

Need 1: Gravel

Healthy environment: Gravel should be small, but not filled with silt which would suffocate the

eggs/hatchlings (most vulnerable bc eggs and hatchlings need

somewhere to hide and not be swept away) **by minimizing exposure to O₂**

What causes gravel to be missing:

1) **silt** (there but filled in with tinnier crap)

- It gets there bc of erosion, washing dirt off hillsides upstream - clogging the gravel. people cause this by walking off paths, introduced invasive species don't necessarily have roots that hold dirt on.

2) Trapezoidal water ways/Concrete: Replace the gravel. Eggs wont stick, so they wash away. people put them in there because it gets water out fast, to prevent flooding.

Need #2

Oxygen

IMPORTANT TO ALL

Bc they all need to breathe

Need cool water:

Cool water holds more O₂

- People increase water temp by taking away trees and related to invasive species (like blackberries) Native blackberries hang over water and shade it, while invasive ones grow close to the ground and don't shade water.

Need Moving Water:

Moving Water: mixes (**turbidity**) in air with oxygen

- water mixes at the turns, people tend to straighten streams so water moves faster, dams slow down water so there is less mixing.

Fish Lab Conclusion Guide - In Class

Need #3:

Water!

Anadromous: Meaning they are born in fresh water, move to salt water and move back to fresh to breed (F->S->F)

BOTH FRESH AND SALT WATER TO COMPLETE THEIR LIFE CYCLE (mandatory for all stages)

-Fresh: egg/Alvein/Fry/parr

Esturine: Smelt

-Salt: Adult

Fresh: Spawner/Redd

Important Water factors

- **Levels** - water needs to be deep enough for fish

- People: global climate change changes rainfall patterns, dams, make up for it with fish ladder.

- **Healthy** enough to not poison fish or their food. (o₂, eutrication) - sewage, runoff from farms and factories (chemicals)

Life stage:

- Stage/visual/Where they live/Basic needs.

Vulnerable:

Egg: need to be in gravel for protection from predators and to not be swept away. also, cant even move to defend themselves.

Greatest
threat to CA
salmon

Do research, you can each have
a different answer, just back it
up.