	-
Apr	20	4	11,373	7,298	933	599	-	-	-	-
May	20	4	11,373	7,298	933	599	-	-	-	-
Jun	20	4	11,373	7,298	933	599	-	-	-	-
Jul	12	3.5	10,216	6,989	838	573	-	-	-	-
Aug	12	3.5	10,216	6,989	838	573	-	-	-	-
Sep	12	3.5	10,216	6,989	838	573	-	-	-	-

Table Attachment D-129. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Nov	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Dec	12	4	12,970	11,155	2,128	1,830	-	-	-	-
Jan	8	3.5	12,531	10,861	2,056	1,782	-	-	-	-
Feb	8	3.5	12,531	10,861	2,056	1,782	-	-	-	-
Mar	8	3.5	12,531	10,861	2,056	1,782	-	-	-	-
Apr	25	5	12,422	11,643	2,038	1,910	-	-	-	-
May	25	5	12,422	11,643	2,038	1,910	-	-	-	-
Jun	20	5	12,848	11,643	2,108	1,910	15,351	16,364	6,296	6,711
Jul	15	4.5	13,053	11,401	2,141	1,870	15,814	16,283	6,486	6,678
Aug	15	4.5	13,053	11,401	2,141	1,870	15,814	16,283	6,486	6,678
Sep	12	4.5	12,970	11,401	2,128	1,870	16,015	16,283	6,568	6,678

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	3	12,970	10,478	2,128	1,719	-	-	-	-	-	-	-	-
Nov	12	3	12,970	10,478	2,128	1,719	-	-	-	-	-	-	-	-
Dec	12	3	12,970	10,478	2,128	1,719	-	-	-	-	-	-	-	-
Jan	8	3	12,531	10,478	2,056	1,719	-	-	-	-	-	-	-	-
Feb	8	3	12,531	10,478	2,056	1,719	-	-	-	-	-	-	-	-
Mar	8	3	12,531	10,478	2,056	1,719	-	-	-	-	-	-	-	-
Apr	20	4	12,848	11,155	2,108	1,830	-	-	-	-	-	-	-	-
May	20	4	12,848	11,155	2,108	1,830	-	-	-	-	-	-	-	-
Jun	20	4	12,848	11,155	2,108	1,830	15,351	16,186	6,296	6,638	6,296	6,638	6,296	6,638
Jul	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578	6,568	6,578	6,568	6,578
Aug	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578	6,568	6,578	6,568	6,578
Sep	12	3.5	12,970	10,861	2,128	1,782	16,015	16,039	6,568	6,578	6,568	6,578	6,568	6,578

Table Attachment D-130. Percent of Maximum WUA Provided for Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	4	Brown Trout Spawning	95%	90%	68%	43%	85%	61%
Nov	12	4		95%	90%	68%	43%	85%	61%
Dec	12	4		95%	90%	68%	43%	85%	61%
Jan	8	3.5	Rainbow Trout Spawning			57%	41%	76%	58%
Feb	8	3.5				57%	41%	76%	58%
Mar	8	3.5				57%	41%	76%	58%
Apr	25	5		88%	84%	87%	47%	98%	65%
May	25	5		88%	84%	87%	47%	98%	65%
Jun	20	5		93%	84%	81%	47%	94%	65%
Jul	15	4.5				73%	45%	89%	63%
Aug	15	4.5				73%	45%	89%	63%
Sep	12	4.5				68%	45%	85%	63%

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	12	3	Brown Trout Spawning	95%	79%	68%	38%	85%	55%
Nov	12	3		95%	79%	68%	38%	85%	55%
Dec	12	3		95%	79%	68%	38%	85%	55%
Jan	8	3	Rainbow Trout Spawning			57%	38%	76%	55%
Feb	8	3				57%	38%	76%	55%
Mar	8	3				57%	38%	76%	55%
Apr	20	4		93%	75%	81%	43%	94%	61%
May	20	4		93%	75%	81%	43%	94%	61%
Jun	20	4		93%	75%	81%	43%	94%	61%
Jul	12	3.5				68%	41%	85%	58%
Aug	12	3.5				68%	41%	85%	58%
Sep	12	3.5				68%	41%	85%	58%

Table Attachment D-131. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	8,282	8,282	679	679	-	-	-	-
Nov	12	12	8,282	8,282	679	679	-	-	-	-
Dec	12	12	8,282	8,282	679	679	-	-	-	-
Jan	8	12	7,018	8,282	576	679	-	-	-	-
Feb	8	12	7,018	8,282	576	679	-	-	-	-
Mar	8	12	7,018	8,282	576	679	-	-	-	-
Apr	25	12	10,624	8,282	871	679	178	201	265	299
May	25	12	10,624	8,282	871	679	178	201	265	299
Jun	20	12	9,914	8,282	813	679	187	201	279	299
Jul	15	12	8,981	8,282	737	679	-	-	-	-
Aug	15	12	8,981	8,282	737	679	-	-	-	-
Sep	12	12	8,282	8,282	679	679	-	-	-	-

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-
Nov	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-
Dec	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-
Jan	8	12	7,018	8,282	576	679	-	-	-	-	-	-	-	-
Feb	8	12	7,018	8,282	576	679	-	-	-	-	-	-	-	-
Mar	8	12	7,018	8,282	576	679	-	-	-	-	-	-	-	-
Apr	20	12	9,914	8,282	813	679	187	201	279	299	279	299	279	299
May	20	12	9,914	8,282	813	679	187	201	279	299	279	299	279	299
Jun	20	12	9,914	8,282	813	679	187	201	279	299	279	299	279	299
Jul	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-
Aug	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-
Sep	12	12	8,282	8,282	679	679	-	-	-	-	-	-	-	-

Table Attachment D-131. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Nov	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Dec	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Jan	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Feb	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Mar	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Apr	25	12	12,520	12,566	2,054	2,061	-	-	-	-	-	-
May	25	12	12,520	12,566	2,054	2,061	-	-	-	-	-	-
Jun	20	12	12,732	12,566	2,089	2,061	15,834	16,420	6,494	6,734	6,494	6,734
Jul	15	12	12,759	12,566	2,093	2,061	16,248	16,420	6,664	6,734	6,664	6,734
Aug	15	12	12,759	12,566	2,093	2,061	16,248	16,420	6,664	6,734	6,664	6,734
Sep	12	12	12,566	12,566	2,061	2,061	16,420	16,420	6,734	6,734	6,734	6,734

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Nov	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Dec	12	12	12,566	12,566	2,061	2,061	-	-	-	-	-	-
Jan	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Feb	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Mar	8	12	11,925	12,566	1,956	2,061	-	-	-	-	-	-
Apr	20	12	12,732	12,566	2,089	2,061	-	-	-	-	-	-
May	20	12	12,732	12,566	2,089	2,061	-	-	-	-	-	-
Jun	20	12	12,732	12,566	2,089	2,061	15,834	16,420	6,494	6,734	6,494	6,734
Jul	12	12	12,566	12,566	2,061	2,061	16,420	16,420	6,734	6,734	6,734	6,734
Aug	12	12	12,566	12,566	2,061	2,061	16,420	16,420	6,734	6,734	6,734	6,734
Sep	12	12	12,566	12,566	2,061	2,061	16,420	16,420	6,734	6,734	6,734	6,734

Table Attachment D-132. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	10,216	10,216	838	838	169	169	99	99
Nov	12	12	10,216	10,216	838	838	169	169	99	99
Dec	12	12	10,216	10,216	838	838	169	169	99	99
Jan	8	12	9,146	10,216	750	838	-	-	-	-
Feb	8	12	9,146	10,216	750	838	-	-	-	-
Mar	8	12	9,146	10,216	750	838	-	-	-	-
Apr	25	12	11,762	10,216	965	838	-	-	-	-
May	25	12	11,762	10,216	965	838	-	-	-	-
Jun	20	12	11,373	10,216	933	838	-	-	-	-
Jul	15	12	10,756	10,216	882	838	-	-	-	-
Aug	15	12	10,756	10,216	882	838	-	-	-	-
Sep	12	12	10,216	10,216	838	838	-	-	-	-

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	10,216	10,216	838	838	169	169	99	99
Nov	12	12	10,216	10,216	838	838	169	169	99	99
Dec	12	12	10,216	10,216	838	838	169	169	99	99
Jan	8	12	9,146	10,216	750	838	-	-	-	-
Feb	8	12	9,146	10,216	750	838	-	-	-	-
Mar	8	12	9,146	10,216	750	838	-	-	-	-
Apr	20	12	11,373	10,216	933	838	-	-	-	-
May	20	12	11,373	10,216	933	838	-	-	-	-
Jun	20	12	11,373	10,216	933	838	-	-	-	-
Jul	12	12	10,216	10,216	838	838	-	-	-	-
Aug	12	12	10,216	10,216	838	838	-	-	-	-
Sep	12	12	10,216	10,216	838	838	-	-	-	-

Table Attachment D-132. Comparisons of Flow, WUA, and Number of Fish Supported for North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	12,970	12,970	2,128	2,128	-	-	-	-
Nov	12	12	12,970	12,970	2,128	2,128	-	-	-	-
Dec	12	12	12,970	12,970	2,128	2,128	-	-	-	-
Jan	8	12	12,531	12,970	2,056	2,128	-	-	-	-
Feb	8	12	12,531	12,970	2,056	2,128	-	-	-	-
Mar	8	12	12,531	12,970	2,056	2,128	-	-	-	-
Apr	25	12	12,422	12,970	2,038	2,128	-	-	-	-
May	25	12	12,422	12,970	2,038	2,128	-	-	-	-
Jun	20	12	12,848	12,970	2,108	2,128	15,351	16,015	6,296	6,568
Jul	15	12	13,053	12,970	2,141	2,128	15,814	16,015	6,486	6,568
Aug	15	12	13,053	12,970	2,141	2,128	15,814	16,015	6,486	6,568
Sep	12	12	12,970	12,970	2,128	2,128	16,015	16,015	6,568	6,568

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	12,970	12,970	2,128	2,128	-	-	-	-	-	-	-	-
Nov	12	12	12,970	12,970	2,128	2,128	-	-	-	-	-	-	-	-
Dec	12	12	12,970	12,970	2,128	2,128	-	-	-	-	-	-	-	-
Jan	8	12	12,531	12,970	2,056	2,128	-	-	-	-	-	-	-	-
Feb	8	12	12,531	12,970	2,056	2,128	-	-	-	-	-	-	-	-
Mar	8	12	12,531	12,970	2,056	2,128	-	-	-	-	-	-	-	-
Apr	20	12	12,848	12,970	2,108	2,128	-	-	-	-	-	-	-	-
May	20	12	12,848	12,970	2,108	2,128	-	-	-	-	-	-	-	-
Jun	20	12	12,848	12,970	2,108	2,128	15,351	16,015	6,296	6,568	6,296	6,568	6,296	6,568
Jul	12	12	12,970	12,970	2,128	2,128	16,015	16,015	6,568	6,568	6,568	6,568	6,568	6,568
Aug	12	12	12,970	12,970	2,128	2,128	16,015	16,015	6,568	6,568	6,568	6,568	6,568	6,568
Sep	12	12	12,970	12,970	2,128	2,128	16,015	16,015	6,568	6,568	6,568	6,568	6,568	6,568

Table Attachment D-133. Percent of Maximum WUA provided for Trout in North Fork Stevenson Creek, Tunnel Outlet to Shaver Lake - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	Brown Trout Spawning	95%	95%	68%	68%	85%	85%
Nov	12	12		95%	95%	68%	68%	85%	85%
Dec	12	12		95%	95%	68%	68%	85%	85%
Jan	8	12			57%	68%	76%	85%	
Feb	8	12			57%	68%	76%	85%	
Mar	8	12			57%	68%	76%	85%	
Apr	25	12	Rainbow Trout Spawning	88%	99%	87%	68%	98%	85%
May	25	12		88%	99%	87%	68%	98%	85%
Jun	20	12		93%	99%	81%	68%	94%	85%
Jul	15	12			73%	68%	89%	85%	
Aug	15	12			73%	68%	89%	85%	
Sep	12	12			68%	68%	85%	85%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	12	12	Brown Trout Spawning	95%	95%	68%	68%	85%	85%
Nov	12	12		95%	95%	68%	68%	85%	85%
Dec	12	12		95%	95%	68%	68%	85%	85%
Jan	8	12			57%	68%	76%	85%	
Feb	8	12			57%	68%	76%	85%	
Mar	8	12			57%	68%	76%	85%	
Apr	20	12	Rainbow Trout Spawning	93%	99%	81%	68%	94%	85%
May	20	12		93%	99%	81%	68%	94%	85%
Jun	20	12		93%	99%	81%	68%	94%	85%
Jul	12	12			68%	68%	85%	85%	
Aug	12	12			68%	68%	85%	85%	
Sep	12	12			68%	68%	85%	85%	

