

**Table E-1. Rubicon River and Middle Fork American River Fish Habitat Use in Pools.**

<b>Rubicon River - July 26, 2007</b>				
<b>Pool #1</b>				
<b>Species and Age Class</b>	<b>Pool Spatial Location Observed</b>	<b>Depth (ft)</b>	<b>Velocity (ft/sec)</b>	<b>Observation Notes</b>
<b>Morning Sample</b>				
Adult Trout	Head	2 - 4	1.3 - 2.6	Observed feeding in turbulent water at interface between pool and riffle.
Juvenile Minnow	Body, tail, along river margin	2 - 6	0 - 0.83	Observed in submerged willow habitat along the scoured banks.
Young-of-the-year Minnow	Body	<1.5	0 - 0.1	In small schools along a cobble bar near the tail of the pool.
<b>Afternoon Sample</b>				
Adult Trout	Head and body	2 (head), 12 (body)	1.3 - 2.6 (head), 0 (body)	One trout was observed feeding at the head of the pool, the remainder (5) were near the bottom of the body of the pool.
Adult Pikeminnow	Head	2	0	Observed behind boulder near the head of the pool.
Juvenile Minnow	Head, body, tail, along river margin	2 - 6	0 - 0.83	Observed in submerged willow habitat along the scoured banks. One adult pikeminnow was observed near the head of the pool behind a large bolder.
Young-of-the-year Minnow	Body	< 1.5	0 - 0.1	In small schools along a cobble bar near the tail of the pool.
<b>Pool #2</b>				
<b>Species and Age Class</b>	<b>Pool Spatial Location Observed</b>	<b>Depth (ft)</b>	<b>Velocity (ft/sec)</b>	<b>Observation Notes</b>
<b>Morning Sample</b>				
Adult Trout	Head	4-6	0.35 - 1.2	Two adult trout were observed in swift water feeding at the head, one trout was observed in deeper, moderate velocity water feeding at the head.
Adult Minnow	Body, along river margin	< 2	0 - 0.25	
Juvenile Minnow	Body, along river margin	< 2	0 - 0.25	Most juvenile minnow were observed in slow water along the river margin. Some observed near the head in moderate velocity feeding on drift.
Young-of-the-year Minnow	Body, tail, along river margin	< 1	0 - 0.25	Observed along river margins in slow to zero velocity water.
<b>Afternoon Sample</b>				
Adult Trout	Head	4-6	0.35 - 1.2	Two adult trout were observed in swift water feeding at the head, one trout was observed in deeper, moderate velocity water feeding at the head.
Adult Minnow	Body, along river margin	< 2	0 - 0.25	
Juvenile Minnow	Body, along river margin	2 - 3	0 - 0.25	Most juvenile minnow were observed in slow water along the river margin. Some observed near the head in moderate velocity feeding on drift.
Young-of-the-year Minnow	Body, tail, along river margin	< 1	0 - 0.25	Observed along river margins in slow to zero velocity water.
Adult California Roach	Body, tail, along river margin	4 - 6	0 - 0.20	Observed along river margins in slow to zero velocity water.

**Table E-1. Rubicon River and Middle Fork American River Fish Habitat Use in Pools (continued).**

<b>Rubicon River - July 26, 2007</b>				
<b>Pool #3</b>				
<b>Species and Age Class</b>	<b>Pool Spatial Location Observed</b>	<b>Depth (ft)</b>	<b>Velocity (ft/sec)</b>	<b>Observation Notes</b>
<b>Morning Sample</b>				
Adult Trout	Body	1, 20	1 - 2.2, 0	One rainbow trout was observed in the body of the pool at 1' depth, 5 were observed cruising near the bottom at 20' deep.
Adult Minnow	Body	4 - 10	0 - 1.2	
<b>Afternoon Sample</b>				
Adult Trout	Head and body	0 - 4 (head), 20 (body)	2.3 - 3.1 (head), 0 (body)	Two of the eight trout observed were actively feeding at the head, the remaining 6 were cruising near the bottom in the body of the pool. One adult hardhead was observed near the bottom in the body of the pool. Small schools observed actively feeding near the surface along the margins of the river.
Adult Minnow	Body	20	0 - 1.2	
Juvenile Minnow	Tail, river margin	0-6	0 - 1.2	

