



Catchment to the Sea

(MELLOW INSTRUMENTAL MUSIC)

ROBERTO D'ANDREA:

Welcome to Coast Care Summer by the Sea. A celebration of all things coastal and marine. As a part of it, we acknowledge the Traditional Custodians of the lands we'll be travelling through today. We pay our respects to elder's past, present and emerging. As a part of this little video, which is called 'Catchments to the Sea', we'll be heading inland. We're going to visit gutters and drains. We're going to look where they end up down at your local creek. We'll follow that down through to your local river and follow them down towards the estuary, the bays and the oceans. So first up, let's go and have a look at a few drains and gutters, and find out where a lot of this coastal pollution that ends up on the beaches comes from.

Here's your classic stormwater drain. In the last major rain event where there was a big flush of water, a heavy shower, it's collected rubbish off the street that might be lying in the middle of the street, into the gutters, and it's run it down to the stormwater drain. If this rubbish, like a lot of it does, makes its way through the system down to the local creek, we've got environmental damage. Soft plastics do a heap of environmental damage. So, if this bit of soft plastic goes down the drain, into the creek, moves down to the bay, a floating bit of soft plastic, for a dolphin, can look like a jellyfish. So they might predate that bit of soft plastic thinking that it's a bit of food. Fish might think that a tiny little bit of plastic is a little bit of the food chain, and it'll gobble it down on the way through. So we're starting to find that our fish, when they do a dissection, sometimes will have an amount of plastic in their body.

The majority of what we've got in this bag here, that we've collected in the last hour, could go into recycle, it can be a new resource that's created again. So, for soft plastics, take them to supermarkets, they've got soft plastic bins. For hard plastics, for glass, for paper, for metal, recycle. Keep this stuff out of the gutters. A plastic container like this, a drink container, will last a long, long time. It'll also float a long distance after heavy rains. So it'll negotiate a gutter, it'll flow down the stormwater parts, it'll make it into a creek or river that potentially could quite easily make it down to your local bays and estuaries. Stormwater drains are just for rain. They were never designed to carry a lot of our refuse, a lot of our plastic, our cigarette butts, etc. This is the end of the line for the gutters and the drains as they run down into your local creek. And you can see, after a heavy flush of rain, the water will come pouring out there, it's almost like a water slide going in a fast torrent down to the creek. Now, a lot of pollutants get carried down through the stormwater system. And there's one such example, and we're not setting this up. This is a plastic bottle that's right near my feet here. So, you'd find that through these reeds and rushes, there will be a little bit of rubbish. And of course, the main flow will take pollutants down into the creek. (BIRD CHIRPING) You've got to love your local creeks and rivers. They're important part of our natural world. And through our urban landscapes, they're a refuge for a lot of our beautiful native animals. Let's take a look at a few of them. First up, we've got the beautiful aquatic invertebrates. They're at the base of the food chain. They're important. They're food for platypus, they're food for turtles, they're food for fish, they might even be a bit of tucker for water birds. The one that you're looking at here is called water boatman.

If there's a lot of pollution coming down, and chemical pollution, your waterways will have less of your aquatic invertebrates. If you're only left with mosquito larvae in your waterways, that's a sign



Catchment to the Sea

that it could be quite polluted. So organisations like Water Watch come down to these local creeks and rivers, and they monitor the health of our local waterways. They take a sample of the water, they go back to the lab, they look and see which and what is in the water. If you've got, for instance, beautiful mayfly larvae in your waterway, which is sensitive to pollution, it's a sign that the waterway is in reasonable to good condition. Another one of the lovely creatures that we'll find in our urban waterways are frogs. So if you've got that growly (CRAW-ORK, CRAW-ORK) you might have the common froglet. If you've got that (CREAK, CREAK, CREAK, CREAK, CREAK), you might have a species of tree frog. If you've got that beautiful (BONK, BOMP-BOMP-BONK), how about pobblebonk or a banjo frog in your vicinity. And if you've got the clicking of (CLICKS TONGUE), you probably got one of the Marsh frogs. So, frogs are an important indicator of the health of our waterways. So in a waterway like this, the more diversity of frog species, the healthier the waterway. If you want to know which frogs are living near your local wetland, your waterway, your creek or river, download the Melbourne Water Frog Census app. It's a beautiful little app. It'll give you all the calls of the frogs that are found across Victoria. And you can also record the sounds of the frogs, and they'll get back to you, and tell you which species you've got in your local waterway.