Table Attachment D-134. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	3	11,124	8,093	912	664	-	-	-	-
Nov	8	2.5	10,435	7,786	856	639	-	-	-	-
Dec	8	2	10,435	7,454	856	611	-	-	-	-
Jan	8	2	10,435	7,454	856	611	-	-	-	-
Feb	8	2	10,435	7,454	856	611	-	-	-	-
Mar	8	2	10,435	7,454	856	611	-	-	-	-
Apr	20	3	13,200	8,093	1,083	664	914	320	1,364	478
May	20	3	13,200	8,093	1,083	664	914	320	1,364	478
Jun	20	3	13,200	8,093	1,083	664	914	320	1,364	478
Jul	15	3	12,350	8,093	1,013	664	-	-	-	-
Aug	15	3	12,350	8,093	1,013	664	-	-	-	-
Sep	10	3	11,124	8,093	912	664	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	2	10,435	7,454	856	611	-	-	-	-	-	-	-	-
Nov	8	1.5	10,435	7,078	856	581	-	-	-	-	-	-	-	-
Dec	8	1	10,435	6,667	856	547	-	-	-	-	-	-	-	-
Jan	8	1	10,435	6,667	856	547	-	-	-	-	-	-	-	-
Feb	8	1	10,435	6,667	856	547	-	-	-	-	-	-	-	-
Mar	8	1	10,435	6,667	856	547	-	-	-	-	-	-	-	-
Apr	15	2	12,350	7,454	1,013	611	919	228	1,371	339	919	228	1,371	339
May	15	2	12,350	7,454	1,013	611	919	228	1,371	339	919	228	1,371	339
Jun	15	2	12,350	7,454	1,013	611	919	228	1,371	339	919	228	1,371	339
Jul	10	2	11,124	7,454	912	611	-	-	-	-	-	-	-	-
Aug	10	2	11,124	7,454	912	611	-	-	-	-	-	-	-	-
Sep	10	2	11,124	7,454	912	611	-	-	-	-	-	-	-	-

Table Attachment D-134. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	3	10,973	9,313	1,800	1,528	-	-	-	-
Nov	8	2.5	10,771	8,960	1,767	1,470	-	-	-	-
Dec	8	2	10,771	8,555	1,767	1,403	-	-	-	-
Jan	8	2	10,771	8,555	1,767	1,403	-	-	-	-
Feb	8	2	10,771	8,555	1,767	1,403	-	-	-	-
Mar	8	2	10,771	8,555	1,767	1,403	-	-	-	-
Apr	20	3	10,990	9,313	1,803	1,528	-	-	-	-
May	20	3	10,990	9,313	1,803	1,528	-	-	-	-
Jun	20	3	10,990	9,313	1,803	1,528	13,250	13,378	5,434	5,487
Jul	15	3	11,024	9,313	1,808	1,528	13,744	13,378	5,637	5,487
Aug	15	3	11,024	9,313	1,808	1,528	13,744	13,378	5,637	5,487
Sep	10	3	10,973	9,313	1,800	1,528	14,016	13,378	5,748	5,487

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	2	10,771	8,555	1,767	1,403	-	-	-	-	-	-	-	-
Nov	8	1.5	10,771	8,056	1,767	1,322	-	-	-	-	-	-	-	-
Dec	8	1	10,771	7,410	1,767	1,216	-	-	-	-	-	-	-	-
Jan	8	1	10,771	7,410	1,767	1,216	-	-	-	-	-	-	-	-
Feb	8	1	10,771	7,410	1,767	1,216	-	-	-	-	-	-	-	-
Mar	8	1	10,771	7,410	1,767	1,216	-	-	-	-	-	-	-	-
Apr	15	2	11,024	8,555	1,808	1,403	-	-	-	-	-	-	-	-
May	15	2	11,024	8,555	1,808	1,403	-	-	-	-	-	-	-	-
Jun	15	2	11,024	8,555	1,808	1,403	13,744	12,950	5,637	5,311	14,016	12,950	5,748	5,311
Jul	10	2	10,973	8,555	1,800	1,403	14,016	12,950	5,748	5,311	14,016	12,950	5,748	5,311
Aug	10	2	10,973	8,555	1,800	1,403	14,016	12,950	5,748	5,311	14,016	12,950	5,748	5,311
Sep	10	2	10,973	8,555	1,800	1,403	14,016	12,950	5,748	5,311	14,016	12,950	5,748	5,311

Table Attachment D-135. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	3	13,085	10,262	1,073	842	745	421	437	247
Nov	8	2.5	12,542	9,932	1,029	815	677	385	397	226
Dec	8	2	12,542	9,576	1,029	785	677	344	397	202
Jan	8	2	12,542	9,576	1,029	785	-	-	-	-
Feb	8	2	12,542	9,576	1,029	785	-	-	-	-
Mar	8	2	12,542	9,576	1,029	785	-	-	-	-
Apr	20	3	14,651	10,262	1,202	842	-	-	-	-
May	20	3	14,651	10,262	1,202	842	-	-	-	-
Jun	20	3	14,651	10,262	1,202	842	-	-	-	-
Jul	15	3	14,060	10,262	1,153	842	-	-	-	-
Aug	15	3	14,060	10,262	1,153	842	-	-	-	-
Sep	10	3	13,085	10,262	1,073	842	-	-	-	-

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	2	12,542	9,576	1,029	785	677	344	397	202
Nov	8	1.5	12,542	9,163	1,029	752	677	292	397	171
Dec	8	1	12,542	8,663	1,029	711	677	217	397	127
Jan	8	1	12,542	8,663	1,029	711	-	-	-	-
Feb	8	1	12,542	8,663	1,029	711	-	-	-	-
Mar	8	1	12,542	8,663	1,029	711	-	-	-	-
Apr	15	2	14,060	9,576	1,153	785	-	-	-	-
May	15	2	14,060	9,576	1,153	785	-	-	-	-
Jun	15	2	14,060	9,576	1,153	785	-	-	-	-
Jul	10	2	13,085	9,576	1,073	785	-	-	-	-
Aug	10	2	13,085	9,576	1,073	785	-	-	-	-
Sep	10	2	13,085	9,576	1,073	785	-	-	-	-

Table Attachment D-135. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	3	11,741	10,270	1,926	1,685	-	-	-	-
Nov	8	2.5	11,575	9,910	1,899	1,626	-	-	-	-
Dec	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Jan	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Feb	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Mar	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Apr	20	3	11,461	10,270	1,880	1,685	-	-	-	-
May	20	3	11,461	10,270	1,880	1,685	-	-	-	-
Jun	20	3	11,461	10,270	1,880	1,685	12,182	12,425	4,996	5,096
Jul	15	3	11,662	10,270	1,913	1,685	12,647	12,425	5,187	5,096
Aug	15	3	11,662	10,270	1,913	1,685	12,647	12,425	5,187	5,096
Sep	10	3	11,741	10,270	1,926	1,685	12,882	12,425	5,283	5,096
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	2	11,575	9,491	1,899	1,557	-	-	-	-
Nov	8	1.5	11,575	8,995	1,899	1,476	-	-	-	-
Dec	8	1	11,575	8,344	1,899	1,369	-	-	-	-
Jan	8	1	11,575	8,344	1,899	1,369	-	-	-	-
Feb	8	1	11,575	8,344	1,899	1,369	-	-	-	-
Mar	8	1	11,575	8,344	1,899	1,369	-	-	-	-
Apr	15	2	11,662	9,491	1,913	1,557	-	-	-	-
May	15	2	11,662	9,491	1,913	1,557	-	-	-	-
Jun	15	2	11,662	9,491	1,913	1,557	12,647	12,098	5,187	4,962
Jul	10	2	11,741	9,491	1,926	1,557	12,882	12,098	5,283	4,962
Aug	10	2	11,741	9,491	1,926	1,557	12,882	12,098	5,283	4,962
Sep	10	2	11,741	9,491	1,926	1,557	12,882	12,098	5,283	4,962

Table Attachment D-136. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	10	3	Brown Trout Spawning	97%	55%	69%	50%	86%	67%
Nov	8	2.5		88%	50%	65%	48%	82%	65%
Dec	8	2		88%	45%	65%	46%	82%	63%
Jan	8	2			65%	46%	82%	63%	
Feb	8	2			65%	46%	82%	63%	
Mar	8	2			65%	46%	82%	63%	
Apr	20	3	Rainbow Trout Spawning	97%	34%	82%	50%	96%	67%
May	20	3		97%	34%	82%	50%	96%	67%
Jun	20	3		97%	34%	82%	50%	96%	67%
Jul	15	3			77%	50%	92%	67%	
Aug	15	3			77%	50%	92%	67%	
Sep	10	3			69%	50%	86%	67%	

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	2	Brown Trout Spawning	88%	45%	65%	46%	82%	63%
Nov	8	1.5		88%	38%	65%	44%	82%	60%
Dec	8	1		88%	28%	65%	41%	82%	57%
Jan	8	1			65%	41%	82%	57%	
Feb	8	1			65%	41%	82%	57%	
Mar	8	1			65%	41%	82%	57%	
Apr	15	2	Rainbow Trout Spawning	98%	24%	77%	46%	92%	63%
May	15	2		98%	24%	77%	46%	92%	63%
Jun	15	2		98%	24%	77%	46%	92%	63%
Jul	10	2			69%	46%	86%	63%	
Aug	10	2			69%	46%	86%	63%	
Sep	10	2			69%	46%	86%	63%	

Table Attachment D-137. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	11,124	10,435	912	856	-	-	-	-
Nov	8	7	10,435	10,052	856	825	-	-	-	-
Dec	8	7	10,435	10,052	856	825	-	-	-	-
Jan	8	7	10,435	10,052	856	825	-	-	-	-
Feb	8	7	10,435	10,052	856	825	-	-	-	-
Mar	8	7	10,435	10,052	856	825	-	-	-	-
Apr	20	12	13,200	11,700	1,083	960	914	843	1,364	1,258
May	20	12	13,200	11,700	1,083	960	914	843	1,364	1,258
Jun	20	12	13,200	11,700	1,083	960	914	843	1,364	1,258
Jul	15	12	12,350	11,700	1,013	960	-	-	-	-
Aug	15	12	12,350	11,700	1,013	960	-	-	-	-
Sep	10	12	11,124	11,700	912	960	-	-	-	-

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	8	10,435	10,435	856	856	-	-	-	-	-	-	-	-
Nov	8	7	10,435	10,052	856	825	-	-	-	-	-	-	-	-
Dec	8	7	10,435	10,052	856	825	-	-	-	-	-	-	-	-
Jan	8	7	10,435	10,052	856	825	-	-	-	-	-	-	-	-
Feb	8	7	10,435	10,052	856	825	-	-	-	-	-	-	-	-
Mar	8	7	10,435	10,052	856	825	-	-	-	-	-	-	-	-
Apr	15	12	12,350	11,700	1,013	960	919	843	1,371	1,258	1,371	1,258	1,371	1,258
May	15	12	12,350	11,700	1,013	960	919	843	1,371	1,258	1,371	1,258	1,371	1,258
Jun	15	12	12,350	11,700	1,013	960	919	843	1,371	1,258	1,371	1,258	1,371	1,258
Jul	10	12	11,124	11,700	912	960	-	-	-	-	-	-	-	-
Aug	10	12	11,124	11,700	912	960	-	-	-	-	-	-	-	-
Sep	10	12	11,124	11,700	912	960	-	-	-	-	-	-	-	-

