

An underwater photograph of a large, olive-green fish with a yellowish tail, swimming over a rocky riverbed. The water is clear and greenish. The title 'IMPROVING FISH PASSAGE' is overlaid in white capital letters at the top.

IMPROVING FISH PASSAGE

Many native fish need to move between estuarine and freshwater habitats at different times of year. If their passage is blocked it can interfere with their life cycle, impacting on species diversity and population.

Infrastructure such as weirs, roads and crossings can all act as a barrier to fish passage, but we now know how to build these in a more fish friendly way.

The best outcome for fish is if the infrastructure allows water to flow across the full channel width and natural components of the creek are retained or replicated – like riffles and eddies, rocky areas, and different creek bed textures. This creates natural resting spots for small fish like baby empire gudgeon and barra, which is important because they are not strong swimmers.

Solutions can include

Removing historic infrastructure that's unnecessary or unused. For example, removing remnants of a crossing that is broken.

Replacing inappropriate infrastructure (often historic structures that would not meet current Fisheries codes).

For example, installing a bed-level crossing in place of a causeway, or replacing a pipe culvert with widespanning box culverts.

Repairing old infrastructure to meet current Fisheries codes. For example, installing graded rock scour protection to fix erosion holes and undercutting on the downstream side of a causeway.

Installing 'fish passage' structures like rock-ramp fish ladders to barriers like weirs.

EXAMPLES OF 'GOOD' FISH PASSAGE



Large corrugated pipe culvert with natural stream bed



Bridge



Box culvert with natural stream bed



Bridge



Bed Level Crossing

Important to know

If you're doing any work to waterway crossings, always check with Queensland Fisheries about requirements. Depending on the size of the waterway and type of construction or repair to infrastructure, permits may be required from the State Assessment and Referral Agency (SARA).