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So we're thinking about 'Catchments to the Sea.' So far, we've gone to your local gutter, your local drain. We followed it down to the end of the pipeline as it flows into the local creek. We're now going to follow this local creek down to the larger river. So, we've come out of the gutters and the drains, and we followed them down to your local creek. We've had a look at the effects of pollutants on the aquatic invertebrates, water boatmen and dragon fly larvae, the very bottom of the food chain. The all important frog species. And of course, if there's pollutants that flow down the natural creeks to the confluence where they meet the rivers, the larger and important creatures like the beautiful platypus could get affected. Pollutants will then move down the river, down to the sea. And that could affect the penguin colonies on our coastline. Pollutants move right down through the catchments.

Can you say the word 'rosella'?

CHILDREN:

Rosella.

ROBERTO D'ANDREA:

Nicely done. They're an Australian parrot. Does anyone know why they need a hole in an old tree?

CHILD:

Because they have a nest.

ROBERTO D'ANDREA:

Beautiful. So, it's where they lay their...

CHILDREN:

Eggs.



SUMMER BY THE SEA

Catchment to the Sea

ROBERTO D'ANDREA:

And have their ba...

CHILDREN:

..bies.

ROBERTO D'ANDREA:

Nicely done.

So they found in Victo....

CHILDREN:

...ria.

ROBERTO D'ANDREA:

And up in New South...

CHILDREN:

..Wales.

ROBERTO D'ANDREA:

And down in Tas...

CHILDREN:

..mania.

ROBERTO D'ANDREA:

You can have a Crimson Rosella. The beauty of the major rivers along the Victorian coastline is that they support large trees. Here we are in a River Red Gum woodland. And these beautiful old large trees, once they drop their branches, they form hollows. And so many of, for instance, our parrot species are dependent on tree hollows, they're hollow-dependent birds. So birds like a crimson or eastern rosella, a beautiful red rumped parrot, a lovely, lovely Kookaburra. The critically endangered Powerful Owl is another hollow-dependent bird that needs larger hollows. So these waterways, these larger rivers with larger trees are so important for a lot of our bird species. Hiding in amongst the reeds and rushes around here, you might have a White-necked Heron looking around for frogs and aquatic invertebrates. They'll roost in these larger trees at night-time. Ducks will be moving through the waterways. Moorhens will be popping in and out looking for little aquatic invertebrates. Larger rivers support so much of our beautiful biodiversity. We're standing on top of a fish ladder. So, species like the Australian grayling, they can't go upstream over these weir walls. So what organisations like Melbourne Water have done, is that they've built fish ladders. And this one's fairly new. So the Australian grayling moves along the quieter part of this fish ladder, goes around and goes in behind the weir wall to continue its migration upstream where it wants to lay its eggs up near the mountains. Some of our native fish are quite critically endangered. Hence, we're looking after them by allowing them to migrate and do what's natural to them. So, another one of our beautiful river species is the lovely Rakali. When they're swimming in water, they look a bit like an otter. They've got a white-tipped tail. Like the platypus, they dig a hole called a burrow in



Catchment to the Sea

the bank of the river. And in fact, they were wondering whether platypus and rakali sometimes use the same burrows. Platypus at one time of year, rakali at another time of year.

Another one of the species that's found in our beautiful larger river systems is the short-finned eel. This little beauty live in our creeks and rivers for 20 plus years. And then at some point, migration will trigger breeding, and they'll come down the river systems, go out into the sea, migrate along the Victorian coastline, up through New South Wales along the coast, into Queensland, hop, skip and jump over the Great Barrier Reef and they breed in the Coral Sea. Now, mum and dad don't come back. That's the end of their days up in the Coral Sea. The Little Glass Eels hitch a ride back around the Australian coastline with the East Coast currents. Quite an amazing story. They stay out at sea for a little period of time before they start to migrate back up our river systems. So we've made our way from eel country in the larger creeks. And we're going to follow, if you like, the Short-finned Eel as it migrates in through the larger river systems and heads down to the sea into the estuary, the bays and out into the ocean. So, off we go, down to the sea.