Table Attachment D-137. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	10,973	10,771	1,800	1,767	-	-	-	-
Nov	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Dec	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Jan	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Feb	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Mar	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Apr	20	12	10,990	11,042	1,803	1,811	-	-	-	-
May	20	12	10,990	11,042	1,803	1,811	-	-	-	-
Jun	20	12	10,990	11,042	1,803	1,811	13,250	13,940	5,434	5,717
Jul	15	12	11,024	11,042	1,808	1,811	13,744	13,940	5,637	5,717
Aug	15	12	11,024	11,042	1,808	1,811	13,744	13,940	5,637	5,717
Sep	10	12	10,973	11,042	1,800	1,811	14,016	13,940	5,748	5,717

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	8	10,771	10,771	1,767	1,767	-	-	-	-
Nov	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Dec	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Jan	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Feb	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Mar	8	7	10,771	10,612	1,767	1,741	-	-	-	-
Apr	15	12	11,024	11,042	1,808	1,811	-	-	-	-
May	15	12	11,024	11,042	1,808	1,811	-	-	-	-
Jun	15	12	11,024	11,042	1,808	1,811	13,744	13,940	5,637	5,717
Jul	10	12	10,973	11,042	1,800	1,811	14,016	13,940	5,748	5,717
Aug	10	12	10,973	11,042	1,800	1,811	14,016	13,940	5,748	5,717
Sep	10	12	10,973	11,042	1,800	1,811	14,016	13,940	5,748	5,717

Table Attachment D-138. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	13,085	12,542	1,073	1,029	745	677	437	397
Nov	8	7	12,542	12,218	1,029	1,002	677	637	397	373
Dec	8	7	12,542	12,218	1,029	1,002	677	637	397	373
Jan	8	7	12,542	12,218	1,029	1,002	-	-	-	-
Feb	8	7	12,542	12,218	1,029	1,002	-	-	-	-
Mar	8	7	12,542	12,218	1,029	1,002	-	-	-	-
Apr	20	12	14,651	13,519	1,202	1,109	-	-	-	-
May	20	12	14,651	13,519	1,202	1,109	-	-	-	-
Jun	20	12	14,651	13,519	1,202	1,109	-	-	-	-
Jul	15	12	14,060	13,519	1,153	1,109	-	-	-	-
Aug	15	12	14,060	13,519	1,153	1,109	-	-	-	-
Sep	10	12	13,085	13,519	1,073	1,109	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	8	12,542	12,542	1,029	1,029	677	677	397	397	397	397
Nov	8	7	12,542	12,218	1,029	1,002	677	637	397	373	397	373
Dec	8	7	12,542	12,218	1,029	1,002	677	637	397	373	397	373
Jan	8	7	12,542	12,218	1,029	1,002	-	-	-	-	-	-
Feb	8	7	12,542	12,218	1,029	1,002	-	-	-	-	-	-
Mar	8	7	12,542	12,218	1,029	1,002	-	-	-	-	-	-
Apr	15	12	14,060	13,519	1,153	1,109	-	-	-	-	-	-
May	15	12	14,060	13,519	1,153	1,109	-	-	-	-	-	-
Jun	15	12	14,060	13,519	1,153	1,109	-	-	-	-	-	-
Jul	10	12	13,085	13,519	1,073	1,109	-	-	-	-	-	-
Aug	10	12	13,085	13,519	1,073	1,109	-	-	-	-	-	-
Sep	10	12	13,085	13,519	1,073	1,109	-	-	-	-	-	-

Table Attachment D-138. Comparisons of Flow, WUA, and Number of Fish Supported for Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

			Brown Trout Juvenile				Brown Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	10	8	11,741	11,575	1,926	1,899	-	-	-	-
Nov	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Dec	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Jan	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Feb	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Mar	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Apr	20	12	11,461	11,720	1,880	1,923	-	-	-	-
May	20	12	11,461	11,720	1,880	1,923	-	-	-	-
Jun	20	12	11,461	11,720	1,880	1,923	12,182	12,809	4,996	5,253
Jul	15	12	11,662	11,720	1,913	1,923	12,647	12,809	5,187	5,253
Aug	15	12	11,662	11,720	1,913	1,923	12,647	12,809	5,187	5,253
Sep	10	12	11,741	11,720	1,926	1,923	12,882	12,809	5,283	5,253
Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	8	11,575	11,575	1,899	1,899	-	-	-	-
Nov	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Dec	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Jan	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Feb	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Mar	8	7	11,575	11,417	1,899	1,873	-	-	-	-
Apr	15	12	11,662	11,720	1,913	1,923	-	-	-	-
May	15	12	11,662	11,720	1,913	1,923	-	-	-	-
Jun	15	12	11,662	11,720	1,913	1,923	12,647	12,809	5,187	5,253
Jul	10	12	11,741	11,720	1,926	1,923	12,882	12,809	5,283	5,253
Aug	10	12	11,741	11,720	1,926	1,923	12,882	12,809	5,283	5,253
Sep	10	12	11,741	11,720	1,926	1,923	12,882	12,809	5,283	5,253

Table Attachment D-139. Percent of Maximum WUA Provided for Trout in Big Creek, Dam 5 to Powerhouse 8/SJR - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	10	8	Brown Trout Spawning	97%	88%	69%	65%	86%	82%
Nov	8	7		88%	83%	65%	62%	82%	80%
Dec	8	7		88%	83%	65%	62%	82%	80%
Jan	8	7			65%	62%	82%	80%	
Feb	8	7			65%	62%	82%	80%	
Mar	8	7			65%	62%	82%	80%	
Apr	20	12	Rainbow Trout Spawning	97%	90%	82%	73%	96%	89%
May	20	12		97%	90%	82%	73%	96%	89%
Jun	20	12		97%	90%	82%	73%	96%	89%
Jul	15	12			77%	73%	92%	89%	
Aug	15	12			77%	73%	92%	89%	
Sep	10	12			69%	73%	86%	89%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	8	Brown Trout Spawning	88%	88%	65%	65%	82%	82%
Nov	8	7		88%	83%	65%	62%	82%	80%
Dec	8	7		88%	83%	65%	62%	82%	80%
Jan	8	7			65%	62%	82%	80%	
Feb	8	7			65%	62%	82%	80%	
Mar	8	7			65%	62%	82%	80%	
Apr	15	12	Rainbow Trout Spawning	98%	90%	77%	73%	92%	89%
May	15	12		98%	90%	77%	73%	92%	89%
Jun	15	12		98%	90%	77%	73%	92%	89%
Jul	10	12			69%	73%	86%	89%	
Aug	10	12			69%	73%	86%	89%	
Sep	10	12			69%	73%	86%	89%	

Table Attachment D-140. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	3	8,862	5,745	727	471	-	-	-	-
Nov	5	2.5	7,169	5,325	588	437	-	-	-	-
Dec	5	2	7,169	4,874	588	400	-	-	-	-
Jan	5	2	7,169	4,874	588	400	-	-	-	-
Feb	5	2	7,169	4,874	588	400	-	-	-	-
Mar	5	2	7,169	4,874	588	400	-	-	-	-
Apr	15	3	11,384	5,745	934	471	167	31	249	46
May	15	3	11,384	5,745	934	471	167	31	249	46
Jun	10	3	9,776	5,745	802	471	148	31	221	46
Jul	8	3	8,862	5,745	727	471	-	-	-	-
Aug	8	3	8,862	5,745	727	471	-	-	-	-
Sep	8	3	8,862	5,745	727	471	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	5	3	7,169	5,745	588	471	-	-	-	-	-	-	-	-
Nov	5	2.5	7,169	5,325	588	437	-	-	-	-	-	-	-	-
Dec	5	2	7,169	4,874	588	400	-	-	-	-	-	-	-	-
Jan	5	2	7,169	4,874	588	400	-	-	-	-	-	-	-	-
Feb	5	2	7,169	4,874	588	400	-	-	-	-	-	-	-	-
Mar	5	2	7,169	4,874	588	400	-	-	-	-	-	-	-	-
Apr	10	3	9,776	5,745	802	471	148	31	221	46	-	-	-	-
May	10	3	9,776	5,745	802	471	148	31	221	46	-	-	-	-
Jun	9	3	9,334	5,745	766	471	135	31	201	46	-	-	-	-
Jul	8	3	8,862	5,745	727	471	-	-	-	-	-	-	-	-
Aug	8	3	8,862	5,745	727	471	-	-	-	-	-	-	-	-
Sep	8	3	8,862	5,745	727	471	-	-	-	-	-	-	-	-

Table Attachment D-140. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

Normal Years			Rainbow Trout Juvenile				Rainbow Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	3	11,739	10,327	1,926	1,694	-	-	-	-
Nov	5	2.5	11,417	9,886	1,873	1,622	-	-	-	-
Dec	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Jan	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Feb	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Mar	5	2	11,417	9,361	1,873	1,536	-	-	-	-
Apr	15	3	10,956	10,327	1,797	1,694	-	-	-	-
May	15	3	10,956	10,327	1,797	1,694	-	-	-	-
Jun	10	3	11,611	10,327	1,905	1,694	11,924	13,677	4,890	5,609
Jul	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Aug	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609
Sep	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	5	3	11,417	10,327	1,873	1,694	-	-	-	-	-	-	-	-
Nov	5	2.5	11,417	9,886	1,873	1,622	-	-	-	-	-	-	-	-
Dec	5	2	11,417	9,361	1,873	1,536	-	-	-	-	-	-	-	-
Jan	5	2	11,417	9,361	1,873	1,536	-	-	-	-	-	-	-	-
Feb	5	2	11,417	9,361	1,873	1,536	-	-	-	-	-	-	-	-
Mar	5	2	11,417	9,361	1,873	1,536	-	-	-	-	-	-	-	-
Apr	10	3	11,611	10,327	1,905	1,694	-	-	-	-	-	-	-	-
May	10	3	11,611	10,327	1,905	1,694	-	-	-	-	-	-	-	-
Jun	9	3	11,697	10,327	1,919	1,694	12,230	13,677	5,016	5,609	5,016	5,609	5,016	5,609
Jul	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609	5,152	5,609	5,152	5,609
Aug	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609	5,152	5,609	5,152	5,609
Sep	8	3	11,739	10,327	1,926	1,694	12,562	13,677	5,152	5,609	5,152	5,609	5,152	5,609

Table Attachment D-141. Percent of Maximum WUA provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	8	3				64%	41%
Nov	5	2.5				52%	38%
Dec	5	2				52%	35%
Jan	5	2				52%	35%
Feb	5	2				52%	35%
Mar	5	2				52%	35%
Apr	15	3	Rainbow Trout Spawning	99%	18%	82%	41%
May	15	3		99%	18%	82%	41%
Jun	10	3		88%	18%	71%	41%
Jul	8	3				64%	41%
Aug	8	3				64%	41%
Sep	8	3				64%	41%

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	5	3				52%	41%
Nov	5	2.5				52%	38%
Dec	5	2				52%	35%
Jan	5	2				52%	35%
Feb	5	2				52%	35%
Mar	5	2				52%	35%
Apr	10	3	Rainbow Trout Spawning	88%	18%	71%	41%
May	10	3		88%	18%	71%	41%
Jun	9	3		80%	18%	67%	41%
Jul	8	3				64%	41%
Aug	8	3				64%	41%
Sep	8	3				64%	41%

Table Attachment D-142. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	8	5	8,862	7,169	727	588	-	-	-	-
Nov	5	5	7,169	7,169	588	588	-	-	-	-
Dec	5	5	7,169	7,169	588	588	-	-	-	-
Jan	5	5	7,169	7,169	588	588	-	-	-	-
Feb	5	5	7,169	7,169	588	588	-	-	-	-
Mar	5	5	7,169	7,169	588	588	-	-	-	-
Apr	15	10	11,384	9,776	934	802	167	148	249	221
May	15	10	11,384	9,776	934	802	167	148	249	221
Jun	10	10	9,776	9,776	802	802	148	148	221	221
Jul	8	8	8,862	8,862	727	727	-	-	-	-
Aug	8	8	8,862	8,862	727	727	-	-	-	-
Sep	8	8	8,862	8,862	727	727	-	-	-	-

