

# Rempel et al. 2012: Velocity and Chinook HSI (Raleigh)

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## Species Information

**Common Name:** Chinook Salmon  
**Genus:** *Oncorhynchus tshawytscha*

## Stressor Details

**Stressor Name:** Velocity  
**Units:** m/s  
**Metric:** Flow velocity  
**Scale:** linear  
**Function Type:** continuous

## Life Stage & Context

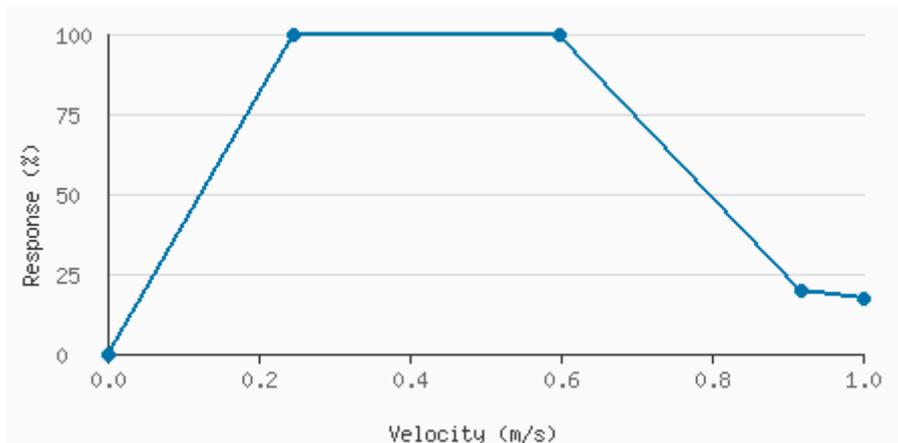
**Life Stages:** Fry

## Descriptions

### Overview

Suitable velocity for Fraser fish is also similar to the WUP curve and identifies low-velocity habitat up to 35 cm/s as highly suitable. Maximum suitability extends to lower velocities for Fraser fish (5 cm/s) compared to the WUP curve.

## Stressor Response Data



Stressor (X)	Mean System Capacity (%)	SD	low.limit	up.limit
0.03	0.00	0.00	0.00	0.00
0.27	100.00	0.00	100.00	100.00
0.61	100.00	0.00	100.00	100.00
0.92	19.67	0.00	19.67	19.67
1.00	17.05	0.00	17.05	17.05

## Citations

Rempel, L. L., Healey, K., & Lewis, F. J. A. (2012). Lower Fraser River juvenile fish habitat suitability criteria. Ecosystem Management Branch, Fisheries and Oceans Canada.

Raleigh, R.F., Miller, W.J., and Nelson, P.C. 1986. Habitat suitability index models and instream flow suitability curves: Chinook salmon. US Fish Wildl. Serv. Biol. Rep. 82/10.122. 64 p.

## References

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Rempel et al. 2012 - <https://www.ecofishresearch.com/wp-content/uploads/2016/09/346413.pdf>

Raleigh et al. 1986 - <https://apps.dtic.mil/sti/tr/pdf/ADA322912.pdf>