So we started out at the drains and the gutters, and we were collecting rubbish in the inland areas. We followed it through down to the creek, the river and now we're down at the sea. And you can see the effects of plastic pollution, cigarette butts, soft plastic through here, that comes out of the mouth of the river at the estuary and washes up on the beach. What we encourage people to do is, there are now beach clean-up crews. They normally run by post codes, they're called Beach Patrol. And once a month, people come along the beach areas and collect this sort of rubbish to keep it out of the marine environment. Birds like albatrosses think that floating plastic in the marine environment is food, and unknowingly and sadly, they collect the plastic, they swallow it inside their body and then they feed it to the young chicks in the colonies. Across the Victorian coastline, there's a beautiful little shorebird called the Hooded Plover. It's an endangered species. And along with birds like the sooty and Pied Oystercatcher or the Red-capped Plover, they're beach nesting birds. Now, what's making these birds endangered? Generally, it's our dogs off their leads. So when a dog is running around the beach wildly, and if it goes close up to one of the nests, start sniffing the eggs, the chick, mum and dad may abandon the nest. The dog might accidentally trot on the eggs, perhaps scare the chicks, perhaps even eat the eggs. Please keep your dogs on leads.

One of the joys when you sitting on the beach and looking at a variety of our sea birds, is a beautiful dive bombing bird called the Australasian gannet^s, and you may see the Crested Tern duo. And often they're working in unison with penguins and dolphins. So as penguins and dolphins are rounding up schooling fish, up above in the sky, the Australasian gannets are flying around, looking down. And once the schooling fish have been bought into a group, down they go. They whack their wings behind their back and they hit that water hard to catch fish. One of the joys during the summer is watching our dive bombing sea birds. And here, we have Victoria's marine emblem. This is the beautiful Weedy Sea Dragon. It's special because it loves to do a bit of camouflage. It's sways in amongst the kelp forest in the seagrass beds. And the male's look after the eggs under the male's tail. Now, don't we love our fish? So our Marine National Parks and Sanctuaries are no take zones, so it protects the fish breeding areas. Now, fish species like Snapper, Bream, Estuary Perch, Bay Trout, they're all found in our bays and estuaries. Now, fisher persons, please do one thing for us. Don't throw your tangled fishing line back into the sea water, bring it in onto land. And a lot of the piers around Victoria these days have places where you can put your tangled fishing line safe from the marine environments.

Our bays and estuaries have a number of dolphins species. Of course, they're famous for their



SUMMER BY THE SEA

Catchment to the Sea

blowhole, blowing out water so they can breathe. When they're hunting for schooling fish, they're using echolocation, bouncing sound off each other, and they're marine mammals. What's important for us to understand is that rubbish does affect their lives. Dolphins think floating plastic is jellyfish. And instinctually, they'll go hunting for them. And once they get a belly full of plastic, they're in a lot of trouble. We hope you've enjoyed 'Catchment to the Sea.' What we've endeavoured to do is show you what happens inland, where a lot of the pollution that ends up in our creeks and rivers and down at the sea. We've wanted to show you how beautiful the many myriad of species are that found in our natural waterways. So we need to collectively take care of what we do to the natural world. And of course, that means putting rubbish in rubbish bin and doing lots of recycling. It means never throwing the coffee cup or the can out the car window. It means looking after what you do with soft plastics. Take them down to the supermarket for recycling. And I'm sure when you see all the beautiful creatures that depend on us doing the right thing, you'll agree with us that if we look after the natural world, when we're in these Summer By The Sea times of the year, we'll be equally joyous when we see a beautiful, pristine, clean, coastal environment.

(MELLOW INSTRUMENTAL MUSIC)