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Nov	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Dec	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Jan	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Feb	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Mar	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-
Apr	10	10	9,776	9,776	802	802	148	148	221	221	221	221	221	221
May	10	10	9,776	9,776	802	802	148	148	221	221	221	221	221	221
Jun	9	10	9,334	9,776	766	802	135	148	201	221	201	221	201	221
Jul	8	8	8,862	8,862	727	727	-	-	-	-	-	-	-	-
Aug	8	8	8,862	8,862	727	727	-	-	-	-	-	-	-	-
Sep	5	5	7,169	7,169	588	588	-	-	-	-	-	-	-	-

Table Attachment D-142. Comparisons of Flow, WUA, and Number of Fish Supported for Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	8	5	11,739	11,417	1,926	1,873	-	-	-	-
Nov	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Dec	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Jan	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Feb	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Mar	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Apr	15	10	10,956	11,611	1,797	1,905	-	-	-	-
May	15	10	10,956	11,611	1,797	1,905	-	-	-	-
Jun	10	10	11,611	11,611	1,905	1,905	11,924	11,924	4,890	4,890
Jul	8	8	11,739	11,739	1,926	1,926	12,562	12,562	5,152	5,152
Aug	8	8	11,739	11,739	1,926	1,926	12,562	12,562	5,152	5,152
Sep	8	8	11,739	11,739	1,926	1,926	12,562	12,562	5,152	5,152
Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Nov	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Dec	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Jan	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Feb	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Mar	5	5	11,417	11,417	1,873	1,873	-	-	-	-
Apr	10	10	11,611	11,611	1,905	1,905	-	-	-	-
May	10	10	11,611	11,611	1,905	1,905	-	-	-	-
Jun	9	10	11,697	11,611	1,919	1,905	12,230	11,924	5,016	4,890
Jul	8	8	11,739	11,739	1,926	1,926	12,562	12,562	5,152	5,152
Aug	8	8	11,739	11,739	1,926	1,926	12,562	12,562	5,152	5,152
Sep	5	5	11,417	11,417	1,873	1,873	-	-	-	-

Table Attachment D-143. Percent of Maximum WUA Provided for Trout in Stevenson Creek, Shaver Lake Dam to San Joaquin River - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	8	5				64%	52%
Nov	5	5				52%	52%
Dec	5	5				52%	52%
Jan	5	5				52%	52%
Feb	5	5				52%	52%
Mar	5	5				52%	52%
Apr	15	10	Rainbow Trout Spawning	99%	88%	82%	71%
May	15	10		99%	88%	82%	71%
Jun	10	10		88%	88%	71%	71%
Jul	8	8				64%	64%
Aug	8	8				64%	64%
Sep	8	8				64%	64%

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	5	5				52%	52%
Nov	5	5				52%	52%
Dec	5	5				52%	52%
Jan	5	5				52%	52%
Feb	5	5				52%	52%
Mar	5	5				52%	52%
Apr	10	10	Rainbow Trout Spawning	88%	88%	71%	71%
May	10	10		88%	88%	71%	71%
Jun	9	10		80%	88%	67%	71%
Jul	8	8				64%	64%
Aug	8	8				64%	64%
Sep	8	8				64%	64%

Table Attachment D-144. Habitat-Flow Relationships for Rainbow Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
3.0	24,109	21,363	31,110	57	2,172
3.5	24,532	21,674	31,379	58	2,530
4.0	24,931	21,968	31,618	59	2,901
4.5	25,307	22,258	31,846	61	3,271
5.0	25,663	22,534	32,052	63	3,633
6.0	26,328	23,075	32,286	67	4,331
7.0	26,954	23,522	32,429	72	4,948
8.0	27,559	23,907	32,502	78	5,511
9.0	28,152	24,207	32,557	84	5,958
10.0	28,725	24,455	32,646	89	6,400
12.5	30,042	25,135	32,810	107	7,486
15.0	31,236	25,794	32,863	131	8,630
20.0	33,223	26,705	33,083	173	10,369
30.0	36,507	27,632	33,436	238	12,488
40.0	39,029	28,298	32,531	276	13,912
50.0	41,214	28,394	31,556	266	14,421
60.0	43,094	28,468	30,839	289	14,390
70.0	44,753	28,512	30,149	310	13,853
80.0	46,285	28,298	29,558	322	13,623
90.0	47,648	28,051	29,027	321	13,167
100.0	48,788	27,852	28,518	310	12,936
125.0	50,848	27,251	27,003	290	13,263
150.0	52,452	26,255	25,756	296	13,066
175.0	53,456	25,392	24,677	296	12,835
200.0	54,206	24,555	23,643	279	13,416
225.0	54,778	23,737	22,583	285	15,205
250.0	54,956	22,995	21,520	292	16,687
275.0	54,700	22,247	20,369	302	18,039
300.0	54,674	21,251	19,283	300	19,237
350.0	54,373	19,324	17,322	275	20,567
MAX WUA	54,956	28,512	33,436	322	20,567

Table Attachment D-145. Habitat-Flow Relationships for Brown Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)			WUA Spawning (sq. ft./1000 ft.)	
	Adult	Juvenile	Fry	Actual Substrate	100% Suitable Substrate
3.0	29,685	24,554	28,124	53	4,439
3.5	30,167	24,945	28,434	54	4,895
4.0	30,617	25,304	28,673	56	5,353
4.5	31,044	25,681	28,930	59	5,819
5.0	31,451	26,029	29,192	63	6,251
6.0	32,218	26,636	29,520	72	7,034
7.0	32,945	27,164	29,752	85	7,675
8.0	33,629	27,605	29,916	101	8,306
9.0	34,271	27,986	30,052	117	8,843
10.0	34,854	28,354	30,222	134	9,352
12.5	36,105	29,197	30,433	169	10,368
15.0	37,183	29,837	30,371	198	11,398
20.0	38,957	30,597	30,296	251	13,008
30.0	41,780	31,609	29,911	316	14,701
40.0	44,129	32,542	28,528	350	15,042
50.0	45,958	32,728	27,496	319	14,743
60.0	47,488	32,649	26,828	328	14,211
70.0	48,693	32,570	26,303	344	13,775
80.0	49,696	32,398	25,748	348	13,669
90.0	50,520	32,282	25,246	343	13,443
100.0	51,220	31,955	24,713	333	13,365
125.0	52,527	31,081	23,300	335	13,783
150.0	53,297	30,009	21,962	342	13,416
175.0	53,477	28,930	20,891	331	13,244
200.0	53,283	27,948	19,990	304	14,378
225.0	53,051	26,909	18,712	312	16,660
250.0	52,822	26,030	17,545	319	18,184
275.0	52,460	25,096	16,389	313	19,157
300.0	51,918	24,029	15,419	308	20,156
350.0	50,622	22,086	13,894	281	20,657
MAX WUA	53,477	32,728	30,433	350	20,657

Table Attachment D-146. Habitat-Flow Relationships for Hardhead in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)	
	Adult	Juvenile
3.0	28,997	47,686
3.5	29,354	48,073
4.0	29,680	48,432
4.5	29,977	48,761
5.0	30,253	49,079
6.0	30,762	49,678
7.0	31,239	50,250
8.0	31,664	50,833
9.0	32,057	51,384
10.0	32,426	51,896
12.5	33,267	52,925
15.0	34,041	53,694
20.0	35,381	55,302
30.0	37,488	57,042
40.0	39,271	58,199
50.0	40,780	59,394
60.0	41,979	60,126
70.0	43,021	60,664
80.0	43,884	61,185
90.0	44,636	61,355
100.0	45,341	61,311
125.0	46,704	61,321
150.0	47,742	60,990
175.0	48,527	60,476
200.0	49,147	59,860
225.0	49,512	59,088
250.0	49,793	58,302
275.0	49,985	57,489
300.0	50,134	56,613
350.0	50,296	54,580
MAX WUA	50,296	61,355

Table Attachment D-147. Habitat-Flow Relationships for Pikeminnow in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)	
	Adult	Juvenile
3.0	32,467	35,136
3.5	32,948	35,424
4.0	33,386	35,687
4.5	33,784	35,936
5.0	34,151	36,160
6.0	34,730	36,544
7.0	35,199	36,887
8.0	35,595	37,173
9.0	35,946	37,414
10.0	36,287	37,645
12.5	37,030	38,143
15.0	37,635	38,478
20.0	38,689	38,971
30.0	40,122	39,166
40.0	41,143	38,948
50.0	41,854	38,525
60.0	42,390	37,956
70.0	42,654	37,426
80.0	42,817	36,888
90.0	42,913	36,252
100.0	42,964	35,645
125.0	42,817	34,255
150.0	42,641	32,857
175.0	42,108	31,678
200.0	41,118	30,571
225.0	40,273	29,406
250.0	39,591	28,288
275.0	39,004	27,196
300.0	38,537	26,079
350.0	37,166	24,054
MAX WUA	42,964	39,166

Table Attachment D-148. Habitat-Flow Relationships for Sacramento Sucker in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

Discharge (cfs)	WUA Rearing (sq. ft./1000 ft.)	
	Adult	Juvenile
3.0	29,684	38,182
3.5	30,091	38,488
4.0	30,472	38,744
4.5	30,825	38,984
5.0	31,154	39,210
6.0	31,766	39,611
7.0	32,327	39,967
8.0	32,855	40,299
9.0	33,358	40,566
10.0	33,839	40,802
12.5	34,968	41,343
15.0	36,002	41,729
20.0	37,820	42,279
30.0	40,821	42,623
40.0	43,219	42,644
50.0	45,164	42,348
60.0	46,871	41,673
70.0	48,388	41,013
80.0	49,749	40,389
90.0	50,888	39,807
100.0	51,908	39,182
125.0	53,945	37,686
150.0	55,624	36,156
175.0	57,020	34,855
200.0	58,248	33,765
225.0	59,296	32,608
250.0	60,168	31,416
275.0	60,816	30,269
300.0	61,305	29,100
350.0	61,756	27,026
MAX WUA	61,756	42,644

Table Attachment D-149. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	41,214	24,109	3,381	1,978	-	-	-	-
Nov	25	3	34,865	24,109	2,860	1,978	-	-	-	-
Dec	20	3	33,223	24,109	2,725	1,978	-	-	-	-
Jan	20	3	33,223	24,109	2,725	1,978	-	-	-	-
Feb	20	3	33,223	24,109	2,725	1,978	-	-	-	-
Mar	50	3	41,214	24,109	3,381	1,978	-	-	-	-
Apr	80	3	46,285	24,109	3,797	1,978	322	57	480	86
May	80	3	46,285	24,109	3,797	1,978	322	57	480	86
Jun	80	3	46,285	24,109	3,797	1,978	322	57	480	86
Jul	60	3	43,094	24,109	3,535	1,978	-	-	-	-
Aug	50	3	41,214	24,109	3,381	1,978	-	-	-	-
Sep	50	3	41,214	24,109	3,381	1,978	-	-	-	-

Dry Years			Proposed Action		No Action		Proposed Action		No Action		Proposed Action		No Action	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-
Nov	25	3	34,865	24,109	2,860	1,978	-	-	-	-	-	-	-	-
Dec	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Jan	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Feb	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Mar	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-
Apr	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
May	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
Jun	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
Jul	60	3	43,094	24,109	3,535	1,978	-	-	-	-	-	-	-	-
Aug	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-
Sep	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-

Table Attachment D-149. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	28,394	21,363	4,658	3,505	-	-	-	-
Nov	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Dec	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Jan	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Feb	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Mar	50	3	28,394	21,363	4,658	3,505	-	-	-	-
Apr	80	3	28,298	21,363	4,642	3,505	-	-	-	-
May	80	3	28,298	21,363	4,642	3,505	-	-	-	-
Jun	80	3	28,298	21,363	4,642	3,505	29,558	31,110	12,123	12,759
Jul	60	3	28,468	21,363	4,670	3,505	30,839	31,110	12,648	12,759
Aug	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759
Sep	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759
Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	28,394	21,363	4,658	3,505	-	-	-	-
Nov	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Dec	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Jan	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Feb	20	3	26,705	21,363	4,381	3,505	-	-	-	-
Mar	50	3	28,394	21,363	4,658	3,505	-	-	-	-
Apr	80	3	28,298	21,363	4,642	3,505	-	-	-	-
May	80	3	28,298	21,363	4,642	3,505	-	-	-	-
Jun	80	3	28,298	21,363	4,642	3,505	29,558	31,110	12,123	12,759
Jul	60	3	28,468	21,363	4,670	3,505	30,839	31,110	12,648	12,759
Aug	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759
Sep	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759

