

Migration Barrier Table: Arroyo Quemado, Arroyo Hondo, Molino and San Onofre Watersheds

BARRIER ID

Primary Stream	Primary Tributary	Secondary Tributary	Tertiary Tributary	Physical Description of Barrier Location
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Ownership / Interest	Barrier Type	Severity
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Stream Miles from Ocean to Downstream End	Stream Miles from Ocean to Upstream End	Total Length of Structure (miles)
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Stream Miles to Natural Upstream Limits	Stream Miles to Next Known 1.0 Severity Barrier	Total Habitat Score to Natural Upstream Limits
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Migration Barrier Priority Ranking

Arroyo Quemado

BR_AQ_1
BR_AQ_2
BR_AQ_3
BR_AQ_4
BR_AQ_5
BR_AQ_6
BR_AQ_7
BR_AQ_8

Arroyo Quemado				d/s UPRR/Highway 101 Culvert
Arroyo Quemado				UPRR/Highway 101 Crossing
Arroyo Quemado				~ Elevation 100'
Arroyo Quemado				~ Elevation 145'
Arroyo Quemado				~ Elevation 250'
Arroyo Quemado				~ Elevation 320'
Arroyo Quemado				~ Elevation 480'
Arroyo Quemado				~ Elevation 520'

	Stream Crossing	0.30
UPRR/CALTRANS	Culvert Stream Crossing	1.00
SBCFCD	Culvert Stream Crossing	0.80
SBCFCD	In-stream Crossing	0.40
SBCFCD	Diversion Dam	0.90
SBCFCD	Boulder Cascade	0.80
SBCFCD	Culvert Stream Crossing	0.70
SBCFCD	Sustained Slope Exceeding 10%	1.00

0.08		
0.11	0.19	0.08
0.86		
1.15		
1.69		
1.89		
2.20		
2.28		

2.20	0.03	1.09
2.17	2.17	1.09
1.42	1.42	0.83
1.13	1.13	0.73
0.59	0.59	0.38
0.39	0.39	0.26
0.08	0.08	0.06
NA	NA	NA

6
1
3
5
2
n
4
n

Arroyo Hondo

BR_AH_1
BR_AH_2
BR_AH_3
BR_AH_4

Arroyo Hondo				Highway 101 Crossing
Arroyo Hondo				~ Elevation 280'
Arroyo Hondo				~ Elevation 380'
Arroyo Hondo				~ Elevation 540'

CALTRANS	Culvert Stream Crossing	0.80
LTSCB	Boulder Cascade	0.90
LTSCB	Bedrock Chute	0.90
LTSCB	Bedrock and Boulder Waterfall	1.00

0.02	0.11	0.09
1.33		
1.60		
1.89		

1.87	1.87	1.66
0.56	0.56	0.57
0.29	0.29	0.30
NA	NA	NA

1
n
n
n

Molino Creek

BR_ML_1
BR_ML_2
BR_ML_3
BR_ML_4

Molino				UPRR/Highway 101 Crossing
Molino				~ Elevation 130'
Molino				~ Elevation 220'
Molino				~ Elevation 320'

UPRR/CALTRANS	Culvert Stream Crossing	1.00
Brinkman	Bridge with Concrete-lined Bottom	0.90
Brinkman	Dam	1.00
Brinkman	Sustained Slope Exceeding 10%	1.00

0.10	0.17	0.07
0.34		
0.55		
0.85		

0.75	0.45	0.30
0.51	0.21	0.22
0.30	0.30	0.13
NA	NA	NA

1
2
3
n

San Onofre Creek

BR_SO_1
BR_SO_2
BR_SO_3
BR_SO_4

San Onofre				30' d/s UPRR/Highway 101 Culvert
San Onofre				UPRR/Highway 101 Crossing
San Onofre				~ Elevation 60'
San Onofre				~ Elevation 220'

California State Parks	Boulder Cascade	0.70
UPRR/CALTRANS	Culvert Stream Crossing	1.00
Chevron USA Inc.	Stream Crossing	0.00
Brinkman	Sustained Slope Exceeding 10%	1.00

0.10		
0.11	0.15	0.04
0.26		
0.82		

0.72	0.01	0.45
0.71	0.71	0.45
0.56	0.56	0.38
NA	NA	NA

2
1
u
n

Physical Description of Barrier Location:

- GPS used to input some barrier locations into the GIS Database (available from CCP).
- Barrier location elevations are based on contour line and stream intersections locations derived in the field and using USGS topographical 7.5 minute quad maps.
- Barriers located using GPS were assigned approximate elevations using USGS 30-meter Digital Elevation Models. Approximate (~) elevations are given in feet (').
- Approximate (~) elevations are given in feet (').
- The lower number and sign(#) refer to most downstream structure with a similar name.
- For example, "#1 Highway 150 Bridge" refers to the first, or most downstream, of the Highway 150 Bridges encountered by upstream migrating steelhead.
- u/s= upstream -d/s= downstream -Ck.= Creek -Conf.= Confluence

Migration Barrier Priority Ranking:

- u=unknown
- n=natural