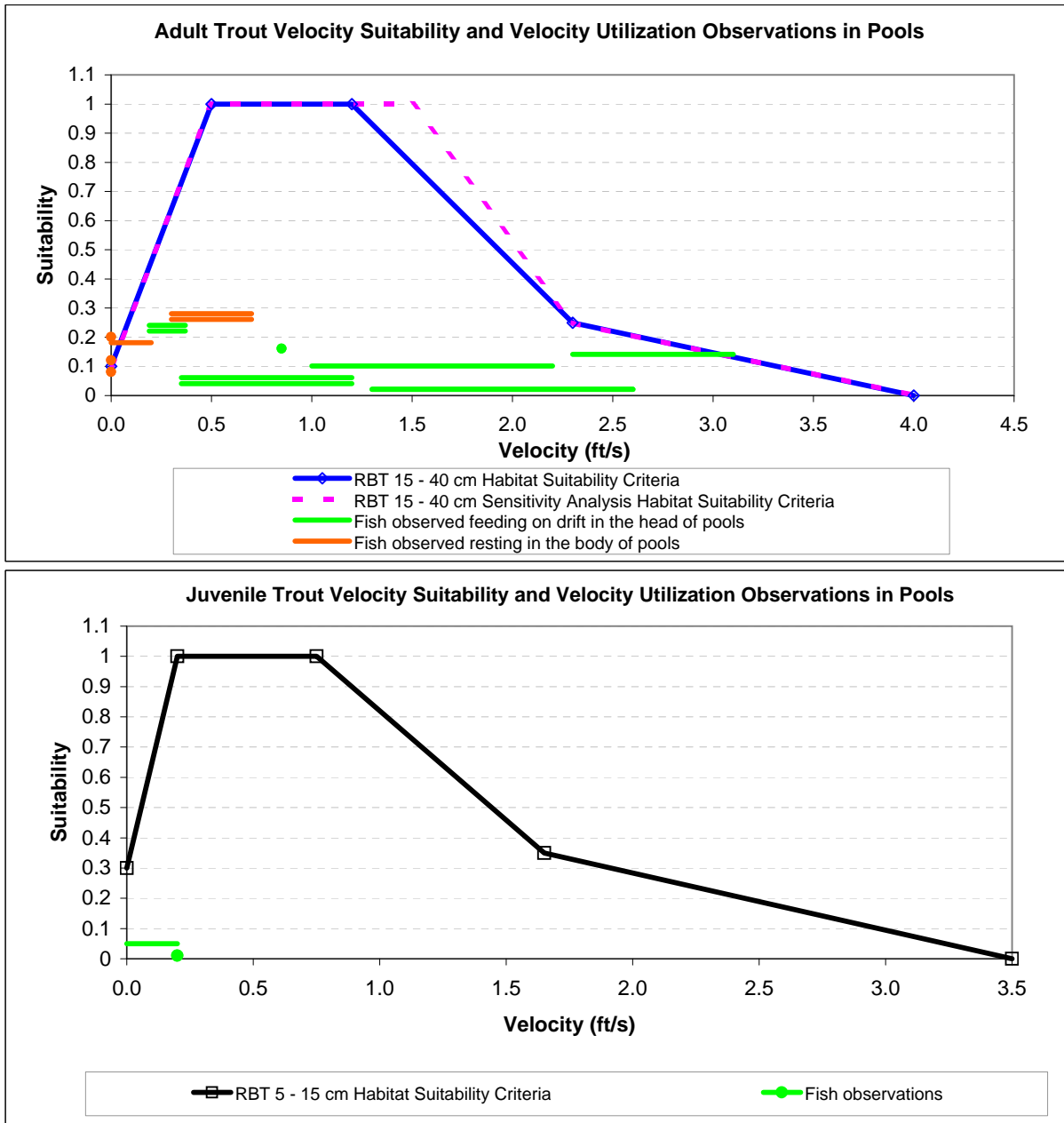
Table E-1. Rubicon River and Middle Fork American River Fish Habitat Use in Pools (continued).

