

People h  
dumped  
native a  
rium pla  
now clog  
the water  
salmon ca  
hardly get  
through. To  
SKIP | SPAC  
name non-  
native water  
weed.



Local enviro  
mental  
helps



Salmon is close  
to home to  
spawn and start  
the next gen-  
eration. TO ROLL  
AGAIN, name  
two things im-  
portant during  
spawning.



Fry finds a  
fallen tree in  
the stream to  
hide under for  
shelter, and  
finds delicious  
macro-inver-  
tebrates to eat.  
ROLL AGAIN.



Salmon fry  
swims over  
redd that was  
squashed  
by mountain  
bikers. TO  
ROLL AGAIN,  
name two  
other ways  
a redd can  
be damaged.



Salmon spawns  
and dies, and  
the eggs are  
safe in the  
gravel redd  
waiting for  
spring.

Salmon alevin  
hatches from  
egg within the  
redd nestled in  
the stream  
gravel.

Alevin hangs  
out in the  
gravel and  
feeds on its  
yolk sack,  
and emerges  
as fry.



START

FINISH



To move up  
stream and WIN  
THE GAME,  
name 4 of the 7  
fish species that  
are endangered  
in Washington  
state.  
Hint: several  
are salmon.

# TREES TO SEAS: Journey of the wild salmon



**Fry passes timber harvest site. Landowner has followed forest practices rules and left 100 feet of riparian (streamside) buffer, so the water is cool and protected. ADVANCE ONE SPACE...**

**EAGLE STRIKE!** It picked up the salmon but dropped it. Eagles, heron, kingfishers, and bears are some natural predators that salmon must avoid. **MOVE BACK 1 SPACE.**

**To ROLL AGAIN,** name one common native riparian tree.

**Fry can't breathe with silt in its gills. A land owner has cut timber but didn't follow forest practices riparian buffer rules, so silt washed into the stream. LOSE 1 TURN.**

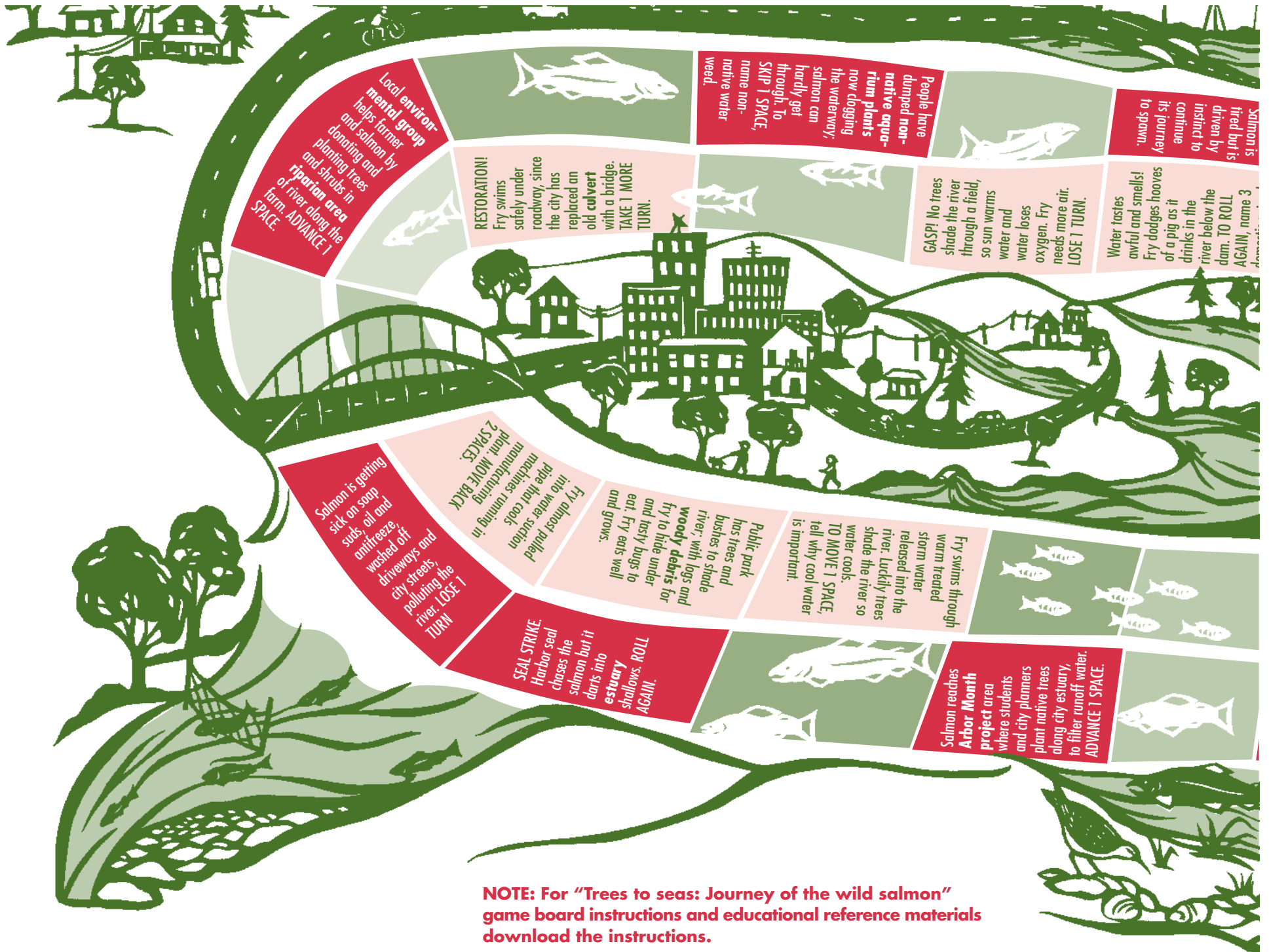
**Salmon's eyes are smarting from pesticides and insecticides that have seeped from careless landowners' yards into the stream. LOSE 1 TURN.**