Table Attachment D-150. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	45,958	29,685	3,770	2,435	319	53	187	31
Nov	25	3	40,369	29,685	3,311	2,435	284	53	166	31
Dec	20	3	38,957	29,685	3,195	2,435	251	53	147	31
Jan	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Feb	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Mar	50	3	45,958	29,685	3,770	2,435	-	-	-	-
Apr	80	3	49,696	29,685	4,076	2,435	-	-	-	-
May	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jun	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jul	60	3	47,488	29,685	3,895	2,435	-	-	-	-
Aug	50	3	45,958	29,685	3,770	2,435	-	-	-	-
Sep	50	3	45,958	29,685	3,770	2,435	-	-	-	-

			Brown Trout Adult				Brown Trout Spawning			
Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	45,958	29,685	3,770	2,435	319	53	187	31
Nov	25	3	40,369	29,685	3,311	2,435	284	53	166	31
Dec	20	3	38,957	29,685	3,195	2,435	251	53	147	31
Jan	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Feb	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Mar	50	3	45,958	29,685	3,770	2,435	-	-	-	-
Apr	80	3	49,696	29,685	4,076	2,435	-	-	-	-
May	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jun	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jul	60	3	47,488	29,685	3,895	2,435	-	-	-	-
Aug	50	3	45,958	29,685	3,770	2,435	-	-	-	-
Sep	50	3	45,958	29,685	3,770	2,435	-	-	-	-

Table Attachment D-150. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	32,728	24,554	5,369	4,028	-	-	-	-
Nov	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Dec	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Jan	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Feb	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Mar	50	3	32,728	24,554	5,369	4,028	-	-	-	-
Apr	80	3	32,398	24,554	5,315	4,028	-	-	-	-
May	80	3	32,398	24,554	5,315	4,028	-	-	-	-
Jun	80	3	32,398	24,554	5,315	4,028	25,748	28,124	10,560	11,534
Jul	60	3	32,649	24,554	5,356	4,028	26,828	28,124	11,003	11,534
Aug	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534
Sep	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534
Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	32,728	24,554	5,369	4,028	-	-	-	-
Nov	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Dec	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Jan	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Feb	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Mar	50	3	32,728	24,554	5,369	4,028	-	-	-	-
Apr	80	3	32,398	24,554	5,315	4,028	-	-	-	-
May	80	3	32,398	24,554	5,315	4,028	-	-	-	-
Jun	80	3	32,398	24,554	5,315	4,028	25,748	28,124	10,560	11,534
Jul	60	3	32,649	24,554	5,356	4,028	26,828	28,124	11,003	11,534
Aug	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534
Sep	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534

Table Attachment D-151. Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	Brown Trout Spawning	91%	15%	75%	44%	86%	56%
Nov	25	3		81%	15%	63%	44%	75%	56%
Dec	20	3		72%	15%	60%	44%	73%	56%
Jan	20	3	Rainbow Trout Spawning			60%	44%	73%	56%
Feb	20	3				60%	44%	73%	56%
Mar	50	3				75%	44%	86%	56%
Apr	80	3		100%	18%	84%	44%	93%	56%
May	80	3		100%	18%	84%	44%	93%	56%
Jun	80	3		100%	18%	84%	44%	93%	56%
Jul	60	3				78%	44%	89%	56%
Aug	50	3				75%	44%	86%	56%
Sep	50	3				75%	44%	86%	56%

Dry Years

Month	Proposed Action	No Action		Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	Brown Trout Spawning	91%	15%	75%	44%	86%	56%
Nov	25	3		81%	15%	63%	44%	75%	56%
Dec	20	3		72%	15%	60%	44%	73%	56%
Jan	20	3	Rainbow Trout Spawning			60%	44%	73%	56%
Feb	20	3				60%	44%	73%	56%
Mar	50	3				75%	44%	86%	56%
Apr	80	3		100%	18%	84%	44%	93%	56%
May	80	3		100%	18%	84%	44%	93%	56%
Jun	80	3		100%	18%	84%	44%	93%	56%
Jul	60	3				78%	44%	89%	56%
Aug	50	3				75%	44%	86%	56%
Sep	50	3				75%	44%	86%	56%

Table Attachment D-152. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Sacramento Pikeminnow.

			Pikeminnow Adult				Pikeminnow Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Nov	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764
Dec	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Jan	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Feb	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Mar	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Apr	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
May	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
Jun	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
Jul	60	3	42,390	32,467	3,477	2,663	37,956	35,136	6,227	5,764
Aug	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Sep	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Nov	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764
Dec	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Jan	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Feb	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764
Mar	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Apr	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
May	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
Jun	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764
Jul	60	3	42,390	32,467	3,477	2,663	37,956	35,136	6,227	5,764
Aug	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764
Sep	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764

Table Attachment D-153. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Hardhead.

			Hardhead Adult				Hardhead Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Nov	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Dec	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Jan	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Feb	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Mar	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Apr	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
May	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jun	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jul	60	3	41,979	28,997	3,443	2,378	60,126	47,686	9,864	7,823
Aug	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Sep	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Nov	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Dec	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Jan	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Feb	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Mar	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Apr	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
May	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jun	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jul	60	3	41,979	28,997	3,443	2,378	60,126	47,686	9,864	7,823
Aug	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Sep	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823

Table Attachment D-154. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Nov	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Dec	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Jan	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Feb	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Mar	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Apr	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
May	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jun	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jul	60	3	46,871	29,684	3,845	2,435	41,673	38,182	6,836	6,264
Aug	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Sep	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264

Dry Years			Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Nov	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Dec	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Jan	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Feb	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Mar	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Apr	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
May	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jun	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jul	60	3	46,871	29,684	3,845	2,435	41,673	38,182	6,836	6,264
Aug	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Sep	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264

Table Attachment D-155. Percent of Maximum WUA provided for Native Transition Zone fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - Proposed vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Adult Hardhead Rearing Habitat		Adult Pikeminnow Rearing Habitat		Adult Sacramento Sucker Rearing Habitat	
	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	81%	58%	97%	76%	73%	48%
Nov	25	3	72%	58%	92%	76%	64%	48%
Dec	20	3	70%	58%	90%	76%	61%	48%
Jan	20	3	70%	58%	90%	76%	61%	48%
Feb	20	3	70%	58%	90%	76%	61%	48%
Mar	50	3	81%	58%	97%	76%	73%	48%
Apr	80	3	87%	58%	100%	76%	81%	48%
May	80	3	87%	58%	100%	76%	81%	48%
Jun	80	3	87%	58%	100%	76%	81%	48%
Jul	60	3	83%	58%	99%	76%	76%	48%
Aug	50	3	81%	58%	97%	76%	73%	48%
Sep	50	3	81%	58%	97%	76%	73%	48%

Dry Years

Month	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action	Proposed Action	No Action
Oct	50	3	81%	58%	97%	76%	73%	48%
Nov	25	3	72%	58%	92%	76%	64%	48%
Dec	20	3	70%	58%	90%	76%	61%	48%
Jan	20	3	70%	58%	90%	76%	61%	48%
Feb	20	3	70%	58%	90%	76%	61%	48%
Mar	50	3	81%	58%	97%	76%	73%	48%
Apr	80	3	87%	58%	100%	76%	81%	48%
May	80	3	87%	58%	100%	76%	81%	48%
Jun	80	3	87%	58%	100%	76%	81%	48%
Jul	60	3	83%	58%	99%	76%	76%	48%
Aug	50	3	81%	58%	97%	76%	73%	48%
Sep	50	3	81%	58%	97%	76%	73%	48%

Table Attachment D-156. Percent Reduction in Wetted Perimeter between Two Flows for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

		Start Flow ¹ (cfs)																													
Start Flow ¹		350	300	275	250	225	200	175	150	125	100	90	80	70	60	50	40	30	20	15	13	10	9	8	7	6	5	4.5	4	3.5	
WP ²		93.5	92.5	91.9	91.3	90.6	89.9	88.7	87.2	85.7	84.2	83.5	82.7	81.8	80.6	79.2	77.8	76.1	73.7	72.1	70.9	68.5	67.3	66.6	65.9	65.3	64.7	64.3	63.7	63.2	
End Flow ³ (cfs)	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	300	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	275	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	250	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	225	3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	200	4	3	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	175	5	4	4	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	150	7	6	5	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	125	8	7	7	6	5	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	100	10	9	8	8	7	6	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	90	11	10	9	9	8	7	6	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	80	12	11	10	9	9	8	7	5	4	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	70	13	12	11	10	10	9	8	6	5	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	60	14	13	12	12	11	10	9	8	6	4	4	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	50	15	14	14	13	13	12	11	9	8	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	40	17	16	15	15	14	13	12	11	9	8	7	6	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	30	19	18	17	17	16	15	14	13	11	10	9	8	7	6	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	20	21	20	20	19	19	18	17	15	14	12	12	11	10	8	7	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
	15	23	22	22	21	20	20	19	17	16	14	14	13	12	11	9	7	5	2	-	-	-	-	-	-	-	-	-	-	-	-
	12.5	24	23	23	22	22	21	20	19	17	16	15	14	13	12	11	9	7	4	2	-	-	-	-	-	-	-	-	-	-	-
10	27	26	26	25	24	24	23	21	20	19	18	17	16	15	14	12	10	7	5	3	-	-	-	-	-	-	-	-	-	-	
9	28	27	27	26	26	25	24	23	22	20	19	19	18	17	15	14	12	9	7	5	2	-	-	-	-	-	-	-	-	-	
8	29	28	28	27	27	26	25	24	22	21	20	20	19	17	16	14	13	10	8	6	3	1	-	-	-	-	-	-	-	-	
7	30	29	28	28	27	27	26	24	23	22	21	20	19	18	17	15	13	11	8	7	4	2	1	-	-	-	-	-	-	-	
6	30	29	29	28	28	27	26	25	24	22	22	21	20	19	18	16	14	11	9	8	5	3	2	1	-	-	-	-	-	-	
5	31	30	30	29	29	28	27	26	25	23	23	22	21	20	18	17	15	12	10	9	6	4	3	2	1	-	-	-	-	-	
4.5	31	31	30	30	29	29	28	26	25	24	23	22	21	20	19	17	16	13	11	9	6	4	3	3	2	1	-	-	-	-	
4	32	31	31	30	30	29	28	27	26	24	24	23	22	21	20	18	16	14	12	10	7	5	4	3	2	1	1	-	-	-	
3.5	32	32	31	31	30	30	29	27	26	25	24	24	23	22	20	19	17	14	12	11	8	6	5	4	3	2	2	1	-	-	
3	33	32	32	31	31	30	29	28	27	26	25	24	23	22	21	19	18	15	13	12	8	7	6	5	4	3	2	2	1	-	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WP: Wetted Perimeter, in feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-157. Percent Retention of Redd Habitat between Two Flows for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake.