Middle Fork American River - August 18-19, 2007				
Pool #1				
Species and Age Class	Pool Spatial Location Observed	Depth (ft)	Velocity (ft/sec)	Observation Notes
<b>Morning Sample</b>				
Adult California Roach	Body, tail, along river margin	< 2.5	< 0.3	Observed along river margins near submerged vegetation and algae mats.
Juvenile Minnow	Body, tail, along river margin	< 2.5	< 0.3	Observed along river margins near submerged vegetation and algae mats.
<b>Afternoon Sample</b>				
Adult California Roach	Body, tail, along river margin	< 2.5	< 0.3	Observed along river margins near submerged vegetation and algae mats.
Juvenile Minnow	Body, tail, along river margin	< 2.5	< 0.3	Observed along river margins near submerged vegetation and algae mats.
Pool #2				
Species and Age Class	Pool Spatial Location Observed	Depth (ft)	Velocity (ft/sec)	Observation Notes
<b>Morning Sample</b>				
Adult Trout	Head	4 - 5	0.85	Five adult trout observed feeding on drift at the head of the pool.
Juvenile Minnow	Body, along river margin	< 2.0	< 0.2	Observed along river margins near submerged vegetation and algae mats.
<b>Afternoon Sample</b>				
Adult Trout	Head and body	7	< 0.2	Five adult trout observed in the deepest part of the pool, near the head.
Juvenile Minnow	Body, river margin	< 2.0	< 0.2	Observed along river margins near submerged vegetation and algae mats.
Pool #3				
Species and Age Class	Pool Spatial Location Observed	Depth (ft)	Velocity (ft/sec)	Observation Notes
<b>Morning Sample</b>				
Adult Trout	Head and body	3- 6 (head), 5 (body)	0.19 - 0.37 (head), 0.0 (body)	Six adult trout were observed feeding on drift at the head of the pool, 1 adult trout was observed in the body near the bottom.
Juvenile Minnow	Body, river margin	2 - 4	< 0.3	Schools of mixed minnow were observed along the margins of the river in submerged vegetation.
<b>Afternoon Sample</b>				
Adult Trout	Head and body	3 - 6	0.19 - 0.37	Seven adult trout were observed feeding on drift at the head of the pool.
Juvenile Minnow	Body, river margin	2 - 4	< 0.3	Schools of mixed minnow were observed along the margins of the river in submerged vegetation.

**Table E-1. Rubicon River and Middle Fork American River Fish Habitat Use in Pools (continued).**

<b>Middle Fork American River - August 18-19, 2007</b>				
<b>Pool #4</b>				
<b>Species and Age Class</b>	<b>Pool Spatial Location Observed</b>	<b>Depth (ft)</b>	<b>Velocity (ft/sec)</b>	<b>Observation Notes</b>
<b>Morning Sample</b>				
Adult Trout	Head and body	6 - 10	0.3 - 0.7	Approximately 20 adult trout were observed swimming between the head and body. Most appeared to be feeding on benthic invertebrates.
Juvenile Trout	Body and tail	< 2.5	0.2	Juvenile brown and rainbow trout were observed in cobble and boulders along the margin of the pool in near zero velocity water.
Juvenile Minnow	Tail, river margin	0-6	0.3 - 0.7	Small schools observed actively feeding near the surface along the margins of the river.
<b>Afternoon Sample</b>				
Adult Trout	Head and body	6 - 10	0.3 - 0.7	Approximately 20 adult trout were observed swimming between the head and body. Most appeared to be feeding on benthic invertebrates.
Juvenile Trout	Body and tail	< 2.5	Slow	Juvenile brown and rainbow trout were observed in cobble and boulders along the margin of the pool in near zero velocity water.
Juvenile Minnow	Tail, river margin	0-6	Moderate-slow	Small schools observed actively feeding near the surface along the margins of the river.

**Figure E-1. Range of Velocities Trout Were Observed Utilizing in Pools During Snorkeling Observations Compared to Rainbow Trout Habitat Suitability Criteria.**



**Figure E-2. Range of Depths Trout Were Observed Utilizing in Pools During Snorkeling Observations Compared to Rainbow Trout Habitat Suitability Criteria.**

