Mean Annual Discharge and Steelhead

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Function Updated by leah.egeryhaley on Tue, 06/23/2026 - 18:05.

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: Residuals + mean (fish/m2)

Life Stage & Context

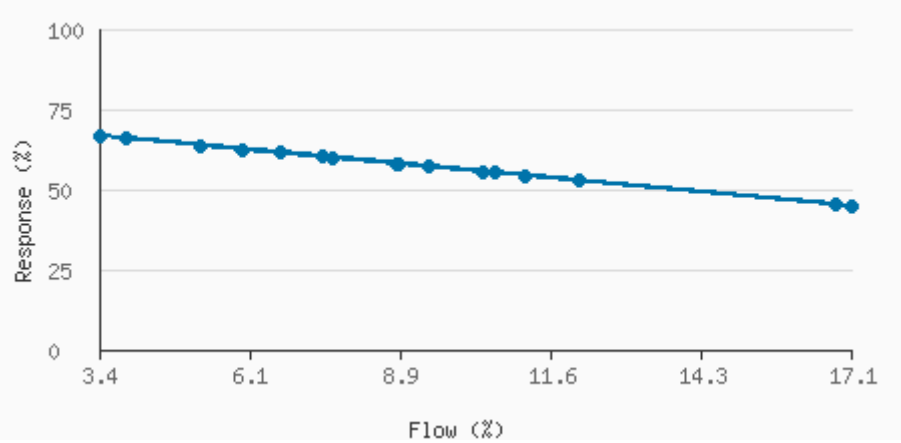
Life Stages: Juvenile
Geography: Salmon River, BC, Canada
Season: Late Summer

Descriptions

Transferability of Function

> Appropriate for late-summer stream flow impacts on chinook salmon juveniles and egg-to-smolt. General transferability to other chinooks stocks in unclear, but likely appropriate for other fall-spawning salmonids (i.e., regions with similar hydrology to the Lehmi River).
> The relationship may be unreliable if extrapolated to a flow range outside the original data (see the Average Salmonid flow-ecology SR function entry based on Rosenfeld and Enright (2025) for a more generalizable function across a wider range of flows).

Stressor Response Data



?PERCENT_MAD	Mean System Capacity (%)	SD	low.limit	up.limit
17.06464764	44.6259173	0	0	100
11.12405358	54.1902737	0	0	100
16.77344205	45.0947583	0	0	100
8.852649971	57.8472335	0	0	100

10.59988352	55.0341875	0	0	100
7.629586488	59.8163658	0	0	100
6.697728596	61.316657	0	0	100
9.376820035	57.0033197	0	0	100
3.389633081	66.6426907	0	0	100
10.36691904	55.4092603	0	0	100
5.224228305	63.6889924	0	0	100
12.11415259	52.5962143	0	0	100
3.884682586	65.845661	0	0	100
7.454863133	60.0976704	0	0	100
8.794408853	57.9410017	0	0	100
5.998835178	62.4418754	0	0	100

Citations

Data extracted from Campbell River Water Use Plan Report