A. Rainbow Trout

		Start Flow ¹ (cfs)										
		350	250	150	100	80	60	40	30	20	10	7
	Starting WUA ²	275	292	296	310	322	289	276	238	173	89	72
End Flow ³ (cfs)	350	-	-	-	-	-	-	-	-	-	-	-
	250	100	-	-	-	-	-	-	-	-	-	-
	150	82	81	-	-	-	-	-	-	-	-	-
	100	82	81	100	-	-	-	-	-	-	-	-
	80	79	78	95	99	-	-	-	-	-	-	-
	60	77	76	94	98	100	-	-	-	-	-	-
	40	77	76	94	90	88	97	-	-	-	-	-
	30	77	76	94	90	88	97	100	-	-	-	-
	20	70	69	80	79	79	88	95	98	-	-	-
	10	67	66	75	72	72	79	85	86	89	-	-
	7	61	62	72	67	67	74	80	79	81	99	-
3	33	34	45	42	40	43	41	40	47	78	86	

B. Brown Trout

		Start Flow ¹ (cfs)										
		350	250	150	100	80	60	40	30	20	10	7
	Starting WUA ²	281	319	342	333	348	328	350	316	251	134	85
End Flow ³ (cfs)	350	-	-	-	-	-	-	-	-	-	-	-
	250	100	-	-	-	-	-	-	-	-	-	-
	150	81	77	-	-	-	-	-	-	-	-	-
	100	81	77	100	-	-	-	-	-	-	-	-
	80	80	74	96	98	-	-	-	-	-	-	-
	60	77	72	92	95	98	-	-	-	-	-	-
	40	77	72	92	95	92	97	-	-	-	-	-
	30	77	72	92	95	92	97	100	-	-	-	-
	20	69	65	77	82	80	86	94	98	-	-	-
	10	68	63	74	76	74	79	87	90	92	-	-
	7	62	58	70	71	69	74	82	84	85	99	-
3	33	32	45	46	43	44	39	38	42	58	77	

¹ Start Flow: Flow, in cfs, at which the ramping begins

² WUA: Weighted Usable Area, in square feet per 1,000 feet, at the starting flow

³ End Flow: Flow, in cfs, at end of ramping event

Table Attachment D-158. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout.

Normal Years			Rainbow Trout Adult				Rainbow Trout Spawning			
Month	Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	45,519	24,109	3,734	1,978	-	-	-	-
Nov	25	3	34,865	24,109	2,860	1,978	-	-	-	-
Dec	25	3	34,865	24,109	2,860	1,978	-	-	-	-
Jan	25	3	34,865	24,109	2,860	1,978	-	-	-	-
Feb	25	3	34,865	24,109	2,860	1,978	-	-	-	-
Mar	75	3	45,519	24,109	3,734	1,978	-	-	-	-
Apr	100	3	48,788	24,109	4,002	1,978	310	57	463	86
May	100	3	48,788	24,109	4,002	1,978	310	57	463	86
Jun	100	3	48,788	24,109	4,002	1,978	310	57	463	86
Jul	75	3	45,519	24,109	3,734	1,978	-	-	-	-
Aug	75	3	45,519	24,109	3,734	1,978	-	-	-	-
Sep	75	3	45,519	24,109	3,734	1,978	-	-	-	-

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-
Nov	25	3	34,865	24,109	2,860	1,978	-	-	-	-	-	-	-	-
Dec	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Jan	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Feb	20	3	33,223	24,109	2,725	1,978	-	-	-	-	-	-	-	-
Mar	60	3	43,094	24,109	3,535	1,978	-	-	-	-	-	-	-	-
Apr	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
May	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
Jun	80	3	46,285	24,109	3,797	1,978	322	57	480	86	480	86	480	86
Jul	60	3	43,094	24,109	3,535	1,978	-	-	-	-	-	-	-	-
Aug	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-
Sep	50	3	41,214	24,109	3,381	1,978	-	-	-	-	-	-	-	-

Table Attachment D-158. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
	CDFG Alternative	No Action								
Oct	75	3	28,405	21,363	4,660	3,505	-	-	-	-
Nov	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Dec	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Jan	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Feb	25	3	27,169	21,363	4,457	3,505	-	-	-	-
Mar	75	3	28,405	21,363	4,660	3,505	-	-	-	-
Apr	100	3	27,852	21,363	4,569	3,505	-	-	-	-
May	100	3	27,852	21,363	4,569	3,505	-	-	-	-
Jun	100	3	27,852	21,363	4,569	3,505	28,518	31,110	11,696	12,759
Jul	75	3	28,405	21,363	4,660	3,505	29,854	31,110	12,244	12,759
Aug	75	3	28,405	21,363	4,660	3,505	29,854	31,110	12,244	12,759
Sep	75	3	28,405	21,363	4,660	3,505	29,854	31,110	12,244	12,759

Dry Years			CDFG Alternative		No Action		CDFG Alternative		No Action		CDFG Alternative		No Action	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action		
													Oct	50
Nov	25	3	27,169	21,363	4,457	3,505	-	-	-	-				
Dec	20	3	26,705	21,363	4,381	3,505	-	-	-	-				
Jan	20	3	26,705	21,363	4,381	3,505	-	-	-	-				
Feb	20	3	26,705	21,363	4,381	3,505	-	-	-	-				
Mar	60	3	28,468	21,363	4,670	3,505	-	-	-	-				
Apr	80	3	28,298	21,363	4,642	3,505	-	-	-	-				
May	80	3	28,298	21,363	4,642	3,505	-	-	-	-				
Jun	80	3	28,298	21,363	4,642	3,505	29,558	31,110	12,123	12,759				
Jul	60	3	28,468	21,363	4,670	3,505	30,839	31,110	12,648	12,759				
Aug	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759				
Sep	50	3	28,394	21,363	4,658	3,505	31,556	31,110	12,942	12,759				

Table Attachment D-159. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	49,194	29,685	4,035	2,435	346	53	203	31
Nov	25	3	40,369	29,685	3,311	2,435	284	53	166	31
Dec	25	3	40,369	29,685	3,311	2,435	284	53	166	31
Jan	25	3	40,369	29,685	3,311	2,435	-	-	-	-
Feb	25	3	40,369	29,685	3,311	2,435	-	-	-	-
Mar	75	3	49,194	29,685	4,035	2,435	-	-	-	-
Apr	100	3	51,220	29,685	4,201	2,435	-	-	-	-
May	100	3	51,220	29,685	4,201	2,435	-	-	-	-
Jun	100	3	51,220	29,685	4,201	2,435	-	-	-	-
Jul	75	3	49,194	29,685	4,035	2,435	-	-	-	-
Aug	75	3	49,194	29,685	4,035	2,435	-	-	-	-
Sep	75	3	49,194	29,685	4,035	2,435	-	-	-	-

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	45,958	29,685	3,770	2,435	319	53	187	31
Nov	25	3	40,369	29,685	3,311	2,435	284	53	166	31
Dec	20	3	38,957	29,685	3,195	2,435	251	53	147	31
Jan	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Feb	20	3	38,957	29,685	3,195	2,435	-	-	-	-
Mar	60	3	47,488	29,685	3,895	2,435	-	-	-	-
Apr	80	3	49,696	29,685	4,076	2,435	-	-	-	-
May	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jun	80	3	49,696	29,685	4,076	2,435	-	-	-	-
Jul	60	3	47,488	29,685	3,895	2,435	-	-	-	-
Aug	50	3	45,958	29,685	3,770	2,435	-	-	-	-
Sep	50	3	45,958	29,685	3,770	2,435	-	-	-	-

Table Attachment D-159. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	32,484	24,554	5,329	4,028	-	-	-	-
Nov	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Dec	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Jan	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Feb	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Mar	75	3	32,484	24,554	5,329	4,028	-	-	-	-
Apr	100	3	31,955	24,554	5,242	4,028	-	-	-	-
May	100	3	31,955	24,554	5,242	4,028	-	-	-	-
Jun	100	3	31,955	24,554	5,242	4,028	24,713	28,124	10,136	11,534
Jul	75	3	32,484	24,554	5,329	4,028	26,025	28,124	10,674	11,534
Aug	75	3	32,484	24,554	5,329	4,028	26,025	28,124	10,674	11,534
Sep	75	3	32,484	24,554	5,329	4,028	26,025	28,124	10,674	11,534
Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	32,728	24,554	5,369	4,028	-	-	-	-
Nov	25	3	31,103	24,554	5,102	4,028	-	-	-	-
Dec	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Jan	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Feb	20	3	30,597	24,554	5,019	4,028	-	-	-	-
Mar	60	3	32,649	24,554	5,356	4,028	-	-	-	-
Apr	80	3	32,398	24,554	5,315	4,028	-	-	-	-
May	80	3	32,398	24,554	5,315	4,028	-	-	-	-
Jun	80	3	32,398	24,554	5,315	4,028	25,748	28,124	10,560	11,534
Jul	60	3	32,649	24,554	5,356	4,028	26,828	28,124	11,003	11,534
Aug	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534
Sep	50	3	32,728	24,554	5,369	4,028	27,496	28,124	11,277	11,534

Table Attachment D-160. Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake – CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	Brown Trout Spawning	99%	15%	83%	44%	92%	56%
Nov	25	3		81%	15%	63%	44%	75%	56%
Dec	25	3		81%	15%	63%	44%	75%	56%
Jan	25	3	Rainbow Trout Spawning			63%	44%	75%	56%
Feb	25	3				63%	44%	75%	56%
Mar	75	3				83%	44%	92%	56%
Apr	100	3		96%	18%	89%	44%	96%	56%
May	100	3		96%	18%	89%	44%	96%	56%
Jun	100	3		96%	18%	89%	44%	96%	56%
Jul	75	3				83%	44%	92%	56%
Aug	75	3				83%	44%	92%	56%
Sep	75	3				83%	44%	92%	56%

Dry Years

Month	CDFG Alternative	No Action		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	Brown Trout Spawning	91%	15%	75%	44%	86%	56%
Nov	25	3		81%	15%	63%	44%	75%	56%
Dec	20	3		72%	15%	60%	44%	73%	56%
Jan	20	3	Rainbow Trout Spawning			60%	44%	73%	56%
Feb	20	3				60%	44%	73%	56%
Mar	60	3				78%	44%	89%	56%
Apr	80	3		100%	18%	84%	44%	93%	56%
May	80	3		100%	18%	84%	44%	93%	56%
Jun	80	3		100%	18%	84%	44%	93%	56%
Jul	60	3				78%	44%	89%	56%
Aug	50	3				75%	44%	86%	56%
Sep	50	3				75%	44%	86%	56%

Table Attachment D-161. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Sacramento Pikeminnow.

			Pikeminnow Adult				Pikeminnow Juvenile					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	42,736	32,467	3,505	2,663	37,157	35,136	6,096	5,764		
Nov	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764		
Dec	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764		
Jan	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764		
Feb	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764		
Mar	75	3	42,736	32,467	3,505	2,663	37,157	35,136	6,096	5,764		
Apr	100	3	42,964	32,467	3,524	2,663	35,645	35,136	5,848	5,764		
May	100	3	42,964	32,467	3,524	2,663	35,645	35,136	5,848	5,764		
Jun	100	3	42,964	32,467	3,524	2,663	35,645	35,136	5,848	5,764		
Jul	75	3	42,736	32,467	3,505	2,663	37,157	35,136	6,096	5,764		
Aug	75	3	42,736	32,467	3,505	2,663	37,157	35,136	6,096	5,764		
Sep	75	3	42,736	32,467	3,505	2,663	37,157	35,136	6,096	5,764		

Dry Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764		
Nov	25	3	39,405	32,467	3,232	2,663	39,069	35,136	6,409	5,764		
Dec	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764		
Jan	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764		
Feb	20	3	38,689	32,467	3,174	2,663	38,971	35,136	6,393	5,764		
Mar	60	3	42,390	32,467	3,477	2,663	37,956	35,136	6,227	5,764		
Apr	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764		
May	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764		
Jun	80	3	42,817	32,467	3,512	2,663	36,888	35,136	6,052	5,764		
Jul	60	3	42,390	32,467	3,477	2,663	37,956	35,136	6,227	5,764		
Aug	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764		
Sep	50	3	41,854	32,467	3,433	2,663	38,525	35,136	6,320	5,764		

Table Attachment D-162. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Hardhead.