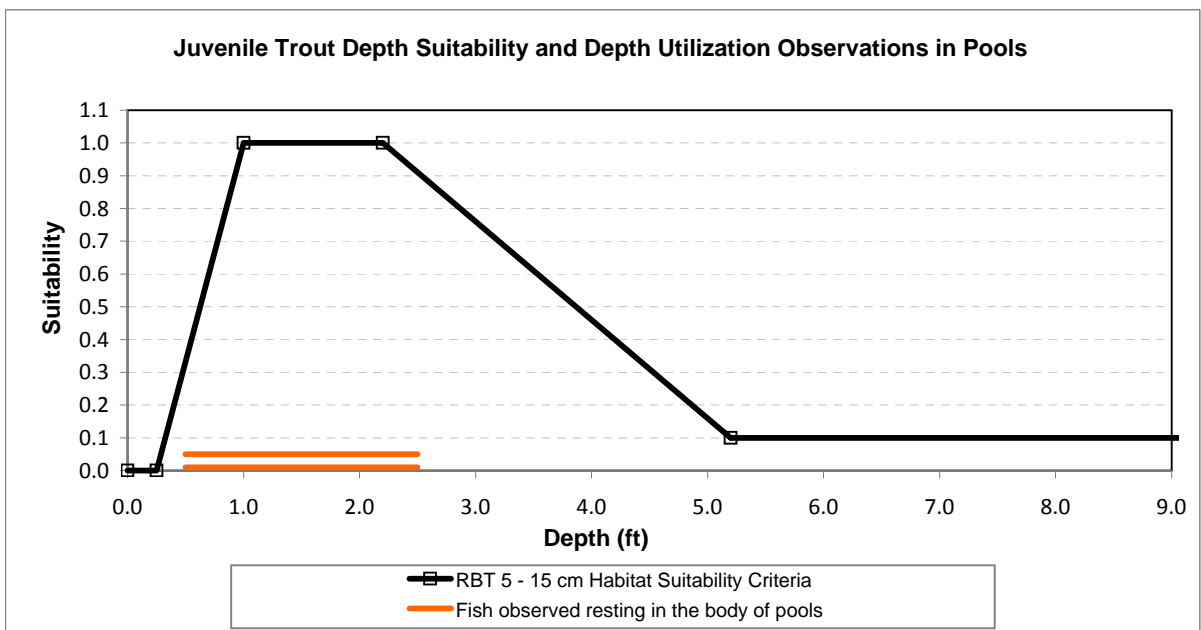
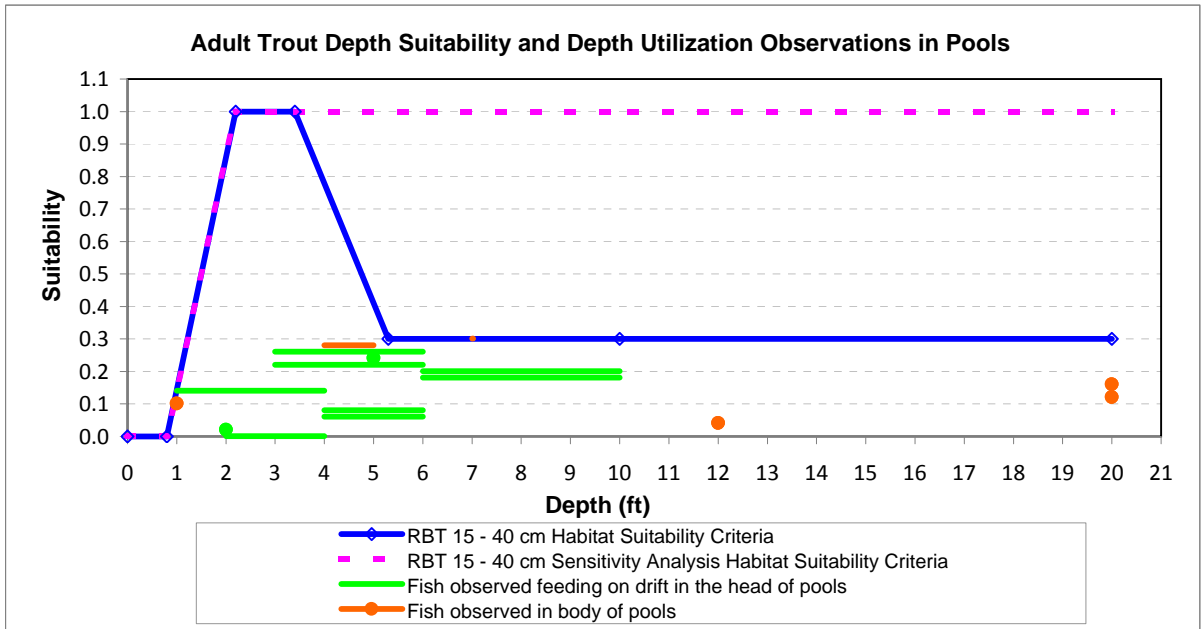


Figure E-3. Range of Velocities Minnows Were Observed Utilizing in Pools During Snorkeling Observations Compared to Hardhead Habitat Suitability Criteria.

