

Mean Annual Discharge and Steelhead

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Function Updated by leah.egeryhaley on Tue, 06/23/2026 - 18:54.

Species Information

Common Name: Steelhead
Genus: *Oncorhynchus mykiss irideus*

Stressor Details

Stressor Name: Flow
Units: %
Metric: Mean Annual Discharge (MAD)
Scale: linear
Function Type: continuous
Vital Rate/Process: Over-summer survival

Life Stage & Context

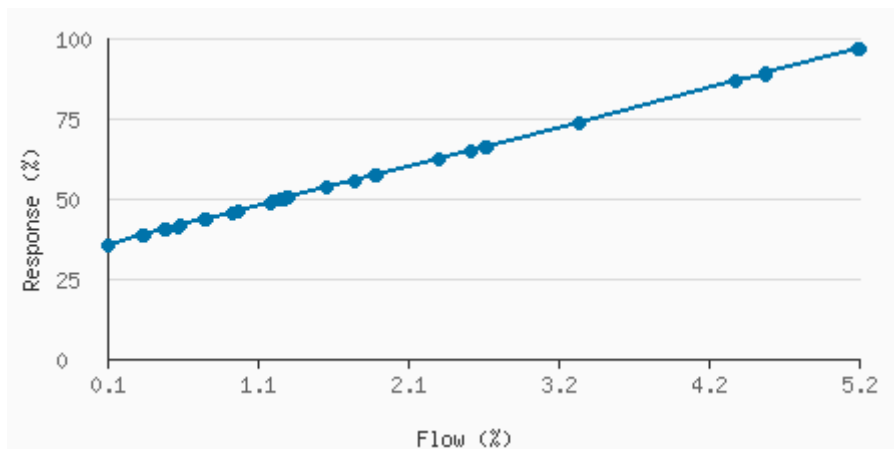
Life Stages: Juvenile
Geography: Maacama Creek, Mark West Creek, Santa Rosa Creek, Green Valley Creek. California, USA
Season: Summer

Descriptions

Function Derivation

Observational data. Final curve was derived from linear regression.

Stressor Response Data



?PERCENT_MAD	Mean System Capacity (%)	SD	low.limit	up.limit
0.1316	35.44236	0	0	100
0.13598	35.495358	0	0	100
0.36256	38.236976	0	0	100
0.36262	38.237702	0	0	100
0.37365	38.371165	0	0	100
0.37368	38.371528	0	0	100
0.37587	38.398027	0	0	100
0.5122	40.04762	0	0	100

0.51477	40.078717	0	0	100
0.51705	40.106305	0	0	100
0.51899	40.129779	0	0	100
0.52758	40.233718	0	0	100
0.53226	40.290346	0	0	100
0.60673	41.191433	0	0	100
0.62	41.352	0	0	100
0.77635	43.243835	0	0	100
0.77842	43.268882	0	0	100
0.78526	43.351646	0	0	100
0.78956	43.403676	0	0	100
0.96969	45.583249	0	0	100
0.97197	45.610837	0	0	100
1.0052	46.01292	0	0	100
1.00524	46.013404	0	0	100
1.00955	46.065555	0	0	100
1.22951	48.727071	0	0	100
1.22956	48.727676	0	0	100
1.23388	48.779948	0	0	100
1.23598	48.805358	0	0	100
1.28678	49.420038	0	0	100
1.29109	49.472189	0	0	100
1.30847	49.682487	0	0	100
1.32624	49.897504	0	0	100
1.33731	50.031451	0	0	100
1.35027	50.188267	0	0	100
1.59914	53.199594	0	0	100
1.60152	53.228392	0	0	100
1.60346	53.251866	0	0	100
1.60803	53.307163	0	0	100
1.78379	55.433859	0	0	100
1.78825	55.487825	0	0	100
1.79047	55.514687	0	0	100
1.92029	57.085509	0	0	100
1.92252	57.112492	0	0	100
1.9333	57.24293	0	0	100
1.93577	57.272817	0	0	100
2.35349	62.327229	0	0	100
2.35565	62.353365	0	0	100
2.56688	64.909248	0	0	100
2.56905	64.935505	0	0	100
2.57136	64.963456	0	0	100

2.66385	66.082585	0	0	100
2.67054	66.163534	0	0	100
2.67707	66.242547	0	0	100
3.29154	73.677634	0	0	100
4.33678	86.325038	0	0	100
4.33698	86.327458	0	0	100
4.33704	86.328184	0	0	100
4.53657	88.742497	0	0	100
4.53663	88.743223	0	0	100
4.53915	88.773715	0	0	100
5.16288	96.320848	0	0	100
5.16573	96.355333	0	0	100

Citations

Grantham, T.E., Newburn, D.A., McCarthy, M.A., and Merenlender, A.M. 2012. The role of streamflow and land use in limiting oversummer survival of juvenile steelhead in California streams. *Trans. Am. Fish. Soc.* 141:585-598.