GAME:

Poo-llution Revolution

This game has been modified from one by Massey University design students, Team Kaka.

It's not farming that's the problem – it's how we are farming. Discover how sustainable (eco-friendly) dairying practices better protect our awa (rivers), roto (lakes), and manga (streams).

Cows are big animals, and, boy, do they like to eat! They'll eat day in, and day out, anywhere they can – and quite naturally, make the waste to go with it. Did you know that one cow makes as much poo and wee as 15 people!?

Nutrients are things in food that bodies process to make them work. Cow poo has phosphorous nurtients in it, and cow wee has nitrogen nutrients. Soil also has phosphorous in it. This comes to the surface when cows "pug up" wet paddocks with their feet – that is, make it wet and muddy. Whenever it rains, this phosphorous can now move or "run off" downhill.

In small amounts, nitrogen and phosphorous are good for the environment, crucial even, but in large amounts, they are really polluting, especially for our water.

Aim:

- For the eco-farmer to protect the water on their farm as quickly as possible.
- For the pesky cows to make it difficult by doing their thing – pooing and weeing wherever they can.

Rules:

- Eco-farmer can start and move anywhere. Cows can start and move anywhere too, except if blocked by a completed fence line or a bridge/culvet.
- Eco-farmer gets one move a turn; cows get two.
- If cows get their feet in the water, they get one extra move for that turn.
- If the circle on the board has water in it, it has to be filled with a plant.
- Cows can eat plants if they aren't protected by a fence.
- Cows can't replace fences, or a bridge/culvert, but farmers can replace, or remove, one poo/wee counter a turn.
- Cows can poo/wee in the same circle twice. After that, they need to wait for it to be cleared completely.
- Cows just keep going wherever they can until eco-farmer is finished.
- Eco-farmer needs to allow room for cows to poo and wee safely. If cows find they have nowhere to go – the farmer has to restart.

You'll need:

(Make your own, or download a cut-out sheet of counters from **kcc.org.nz**)

Eco-farmers

11x Riparian planting (Plants to create a buffer between the land and water)

1x Bridge/Culvert (A bridge takes cows over water; a culvert puts the water underground)

16x Fences (Fences create a buffer between cows and the plants and water)

Cows

50x Poo/Wee counters

QUESTION: What is another way that dairying can become more sustainable?

HINT: It's something about cows.