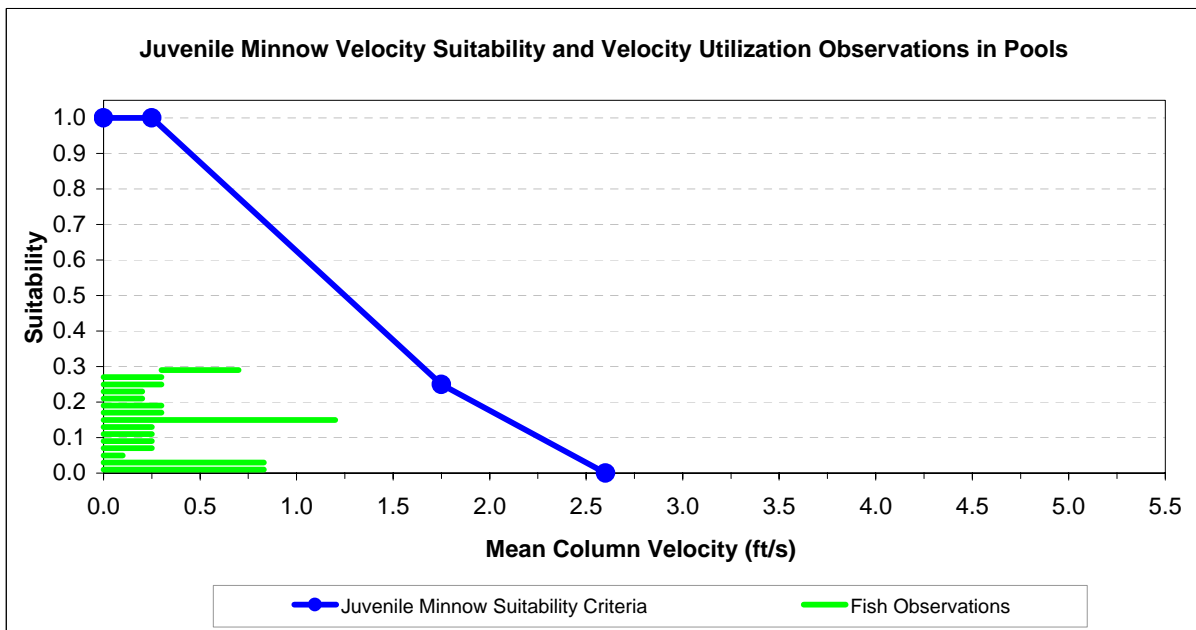
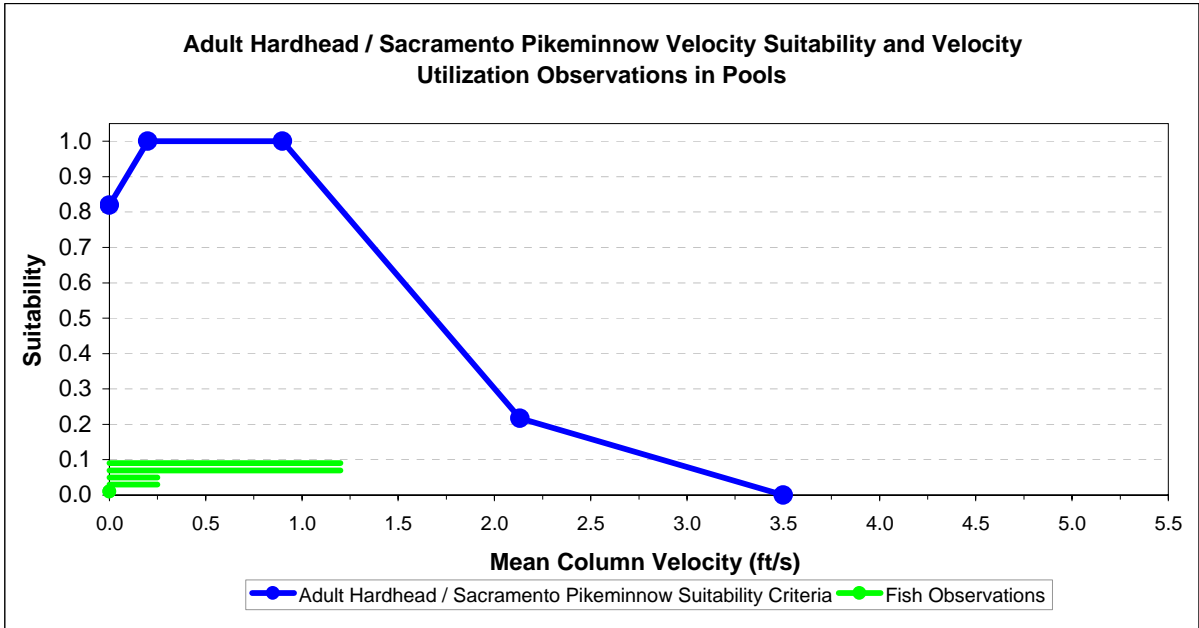


Figure E-4. Range of Depths Minnows Were Observed Utilizing in Pools During Snorkeling Observations Compared to Hardhead Habitat Suitability Criteria.