			Hardhead Adult				Hardhead Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	43,452	28,997	3,564	2,378	60,925	47,686	9,995	7,823
Nov	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Dec	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Jan	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Feb	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Mar	75	3	43,452	28,997	3,564	2,378	60,925	47,686	9,995	7,823
Apr	100	3	45,341	28,997	3,719	2,378	61,311	47,686	10,058	7,823
May	100	3	45,341	28,997	3,719	2,378	61,311	47,686	10,058	7,823
Jun	100	3	45,341	28,997	3,719	2,378	61,311	47,686	10,058	7,823
Jul	75	3	43,452	28,997	3,564	2,378	60,925	47,686	9,995	7,823
Aug	75	3	43,452	28,997	3,564	2,378	60,925	47,686	9,995	7,823
Sep	75	3	43,452	28,997	3,564	2,378	60,925	47,686	9,995	7,823

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Nov	25	3	36,434	28,997	2,989	2,378	56,172	47,686	9,215	7,823
Dec	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Jan	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Feb	20	3	35,381	28,997	2,902	2,378	55,302	47,686	9,072	7,823
Mar	60	3	41,979	28,997	3,443	2,378	60,126	47,686	9,864	7,823
Apr	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
May	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jun	80	3	43,884	28,997	3,600	2,378	61,185	47,686	10,037	7,823
Jul	60	3	41,979	28,997	3,443	2,378	60,126	47,686	9,864	7,823
Aug	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823
Sep	50	3	40,780	28,997	3,345	2,378	59,394	47,686	9,744	7,823

Table Attachment D-163. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
	CDFG Alternative	No Action								
Oct	75	3	49,069	29,684	4,025	2,435	40,701	38,182	6,677	6,264
Nov	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Dec	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Jan	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Feb	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Mar	75	3	49,069	29,684	4,025	2,435	40,701	38,182	6,677	6,264
Apr	100	3	51,908	29,684	4,258	2,435	39,182	38,182	6,428	6,264
May	100	3	51,908	29,684	4,258	2,435	39,182	38,182	6,428	6,264
Jun	100	3	51,908	29,684	4,258	2,435	39,182	38,182	6,428	6,264
Jul	75	3	49,069	29,684	4,025	2,435	40,701	38,182	6,677	6,264
Aug	75	3	49,069	29,684	4,025	2,435	40,701	38,182	6,677	6,264
Sep	75	3	49,069	29,684	4,025	2,435	40,701	38,182	6,677	6,264

Dry Years			CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Month	CDFG Alternative	No Action								
Oct	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Nov	25	3	39,320	29,684	3,225	2,435	42,451	38,182	6,964	6,264
Dec	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Jan	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Feb	20	3	37,820	29,684	3,102	2,435	42,279	38,182	6,936	6,264
Mar	60	3	46,871	29,684	3,845	2,435	41,673	38,182	6,836	6,264
Apr	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
May	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jun	80	3	49,749	29,684	4,081	2,435	40,389	38,182	6,626	6,264
Jul	60	3	46,871	29,684	3,845	2,435	41,673	38,182	6,836	6,264
Aug	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264
Sep	50	3	45,164	29,684	3,705	2,435	42,348	38,182	6,947	6,264

Table Attachment D-164. Percent of Maximum WUA provided for Native Transition Zone fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. No Action Alternative.

Normal Years

Month	Flow (cfs)		Adult Hardhead		Adult Pikeminnow Rearing Habitat		Adult Sacramento Sucker Rearing Habitat	
	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	75	3	86%	58%	99%	76%	79%	48%
Nov	25	3	72%	58%	92%	76%	64%	48%
Dec	25	3	72%	58%	92%	76%	64%	48%
Jan	25	3	72%	58%	92%	76%	64%	48%
Feb	25	3	72%	58%	92%	76%	64%	48%
Mar	75	3	86%	58%	99%	76%	79%	48%
Apr	100	3	90%	58%	100%	76%	84%	48%
May	100	3	90%	58%	100%	76%	84%	48%
Jun	100	3	90%	58%	100%	76%	84%	48%
Jul	75	3	86%	58%	99%	76%	79%	48%
Aug	75	3	86%	58%	99%	76%	79%	48%
Sep	75	3	86%	58%	99%	76%	79%	48%

Dry Years

Month	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action	CDFG Alternative	No Action
Oct	50	3	81%	58%	97%	76%	73%	48%
Nov	25	3	72%	58%	92%	76%	64%	48%
Dec	20	3	70%	58%	90%	76%	61%	48%
Jan	20	3	70%	58%	90%	76%	61%	48%
Feb	20	3	70%	58%	90%	76%	61%	48%
Mar	60	3	83%	58%	99%	76%	76%	48%
Apr	80	3	87%	58%	100%	76%	81%	48%
May	80	3	87%	58%	100%	76%	81%	48%
Jun	80	3	87%	58%	100%	76%	81%	48%
Jul	60	3	83%	58%	99%	76%	76%	48%
Aug	50	3	81%	58%	97%	76%	73%	48%
Sep	50	3	81%	58%	97%	76%	73%	48%

Table Attachment D-165. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout.

			Rainbow Trout Adult				Rainbow Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	45,519	41,214	3,734	3,381	-	-	-	-
Nov	25	25	34,865	34,865	2,860	2,860	-	-	-	-
Dec	25	20	34,865	33,223	2,860	2,725	-	-	-	-
Jan	25	20	34,865	33,223	2,860	2,725	-	-	-	-
Feb	25	20	34,865	33,223	2,860	2,725	-	-	-	-
Mar	75	50	45,519	41,214	3,734	3,381	-	-	-	-
Apr	100	80	48,788	46,285	4,002	3,797	310	322	463	480
May	100	80	48,788	46,285	4,002	3,797	310	322	463	480
Jun	100	80	48,788	46,285	4,002	3,797	310	322	463	480
Jul	75	60	45,519	43,094	3,734	3,535	-	-	-	-
Aug	75	50	45,519	41,214	3,734	3,381	-	-	-	-
Sep	75	50	45,519	41,214	3,734	3,381	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	41,214	41,214	3,381	3,381	-	-	-	-
Nov	25	25	34,865	34,865	2,860	2,860	-	-	-	-
Dec	20	20	33,223	33,223	2,725	2,725	-	-	-	-
Jan	20	20	33,223	33,223	2,725	2,725	-	-	-	-
Feb	20	20	33,223	33,223	2,725	2,725	-	-	-	-
Mar	60	50	43,094	41,214	3,535	3,381	-	-	-	-
Apr	80	80	46,285	46,285	3,797	3,797	322	322	480	480
May	80	80	46,285	46,285	3,797	3,797	322	322	480	480
Jun	80	80	46,285	46,285	3,797	3,797	322	322	480	480
Jul	60	60	43,094	43,094	3,535	3,535	-	-	-	-
Aug	50	50	41,214	41,214	3,381	3,381	-	-	-	-
Sep	50	50	41,214	41,214	3,381	3,381	-	-	-	-

Table Attachment D-165. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Rainbow Trout (continued).

			Rainbow Trout Juvenile				Rainbow Trout Fry			
Normal Years			WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Fry Supported per Kilometer	
Month	Flow (cfs)		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
	CDFG Alternative	Proposed Action								
Oct	75	50	28,405	28,394	4,660	4,658	-	-	-	-
Nov	25	25	27,169	27,169	4,457	4,457	-	-	-	-
Dec	25	20	27,169	26,705	4,457	4,381	-	-	-	-
Jan	25	20	27,169	26,705	4,457	4,381	-	-	-	-
Feb	25	20	27,169	26,705	4,457	4,381	-	-	-	-
Mar	75	50	28,405	28,394	4,660	4,658	-	-	-	-
Apr	100	80	27,852	28,298	4,569	4,642	-	-	-	-
May	100	80	27,852	28,298	4,569	4,642	-	-	-	-
Jun	100	80	27,852	28,298	4,569	4,642	28,518	29,558	11,696	12,123
Jul	75	60	28,405	28,468	4,660	4,670	29,854	30,839	12,244	12,648
Aug	75	50	28,405	28,394	4,660	4,658	29,854	31,556	12,244	12,942
Sep	75	50	28,405	28,394	4,660	4,658	29,854	31,556	12,244	12,942

Dry Years			CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action		CDFG Alternative		Proposed Action	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Nov	25	25	27,169	27,169	4,457	4,457	-	-	-	-	-	-	-	-
Dec	20	20	26,705	26,705	4,381	4,381	-	-	-	-	-	-	-	-
Jan	20	20	26,705	26,705	4,381	4,381	-	-	-	-	-	-	-	-
Feb	20	20	26,705	26,705	4,381	4,381	-	-	-	-	-	-	-	-
Mar	60	50	28,468	28,394	4,670	4,658	-	-	-	-	-	-	-	-
Apr	80	80	28,298	28,298	4,642	4,642	-	-	-	-	-	-	-	-
May	80	80	28,298	28,298	4,642	4,642	-	-	-	-	-	-	-	-
Jun	80	80	28,298	28,298	4,642	4,642	29,558	29,558	12,123	12,123	12,123	12,123	12,123	12,123
Jul	60	60	28,468	28,468	4,670	4,670	30,839	30,839	12,648	12,648	12,648	12,648	12,648	12,648
Aug	50	50	28,394	28,394	4,658	4,658	31,556	31,556	12,942	12,942	12,942	12,942	12,942	12,942
Sep	50	50	28,394	28,394	4,658	4,658	31,556	31,556	12,942	12,942	12,942	12,942	12,942	12,942

Table Attachment D-166. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Brown Trout.

			Brown Trout Adult				Brown Trout Spawning			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Redds Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	49,194	45,958	4,035	3,770	346	319	203	187
Nov	25	25	40,369	40,369	3,311	3,311	284	284	166	166
Dec	25	20	40,369	38,957	3,311	3,195	284	251	166	147
Jan	25	20	40,369	38,957	3,311	3,195	-	-	-	-
Feb	25	20	40,369	38,957	3,311	3,195	-	-	-	-
Mar	75	50	49,194	45,958	4,035	3,770	-	-	-	-
Apr	100	80	51,220	49,696	4,201	4,076	-	-	-	-
May	100	80	51,220	49,696	4,201	4,076	-	-	-	-
Jun	100	80	51,220	49,696	4,201	4,076	-	-	-	-
Jul	75	60	49,194	47,488	4,035	3,895	-	-	-	-
Aug	75	50	49,194	45,958	4,035	3,770	-	-	-	-
Sep	75	50	49,194	45,958	4,035	3,770	-	-	-	-

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	45,958	45,958	3,770	3,770	319	319	187	187
Nov	25	25	40,369	40,369	3,311	3,311	284	284	166	166
Dec	20	20	38,957	38,957	3,195	3,195	251	251	147	147
Jan	20	20	38,957	38,957	3,195	3,195	-	-	-	-
Feb	20	20	38,957	38,957	3,195	3,195	-	-	-	-
Mar	60	50	47,488	45,958	3,895	3,770	-	-	-	-
Apr	80	80	49,696	49,696	4,076	4,076	-	-	-	-
May	80	80	49,696	49,696	4,076	4,076	-	-	-	-
Jun	80	80	49,696	49,696	4,076	4,076	-	-	-	-
Jul	60	60	47,488	47,488	3,895	3,895	-	-	-	-
Aug	50	50	45,958	45,958	3,770	3,770	-	-	-	-
Sep	50	50	45,958	45,958	3,770	3,770	-	-	-	-

Table Attachment D-166. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Brown Trout (continued).

Normal Years			Brown Trout Juvenile				Brown Trout Fry			
			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer		WUA (sq ft/1000 ft)	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	32,484	32,728	5,329	5,369	-	-	-	-
Nov	25	25	31,103	31,103	5,102	5,102	-	-	-	-
Dec	25	20	31,103	30,597	5,102	5,019	-	-	-	-
Jan	25	20	31,103	30,597	5,102	5,019	-	-	-	-
Feb	25	20	31,103	30,597	5,102	5,019	-	-	-	-
Mar	75	50	32,484	32,728	5,329	5,369	-	-	-	-
Apr	100	80	31,955	32,398	5,242	5,315	-	-	-	-
May	100	80	31,955	32,398	5,242	5,315	-	-	-	-
Jun	100	80	31,955	32,398	5,242	5,315	24,713	25,748	10,136	10,560
Jul	75	60	32,484	32,649	5,329	5,356	26,025	26,828	10,674	11,003
Aug	75	50	32,484	32,728	5,329	5,369	26,025	27,496	10,674	11,277
Sep	75	50	32,484	32,728	5,329	5,369	26,025	27,496	10,674	11,277
Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	32,728	32,728	5,369	5,369	-	-	-	-
Nov	25	25	31,103	31,103	5,102	5,102	-	-	-	-
Dec	20	20	30,597	30,597	5,019	5,019	-	-	-	-
Jan	20	20	30,597	30,597	5,019	5,019	-	-	-	-
Feb	20	20	30,597	30,597	5,019	5,019	-	-	-	-
Mar	60	50	32,649	32,728	5,356	5,369	-	-	-	-
Apr	80	80	32,398	32,398	5,315	5,315	-	-	-	-
May	80	80	32,398	32,398	5,315	5,315	-	-	-	-
Jun	80	80	32,398	32,398	5,315	5,315	25,748	25,748	10,560	10,560
Jul	60	60	32,649	32,649	5,356	5,356	26,828	26,828	11,003	11,003
Aug	50	50	32,728	32,728	5,369	5,369	27,496	27,496	11,277	11,277
Sep	50	50	32,728	32,728	5,369	5,369	27,496	27,496	11,277	11,277

Table Attachment D-167. Percent of Maximum WUA Provided for Trout in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action.