**Shredder eats tree leaves and needles that fall into the stream. In turn, Fry eats shredders.**

**ONTO A FISH TRUCK.** Some other fish couldn't find the fish ladder and had to be carried on a truck up to the reservoir. **BACK 4 SPACES.**



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**Local environmental group helps farmer and salmon by donating and planting trees and shrubs in riparian area of river along the farm. ADVANCE 1 SPACE.**

**RESTORATION!**  
Fry swims safely under roadway, since the city has replaced an old culvert with a bridge. TAKE 1 MORE TURN.

**People have dumped non-native aquarium plants now clogging the waterway; salmon can barely get through. To SKIP 1 SPACE, name non-native water weed.**

**GASPI!** No trees shade the river through a field, so sun warms water and water loses oxygen. Fry needs more air. LOSE 1 TURN.

**Salmon is tired but is driven by instinct to continue its journey to spawn.**

**Water tastes awful and smells! Fry dodges hooves of a pig as it drinks in the river below the dam. TO ROLL AGAIN, name 3**

**Salmon is getting sick on soap suds, oil and antifreeze washed off driveways and city streets, polluting the river. LOSE 1 TURN.**

**Fry almost pulled pipe that cools machines running in plant. MOVE BACK 2 SPACES.**

**Public park has trees and bushes to shade river; with logs and woody debris for fry to hide under and tasty bugs to eat. Fry eats well and grows.**

**Fry swims through warm treated storm water released into the river. Luckily trees shade the river so water cools. TO MOVE 1 SPACE, tell why cool water is important.**

**Salmon reaches Arbor Month project area where students and city planners plant native trees along city estuary to filter runoff water. ADVANCE 1 SPACE.**

**SEAL STRIKE.** Harbor seal chases the salmon but it darts into estuary shallows. ROLL AGAIN.

**Salmon reaches Arbor Month project area where students and city planners plant native trees along city estuary to filter runoff water. ADVANCE 1 SPACE.**

**NOTE: For "Trees to seas: Journey of the wild salmon" game board instructions and educational reference materials download the instructions.**



Pacific Ocean

While salmon mature in the ocean, some become food for whales, sea lions, seals, or fish. But many strong salmon live for years at sea.

Heavy rains in river push the smolt into salt-water. Its gills struggle to breathe. SWIM BACK 1 SPACE.

Our lucky mature salmon gets past humans that catch both weak and strong fish in nets in the ocean and rivers. ADVANCE 1 SPACE.

**HAPPY BIRTHDAY!** This salmon fry has grown into a smolt now in the estuary before going out to the ocean.

Fry reaches the estuary where saltwater mixes with river water as tide comes in. WAIT 2 TURNS while fry feeds and osmoregulates — gills and kidneys adapt to salt water.

Salmon is almost poisoned by water run-off from streets as non-point source pollution enters estuary, filthy with toxic fluids, oils and other poisons. WAIT 1 TURN.

From the Pacific Ocean the salmon returns to the same estuary, where it osmoregulates to adapt once again to fresh water.

Fry dodges a beaver dam and has hidden itself in gullees and tree trunks. ADVANCE 2 SPACES.

OH NO! A blue heron narrowly misses eating the fry. MOVE BACK 2 SPACES.

**LOOKOUT!** Dam blocks the river, but salmon swims through turbulent waters to find the fish ladder to leap up to the reservoir. SKIP 1 SPACE.

Salmon travels swiftly. County bought neighborhood which used to flood and created a park with paths, picnic areas and riparian habitat.

Salmon is tired but is driven by instinct to continue its journey.

Fry dodges hooves of a pig as it drinks in the river below the dam. TO ROLL AGAIN, name 3 domestic animals that can pollute streams.

The lake is a reservoir behind a dam that generates electricity, but the fry avoided turbines and found the fish ladder. MOVE AHEAD 1 SPACE.

The fish ladder and had to be carried on a truck up to the reservoir. BACK 4 SPACES.

The stream is getting wider, and slower... it's a lake. Where can the fry hide? TO ROLL AGAIN.

Illustration by Nikki McClure