

# Fine Sediments and Steelhead

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Function Updated by mbakken on Fri, 04/04/2025 - 05:08.

## Species Information

**Common Name:** Steelhead

**Genus:** *Oncorhynchus mykiss irideus*

## Stressor Details

**Stressor Name:** Sedimentation

**Units:** % fines (0.85mm)

**Metric:** Fine sediments

**Scale:** linear

**Function Type:** continuous

**Vital Rate/Process:** Survivorship

## Life Stage & Context

**Life Stages:** Juvenile

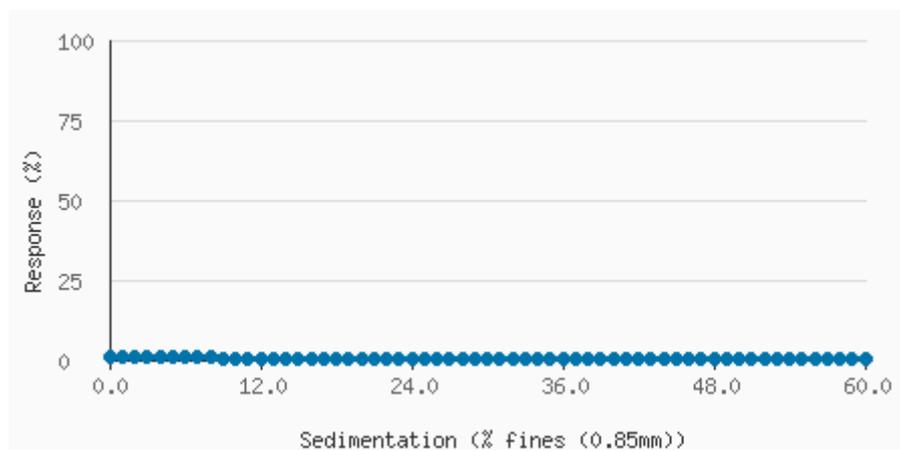
**Geography:** Pacific Northwest Freshwater Systems, USA

**Activity:** Incubation

**Season:** All seasons

## Descriptions

## Stressor Response Data



| ?PERCENT_FINES_0.85mm | Mean System Capacity (%) | SD          | low.limit | up.limit |
|-----------------------|--------------------------|-------------|-----------|----------|
| 0                     | 0.804469091              | 0.032055061 |           |          |
| 1                     | 0.786403113              | 0.033392209 |           |          |
| 2                     | 0.767137111              | 0.034693228 |           |          |
| 3                     | 0.746679223              | 0.035948719 |           |          |
| 4                     | 0.725054666              | 0.03714956  |           |          |
| 5                     | 0.702307293              | 0.038286951 |           |          |
| 6                     | 0.678500679              | 0.039352391 |           |          |
| 7                     | 0.653718618              | 0.040337591 |           |          |
| 8                     | 0.628064904              | 0.04123434  |           |          |
| 9                     | 0.601662313              | 0.042034361 |           |          |

|    |             |             |  |  |
|----|-------------|-------------|--|--|
| 10 | 0.574650755 | 0.042729195 |  |  |
| 11 | 0.547184627 | 0.04331017  |  |  |
| 12 | 0.51942943  | 0.043768491 |  |  |
| 13 | 0.491557824 | 0.044095468 |  |  |
| 14 | 0.463745295 | 0.044282895 |  |  |
| 15 | 0.436165681 | 0.044323528 |  |  |
| 16 | 0.408986789 | 0.044211631 |  |  |
| 17 | 0.382366353 | 0.043943507 |  |  |
| 18 | 0.356448516 | 0.043517957 |  |  |
| 19 | 0.331361017 | 0.042936599 |  |  |
| 20 | 0.30721315  | 0.042204018 |  |  |
| 21 | 0.284094559 | 0.041327726 |  |  |
| 22 | 0.26207482  | 0.040317941 |  |  |
| 23 | 0.241203752 | 0.03918722  |  |  |
| 24 | 0.22151235  | 0.037949979 |  |  |
| 25 | 0.203014203 | 0.036621947 |  |  |
| 26 | 0.185707263 | 0.03521961  |  |  |
| 27 | 0.16957584  | 0.033759662 |  |  |
| 28 | 0.154592695 | 0.032258523 |  |  |
| 29 | 0.140721132 | 0.030731923 |  |  |
| 30 | 0.127917002 | 0.029194565 |  |  |
| 31 | 0.116130579 | 0.027659889 |  |  |
| 32 | 0.10530824  | 0.026139903 |  |  |
| 33 | 0.095393956 | 0.024645099 |  |  |
| 34 | 0.086330554 | 0.023184434 |  |  |
| 35 | 0.078060792 | 0.021765357 |  |  |
| 36 | 0.070528216 | 0.02039388  |  |  |
| 37 | 0.063677852 | 0.019074676 |  |  |
| 38 | 0.057456726 | 0.017811201 |  |  |
| 39 | 0.051814249 | 0.016605816 |  |  |
| 40 | 0.046702476 | 0.015459923 |  |  |
| 41 | 0.042076272 | 0.014374096 |  |  |
| 42 | 0.037893388 | 0.013348202 |  |  |
| 43 | 0.034114473 | 0.01238152  |  |  |
| 44 | 0.030703039 | 0.011472851 |  |  |
| 45 | 0.027625383 | 0.010620608 |  |  |
| 46 | 0.024850474 | 0.009822905 |  |  |
| 47 | 0.022349834 | 0.009077635 |  |  |
| 48 | 0.02009739  | 0.008382528 |  |  |
| 49 | 0.018069333 | 0.00773521  |  |  |
| 50 | 0.016243959 | 0.007133249 |  |  |
| 51 | 0.014601527 | 0.006574192 |  |  |

|    |             |             |  |  |
|----|-------------|-------------|--|--|
| 52 | 0.013124103 | 0.006055599 |  |  |
| 53 | 0.011795423 | 0.005575065 |  |  |
| 54 | 0.010600755 | 0.005130243 |  |  |
| 55 | 0.009526769 | 0.004718857 |  |  |
| 56 | 0.008561416 | 0.004338715 |  |  |
| 57 | 0.007693814 | 0.003987717 |  |  |
| 58 | 0.006914144 | 0.00366386  |  |  |
| 59 | 0.006213552 | 0.003365243 |  |  |
| 60 | 0.005584058 | 0.003090065 |  |  |

## Citations

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Jensen, D.W., Steel, E.A., Fullerton, A.H. and Pess, G.R., 2009. Impact of fine sediment on egg-to-fry survival of Pacific salmon: a meta-analysis of published studies. *Reviews in Fisheries Science*, 17(3), pp.348-359.