Normal Years

Month	Flow (cfs)			Spawning Habitat		Adult Rainbow Trout Rearing Habitat		Adult Brown Trout Rearing Habitat	
	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	Brown Trout Spawning	99%	91%	83%	75%	92%	86%
Nov	25	25		81%	81%	63%	63%	75%	75%
Dec	25	20		81%	72%	63%	60%	75%	73%
Jan	25	20			63%	60%	75%	73%	
Feb	25	20			63%	60%	75%	73%	
Mar	75	50			83%	75%	92%	86%	
Apr	100	80	Rainbow Trout Spawning	96%	100%	89%	84%	96%	93%
May	100	80		96%	100%	89%	84%	96%	93%
Jun	100	80		96%	100%	89%	84%	96%	93%
Jul	75	60			83%	78%	92%	89%	
Aug	75	50			83%	75%	92%	86%	
Sep	75	50			83%	75%	92%	86%	

Dry Years

Month	CDFG Alternative	Proposed Action		CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	Brown Trout Spawning	91%	91%	75%	75%	86%	86%
Nov	25	25		81%	81%	63%	63%	75%	75%
Dec	20	20		72%	72%	60%	60%	73%	73%
Jan	20	20			60%	60%	73%	73%	
Feb	20	20			60%	60%	73%	73%	
Mar	60	50			78%	75%	89%	86%	
Apr	80	80	Rainbow Trout Spawning	100%	100%	84%	84%	93%	93%
May	80	80		100%	100%	84%	84%	93%	93%
Jun	80	80		100%	100%	84%	84%	93%	93%
Jul	60	60			78%	78%	89%	89%	
Aug	50	50			75%	75%	86%	86%	
Sep	50	50			75%	75%	86%	86%	

Table Attachment D-168. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Sacramento Pikeminnow.

			Pikeminnow Adult				Pikeminnow Juvenile					
Normal Years			Flow (cfs)		WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	42,736	41,854	3,505	3,433	37,157	38,525	6,096	6,320		
Nov	25	25	39,405	39,405	3,232	3,232	39,069	39,069	6,409	6,409		
Dec	25	20	39,405	38,689	3,232	3,174	39,069	38,971	6,409	6,393		
Jan	25	20	39,405	38,689	3,232	3,174	39,069	38,971	6,409	6,393		
Feb	25	20	39,405	38,689	3,232	3,174	39,069	38,971	6,409	6,393		
Mar	75	50	42,736	41,854	3,505	3,433	37,157	38,525	6,096	6,320		
Apr	100	80	42,964	42,817	3,524	3,512	35,645	36,888	5,848	6,052		
May	100	80	42,964	42,817	3,524	3,512	35,645	36,888	5,848	6,052		
Jun	100	80	42,964	42,817	3,524	3,512	35,645	36,888	5,848	6,052		
Jul	75	60	42,736	42,390	3,505	3,477	37,157	37,956	6,096	6,227		
Aug	75	50	42,736	41,854	3,505	3,433	37,157	38,525	6,096	6,320		
Sep	75	50	42,736	41,854	3,505	3,433	37,157	38,525	6,096	6,320		

Dry Years			CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	41,854	41,854	3,433	3,433	38,525	38,525	6,320	6,320		
Nov	25	25	39,405	39,405	3,232	3,232	39,069	39,069	6,409	6,409		
Dec	20	20	38,689	38,689	3,174	3,174	38,971	38,971	6,393	6,393		
Jan	20	20	38,689	38,689	3,174	3,174	38,971	38,971	6,393	6,393		
Feb	20	20	38,689	38,689	3,174	3,174	38,971	38,971	6,393	6,393		
Mar	60	50	42,390	41,854	3,477	3,433	37,956	38,525	6,227	6,320		
Apr	80	80	42,817	42,817	3,512	3,512	36,888	36,888	6,052	6,052		
May	80	80	42,817	42,817	3,512	3,512	36,888	36,888	6,052	6,052		
Jun	80	80	42,817	42,817	3,512	3,512	36,888	36,888	6,052	6,052		
Jul	60	60	42,390	42,390	3,477	3,477	37,956	37,956	6,227	6,227		
Aug	50	50	41,854	41,854	3,433	3,433	38,525	38,525	6,320	6,320		
Sep	50	50	41,854	41,854	3,433	3,433	38,525	38,525	6,320	6,320		

Table Attachment D-169. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Hardhead.

			Hardhead Adult				Hardhead Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	43,452	40,780	3,564	3,345	60,925	59,394	9,995	9,744
Nov	25	25	36,434	36,434	2,989	2,989	56,172	56,172	9,215	9,215
Dec	25	20	36,434	35,381	2,989	2,902	56,172	55,302	9,215	9,072
Jan	25	20	36,434	35,381	2,989	2,902	56,172	55,302	9,215	9,072
Feb	25	20	36,434	35,381	2,989	2,902	56,172	55,302	9,215	9,072
Mar	75	50	43,452	40,780	3,564	3,345	60,925	59,394	9,995	9,744
Apr	100	80	45,341	43,884	3,719	3,600	61,311	61,185	10,058	10,037
May	100	80	45,341	43,884	3,719	3,600	61,311	61,185	10,058	10,037
Jun	100	80	45,341	43,884	3,719	3,600	61,311	61,185	10,058	10,037
Jul	75	60	43,452	41,979	3,564	3,443	60,925	60,126	9,995	9,864
Aug	75	50	43,452	40,780	3,564	3,345	60,925	59,394	9,995	9,744
Sep	75	50	43,452	40,780	3,564	3,345	60,925	59,394	9,995	9,744

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	40,780	40,780	3,345	3,345	59,394	59,394	9,744	9,744
Nov	25	25	36,434	36,434	2,989	2,989	56,172	56,172	9,215	9,215
Dec	20	20	35,381	35,381	2,902	2,902	55,302	55,302	9,072	9,072
Jan	20	20	35,381	35,381	2,902	2,902	55,302	55,302	9,072	9,072
Feb	20	20	35,381	35,381	2,902	2,902	55,302	55,302	9,072	9,072
Mar	60	50	41,979	40,780	3,443	3,345	60,126	59,394	9,864	9,744
Apr	80	80	43,884	43,884	3,600	3,600	61,185	61,185	10,037	10,037
May	80	80	43,884	43,884	3,600	3,600	61,185	61,185	10,037	10,037
Jun	80	80	43,884	43,884	3,600	3,600	61,185	61,185	10,037	10,037
Jul	60	60	41,979	41,979	3,443	3,443	60,126	60,126	9,864	9,864
Aug	50	50	40,780	40,780	3,345	3,345	59,394	59,394	9,744	9,744
Sep	50	50	40,780	40,780	3,345	3,345	59,394	59,394	9,744	9,744

Table Attachment D-170. Comparisons of Flow, WUA, and Number of Fish Supported for the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action for Sacramento Sucker.

			Sacramento Sucker Adult				Sacramento Sucker Juvenile			
Normal Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	49,069	45,164	4,025	3,705	40,701	42,348	6,677	6,947
Nov	25	25	39,320	39,320	3,225	3,225	42,451	42,451	6,964	6,964
Dec	25	20	39,320	37,820	3,225	3,102	42,451	42,279	6,964	6,936
Jan	25	20	39,320	37,820	3,225	3,102	42,451	42,279	6,964	6,936
Feb	25	20	39,320	37,820	3,225	3,102	42,451	42,279	6,964	6,936
Mar	75	50	49,069	45,164	4,025	3,705	40,701	42,348	6,677	6,947
Apr	100	80	51,908	49,749	4,258	4,081	39,182	40,389	6,428	6,626
May	100	80	51,908	49,749	4,258	4,081	39,182	40,389	6,428	6,626
Jun	100	80	51,908	49,749	4,258	4,081	39,182	40,389	6,428	6,626
Jul	75	60	49,069	46,871	4,025	3,845	40,701	41,673	6,677	6,836
Aug	75	50	49,069	45,164	4,025	3,705	40,701	42,348	6,677	6,947
Sep	75	50	49,069	45,164	4,025	3,705	40,701	42,348	6,677	6,947

Dry Years			WUA (sq ft/1000 ft)		Number of Adults Supported per Kilometer		WUA (sq ft/1000 ft)		Number of Juveniles Supported per Kilometer	
Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	45,164	45,164	3,705	3,705	42,348	42,348	6,947	6,947
Nov	25	25	39,320	39,320	3,225	3,225	42,451	42,451	6,964	6,964
Dec	20	20	37,820	37,820	3,102	3,102	42,279	42,279	6,936	6,936
Jan	20	20	37,820	37,820	3,102	3,102	42,279	42,279	6,936	6,936
Feb	20	20	37,820	37,820	3,102	3,102	42,279	42,279	6,936	6,936
Mar	60	50	46,871	45,164	3,845	3,705	41,673	42,348	6,836	6,947
Apr	80	80	49,749	49,749	4,081	4,081	40,389	40,389	6,626	6,626
May	80	80	49,749	49,749	4,081	4,081	40,389	40,389	6,626	6,626
Jun	80	80	49,749	49,749	4,081	4,081	40,389	40,389	6,626	6,626
Jul	60	60	46,871	46,871	3,845	3,845	41,673	41,673	6,836	6,836
Aug	50	50	45,164	45,164	3,705	3,705	42,348	42,348	6,947	6,947
Sep	50	50	45,164	45,164	3,705	3,705	42,348	42,348	6,947	6,947

Table Attachment D-171. Percent of Maximum WUA Provided for Native Transition Zone Fishes in the San Joaquin River, Dam 6 to Powerhouse 3/Redinger Lake - CDFG Alternative vs. Proposed Action Alternative.

Normal Years

Month	Flow (cfs)		Adult Hardhead Rearing Habitat		Adult Pikeminnow Rearing Habitat		Adult Sacramento Sucker Rearing Habitat	
	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	75	50	86%	81%	99%	97%	79%	73%
Nov	25	25	72%	72%	92%	92%	64%	64%
Dec	25	20	72%	70%	92%	90%	64%	61%
Jan	25	20	72%	70%	92%	90%	64%	61%
Feb	25	20	72%	70%	92%	90%	64%	61%
Mar	75	50	86%	81%	99%	97%	79%	73%
Apr	100	80	90%	87%	100%	100%	84%	81%
May	100	80	90%	87%	100%	100%	84%	81%
Jun	100	80	90%	87%	100%	100%	84%	81%
Jul	75	60	86%	83%	99%	99%	79%	76%
Aug	75	50	86%	81%	99%	97%	79%	73%
Sep	75	50	86%	81%	99%	97%	79%	73%

Dry Years

Month	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action	CDFG Alternative	Proposed Action
Oct	50	50	81%	81%	97%	97%	73%	73%
Nov	25	25	72%	72%	92%	92%	64%	64%
Dec	20	20	70%	70%	90%	90%	61%	61%
Jan	20	20	70%	70%	90%	90%	61%	61%
Feb	20	20	70%	70%	90%	90%	61%	61%
Mar	60	50	83%	81%	99%	97%	76%	73%
Apr	80	80	87%	87%	100%	100%	81%	81%
May	80	80	87%	87%	100%	100%	81%	81%
Jun	80	80	87%	87%	100%	100%	81%	81%
Jul	60	60	83%	83%	99%	99%	76%	76%
Aug	50	50	81%	81%	97%	97%	73%	73%
Sep	50	50	81%	81%	97%	97%	73%	73%