YAN YEAN ROAD UPGRADE STAGE 1

# NATURAL WATER BASINS

Image: Artist impression of landscaped Kurrak Road basins in 2025. Basin safety fences not shown.



# We've built 11 basins in Plenty to collect and filter rainwater

#### What are basins?

Basins are natural drains that collect and filter rainwater to reduce flooding and release water slowly into local waterways.

Basins look more natural than standard concrete water drainage solutions often used in metropolitan areas.

Once landscaping is established in the basins, they will blend into the natural environment compared to other drainage solutions.

#### How do basins work?

The basins will capture and slowly release rainwater. Instead of a complex network of concrete pipes and drains, basins use gentle slopes in the land to slowly carry water downstream. The basins will help filter water before it evaporates and is absorbed into the ground and through to the stormwater system.

The basins will be planted to improve the landscape and help evenly distribute the flow of water.

#### What do basins look like?

Basins look like empty ponds with sloping sides. They're dug into the earth and landscaped with native plants and grasses.

Each basin is protected by a 1.8m fence with a small locked gate to manage safety and access. The basin fences south of Browns Lane and near the Council Depot are strategically topped with barb wire to provide additional protection. These three basins have steep batter slopes and could be dangerous if accessed.



Image: Basin south of Browns Lane with barb wire topped fence

#### How many basins are there?

We've built 11 basins that vary in size. The size depends on the capacity required. The largest basin is 40x15 metres and the smallest basin is 10x2 metres.





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#### Location of the basins

The location of the basins have been carefully selected to be in areas known to have large downstream flows.

The map above outlines where the basins are located along Yan Yean Road.

#### Why have basins?

Basins are a common feature in environments located on the outskirts of the city and provide an effective natural drainage solution.

Finding suitable drainage solutions are a necessary part of designing a road. Solutions are required to appropriately deal with large volumes of water runoff.

Basins are also better equipped to handle large rain events compared to other drainage solutions.

The basins are an improvement on the previous pipework and drainage systems used before the road upgrade.

#### How will basins be maintained?

Once the project is complete, the Department of Transport will maintain the basins.

Maintenance will include:

- ensuring water flows to and through the system
- tending to the vegetation growing in the basins
- removing any accumulated sediments and litter.

### Interesting fact

Basins offer a simple and effective technique of purifying collected rainwater

Basins remove 30% to 80% of most pollutants from rainwater before entering nearby streams and stormwater systems.



Image: Kurrak Road basins under construction in August 2019

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